

GT.M

MR Manual

V7.1-007

Empowering
the Financial World

FIS

GT.M Message and Recovery Procedures Manual

Publication date

27 March 2025

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Revision History		
Revision V7.1-007	27 March 2025	The following messages were added: 1. JNLNOTALLOWED
Revision V7.1-006	3 December 2024	The following messages were added: 1. INVALIDAUTODELDB 2. PIDRESET The following messages were revised: 1. REPLINSTFMT 2. TPTIMEOUT
Revision V7.1-005	18 September 2024	The following messages were added: 1. ENCODING 2. REPLINSTRECR 3. SEMUNDOOVERFLOW The following messages were revised: 1. DBFREEZEOFF 2. DBFREEZEON
Revision V7.1-004	27 June 2024	The following messages were revised: 1. MLKHASHRESIZE 2. MLKHASHRESIZEFAIL

		<ul style="list-style-type: none"> 3. MLKREHASH 4. MUTEXLCKALERT 5. TPNOTACID
Revision V7.1-003	23 November 2023	<p>The following messages were added:</p> <ul style="list-style-type: none"> 1. RLNKCTLOPENDEL 2. SOCKHANGUP 3. SPCFCBUFDELAY <p>The following messages were revised:</p> <ul style="list-style-type: none"> 1. FDSIZELMT 2. FORCEDHALT2 3. GVSUBOFLOW 4. JNLPVTINFO 5. SOCKCLOSE 6. TLSRENEGOTIATE 7. WRITERSTUCK <p>The following messages were deprecated:</p> <ul style="list-style-type: none"> 1. EXCEEDRCTRLNDWN
Revision V7.1-002	19 September 2023	<p>The following messages were added:</p> <ul style="list-style-type: none"> 1. BSIZTOOLARGE 2. BUFFSIZETOOSMALL 3. EXCEEDRCTRLNDWN 4. ORLBKROLLED <p>The following messages were revised:</p> <ul style="list-style-type: none"> 1. RSVDBYTE2HIGH
Revision V7.1-001	27 March 2025	<p>The following messages were added:</p> <ul style="list-style-type: none"> 1. PIDMISMATCH <p>The following messages were revised:</p> <ul style="list-style-type: none"> 1. MUTRUNCNOSPACE
Revision V7.1-000	4 April 2023	<p>The following messages were added:</p> <ul style="list-style-type: none"> 1. ARGTRUNC 2. DBUPGRDREQ

		<p>3. LINETOOLONG</p> <p>4. ORLBKDBUPGRDREQ</p> <p>The following messages were revised:</p> <p>1. FALLINTOFLST</p> <p>2. NOPRINCIO</p> <p>3. SHMHUGETLB</p>
Revision V7.0-005	2 December 2022	<p>The following messages were added:</p> <p>1. GDELOGFAIL</p> <p>2. SOCKCLOSE</p> <p>The following messages were revised:</p> <p>1. STACKCRIT</p> <p>2. STACKOFLOW</p> <p>3. TPFAL</p>
Revision V7.0-004	20 September 2022	<p>The following messages were added:</p> <p>1. AUDCONNFAIL</p> <p>2. AUDINITFAIL</p> <p>3. AUDLOGFAIL</p>
Revision V7.0-003	24 June 2022	<p>The following messages were added:</p> <p>1. DEVICEOPTION</p>
Revision V7.0-002	22 March 2022	<p>The following messages were added:</p> <p>1. MALLOCRCRIT</p> <p>2. RLNKINTEGINFO</p> <p>3. RLNKRECNFL</p> <p>4. VIEWARGTOOLONG</p>
Revision V7.0-001	1 December 2021	<p>The following messages were added:</p> <p>1. BACKUPDBFILE</p> <p>2. BACKUPFAIL</p> <p>3. BACKUPREPL</p> <p>4. BACKUPSEQNO</p> <p>5. BACKUPSUCCESS</p> <p>6. BACKUPTN</p>

		<ul style="list-style-type: none"> 7. BKUPFILEPERM 8. BKUPPROGRESS 9. BKUPRETRY 10. CMDERR 11. DIRACCESS 12. LASTTRANS 13. NORTN 14. RESTORESUCCESS 15. SOCKBLOCKERR 16. SOCKWAITARG 17. SRCBACKLOGSTATUS <p>The following messages were revised:</p> <ul style="list-style-type: none"> 1. CRYPTNOV4 2. DBMISALIGN 3. REPLCOMM
<p>Revision V7.0-000</p>	<p>12 February 2021</p>	<p>The following messages were added:</p> <ul style="list-style-type: none"> 1. GTMCURUNSUPP 2. HEX64ERR 3. HEXERR 4. INVSHUTDOWN 5. NUM64ERR 6. NUMERR 7. REPL0BACKLOG 8. REPLBACKLOG 9. REPLNORESP 10. SHUT2QUICK 11. UNUM64ERR 12. VIEWREGLIST 13. WCSFLUFAIL <p>The following messages were revised:</p> <ul style="list-style-type: none"> 1. BOVTMGTEOVTM

		<ul style="list-style-type: none"> 2. DBADDRANGE 3. DBADDRANGE8
Revision V6.3-014	6 October 2020	<p>The following messages were added:</p> <ul style="list-style-type: none"> 1. BADCONNECTPARAM 2. BADPARAMCOUNT 3. REPLALERT
Revision V6.3-013	30 June 2020	<p>The following messages were added:</p> <ul style="list-style-type: none"> 1. DBFILERDONLY 2. EXITSTATUS <p>The following messages were revised:</p> <ul style="list-style-type: none"> 1. EXTRFMT
Revision V6.3-012	8 April 2020	<p>The following messages were added:</p> <ul style="list-style-type: none"> 1. DBFILNOFULLWRT
Revision V6.3-011	20 December 2019	<p>The following messages were added:</p> <ul style="list-style-type: none"> 1. TERMHANGUP <p>The following messages were revised:</p> <ul style="list-style-type: none"> 1. NOPRINCIO 2. TRANS2BIG
Revision V6.3-010	31 October 2019	<p>The following messages were added:</p> <ul style="list-style-type: none"> 1. DSEINVALBLKID 2. ZATRANSCOL <p>The following messages were revised:</p> <ul style="list-style-type: none"> 1. FNTRANSERROR 2. VERMISMATCH <p>The following messages were deprecated:</p> <ul style="list-style-type: none"> 1. PARBUFSM
Revision V6.3-009	27 June 2019	<p>The following messages were added:</p> <ul style="list-style-type: none"> 1. INGVVPATQUAL 2. MLKREHASH 3. MUKEEPNODEC 4. MUKEEPNOTRUNC

		<ul style="list-style-type: none"> 5. MUKEPPERCENT 6. MUTRUNCNOSPKEEP 7. NULLPATTERN <p>The following messages were revised:</p> <ul style="list-style-type: none"> 1. NOJNLPOOL
Revision V6.3-008	24 April 2019	<p>The following messages were added:</p> <ul style="list-style-type: none"> 1. AIOQUEUESTUCK 2. BUFSPCDELAY 3. DONOBLOCK <p>The following messages were revised:</p> <ul style="list-style-type: none"> 1. GTMSECSHRPERM 2. INDRCOMPFAIL 3. NULSUBSC 4. REPLJNLCLOSED
Revision V6.3-007	12 February 2019	<p>The following messages were added:</p> <ul style="list-style-type: none"> 1. APDCONNFAIL 2. APDINITFAIL 3. APDLOGFAIL 4. ILLEGALUSE 5. INVALIDGBL 6. ORLBKREL 7. ORLBKRESTART 8. STATSDBMEMERR 9. UNIQNAME <p>The following messages were revised:</p> <ul style="list-style-type: none"> 1. COMMITWAITSTUCK 2. GBLOFLOW 3. TOTALBLKMAX 4. TRANS2BIG
Revision V6.3-006	14 November 2018	<p>The following messages were added:</p> <ul style="list-style-type: none"> 1. ERRWZTIMEOUT

		<ol style="list-style-type: none"> 2. EXCEEDSPREALLOC 3. EXTCALLBOUNDS 4. LOCKCRITOWNER 5. MLKCLEANED 6. MLKHASHRESIZE 7. MLKHASHRESIZEFAIL 8. MLKHASHTABERR 9. MLKHASHWRONG 10. NOTMNAME 11. XCRETNULLREF 12. ZTIMEOUT <p>The following messages were revised:</p> <ol style="list-style-type: none"> 1. FILEEXISTS 2. FILERENAME 3. GTMSECSHRPERM 4. JNLCREATE 5. JNLSPACELOW 6. JNLSTATE 7. JNLSWITCHSZCHG 8. JNLSWITCHTOOSM 9. LOCKSPACEINFO 10. LOWSPC 11. MUNOACTION
<p>Revision V6.3-005</p>	<p>03 July 2018</p>	<p>The following messages were added:</p> <ol style="list-style-type: none"> 1. COMMFILTERERR 2. FAILEDRECCOUNT 3. ICUNOTENABLED 4. LOADRECCNT 5. MSTACKCRIT 6. NOFILTERNEST 7. PATALTER2LARGE

		<p>The following messages were revised:</p> <ol style="list-style-type: none"> 1. COLLDATAEXISTS 2. EXTRINTEGRITY 3. REGFILENOTFOUND 4. VIEWCMD 5. VIEWFN
Revision V6.3-003	02 January 2018	<p>The following messages were added:</p> <ol style="list-style-type: none"> 1. DBFREEZEOFF 2. DBFREEZEON 3. LSINSERTED 4. READONLYNOBG 5. REPLMULTINSTUPDATE 6. STPCRIT 7. STPOFLOW <p>The following messages were revised:</p> <ol style="list-style-type: none"> 1. DBNONUMSUBS 2. DBNULCOL 3. GBLOFLOW 4. MUTEXFRCDTERM 5. NULSUBSC 6. REPLINSTACC 7. REPLINSTMISMTCH 8. STACKCRIT 9. STACKOFLOW
Revision V6.3-002	22 August 2017	<p>The following messages were added:</p> <ol style="list-style-type: none"> 1. BADLOCKNEST 2. CLISTRTOOLONG 3. JNLBUFFPHS2SALVAGE 4. JNLPOOLPHS2SALVAGE 5. MUCREFILERR 6. MURNDWNARGLESS

		<p>7. RESTRICTEDOP</p> <p>8. RESTRICTSYNTAX</p> <p>The following messages were revised:</p> <p>1. REC2BIG</p> <p>2. REQRLNKCTLRNDWN</p>
<p>Revision V6.3-001</p>	<p>20 March 2017</p>	<p>The following messages were added:</p> <p>1. AIOBUFSTUCK</p> <p>2. ASYNCIONOMM</p> <p>3. ASYNCIONOV4</p> <p>4. CHANGELOGINTERVAL</p> <p>5. DBBLKSIZEALIGN</p> <p>6. DBDUPNULCOL</p> <p>7. DBFHADLRU</p> <p>8. DBNULCOL</p> <p>9. GDEASYNCIONOMM</p> <p>10. OFRZACTIVE</p> <p>11. OFRZAUTOREL</p> <p>12. OFRZCRITREL</p> <p>13. OFRZCRITSTUCK</p> <p>14. OFRZNOTHELD</p> <p>15. PBNUNSUPTYPE</p> <p>16. RESYNCSEQLOW</p> <p>17. ZATRANSERR</p> <p>The following messages were revised:</p> <p>1. CRYPTNOMM</p> <p>2. DBMISALIGN</p> <p>3. DBTOTBLK</p> <p>4. GDECRYPTNOMM</p> <p>5. GDINVALID</p> <p>6. INVADDRSPEC</p> <p>7. INVLINKTMPDIR</p>

		<ul style="list-style-type: none"> 8. INVMEMRESRV 9. IOEOF 10. JOBLVN2LONG 11. JOBLVNDETAIL 12. MUPJNLINTERRUPT 13. NOPRINCIO 14. NOTALLJNLEN 15. NOTALLREPLON 16. RELOAD 17. REPLLOGPN 18. REPLSTATEOFF 19. REQROLLBACK 20. RESRCINTRLCKBYPAS 21. RESRCWAIT 22. TPRESTART 23. TRIGINVCHSET
<p>Revision V6.3-000</p>	<p>30 March 2016</p>	<p>The following messages were added:</p> <ul style="list-style-type: none"> 1. INVZWRITECHAR 2. JNLPOOLRECOVERY 3. MULTIPROCLATCH 4. NLRESTORE 5. PBNINVALID 6. PBNNOFIELD 7. PBNNOPARM 8. PBNPARAMREQ 9. PBNUNSUPSTRUCT <p>The following messages were revised:</p> <ul style="list-style-type: none"> 1. GDINVALID 2. INVLINKTMPDIR 3. IOEOF 4. JOBLVN2LONG

		<ol style="list-style-type: none"> 5. JOBLVNDETAIL 6. MUPJNLINTERRUPT 7. NOPRINCIO 8. NOTALLJNLEN 9. NOTALLREPLON 10. RECLOAD 11. REPLLOGOPN 12. REPLSTATEOFF 13. RESRCINTRLCKBYPAS 14. TPRESTART 15. TRIGINVCHSET
<p>Revision V6.2-001 and V6.2-000</p>	<p>01 January 2015</p>	<p>The following messages were added:</p> <ol style="list-style-type: none"> 1. AIMGBLKFAIL 2. BLKINVALID 3. CANTBITMAP 4. CHSETALREADY 5. COLTRANSSTR2LONG 6. CONNSOCKREQ 7. CORRUPTNODE 8. CREDNOTPASSED 9. CRYPTBADWRTPOS 10. CRYPTKEYTOOBIG 11. CRYPTNOAPPEND 12. CRYPTNOKEYSPEC 13. CRYPTNOOVERRIDE 14. CRYPTNOSEEK 15. CRYPTNOTRUNC 16. DSEMAXBLKSAV 17. DSENOTOPEN 18. GTMDISTUNVERIF 19. HLPPROC

20. INVLINKTMPDIR
21. INVOBJFILE
22. JOBLVN2LONG
23. LABELNOTFND
24. LOCALSOCKREQ
25. MPROFRUNDOWN
26. NEEDTRIGUPGRD
27. NOEDITOR
28. NOGTCMDB
29. NOSOCKHANDLE
30. NOUSERDB
31. PEERPIDMISMATCH
32. RELOAD
33. RELINKCTLERR
34. RELINKCTLFULL
35. REMOTEDBNOTRIG
36. REPLNOHASHTRC
37. REQRLNKCTLRNDWN
38. RLNKCTLRNDWNFL
39. RLNKCTLRNDWNSUC
40. RLNKRECLATCH
41. RLNKSHMLATCH
42. SDSEEKERR
43. SEFCTNEEDSFULLB
44. SOCKACCEPT
45. SOCKNOTPASSED
46. SOCKPASS
47. SOCKPASSDATAMIX
48. TLSPARAM
49. TRIGLOADFAIL
50. UPDPROC

		<p>51. ZPEEKNOJNLINFO</p> <p>52. ZSOCKETATTR</p> <p>53. ZSOCKETNOTSOCK</p> <p>The following messages were revised:</p> <ol style="list-style-type: none"> 1. ACTIVATEFAIL 2. DBCOLLREQ 3. INSNOTJOINED 4. KEYWRDBAD 5. LDBINFMT 6. LDSPANGLOINCOMP 7. LITNONGRAPH 8. MAXBTLEVEL 9. NOTGBL 10. REORGINC 11. REPLINSTNOSH 12. TPRESTART 13. TRESTNOT 14. TRIGZBREAKREM
<p>Revision V6.1-000</p>	<p>30 December 2013</p>	<p>The following messages were added:</p> <ol style="list-style-type: none"> 1. ACTCOLLMISMTCH 2. DEVPARMTOOSMALL 3. FILEOPENFAIL 4. FILTERTIMEDOUT 5. GBLNAMCOLLRANGE 6. GBLNAMCOLLUNDEF 7. GBLNAMEIS 8. GVSUBSERR 9. INVCTLMNE 10. INVMNEMCSPC 11. ISSPANGBL 12. JOBSETUP

13. JOBSTARTCMDFAIL
14. MISSINGDELIM
15. NAMENDBAD
16. NAMGVSUBOFLOW
17. NAMGVSUBSMAX
18. NAMLPARENNOTBEG
19. NAMNOTSTRSUBS
20. NAMNUMSUBSOFLOW
21. NAMONECOLON
22. NAMRANGELASTSUB
23. NAMRANGEORDER
24. NAMRANGEOVERLAP
25. NAMRPARENNOTEND
26. NAMSTARSUBSMIX
27. NAMSTRSUBSCHARG
28. NAMSTRSUBSCHINT
29. NAMSTRSUBSFUN
30. NAMSUBSBAD
31. NAMSUBSEMPY
32. NCTCOLLSPGBL
33. REMOTEDBNOSPGBL
34. REPLINSTMISMTCH
35. REPLINSTNOSHM
36. REPLNOTLS
37. SETITIMERFAILED
38. STDNULLCOLLREQ
39. STRMISSQUOTE
40. TLSCONNINFO
41. TLSCONVSOCK
42. TLSDLLNOOPEN
43. TLSHANDSHAKE

		<p>44. TLSINIT</p> <p>45. TLSIOERROR</p> <p>46. TLSRENEGOTIATE</p> <p>47. TPNOSUPPORT</p> <p>48. TRIGNOSPANGBL</p> <p>The following messages were revised:</p> <ol style="list-style-type: none"> 1. INSTFRZDEFER 2. KEYFORBLK 3. KEYWRDBAD 4. LITNONGRAPH 5. MERGEDESC 6. MURNDWNOVRD 7. NOENDIANCVT 8. NOSOCKETINDEV 9. OPENCONN 10. PARFILSPC 11. PROTNOTSUP 12. RECORDSTAT 13. SOCKBIND 14. SOCKETEXIST 15. SOCKINIT 16. SOCKNOTFND 17. SOCKWAIT 18. SOCKWRITE 19. TMPSTOREMAX 20. VALUEBAD <p>The following messages were deprecated:</p> <ol style="list-style-type: none"> 1. IPADDRREQ 2. SOCKPARMREQ
Revision V6.0-003	13 August 2013	<p>The following messages were added:</p> <ol style="list-style-type: none"> 1. GETADDRINFO

		<ol style="list-style-type: none"> 2. GETNAMEINFO 3. INSTFRZDEFER 4. JNLORDBFLU 5. MURNDWNOVRD 6. REGOPENFAIL 7. REGOPENRETRY 8. SOCKBIND <p>Updated Appendix A: "Error Message Quick Reference" (page 407) and Message Categorization Index for V6.0-003.</p> <p>Marked the following messages as deprecated:</p> <ol style="list-style-type: none"> 1. DBMAX RSEXBL 2. GETCWD 3. JNLDSKALIGN 4. JNLEOFPREZERO 5. JNLNOTFOUND 6. JNLQIOLOCKED 7. MAXTRACEHEIGHT 8. MAXTRACELEVEL 9. RECNOCREJNL 10. TPLOCKRESTMAX 11. TRUNCATE <p>Removed the following message:</p> <ul style="list-style-type: none"> • JNLSTRESTFL
<p>Revision V6.0-002</p>	<p>13 August 2013</p>	<p>The following messages were added:</p> <ol style="list-style-type: none"> 1. BADZPEEKARG 2. BADZPEEKFMT 3. BADZPEEKRANGE 4. DBMBMINCFREFIXED 5. FALLINTOFLST 6. FREEBLKSLOW

7. FTOKKEY
8. GTMSECSHRDMNSTARTED
9. GTMSECSHRGETSEMFAIL
10. GTMSECSHRREMFILE
11. GTMSECSHRREMSEM
12. GTMSECSHRREMSEMFAIL
13. GTMSECSHRREMSHM
14. GTMSECSHRSEMGET
15. GTMSECSHRSHMCONCPROC
16. GTMSECSHRUPDDBHDR
17. HOSTCONFLICT
18. JNI
19. JNLQIOSALVAGE
20. MALLOCMAXUNIX
21. MALLOCMAXVMS
22. MMREGNOACCESS
23. MUUSERECOV
24. MUUSERLBK
25. NULLENTYREF
26. SECSHRCHDIRFAILED
27. SECSHRCLEARENVFAILED
28. SECSHREXECLFAILED
29. SECSHRGTMDBGLVL2LONG
30. SECSHRGTMDIST2LONG
31. SECSHRGTMTMP2LONG
32. SECSHRNOGTMDIST
33. SECSHRNOTOWNEDBYROOT
34. SECSHRNOTSETUID
35. SECSHRPERMINCRCT
36. SECSHRSETGTMDISTFAILED
37. SECSHRSETGTMTMPFAILED

		<p>38. SECSHRSETUIDFAILED</p> <p>39. SECSHRSTATFAILED</p> <p>40. SECSHRWRITABLE</p> <p>41. SEMID</p> <p>42. ZPEEKORPLINFO</p> <p>The following messages were revised:</p> <ol style="list-style-type: none"> 1. DBBADFREEBLKCTR 2. INDRCOMPFAIL 3. MMFILETOOLARGE
<p>Revision V6.0-001</p>	<p>04 April 2013</p>	<p>Added Appendix A: "Error Message Quick Reference" (page 407) and the Message Categorization Index.</p> <p>The following messages were added:</p> <ol style="list-style-type: none"> 1. BKUPRUNNING 2. CRYPTBADCONFIG 3. CRYPTDLNOOPEN2 4. CRYPTINIT2 5. DBCOLLREQ 6. GTMEISDIR 7. JNLFILRDOPN 8. MUNOTALLINTEG 9. MUSIZEFAIL 10. MUSIZEINVARG 11. NOTALLDBRNDWN 12. REQROLLBACK 13. SEQNUMSEARCHTIMEOUT 14. SETEXTRENV 15. SIDEEFFECTEVAL 16. SPCLZMSG 17. TPRESTNESTERR <p>The following messages were revised:</p> <ol style="list-style-type: none"> 1. CRYPTDLNOOPEN

		<ol style="list-style-type: none"> 2. CRYPTHASHGENFAILED 3. CRYPTINIT 4. CRYPTKEYFETCHFAILED 5. GTMSECSHRSRVF 6. JNLCNTRL 7. JNLEXTEND 8. JNLPROCSTUCK 9. JNLFSYNCLSTCK <p>The following messages was deprecated:</p> <ul style="list-style-type: none"> • CRYPTKEYFETCHFAILEDNF
Revision V6.0-000/3	21 November 2012	Updated REPLSTATEOFF, JNLACCESS, JNLFILOPN, and REPLWARN messages for V6.0-000.
Revision V6.0-000/2	19 November 2012	Improved the descriptions of the JNLTMQUAL3 message and updated the TPNOTACID message for V6.0-000.
Revision V6.0-000/1	18 October 2012	<p>Added the EXTRFILEXISTS message and improved the description of the following messages:</p> <ol style="list-style-type: none"> 1. DSKNOSPCAVAIL 2. NOSPACEEXT
Revision V6.0-000	28 September 2012	<ul style="list-style-type: none"> • Updated “MUPIP INTEG Errors” (page lxv) and “MUPIP LOAD Errors” (page lxiii) for V6.0-000 error messages. • The following messages were added: <ol style="list-style-type: none"> 1. CUSTERRNOTFND 2. CUSTERRSYNTAX 3. CUSTOMFILOPERR 4. DBDATAMX 5. DBFHEADERRANY 6. DBIOERR 7. DBSPANCHUNKORD 8. DBSPANGLOINCOMP 9. DSKNOSPCAVAIL

10. DSKNOSPCBLOCKED
 11. DSKSPCAVAILABLE
 12. ENOSPCQIODEFER
 13. GTMSECSHRBADDIR
 14. GTMSECSHRISNOT
 15. GTMSECSHRNOARG0
 16. INITORRESUME
 17. JNLBUFFDBUPD
 18. JNLBUFFREGUPD
 19. KEYFORBLK
 20. LDSPANGLOINCMF
 21. LOCKINCR2HIGH
 22. LOCKIS
 23. LOCKSUB2LONG
 24. MUFILRNDWNFL2
 25. MUINSTFROZEN
 26. MUINSTUNFROZEN
 27. MUTEXLCKALERT
 28. ORLBKINPROG
 29. REPLINSTFREEZECOMMENT
 30. REPLINSTFROZEN
 31. REPLINSTUNFROZEN
 32. REQRECOV
 33. REQROLLBACK
 34. RESCRCWAIT
 35. RESRCINTRLCKBYPAS
- The following messages were revised:
1. DBRSIZMN
 2. DBRSIZMX
 3. GTMSECSHRSRVF
 4. GTMSECSHRSRVFID

		<ol style="list-style-type: none">5. GTMSECSHRSRVFIL6. INVCMD7. REQRUNDOWN <p>The following messages were deprecated:</p> <ol style="list-style-type: none">1. GTMSECSHRDEFLOG2. GTMSECSHRLOGF3. GTMSECSHRLOGSWH4. JNLBUFFTOOLG5. JNLBUFFTOOSM6. RCVR2MANY7. RLBKCONFIGBNDRY8. RNDWNSKIPCNT
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About This Manual

The GT.M Message and Recovery Procedures Reference Manual describes the meaning of messages issued by GT.M components, including the M compiler, the run-time system, and utility programs. It serves OpenVMS and UNIX versions of GT.M.

This manual is organized alphabetically according to the message identifier. The meaning of each message is provided as well as suggestions for locating and addressing the cause of error-type messages.

Intended Audience

This manual is for programmers and system managers who use GT.M.

Purpose of the Manual

The GT.M Message and Recovery Procedures Reference Manual helps you understand and act on GT.M messages. This manual complements the other GT.M manuals.

How to Use This Manual

The GT.M Message and Recovery Procedures Reference Manual is intended to be used primarily to determine the nature of a message and interpret its meaning. Therefore, Messages are listed in alphabetical order, according to the mnemonic that precedes them. Cross references to additional information are provided in individual entries, as appropriate. The manual does not include a table of contents or index.

Conventions Used in This Manual

References to other GT.M documents are implemented as relative hypertext links to PDF files in the same directory. These links work correctly in a browser that uses a plug-in component to display PDF files. For example, for Firefox you could use MozPluggger to plug in the Evince PDF reader. The links also work correctly offline if you download all related GT.M documents to the same local directory.

GT.M messages are identified by a signature of the form GTM-s-abcdef where -s- is a severity indicator and abcdef is an identifier. The severity indicators are: -I- for informational messages, -W- for warnings, -E- for errors and -F- for events that cause a GT.M process to terminate abnormally. For more information on monitoring GT.M messages, refer to "Appendix B: Monitoring GT.M Messages" in the Administration and Operations Guide.

Each entry in this manual is presented in the following format as illustrated by the NOPRINCIO message.

1. **NOTPRINCIO**
2. NOTPRINCIO, Output currently directed to device xxxx
3. Run Time Warning: This message displays the current device when the process enters Direct Mode and the current device xxxx is not the principal device.
4. Action: To redirect all I/O to the terminal, note the current device or save it in a temporary variable and USE \$P. If you decide to resume program execution, restore the current device with a USE command.

where

1. Indicates the unique mnemonic preceding the error message and is the component by which the entry is alphabetized.
2. Indicates the mnemonic and the actual message that accompanies it.
3. Indicates the GT.M component that generates the message, its severity, and a short description of its implication(s).
4. Suggests action(s) to take when the message appears.

This manual can be used with GT.M on any of its supported platforms. However, because in some instances the suggested actions are more useful when platform-specific information is provided, the following conventions are used, as necessary.

UNIX: The term UNIX is used here in the general sense of all platforms for which GT.M uses a POSIX API. As of this date, this includes: AIX; HP-UX on IA64 and PA-RISC; GNU/Linux on IA64, x86 and x86_64; Solaris on SPARC; z/OS.

Platform Identifier: If an entire statement is either UNIX- or OpenVMS- specific, it is preceded by the phrase "In UNIX," or "In OpenVMS, ". The following example illustrates this convention. Action: In OpenVMS, relink your image to include the missing routine. In UNIX, relink your external call descriptor image to include the missing routine.

If a phrase or word is either UNIX- or OpenVMS- specific, it is suffixed by "(UNIX)" or "(VMS)". The following examples illustrates this convention.

Run Time Error: Strings longer than 32,767 (UNIX) or 65,535 (OpenVMS) bytes have been used with alternative collation and only gtm_ac_xform and gtm_ac_xback are defined in the collation library.

Compile Time Error: This indicates that translation of the indicated environment variable (UNIX) or logical name (OpenVMS) failed. Examine the accompanying message to find out the failure type and the reason of the error.

Although the terms "host shell command" and "file-specification" have some platform-specification connotations, they are used in their most generic sense throughout this manual. The former describes commands that originate from the host operating system, rather than from GT.M. The latter may refer to a simple file name or a full directory path to that file.

Henceforth, the term "originating instance" is used where previously "primary instance" or "originating primary instance" were used, and the term "replicating instance" is used where previously "secondary instance" and "originating secondary instance" were used. Since it is easier to change documentation than it is to change software, and given our tradition of maintaining compatibility especially for existing programs and scripts, the former terms will remain in the software for a long time to come, even as they are supplemented with the new terms in the code, and replaced in the documentation.

We have changed the terminology because "initiating" and "replicating" describe roles that currently exist and will continue to exist as GT.M evolves, while "primary" and "secondary" are both more and less precise and will become less useful as we add capabilities to GT.M. An "initiating instance" is always the instance that first records a transaction (including non-TP mini-transactions). A "replicating instance" is always following the action of an "originating instance", previously called "root primary". We have called secondaries that replicate propagating primaries, but they are not originating instances.

The circle-shaped icon (⊕) with the "+" sign denotes messages that newly introduced in or since the last major release.

The octagon-shaped icon (⊖) with the "-" sign denotes deprecated messages.

The square-shaped icon (⚠) with the delta symbol denotes messages revised in or since the last major release.

At a major release, square-shaped and circle-shaped icons of and since the preceding major release are removed.

Following Up on Suggested Actions

When the suggested action is to "Report the error to the group responsible for database integrity at your operation," you may also refer to the *Maintaining Database Integrity* chapter in the Administration and Operations Guide.

For information about utility-generated messages, refer to the chapter that describes that utility in the Administration and Operations Guide.

The OpenVMS edition of GT.M uses the OpenVMS standard message facility as well as other OpenVMS system components. Therefore, some errors issued by GT.M originate in OpenVMS and are described in this manual.

MUPIP LOAD Errors

If a MUPIP LOAD error occurs, ensure that the proper media is loaded and that the command input includes the proper file-specification.

If the input file is FORMAT=GO or ZWR, the database should contain the correct content to the point where the failure occurred and should be usable. You can edit and possibly correct the input file.

If the input file is FORMAT=BIN, the database is probably corrupt. Fix the database integrity issues and EXTRACT the file again.

For more information on LOAD and EXTRACT, refer to the *General Database Management* chapter in the Administration and Operations Guide.

For information on salvaging damaged extracts, refer to the *Maintaining Database Integrity* chapter in the Administration and Operations Guide.

For details on the internals of spanning nodes, refer to the *GT.M Database Structure (GDS)* chapter in the Administration and Operations Guide.

Plug-in Errors

GT.M's plug-in architecture allows you to choose your preferred encryption software. Some plugin errors that you may encounter are as follows:

Database file <path> not found

Plugin error: The plugin is unable to find the specified database file.

Action: Verify that the database file exists, the corresponding entry in the master key file points to the database file, and appropriate authorizations exist in the directory path and the database file.

Encryption handle corrupted

Plugin error: The plugin detected an internal error.

Action: This error indicates that there is a communication error between GT.M and the gtmcrypt plug-in. Replace the process with undamaged one. Report the entire incident context to your GT.M support channel.

Encryption key file <path> not found

Plugin error: The plugin was not able to find the key file on the specified path.

Action: Verify that the master key file entry for this key file points to the correct path. Verify that the key file itself exists. Verify proper authorizations on directory path and file.

Encryption library has not been initialized

Plugin error: A gtmcrypt function was called before gtmcrypt_init().

Action: Call gtmcrypt_init() before calling any other encryption functions.

For more information on the plug-in errors and their fixes, see the documentation of your preferred encryption software.

Appendix B: Reference Implementation Error messages lists some errors that the GT.M team encountered while testing GT.M's plug-in architecture with GNU Privacy Guard, the widely available implementation of Pretty Good Privacy (see "PGP: Pretty Good Privacy" by Simson Garfinkel).

MUPIP INTEG Errors

Database errors reported by MUPIP INTEG differ in impact and severity. Some require an immediate action to prevent extending the damage, action on other less severe errors may be delayed.

Please refer to the ***I1-MUPIP INTEG Errors*** section of the Maintaining Database Integrity chapter in the Administration and Operations Guide to determine the next course of action related to the error messages you may encounter during MUPIP INTEG.

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Chapter 1. Error Messages

ABNCOMPTINC

ABNCOMPTINC, Deviceparameter xxxx and deviceparameter yyyy are not compatible in the zzzz command

Compile Time Error: The command specifies incompatible deviceparameters (e.g., specifying both FIXED and VARIABLE).

Action: Refer to the Chapter 9 Input Output Processing in the Programmer's Guide and modify the list.

ACOMPTBINC

ACOMPTBINC, Deviceparameter xxxx is compatible with only yyyy in the command zzzz

Run Time Error: An OPEN, USE, or CLOSE command specifies a deviceparameter that does not apply to the command.

Action: Look for deviceparameters that should be on other I/O commands. For example, the deviceparameter DELETE is valid on CLOSE but produces this error if it is applied to the USE command.

ACTCOLLMISMTCH

ACTCOLLMISMTCH, Global ^gggg inherits alternative collation sequence #nnnn from global directory but database file dddd contains different collation sequence #mmmm for this global

Run Time Error: This indicates that the global gggg inherits collation nnnn from the global directory (globals that span multiple regions inherit collation 0 by default) but the directory tree in database file dddd contains a different collation sequence mmmm for this global.

Action: If nnnn is the right collation sequence to use, fix the database file dddd by using a temporary global directory that maps all names to dddd, extract the global, KILL it, use \$\$set^%GBLDEF to fix the alternative collation for gggg from mmmm to nnnn, reload the global from the extract, switch back to the regular global directory. If mmmm is the right collation sequence to use, recreate the global directory and define GBLNAME gggg to have that collation instead.

ACTIVATEFAIL

ACTIVATEFAIL, Cannot activate passive source server on instance iiii while a receiver server and/or update process is running

MUPIP Error: MUPIP REPLIC -SOURCE -ACTIVATE -ROOTPRIMARY (or -UPDOK) issues this error when the command attempts to activate a passive source server (and switch the instance from being a

replicating secondary instance to an originating primary) while a receiver server and/or update process is already running

Action: Shutdown the receiver and/or update process and reissue the MUPIP REPLIC -SOURCE -ACTIVATE -ROOTPRIMARY (or -UPDOK) command. Note that any other GT.M or MUPIP process that was running before the activation does not need to be shut down for the activation to succeed.

ACTLSTEXP

No longer in GT.M since: V5.4-002B

ACTLSTEXP, Actuallist expected

Run Time Error: This indicates that the DO command, without an actuallist of parameters, failed because its entryref argument specified a label that has a formallist of parameters.

Action: Review the interface between the DO and the subroutine. Add the actuallist to the DO, remove the formallist from the label, or identify another subroutine to invoke, as appropriate.

ACTLSTTOOLONG

ACTLSTTOOLONG, More actual parameters than formal parameters: xxxx

Compile Time/Run Time Error: This indicates that the label xxxx with a formallist; is invoked from within a routine with a longer actuallist (during compile-time). At run-time, a similar error can occur when a longer actuallist is supplied by an invocation from another routine.

Action: Review the interface between the DO command and the subroutine. Modify the actuallist, formallist, and/or label, as appropriate.

ACTOFFSET

ACTOFFSET, Actuallist not allowed with offset

Compile Time Error: This indicates that a DO command or extrinsic specified an actuallist and an entryref that includes an offset.

Action: Look for an inappropriate offset.

ACTRANGE

ACTRANGE, Alternate Collating Type xxxx is out of range

Run Time Error: The alternate collation sequence type does not fall in the expected range of 0 to 255.

Action: Define a new collation sequence type that has a value between 0 and 255 inclusive. For more information, refer the "Internationalization" chapter of the Programmer's Guide.

ADDRTOOLONG

ADDRTOOLONG, Socket address xxxx of length aaaa is longer than the maximum permissible length bbbb

Run Time Error: This indicates that the address value supplied with the CONNECT or LISTEN deviceparameters exceeds the maximum acceptable length.

Action: Examine the value and shorten the length of the address value.

AIMGBLKFAIL

AIMGBLKFAIL, AIMGBLKFAIL, After image build for block bbbb in region rrrr failed in DSE or MUPIP

GT.CM/DSE/MUPIP Error: MUPIP/DSE/GT.CM Error: DSE creates after images of blocks as a result of its physical manipulation of blocks and in MUPIP processes them in the course of RECOVER or ROLLBACK. This error indicates that such a manipulation failed on the block and region indicated.

Action: Action: If you get this error from DSE, you may be working with a block with a damaged state that your DSE action does not sufficiently address - analyze the situation and consider other approaches. If you get this error from MUPIP, it may mean your journal or replication has damage, in which case you should investigate the state of block bbbb.

AIOBUFSTUCK

AIOBUFSTUCK, AIOBUFSTUCK, Waited mmmm minutes for PID: pppp to finish AIO disk write of block: bbbb

All GT.M Components Warning: PID pppp did not receive a response from the I/O system after waiting for mmmm minutes. Block bbbb cannot accept further updates until the I/O completes.

Action: Examine the I/O subsystem characteristics for tuning or hardware problems, or competing activities.

AIOCANCELTIMEOUT

AIOCANCELTIMEOUT, Pid pppp timed out waiting for a pending asynchronous IO operation to complete/cancel in database file ffff

Run Time Error: Pid pppp timed out waiting for a pending asynchronous IO operation to complete/cancel in database file ffff.

Action: While terminating its connection with file ffff, process pppp gave up after waiting approximately one minute without receiving notification that an asynchronous IO it had initiated had successfully completed or been canceled.

AIOQUEUESTUCK

AIOQUEUESTUCK, Waited mmmm minutes for AIO work queue to complete (cr = rrrr)

All GT.M Components Error: GT.M is taking over mmmm minutes for AIO activity to complete on cache record rrrr. A zero value for rrrr indicates that GT.M is waiting for all AIO activity to complete.

Action: Check for trouble in the I/O subsystem. GT.M continues to wait for AIO activity to complete.

ALIASEXPECTED

No longer in GT.M since: V4.4-000

ALIASEXPECTED, Alias or alias container variable expected in this context

Compile Time/Run Time Error: This indicates the argument for a SET * or KILL * command used a non-alias local variable where the syntax requires an alias or alias container variable.

Action: Correct the code in or investigate the logic to determine why the local variable in question is not in the expected state.

AMBISYIPARAM

AMBISYIPARAM, Parameter xxxx is ambiguous to \$ZGETSYI()

Run Time Error: This indicates that the argument xxxx is ambiguous to \$ZGETSYI() because it does not have enough characters.

Action: Add enough characters to make the argument unambiguous.

ANCOMPTINC

ANCOMPTINC, Deviceparameter xxxx is not compatible with any other deviceparameters in the yyyy command

Compile Time Error: This indicates that the specified deviceparameter can only be used by itself.

Action: Remove conflicting deviceparameters from the command.

APDCONNFAIL

APDCONNFAIL, Audit Principal Device failed to connect to audit logger

Run Time Error: The facility for logging activity on principal devices is enabled, but is unable to form a connection with its configured logging program. This prevents a process from taking actions configured for logging initiated on its principal device (\$PRINCIPAL).

Action: Check to make sure logger program is running and listening/accepting connections. If using a TCP or TLS-enabled logger, make sure the port number the logger is listening/accepting on matches

the port number provided in the restriction file. Ensure the provided information (logger's connection info) in the restriction file is correct. Also make sure the line in restriction file is in correct format. If running a TLS-enabled logger, make sure the logger's TLS certificate is signed by a root CA that GT.M is aware of through the GT.M TLS configuration file. Check syslog for more information on the error. After addressing identified issues, restart all processes subject to APD.

APDINITFAIL

APDINITFAIL, Audit Principal Device failed to initialize audit information

Run Time Error: GT.M was unable to process or initialize the provided information (e.g. IP, hostname, port number, UNIX domain socket file path, or TLS ID) from the restriction file. This prevents a process from taking actions configured for logging initiated on its principal device (\$PRINCIPAL).

Action: Check the restriction file to make sure information is in proper format. After addressing identified issues, restart all processes subject to APD.

APDLOGFAIL

APDLOGFAIL, Audit Principal Device failed to log activity

Run Time Error: GT.M was unable to send the to-be-logged activity to logger. This prevents a process from taking the action initiated on its principal device (\$PRINCIPAL).

Action: Check to make sure that GT.M is able to successfully connect to the logger program. Check syslog for more information on error.

ARCTLMAXHIGH

ARCTLMAXHIGH, The environment variable XXXX = YYYY is too high. Assuming the maximum acceptable value of ZZZZ

Run Time Warning: The environment variable named XXXX that controls the maximum number of auto-relink routine entries is assigned a value (YYYY) that is too high. MUMPS will set maximum routine count to ZZZZ and continue normal operation.

Action: Please set environment variable XXXX to a value between 1,000 and 16,000,000.

ARCTLMAXLOW

ARCTLMAXLOW, The environment variable XXXX = YYYY is too low. Assuming the minimum acceptable value of ZZZZ

Run Time Warning: The environment variable named XXXX that controls the maximum number of auto-relink routine entries is assigned a value (YYYY) that is too low. MUMPS will set maximum routine count to ZZZZ and continue normal operation.

Action: Please set environment variable XXXX to a value between 1,000 and 16,000,000.

ARGTRUNC

ARGTRUNC, UUUU argument number CCCC truncated. Keep the size of total command line within NNNN bytes

DSE/LKE/MUPIP Warning: This warning appears when the GT.M parser truncates an argument of a GT.M Utility (DSE, LKE, or MUPIP) executable exceeding the allowed maximum of NNNN bytes. CCCC is the argument number with 1 being the first argument for the GT.M Utility executable.

Action: Reduce the size of the argument number CCCC.

ARROWNTDSP

ARROWNTDSP, Unable to display ^----- due to length of source line

Compile Time Error: Displayed instead of the arrow indicating where compilation error occurred due to a long line source line.

Action: Refer to the source code. the line number and column number in the associated messages identify the position of the problem. Consider shortening the line, at least until the error is found and corrected.

ASSERT

ASSERT, Assert failed xxxx line yyyy

Run Time Error: An internal GT.M consistency check failed. This error occurs only in some special versions of GT.M software.

Action: Report the entire incident context to your GT.M support channel.

ASYNCIONOMM

ASYNCIONOMM, Database file ffffssss cannot cccc

MUPIP Error: This indicates that database file has current state ssss (" has ASYNCIO enabled;" or " has MM access method;") and therefore cannot change to assume change cccc ("enable MM" or "enable ASYNCIO"). MUPIP SET can also issue the same message with the text: "; cannot enable MM and ASYNCIO at the same time".

Action: Address the blocking state - ASYNIO by disabling it, or MM access method by change it to BG before repeating the MUPIP command that produced this error.

ASYNCIONOV4

ASYNCIONOV4, rrrr database has ssss; cannot cccc

MUPIP Error: This indicates that region rrrr has current state ssss (ASYNCIO enabled or V4 format) and therefore cannot change to assume change cccc (downgrade to V4 or enable ASYNCIO).

Action: Address the blocking state - ASYNCIO by disabling it, or V4 format by completing an upgrade before repeating the MUPIP command that produced this error.

AUDCONNFAIL

AUDCONNFAIL, Audit XXXX facility failed to connect to audit logger

Run Time Error: The facility for logging activity generated by the use of XXXX is enabled, but is unable to form a connection with its configured logging program. This prevents a process from taking actions configured for logging when using XXXX.

Action: Check to make sure logger program is running and listening/accepting connections. If using a TCP or TLS-enabled logger, make sure the port number the logger is listening/accepting on matches the port number provided in the restriction file. Ensure the provided information (logger's connection info) in the restriction file is correct. Also make sure the line in restriction file is in correct format. If running a TLS-enabled logger, make sure the logger's TLS certificate is signed by a root Certificate Authority specified in the GT.M TLS configuration file. Check syslog or additional messages for more information. After addressing identified issues, restart the XXXX process.

AUDINITFAIL

AUDINITFAIL, Audit XXXX facility failed to initialize audit information

Run Time Error: GT.M was unable to process or initialize the provided information (e.g. IP, hostname, port number, UNIX domain socket file path, or TLS ID) from the restriction file. This prevents a process from taking actions configured for logging when using XXXX.

Action: Check the restriction file to make sure information is in proper format. After addressing identified issues, restart processes using XXXX.

AUDLOGFAIL

AUDLOGFAIL, Audit XXXX facility failed to log activity

Run Time Error: GT.M was unable to send the to-be-logged activity by XXXX to logger. This prevents a process from taking the action when using XXXX.

Action: Check to make sure that GT.M is able to successfully connect to the logger program. Check syslog or additional messages for more information.

AUTODBCREFAIL

AUTODBCREFAIL, Automatic creation of database file DDDD associated with region RRRR failed; see associated messages for details

All GT.M Components Error: Error occurs during the runtime creation of a database with the AUTODB flag set so it is automatically created on open. This includes automatically defined statistics databases. The message is followed with the reason for the failure.

Action: Fix the reason for the failure and retry.

BACKUPCTRL

BACKUPCTRL, Control Y or control C encountered during backup, aborting backup

MUPIP Warning: This indicates that BACKUP terminated because of an operator <CTRL>-C or <CTRL>-Y.

Action: Do not rely on the result of this BACKUP. If appropriate, investigate whether any of the BACKUP output files are complete and therefore potentially useable.

BACKUPDBFILE

BACKUPDBFILE, DB file dddd backed up in file bbbb

MUPIP Information: This message indicates MUPIP BACKUP successfully backed up database file dddd to file bbbb.

Action: None required.

BACKUPFAIL

BACKUPFAIL, MUPIP cannot start backup with the above errors

MUPIP Error: This message indicates MUPIP BACKUP was unable to complete the backup.

Action: Review accompanying messages for action guidance.

BACKUPKILLIP

BACKUPKILLIP, Kill in progress indicator is set for file ffff, backup database could have incorrectly marked busy integrity errors

MUPIP Warning: This indicates that one or more active process are performing KILL cleanup in database file ffff. Generally, BACKUP can wait for this to finish in order to get a consistent copy of the database. However, this indicates it waited several minute and is proceeding The resulting backup almost surely contains blocks incorrectly marked busy.

Action: Wait and perform the BACKUP when there are no large KILL operations triggering extensive cleanup. If this is not desirable, fix the errors in the backup copy (reported by an INTEG NOMAP) with DSE MAP FREE. If there are many such blocks you can edit the INTEG output to create a script to drive the DSE operations. Alternatively, if you can get standalone access, to the database you may use DSE MAP RESTORE. Do not use MAP RESTORE on an active database.

BACKUPREPL

BACKUPREPL, Replication Instance file iiii backed up in file rrrr

MUPIP Information: This message indicates that MUPIP BACKUP was successful in backing up replication instance file iiii to file rrrr.

Action: None required.

BACKUPSEQNO

BACKUPSEQNO, Journal Seqnos up to 0xhhhh are backed up

MUPIP Information: This message indicates MUPIP BACKUP -REPLINSTANCE backed up journal sequence numbers up to 0xhhhh to the specified replication instance file.

Action: None required.

BACKUPSUCCESS

BACKUPSUCCESS, Backup completed successfully

MUPIP Information: This message indicates the backup actions specified with MUPIP BACKUP command were successful. MUPIP does not display this message until all actions are complete.

Action: None required.

BACKUPTN

BACKUPTN, Transactions from 0xbbbb to 0xeeee are backed up

MUPIP Information: This information message indicates MUPIP BACKUP backed up transactions from 0xbbbb to 0xeeee.

Action: None required.

BADACCMTHD

BADACCMTHD, Invalid access method was specified, file not created

MUPIP Warning: This indicates that CREATE encountered an invalid access method for the dynamic segment in the current Global Directory, which is defined by the logical name GTM\$GBLDIR / environment variable gtmgbldir.

Action: Use the Global Directory Editor (GDE) to verify the access method for the Global Directory. Look for the use of GT.M components with different version numbers.

BADCASECODE

BADCASECODE, xxxx is not a valid case conversion code.

Run Time Error: The two-argument form of \$ZCONVERT() reports this error if the case conversion specifier (second argument) is not one of the valid codes (U,u,L,l,T and t).

Action: Choose a valid case designation code.

BADCHAR

BADCHAR, XXX is not a valid character in the YYY encoding form.

Run Time Error: GT.M triggers this error when it encounters a byte sequence that is not legal according to the given character set of the current device.

Action: Correct your application or its configuration to handle this situation. Depending on application requirements, the code may need handle the illegal byte sequence or disable the triggering of BADCHAR error by VIEW "NOBADCHAR" command. If the error is from a READ or WRITE command to a device other than \$PRINCIPAL, the application can perform I/O in M-mode and then handle any needed conversion, correction, or other manipulation. For more information, refer to the Programmer's Guide.

BADCHSET

BADCHSET, xxxx is not a valid character mapping in this context.

Run Time Error: When GT.M recognizes that the expr in ICHSET=expr or OCHSET=expr is not one of the supported character set names ("M", "UTF-8", "UTF-16", "UTF-16LE" or "UTF-16BE"), it reports this error. Note that not all modes are supported under all conditions.

Action: Choose the proper designation for a supported character set.

BADCONNECTPARAM

BADCONNECTPARAM, Error parsing or invalid parameter. [XXXX]

MUPIP Error: MUPIP produces this message when there is an error in any connection parameter specified with -CONNECTPARAMS. XXXX contain a brief description of the parameter and its a valid value range.

Action: Specify valid values for the -CONNECTPARAM parameter. Refer to the -CONNECTPARAM documentation in the Administration and Operations Guide for more information.

BADDBVER

BADDBVER, Incorrect database version: xxxx

Run Time Error: This indicates that the database version is not compatible with the current GT.M version.

Action: Upgrade the database. For more information, refer to the release notes for the current GT.M version and any intervening versions back to the last prior version used.

BADGBLSECVR

BADGBLSECVR, Global section xxxx does not match the current database version

Run Time Error: In attempting to startup a database file, GT.M encountered a shared memory section containing a database version older than the current database version.

Action: Do not attempt to access the same database files simultaneously with different versions of GT.M. Perform a MUIPI RUNDOWN with the prior version of database existing in the shared memory section. If needed, contact your system administrator for help.

BADGTMNETMSG

BADGTMNETMSG, Invalid message sent to GT.CM server, type: xxxx

GT.CM Error: The GT.CM Server received an invalid message. Possible causes include an undetected network error, a message originating from a process that is inappropriately intruding on the GT.CM environment, or a protocol failure in a legitimate process.

Action: Retry the action that resulted in the error notification. If the problem persists, contact the group responsible for database operations on your network.

BADJPIPARAM

BADJPIPARAM, xxxx is not a legal parameter for \$ZGETJPI()

Run Time Error: This indicates that the argument xxxx is not a valid keyword for \$ZGETJPI().

Action: Refer to the Programmer's Guide for correct keyword usage.

BADLKIPARAM

BADLKIPARAM, xxxx is not a legal parameter for \$ZGETLKI()

Run Time Error: This indicates that the argument xxxx is not a valid keyword for \$ZGETLKI().

Action: Refer to the Programmer's Guide for correct keyword usage.

BADLOCKNEST

BADLOCKNEST, Unsupported nesting of LOCK commands

Run Time Error: GT.M detected a LOCK (or ZALLOCATE) argument using an extrinsic function that performed other LOCK (or ZALLOCATE) operations, which it could not safely nest.

Action: Revise the code to avoid such a construct. Note that FIS recommends avoiding this code pattern as it can produce unintended results that GT.M does not detect.

BADPARAMCOUNT

BADPARAMCOUNT, -CONNECTPARAMS accepts one to six parameter values

MUPIP Error: MUPIP produces this message when there are more than six parameters specified for -CONNECTPARAMS.

Action: Specify one to six parameters or omit -CONNECTPARAMS from the MUPIP REPLICATE -SOURCE -START command to use the default connection parameters.

BADQUAL

BADQUAL, Unrecognized qualifier: xxxx

Run Time Error: This indicates that a SET of \$ZROUTINES specified xxxx, which is an unknown qualifier.

Action: Use an accepted qualifier: SRC= or NOSRC.

BADREGION

BADREGION, Region is not BG, MM, or CM

LKE Error: The current global directory attempted to map a region with an access method other than those listed.

Action: Use LKE only with database mapped to one of the listed database access methods.

BADSRVRNETMSG

BADSRVRNETMSG, Invalid message received from GT.CM server

Run Time Error: This indicates that a GT.M process received an invalid message. Possible causes include an undetected network error, a message originating from a process that is inappropriately intruding on the GT.CM environment, or a protocol failure in a legitimate process.

Action: Retry the action that resulted in the notification error. If the problem persists, contact the group responsible for database operations on your network. Stop and restart the server to attempt to resolve the problem.

BADSYPARAM

BADSYPARAM, xxxx is not a legal parameter to \$ZGETSYI()

Run Time Error: This indicates that the argument xxxx for \$ZGETSYI() is not a valid keyword.

Action: Refer to the Programmer's Guide for correct keyword usage.

BADTAG

BADTAG, BADTAG Unable to use file ffff (CCSID tttt) with CCSID uuuu

Run Time Error: This z/OS specific error indicates the device or file ffff had a tag tttt incompatible with the tag uuuu implied by chset associated with OPEN command.

Action: Change the [i/o]chset to match the device or file, or use iconv to convert the file to an appropriate character set, or possibly use chtag to [re]tag the file.

BADTRNPARAM

BADTRNPARAM, xxxx is not a legal parameter to \$ZTRNLNM

Run Time Error: This indicates that the argument xxxx for \$ZTRNLNM() is not a valid keyword.

Action: Refer to the Programmer's Guide for correct keyword usage.

BADZPEEKARG

BADZPEEKARG, Missing, invalid or surplus xxxx parameter for \$ZPEEK()

Run Time Error: One of the parameters specified to \$ZPEEK() is incorrect. Possible values of xxxx:

- mnemonic type - The mnemonic in the first argument is unknown.
- mnemonic argument - An argument for the given mnemonic (specified after a ":" character) is expected and missing, is present and unexpected, or not in its proper form.
- mnemonic argument (region name) - Expected a region name argument which is either missing or not available.
- mnemonic argument (array index) - Expected a numeric array index argument which is either missing or out of range.
- mnemonic argument (peek base address) - Expected an address in the form 0xHHHHHHHHH.. which is either missing or invalid.
- offset - Expected non-negative numeric value which is either missing or invalid.
- length - Expected non-negative numeric value which is either missing or invalid.

- format - Expected a single character format code which is either missing or invalid.

Action: Review the invocation and correct the defective parameter.

BADZPEEKFMT

BADZPEEKFMT, \$ZPEEK() value length inappropriate for selected format

Run Time Error: The format code specified is not valid for the length specified. For example, format code T works with 1, 2, 4, and 8 byte fields. A field length of 3 would raise this error.

Action: Review the invocation and correct the defective length and/or format character.

BADZPEEKRANGE

BADZPEEKRANGE, Access exception raised in memory range given to \$ZPEEK()

Run Time Error: Some combination of base address, offset, length and/or alignment caused GT.M to raise a memory access exception when fetching the requested value.

Action: Review the invocation and correct the defective parameter.

BCKUPBUFLUSH

BCKUPBUFLUSH, Unable to flush buffer for online backup

MUPIP Error: This indicates that the online BACKUP was unable to flush the buffer data to disk. The most likely cause is that MUPIP does not have write access to the database file.

Action: Run the BACKUP from a process with write authorization, or wait until other processes have completed the buffer flush. MUPIP sets the repair flag if there is a serious problem. Run a MUPIP INTEG using the FA[ST] qualifier to reset this flag. Report to your System Administrator.

BEGINST

BEGINST, Beginning LOAD at record number: xxxx

MUPIP Information: This indicates that the LOAD command with the FORMAT=BINARY qualifier started with record number xxxx.

Action: -

BEGSEQGTENDSEQ

BEGSEQGTENDSEQ, Journal file xxxx has beginning sequence number aaaa greater than end sequence number bbbb

MUPIP Error: This indicates that the beginning sequence number aaaa of the journal file xxxx is greater than end sequence number bbbb.

Action: Report the entire incident context with appropriate log messages to your GT.M support channel.

BFRQUALREQ

BFRQUALREQ, The [NO]BEFORE qualifier is required for this command

MUPIP Error: Any MUPIP SET command with JOURNAL=ON must specify either BEFORE_IMAGE or NOBEFORE_IMAGE journaling.

Action: Add the argument and select either BEFORE_IMAGE or NOBEFORE_IMAGE journaling for the database in question.

BIGNOACL

BIGNOACL, Existing file found when BIGRECORD specified with UDF format but no GT.M ACE, perhaps lost during COPY

Run Time Error: An existing file with an RMS record format of undefined (UDF) was opened by an OPEN command with a BIGRECORD parameter but no Access Control Entry containing information GT.M needs to access the file. The ACE may have been lost when copying such a file with the OpenVMS DCL COPY command.

Action: BIGRECORD format files should always be copied using the OpenVMS DCL BACKUP command which preserves the Access Control Entries on files. If the record format (VARIABLE or FIXED) and RECORDSIZE specified when creating the file are known, the ACE can be restored using the following OpenVMS DCL command: SET SECURITY <filename.ext> /ACL=(APPLICATION,SIZE=20,FLAGS=%X0A01,ACCESS=%X00F60001,DATA=%X424D5447,<format>,<recordsize>) Replacing "<filename.ext>" by the name of the file, "<format>" by "2" if the format is VARIABLE or "1" if FIXED, and "<recordsize>" by the RECORDSIZE originally specified.

BINHDR

BINHDR, gggg Date: dddd TIME: tttt Extract Region Characteristics rrrr Blk Size: xxxx Rec Size: yyyy Key Size: kkkk

MUPIP Information: This message displays header information for a binary format file. gggg is the global loaded. dddd is the date on which the region was extracted. tttt is the time when the region was extracted. rrrr is the region that contains the global. xxxx is the block size specified for the region. yyyy is the record size specified for the block. kkkk is the key size specified for the record.

Action: -

BITMAPSBAD

BITMAPSBAD, Database bit maps are incorrect

Run Time Error: This indicates that a database operation encountered a corrupt bit map.

Action: GT.M uses bit maps in database files to determine whether a block is free or in use. Report this database structure error to the group responsible for database integrity at your operation.

BKUPFILEPERM

BKUPFILEPERM, Backup file dddd does not have write permission

MUPIP Information: MUPIP BACKUP encountered an authorization issue with the target location while preparing to perform the BACKUP.

Action: Ensure the target location has appropriate authorization and the appropriate user is properly configured.

BKUPPROGRESS

BKUPPROGRESS, Transfer : cccc / tttt (pppp%) ; Speed : zzzz MiB/sec ; Transactions : nnnn ; Estimated left : tt minutes

MUPIP Information: MUPIP BACKUP -SHOWPROGRESS displays this message when the kernel supports copy progress monitoring. cccc is the size (MiB or GiB) of the copied database file and tttt is the total size of the database file. pppp is the progress percentage. Speed is always in MiB/sec and can vary based on the resources available for copy. Transactions includes the number of transaction (increments of current tn), applied to the region during MUPIP BACKUP. If the kernel does not support progress monitoring, MUPIP BACKUP -SHOWPROGRESS does not report this message. This message is expected to appear after about 25% completion of copy. Note that GT.M instructs the kernel to copy as much data as possible in one go. If the kernel has available resources and the database file size is relatively small, you may only see one BKUPPROGRESS message followed by the BACKUP COMPLETED message.

Action: None required.

BKUPRETRY

BKUPRETRY, Retrying MUPIP BACKUP for region: rrrr (database file: dddd). Attempt: #nnnn of mmmm

MUPIP Information: This message appears when MUPIP BACKUP initiates a retry attempt because a prior backup attempt failed. #nnnn is the current retry attempt count and mmmm is the maximum number of retry attempts.

Action: None required.

BKUPRUNNING

BKUPRUNNING, Process dddd is currently backing up region xxxx. Cannot start another backup.

MUPIP Error: MUPIP BACKUP -ONLINE only supports one backup at a time and this error indicates an attempt to start one before a previously started backup finished.

Action: Cancel the running BACKUP or reschedule this BACKUP to a time after the running BACKUP completes.

BKUPTMPFILOPEN

BKUPTMPFILOPEN, Open of backup temporary file aaaa failed

Run Time Error: When an online backup is in progress, a GT.M process doing updates to the database is saving away the pre-update images of the blocks it updates in a special backup area used to make sure the backups are consistent. Periodically, these blocks need to be flushed out to a temporary file and are flushed by the process needing the space to put its own changed blocks. This means every running process needs to have R/W access to the temporary file created by the backup. If the process cannot open the temporary file, this error is written to the operator log, the backup is flagged as having encountered an error and the process proceeds. So this error is only backup related. It is NOT an error in the process itself which proceeds as if backup were not running.

Action: Determine cause of why process could not open temporary file, fix, and restart backup.

BKUPTMPFILWRITE

BKUPTMPFILWRITE, Write to backup temporary file aaaa failed

Run Time Error: When an online backup is in progress, a GT.M process doing updates to the database is saving away the pre-update images of the blocks it updates in a special backup area used to make sure the backups are consistent. Periodically, these blocks need to be flushed out to a temporary file and are flushed by the process needing the space to put its own changed blocks. This means every running process needs to have R/W access to the temporary file created by the backup. If the database write generates an error, the BKUPTFWFAIL error is written to the operator log, the backup is flagged as having encountered an error and the process proceeds. So this error is only backup related. It is NOT an error in the process itself which proceeds as if backup were not running.

Action: Determine cause of why the write failed, fix, and restart backup.

BLKCNT

No longer in GT.M since: V4.4-000

BLKCNT, Last LOAD Block/RMS Record number: xxxx

MUPIP Information: This indicates that a LOAD command with the FORMAT=BINARY qualifier completed at record number xxxx. Indicates the last block or record number successfully processed by MUPIP LOAD. This information may be useful for auditing the LOAD, or if a restart is required after a LOAD is stopped prematurely.

Action: -

BLKCNTEEDITFAIL

No longer in GT.M since: V4.4-000

BLKCNTEEDITFAIL, MUPIP recover or rollback failed to correct the block count field in the file header for file xxxx

GDE/DSE Information: This indicates that rollback should correct the block count field in the file header. This message is an informational message issued by Recovery/Rollback process and no action is required. This error is benign.

Action: -

BLKINVALID

BLKINVALID, BLKINVALID, bbbb is not a valid block as database file ffff has nnnn total blocks

DSE Error: DSE Error: The block (bbbb) you selected is not currently a valid block in the database file (ffff) for the region in which you are working.

Action: Action: Select a block less than nnnn or move to a different region

BLKSIZ512

BLKSIZ512, Block size xxxx rounds to yyyy

GDE/DSE Information: This indicates that an ADD, CHANGE, or TEMPLATE command defined the BLOCKSIZE qualifier equal to xxxx, which is not divisible by 512. GDE adjusted the block size to yyyy, which is the next largest multiple of 512.

Action: If yyyy is not acceptable, modify the BLOCKSIZE qualifier value so that it is divisible by 512.

BLKTOODEEP

BLKTOODEEP, Block level too deep

Compile Time Error: This indicates that the line starts with too many level-indicator delimiters (.) for the level of nesting associated with the argumentless DO on the previous line.

Action: Remove inappropriate level indicator(s).

BLKWRITERR

BLKWRITERR, Unable to queue disk write for block XXXX. Will keep trying.

Run Time Information: This indicates that the disk is offline or not working because of a hardware or software problem in the disk subsystem.

Action: Check the disk subsystem operation.

BOMMISMATCH

BOMMISMATCH, XXX Byte Order Marker found when YYY character set specified.

Run Time Error: A Byte Order Marker (BOM) for character set XXX was found at the beginning of a file specified as containing data in character set YYY.

Action: Specify the proper character set when opening the file. For UTF-16 data, specifying CHSET="UTF-16" will use the BOM to determine whether the data is Little Endian or Big Endian. If no BOM is found, GT.M assumes Big Endian.

BOOLSIDEFFECT

BOOLSIDEFFECT, Extrinsic (\$\$), External call (\$&) or \$INCREMENT() with potential side effects in Boolean expression

Compile Time Warning: This optional message, accompanied by a line and column pointing to the issue, indicates a Boolean expression that contains a side effect in a term other than its first. By default, GT.M may skip evaluating such terms.

Action: Revise the code to your standards and use the VIEW (arguments [NO]FULL_BOOLEAN or FULLBOOL_WARN) command and / or the environment variable (gtm_boolean) to select the appropriate setting for GT.M handling of this construct.

BOVTMGTEOVTM

BOVTMGTEOVTM, Journal file xxxx has beginning timestamp aaaa greater than end timestamp bbbb

MUPIP Error: This indicates that the beginning time stamp aaaa of the journal file xxxx is greater than the ending timestamp bbbb. This could be due to something that changed the system time, such as a daylight savings time change or a testing time reset, while GT.M was journaling. FIS recommends against changing system time during GT.M Run-time as a matter of course, as this disruption is not heavily tested.

Action: Confirm the reason for the time shift and decide whether to continue processing the affected journal files.

BOVTNGTEOVTN

BOVTNGTEOVTN, Journal file xxxx has beginning transaction yyyy which is greater than end transaction zzzz

MUPIP Error: This indicates that MUPIP JOURNAL command has found that journal file xxxx has beginning transaction yyyy which is greater than end transaction zzzz.

Action: Report the error with appropriate log messages to your GT.M support channel.

BREAK

BREAK, Break instruction encountered

Run Time Information: This indicates that GT.M encountered a BREAK command within a routine and entered Direct Mode.

Action: All commands entered at the Direct Mode prompt are compiled and executed as they are entered. To continue program execution, enter the ZCONTINUE command. This message can be suppressed using VIEW BREAKMSG value.

BREAKDEA

BREAKDEA, Break instruction encountered during Device error action

Run Time Information: This indicates that GT.M encountered a BREAK command within a device EXCEPTION string and entered Direct Mode.

Action: GT.M activates EXCEPTION strings for deviceparameters when a device reports an exception condition. All commands entered at the Direct Mode prompt are compiled and executed as they are entered. To continue program execution, enter the ZCONTINUE command. It is important to ensure the EXCEPTIONS in production code are thoroughly debugged.

BREAKZBA

BREAKZBA, Break instruction encountered during ZBREAK action

Run Time Information: This indicates that GT.M encountered a BREAK command within a ZBREAK action string and entered Direct Mode. The ZBREAK command sets or clears breakpoints during debugging. All commands entered at the Direct Mode prompt are compiled and executed as they are entered.

Action: To continue program execution, enter the ZCONTINUE command.

BREAKZST

BREAKZST, Break instruction encountered during ZSTEP action

Run Time Information: This indicates that GT.M encountered a BREAK command within a ZSTEP action string and entered Direct Mode.

Action: The ZSTEP command causes GT.M to proceed to the beginning of the next line of M code that matches the characteristic specified by the ZSTEP argument. GT.M compiles and executes all commands entered at the Direct Mode prompt as they are entered. To continue program execution, enter the ZCONTINUE command.

BSIZTOOLARGE

BSIZTOOLARGE, xxxx Block larger than specified maximum size

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

BTFAIL

BTFAIL, The database block table is corrupt; error type xxxx

Run Time Error: This indicates that a database operation failed because the tables of recently used blocks are damaged. GT.M uses the block tables to control and optimize database traffic.

Action: Report this database cache error to the group responsible for database integrity at your operation.

BUFFLUFAILED

BUFFLUFAILED, Errors flushing buffers from uuuu for database file dddd

DSE/MUPIP Error: MUPIP or DSE (uuuu) could not flush the buffers for database file dddd completely. In the case of MUPIP, this typically means that some process is not releasing the critical section. In the case of DSE, this typically means there is some error in the global buffer cache which needs to be fixed.

Action: In the case of MUPIP, wait approximately 20 seconds and retry. In the case of DSE, try DSE CACHE RECOVER to fix the cache. If the error persists, report it to the group responsible for database integrity at your operation as soon as possible.

BUFFSIZETOOSMALL

BUFFSIZETOOSMALL, TCP xxxx buffer size passed to yyyy too small, setting to minimum size of zzzz.

MUPIP Warning: This indicates that the value specified in `-(SEND|RCV)BUFSIZE` as the desired send or receive tcp buffer size was smaller than GT.M's minimum value, and that the minimum value was used instead. Note that if the buffer is initially larger than this minimum, GT.M will not attempt to reduce its size.

Action: No action necessary. Consider passing `-NO{SEND|RECV}BUFFSIZE` to enforce no minimum size at all and leave management of the buffer size to the execution environment.

BUFOWNERSTUCK

BUFOWNERSTUCK, PID xxxx waiting for PID yyyy to finish disk read of block zzzz. Been waiting for aaaa minutes.

Run Time Warning: Poor response time from the I/O subsystem could cause this error, or if the process performing the disk-read was suspended.

Action: If the disk-reading process is found to be in a process-suspended state, un-suspend it. If it is not suspended, examine the I/O subsystem performance characteristics for behavior problems. Report the full error message, along with the GT.M operator log messages during the specific timeframe, to your GT.M support channel.

BUFRDTIMEOUT

BUFRDTIMEOUT, Pid xxxx timed out waiting for buffered read by process yyyy to complete in database file zzzz

Run Time Information: This indicates that a process requiring buffer transfer began but did not complete. The system cancelled the process.

Action: The failed process must be run again. Other errors may appear in the operators log with this one to indicate why the process failed.

BUFSIZIS

BUFSIZIS, Journal Buffer size is xxxx

GDE Information: This message reports xxxx as the size of the journal buffer.

Action: Review the accompanying message(s) for additional information.

BUFSPCDELAY

BUFSPCDELAY, Request for bbbb blocks in region rrrr delayed

All GT.M Components Warning: GT.M is taking longer than expected to obtain bbbb free database buffers for region rrrr. If bbbb is zero, then GT.M was attempting to free one particular buffer.

Action: Check for trouble in the I/O subsystem. GT.M continues its attempt to obtain the free buffer(s).

BUFTOOSMALL

BUFTOOSMALL, But block size xxxx requires buffer size yyyy

GDE Information: This indicates that an ADD, CHANGE, or TEMPLATE command specified an xxxx argument definition for the BUFFER_SIZE qualifier, which is incompatible with the definition of the BLOCKSIZE. yyyy specifies the minimum buffer size that can support this block size.

Action: Modify the block size and/or buffer size so they are compatible. Review the accompanying message(s) for the buffer size.

CALLERID

CALLERID, Routine xxxx called from yyyy

Run Time Error: This message provides the error location. Typically this error displays with other errors.

Action: Review the accompanying message(s) for additional information. Include this information if reporting the error to your GT.M support channel.

CALLINAFTERXIT

CALLINAFTERXIT, After a gtm_exit, a process can never create a valid GT.M context

Run Time Error: Once a call-in has done a call to gtm_exit(), a process can no longer do GT.M call-ins

Action: Either move or remove the inappropriate call-ins or move the gtm_exit call to a later point.

CANTBITMAP

CANTBITMAP, CANTBITMAP, Can't perform this operation on a bit map (block at a 200 hexadecimal boundary)

DSE Error: The selected DSE operation does not apply to bit maps (blocks divisible by 0x200).

Action: Select an appropriate block for the operation or an appropriate operation for a bit map.

CEBIGSKIP

CEBIGSKIP, Compiler escape user routine skip count is too large

Compile Time/Run Time Error: This indicates that the skip count exceeded the maximum line length.

Action: Verify the user-supplied escape-handling routine(s).

CENOINDIR

CENOINDIR, Indirection type information not available for compiler escape feature

Compile Time/Run Time Error: This indicates that GT.M does not currently support this feature.

Action: -

CETOOLONG

CETOOLONG, Compiler escape substitution exceeds maximum line size

Compile Time/Run Time Error: This indicates that the length of the substitution string exceeds the maximum line length.

Action: Determine whether the input source file can be modified to have less source on the line in question. If this is not possible, modify the substitution mechanism design or implementation.

CETOOMANY

CETOOMANY, Too many compiler escape substitutions in a single statement

Compile Time/Run Time Error: This indicates that the program being compiled contained more nested substitutions than allowed; that is 1024.

Action: Reduce the number of substitutions to less than 1024.

CEUSRERROR

CEUSRERROR, Compiler escape user routine returned error code xxxx

Compile Time/Run Time Error: This indicates that the compiler encountered the error specified by error code xxxx.

Action: Use the error code as the function argument of \$ZMESSAGE() to determine the text associated with the error and the appropriate corrective action.

CHANGELOGINTERVAL

CHANGELOGINTERVAL, ssss Server is now logging to ffff every IIII transactions

MUPIP Information: This message confirms a change to a replication server (ssss) by showing the current log file (ffff) and number of transactions(IIII)

Action: None Required

CHNGTPRSLVTM

CHNGTPRSLVTM, Mupip will change tp_resolve_time from xxxx to yyyy because expected EPOCH or EOF record was not found in Journal File zzzz.

MUPIP Information: At startup, backward recovery/rollback internally computes a time called the tp_resolve_time which is until when backward processing will be performed across journal files of

all regions. During backward processing it is possible in very rare cases that recovery does not see an EPOCH record or an EOF record as the last record in the journal file of those regions that had not been updated for quite a long time. In such cases recovery reduces the `tp_resolve_time` further by taking into account the timestamp of the last journal record. This effectively causes further backward processing but is necessary for a clean recovery. A `CHNGTPRSLVMTM` message is printed whenever such journal files are encountered by backward recovery.

Action: None necessary

CHSETALREADY

CHSETALREADY, CHSETALREADY, Socket device already contains sockets with `iCHSET=xxxx`, `oCHSET=xxxx`

Run Time Error: The code tried to create a new socket, specifying a CHSET different than the CHSET previously assigned to the SOCKET device.

Action: If different CHSETs are needed for different sockets, place them in different SOCKET devices. Also, if the CHSET of the SOCKET device needs to be changed, it can be done with OPEN/USE command which doesn't create a new socket.

CIDIRECTIVE

CIDIRECTIVE, Invalid directive parameter passing. Expected I, O or IO.

Syntax Error: This indicates that a missing directive or syntactically invalid directive found for the parameter, pointed to by the previous messages `EXTSRCLIN` and `EXTSRCLOC`.

Action: One of the directives I, O or IO should be specified for the parameter in the entry displayed.

CIENTNAME

CIENTNAME, No label reference found for this entry in call-in table

Syntax/Call in Error: This indicates that a label reference to the M routine is missing or syntactically invalid for an entry in the call-in table (specified by `GTMC` environment variable)

Action: Correct the syntax errors in the call-in table entry, at the location pointed to by the two previous messages (`EXTSRCLIN` and `EXTSRCLOC`), displaying the line and the column number respectively.

Make sure a valid M label reference is bound to the C call-name specified for this entry.

CIMAXLEVELS

CIMAXLEVELS, Too many nested Call-ins. Nested resources exhausted at level !UL.>/error/fao=1!/ansi=0

Call in/Run Time Error: This indicates that GT.M runs out of its internal condition handlers stack due to too many levels of nested call-ins.

Action: Ensure that the call-in application is not nested more than the limit (xxxx) that GT.M supports. The number of nested call-ins can be reduced by not using call-ins, wherever possible, from external call functions.

CIMAXPARAM

CIMAXPARAM, Exceeded maximum number of parameters in the call-in table entry. An M routine cannot accept more than 32 parameters.

Call in/Run Time Error: This indicates that the call-in table specified by \$GTMC I contains more than 32 parameters. Since an M formallist can only accept up-to 32 parameters, user cannot pass more than 32 arguments to gtm_ci(), excluding <c-call-name> and <ret-type>.

Action: Reduce the number of parameters to be less than 32, in the call-in table as well in the M routine.

CINOENTRY

CINOENTRY, No entry specified for xxxx in the call-in table

Run Time Error: This indicates that the call-name invoked by the C program does not have a corresponding entry in the call-in table specified by GTMCI environment variable.

Action: Add an entry to the call-in table for the call-name. Refer to the External Calls chapter in Programmer's Guide.

CIPARTYPE

CIPARTYPE, Invalid type specification for O/IO directive - expected pointer type

Syntax/Call in Error: This indicates that non-pointer types specified for the parameters to be passed by output-only (O) and input-output (IO) convention.

Action: Make sure one of the valid pointer types is specified for O and IO parameters. Refer to the External Calls chapter in Programmer's Guide.

CIRCALLNAME

CIRCALLNAME, Call-in routine name expected but not found

Syntax/Call in Error: This indicates that a call-name, which is to be bound to an M routine, is either missing or syntactically invalid for an entry in the call-in table file.

Action: Make sure a valid call-name is specified in the call-in table entry, at the location pointed to by the two previous messages: EXTSRCLIN and EXTSRCLOC, displaying the line and the column number respectively.

CIRPARAMNAME

CIRPARAMNAME, Invalid parameter specification for call-in table

Syntax/Call in Error: This indicates that a syntax error was found in parameter specification in the call-in table.

Action: Correct the syntax errors and make sure the parameters are correctly specified. Refer to the External Calls chapter in Programmer's Guide.

CIRTNTYP

CIRTNTYP, Invalid return type

Syntax/Call in Error: This indicates that the return type specified in the call-in entry is either missing or found invalid.

Action: Correct the return type syntax errors in the call-in table entry, at the location pointed to by the two previous messages: EXTSRCLIN and EXTSRCLOC, displaying the line and the column number respectively. Make sure a valid return type is specified for this entry.

CITABENV

CITABENV, Environment variable for call-in table xxxx not set

Call in/Run Time Error: This indicates that the environment variable GTMCI is not defined when an external C routine is about to call an M routine through GT.M call-in mechanism

Action: Check if GTMCI is defined to a valid file path to a call-in table. The call-in table file should contain a list of entries, each entry describing the parameter types, their passing convention of each M routine and its binding to a C routine.

CITABOPN

CITABOPN, Unable to open call-in table: xxxx

Call in/Run Time Error: This indicates that the call-in table defined by the environment variable GTMCI could not be opened.

Action: Check if the file path specified by GTMCI is correct and has at least read permissions for the user running GT.M. Check for secondary message(s) accompanying this error.

CITPNESTED

CITPNESTED, Call-ins can not be used inside a TP transaction

Call in/Run Time Error: This indicates that a nested call-in (`gtm_ci()`) was invoked from an external call function that was called within a TSTART/TCOMMIT fence.

Action: GT.M currently does not handle TP support across multiple call-in invocations. Make sure all external call C functions, that invoke call-in functionality are not fenced within a TSTART/TCOMMIT boundar

CIUNTYPE

CIUNTYPE, Unknown parameter type encountered

Syntax/Call in Error: This indicates that missing or invalid parameter type specified for the entry displayed by the previous messages EXTSRCLIN and EXTSRCLOC.

Action: Make sure one of the valid parameter types is specified for the parameter in the entry displayed. Refer to the External Calls chapter in Programmer's Guide.

CLIERR

CLIERR, xxxx

Run Time Error: This indicates that an invalid command has been entered. xxxx provides further detail to the invalid command entered.

Action: Review the error and enter valid command.

CLISTRTOOLONG

CLISTRTOOLONG, SSSS specified is BBBB bytes long which is greater than the allowed maximum of MMMM bytes

All GT.M Components Error: A command string SSSS of BBBB bytes exceeds the maximum supported command line length of MMMM

Action: Reduce the line length, by using unambiguous abbreviations or shortening names.

CLOSEFAIL

CLOSEFAIL, Error while closing file descriptor dddd

Run Time Error: GT.M records this error in the syslog whenever it attempts to close an open file descriptor dddd and the close returns with an error. After recording this error, the GT.M process resumes normal operation.

Action: Report the above error message along with the accompanying GTM-I-CALLERID message to your GT.M support channel, as it may be a symptom of out-of-design operation.

CLSTCONFLICT

CLSTCONFLICT, Cluster conflict opening database file xxxx; could not secure access. Already open on node yyyy.

Run Time Error: This indicates that the process attempted to access non-clustered database xxxx, which was opened by node yyyy.

Action: Review the accompanying message(s) for additional information. Move the process to the appropriate node or use GDE to change the mapping in the Global Directory.

This error message can also occur after a database is improperly shut down. Perform a MUPIP RUNDOWN with a FILE or REGION qualifier.

CMD

CMD, Command expected but not found

Compile Time Error: This indicates that GT.M encountered something other than a command- the next valid syntax element. This error can occur when there is an invalid character in the middle of a variable name or keyword, such as in the M line S X=Y_\$B or in the command W "this is a tab <TAB>".

Action: Verify the line syntax. Replace the line if it contains invisible (non-graphic) characters because diagnosing the line syntax may prove time consuming.

CMDERR

CMDERR, Error running command : cccc

MUPIP Error: This message indicates MUPIP BACKUP received an error trying to execute the shell command cccc.

Action: Look at the error message and preceding messages. Check for errors in paths, authorizations and/or other possibilities related to the specified MUPIP BACKUP actions.

CMEXCDASTLM

CMEXCDASTLM, Exceeded AST limit. Cannot open database.

GT.CM Error: This indicates that the GT.CM server exceeded its quota of asynchronous system traps (ASTs).

Action: Increase the ASTLIM for the GT.CM server by modifying GTCMSTART.COM, shut down and restart the GT.CM server. Review SYSGEN factors and user authorizations for AST limits.

CMICHECK

CMICHECK, Internal CMI error. Report to GT.M Support.

GT.CM Error: This indicates that the GT.CM and DECNET cannot communicate properly. See GTMCHECK.

Action: Report the entire incident context to your GT.M support channel.

CMINTQUE

CMINTQUE, Interlock failure accessing GT.CM server queue

GT.CM Error: This indicates that interlock cannot move data onto the queue interlock bit.

Action: Accompanying messages should indicate the hardware or software problem, which caused the interlock failure.

CMSYSSRV

CMSYSSRV, Error doing system service, status:

GT.CM Error: This indicates that the GT.CM server could not successfully perform some system service. This message is followed by a secondary error message that describes the nature of the failure.

Action: Retry the action that resulted in the error. If the problem persists, contact the group responsible for database operations on your network.

CNOTONSYS

CNOTONSYS, command is not supported by this operating system

Compile Time Error: This indicates that the operating system does not support the command.

Action: Check the operating system documentation for a supported command.

COLLARGLONG

COLLARGLONG, Collation sequence nnn does not contain routines for long strings

Run Time Error: Strings longer than 32,767 (UNIX) or 65,535 (OpenVMS) bytes have been used with alternative collation and only gtm_ac_xform and gtm_ac_xback are defined in the collation library.

Action: Define gtm_ac_xfrom_1 and gtm_ac_xback_1 routines in the collation library.

COLLATIONUNDEF

COLLATIONUNDEF, Collation type xxxx is not defined

Run Time Error: This indicates that an attempt was made to reference a collation sequence that is not available.

Action: Ensure that the environment variable `GTM_COLLATE_n` in UNIX and logical name `gtm_collate_n` in OpenVMS is properly defined, where `n` is the identification number of the failing collation type. Ensure that the file referencing `GTM_COLLATE_n / gtm_collate_n` is available to the process. Use host shell commands to verify its location and protections. Examine the executable (and/or the objects that comprise it) to determine whether it has the proper entry points. For more information, refer to the "Internationalization" chapter of the Programmer's Guide.

COLLATAEXISTS

COLLATAEXISTS, Collation type cannot be changed while xxxx data exists

Run Time Error: This indicates that an attempt was made to change the collation type while xxxx was either a subscripted local for a process collation change or a gvn name for global variable collation.

Action: KILL or NEW the local variables before you change the local collation type, or KILL a gvn before changing its collation.

COLLFNMISSING

COLLFNMISSING, Routine xxx is not found for collation sequence nnn

Run Time Error: Required transformation back routine is missing in collation library.

Action: If `gtm_ac_xfrom_1` is defined, also define `gtm_ac_xback_1`. Or if `gtm_ac_xform` is defined, also define `gtm_ac_xback` in the collation library.

COLLTYPVERSION

COLLTYPVERSION, Collation type xxxx, version yyyy mismatch

Run Time Error: This indicates that the user image with collation type xxxx does not accept the version of collation for an existing global. yyyy is the version associated with the global.

Action: Review the implementation history of the current collation algorithm. Modify or replace the image, if appropriate. If the version should change, temporarily RESTORE the older matching module, unLOAD and KILL any globals using the older algorithms, RESTORE the new algorithms, and reLOAD the global.

COLON

COLON, Colon (:) expected in this context

Compile Time Error: This indicates that GT.M did not encounter a colon where expected.

Action: Look for a `$SELECT()` function that does not have a colon separating the conditional expression from its corresponding value expression. Also, look for a `ZGOTO` that is missing a colon between the level and an entry reference.

COLTRANSSTR2LONG

COLTRANSSTR2LONG, COLTRANSSTR2LONG, Output string after collation transformation is too long

Run Time Error: an alternative collation transform or reverse transform attempted to use more bytes than the configuration permits.

Action: Adjust the implementation of the collation transform to minimize key expansion; increase the maximum permitted key size if appropriate. Note the current supported maximum is 1019 bytes. If the key size is already maxed out and the transformation algorithm is optimal, you must modify the application to reduce the key size.

COMMA

COMMA, comma expected in this context

Compile Time Error: This indicates that GT.M did not encounter a comma where expected.

Action: Look for a missing argument or comma in a function that requires multiple arguments.

COMMAORRPAREXP

COMMAORRPAREXP, Comma or right parenthesis expected but not found

Compile Time Error: This indicates that GT.M did not encounter a comma or right parenthesis where expected.

Action: Look for a list of improperly formatted subscripts, arguments, or parameters.

COMMENT

COMMENT, Comment line. Placed zbreak at next executable line.

Run Time Information: This indicates that a ZBREAK specified a line that had no active code. Therefore, GT.M set the ZBREAK at the next line containing source code.

Action: -

COMMFILTERERR

COMMFILTERERR, Error executing the command filter for FFFF DDDD

Run Time Error: Reports a problem in filter code where FFFF describes the nature of the filter and DDDD some thing about the nature of the issue. There may be associated / related messages. Because filters are a potential security tool, these errors tend are generally reported to the operator log.

Action: Analyze the filter code in light of the messages and revise accordingly.

COMMITWAITPID

COMMITWAITPID, Pid *www* waited *ttt* minute(s) for pid *ppp* to finish commits in database file *ddd*

Run Time Warning: This warning message in the operator log indicates the total amount of time that the process *www* waited for another process *ppp* to finish database transaction commit. If the `$gtm_procstuckexec` mechanism is enabled, this message invokes it. If a process waits for more than one process to finish database transaction commits, it issues this message for each one it encounters.

Action: If the process *ppp* is still running, get a C-stack trace of the process (using a debugger) and report to your GT.M support channel with system log and operator log information.

COMMITWAITSTUCK

COMMITWAITSTUCK, Pid *www* waited *ttt* minute(s) for *nnn* concurrent GT.M process(es) to finish commits in database file *ddd*

Run Time Error: This error message indicates that a process could not finish database transaction commit after waiting for other concurrent processes to finish. The process will continue to wait.

Action: Check the operator log for accompanying COMMITWAITPID messages. Every concurrent GT.M processes reported with the COMMITWAITSTUCK messages would have accompanying COMMITWAITPID message(s). If so, review those messages. If not, report to your GT.M support channel with system log and operator log information.

COMPILEQUALS

COMPILEQUALS, Error in compiler qualifiers: *xxxx*

Compile Time/Run Time Error: This indicates that a run-time compilation specified an invalid qualifier (*xxxx*). Qualifiers for a run-time compilation can be specified with ZLINK or by setting \$ZCOMPILE to a qualifier string that GT.M uses for auto-ZLINKs with no qualifiers.

Action: Review the qualifiers in the ZLINK sub-argument or those being SET into \$ZCOMPILE.

CONNSOCKREQ

CONNSOCKREQ, CONNSOCKREQ, Socket not connected

Run Time Error: The operation attempted requires a socket in the CONNECTED state, and the provided socket was not connected.

Action: Make sure the correct socket is being used and that the socket is connected. ZSHOW "D" may provide useful details on the current socket state.

COREINPROGRESS

COREINPROGRESS, Previous core attempt failed; core generation bypassed.

Run Time Error: This indicates that the process, which failed, was unable to create a memory dump file and tried to create another one.

Action: Report the entire incident context to your GT.M support channel for further analysis.

CORRUPT

CORRUPT, Corrupt input in Blk #xxxx, Key #yyyy; resuming with next global block

MUPIP Warning: This indicates that LOAD encountered bad data in the input file.

Action: Refer to the topic MUPIP LOAD Errors in "About This Manual" section.

CORRUPTNODE

CORRUPTNODE, Corrupt input in Record # rrrr, Key #yyyy; resuming with next global node

MUPIP Error: This message reports record rrrr with apparent key kkkk does not have a valid format for MUPIP LOAD.

Action: USE %GO or MUPIP EXTRACT to recapture the problematic node(s), or, use an editor to create valid copies of the nodes in an LOAD file.

CPBEYALLOC

CPBEYALLOC, Attempt to copy beyond the allocated buffer

DSE Error: This indicates that DSE tried to add a record that did not fit into the block size and/or the balanced tree structure.

Action: Check the block size. Move or create the record in a different location.

CREDNOTPASSED

CREDNOTPASSED, CREDNOTPASSED, Socket message contained no passed credentials

Run Time Error: WRITE /PASS or WRITE /ACCEPT was given a process id to verify, but GT.M was unable to obtain the peerprocess id.

Action: See the accompanying ENO error for details.

CRITRESET

CRITRESET, The critical section crash count for region xxxx has been incremented

Run Time Fatal: This indicates that the critical section for region xxxx was reset by the DSE command CRITICAL with the qualifiers INIT and RESET, while this process was accessing that database.

Action: Wait until the DSE repair operations are complete before retrying or restarting the process.

CRITSEMFAIL

CRITSEMFAIL, Error with semaphores for region xxxx

Run Time Error: This indicates that GT.M encountered a missing or damaged semaphore. This typically indicates that an agent external to GT.M has deleted or modified the semaphores GT.M uses to manage database and LOCK interactions.

Action: Investigate the state of the GT.M semaphores and all previous actions that might have damaged them.

CRYPTBADCONFIG

CRYPTBADCONFIG, Could not retrieve data from encrypted file ffff due to bad encryption configuration. eeee

Run Time Error: The error occurs when a GT.M utility program starts with a bad encryption configuration (like a bad password) and attempts to read a block corresponding to file ffff (either from memory or disk).

Action: Look at accompanying message (or prior messages related to encryption) for more details on what encryption configuration parameter is incorrect.

CRYPTBADWRTPOS

CRYPTBADWRTPOS, CRYPTBADWRTPOS, Encrypted WRITE disallowed from a position different than where the last WRITE completed

Run Time Error: A WRITE attempt to an encrypted device violates the integrity of the produced ciphertext. This is the case, for example, when trying to WRITE to a previously encrypted and CLOSED file. Because encryption ciphers rely on state machine algorithms, GT.M prohibits WRITES performed in non-sequential fashion or when they threaten to overlay already encrypted data.

Action: Revise your M code to avoid illegal I/O operations with encryption. Note, in particular, that when using encryption non-empty files cannot be opened in APPEND mode; the SEEK deviceparameter is prohibited; and the TRUNCATE is only permitted at the beginning or end of a file.

CRYPTDLNOOPEN

CRYPTDLNOOPEN, Failed to load encryption library while opening encrypted file ffff. eeee

Run Time Error: GT.M failed to load the gtmcrypt plug-in or one of its related libraries.

Action: Refer to the accompanying detail (eeee) and verify that the gtmcrypt plug-in and related libraries are properly installed and that \$LD_LIBRARY_PATH and \$LIBPATH are properly set.

CRYPTDLNOOPEN2

CRYPTDLNOOPEN2, Failed to load encryption library dddd. Eeee

Run Time Error: GT.M failed to load the gtmcrypt plug-in or one of its related libraries during GT.M startup.

Action: Refer to the accompanying details (eeee). Verify that the gtmcrypt plug-in and related libraries are properly installed and the LD_LIBRARY_PATH and LIBPATH environment variables are properly set.

CRYPTHASHGENFAILED

CRYPTHASHGENFAILED, Failed to generate cryptographic hash for symmetric key corresponding to file ffff. eeee

Run Time Error: gtmcrypt plug-in reports there is problem with the hash function.

Action: Examine the message (eee) from the plug-in and take the appropriate action.

CRYPTINIT

CRYPTINIT, Failed to initialize encryption library while opening encrypted file ffff. eeee

Run Time Error: The gtmcrypt plug-in reports it is unable to initialize one or more of its related libraries.

Action: Examine the detailed message (eeee) from the plug-in and take appropriate action.

CRYPTINIT2

CRYPTINIT2, Failed to initialize encryption library during GT.M startup. eeee

Run Time Error: The gtmcrypt plug-in reports it is unable to initialize one or more of its related libraries during GT.M startup.

Action: Examine the detailed message (eeee) from the plug-in and take appropriate action.

CRYPTJNLMISMATCH

CRYPTJNLMISMATCH, Encryption settings mismatch between journal file jjjj and corresponding database file dddd

All GT.M Components Error: Encryption settings in the header of database file dddd do not match those stored in the header of journal file jjjj. This prevents access to the database. The most likely cause is inappropriate operator action such as replacing the current journal file with an older journal file.

Action: Correct the error that caused the incorrect journal file to be pointed to by the database file. If the correct journal file has been inadvertently deleted, create new journal files with the `-noprevjnl` switch. Take a backup as soon as possible thereafter. Depending on your situation, you may need to refresh secondary instances.

CRYPTJNLWRONGHASH

CRYPTJNLWRONGHASH, Encryption key hash mismatch between journal file jjjj and corresponding database file dddd

Run Time Error: gtmcrypt plug-in reports the hash of the key in the header of database file dddd does not match the hash stored in the header of journal file jjjj. This is most likely caused by inappropriate operator action such as replacing the current journal file with an older journal file.

Action: Correct the error that caused the incorrect journal file to be pointed to by the database file. If the correct journal file has been inadvertently deleted, create new journal files with the `-noprevjnl` switch. Take a backup as soon as possible thereafter. Depending on your situation, you may need to refresh secondary instances.

CRYPTKEYFETCHFAILED

CRYPTKEYFETCHFAILED, Failed to retrieve encryption key corresponding to file ffff. eeee

Run Time Error: gtmcrypt plug-in reports it was unable to obtain an encryption key for file ffff.

Action: Examine the message (eeee) from the plug-in and take the needed action: for example, verify encryption key for this file is pointed to by the database key file, verify proper permissions on the directory path and the file, verify the key(s) using gpg command line tools and so on. Additional global configuration parameters may also need reconfiguration. Make sure that there is an appropriate maximum process limit because obtaining an encryption key may fork other processes. Make sure that there is an appropriate maximum file descriptor limit set.

CRYPTKEYFETCHFAILEDNF

No longer in GT.M since: V6.0-001

CRYPTKEYFETCHFAILEDNF, Cannot obtain encryption key. xxxxx

Run Time Error: gtmcrypt plug-in reports it was unable to obtain an encryption key based upon matching the hash of an encryption key.

Action: Examine the message (xxxx) from the plug-in and take the needed action: for example, verify encryption keys for all database files are pointed to by the database key file. For extracts and backups, verify all the keys from the databases that provided records are in the database key file.

CRYPTKEYRELEASEFAILED

CRYPTKEYRELEASEFAILED, Could not safely release encryption key corresponding to file ffff. eeee

All GT.M Components Error: gtmcrypt plug-in reports that it is unable to release the memory pertaining to the encryption key associated with file ffff due to error eeee

Action: Examine message eeee from the plug-in and take the needed action: for example, ensure that the memory is accessible, process has correct permissions, and so on.

CRYPTKEYTOOBIG

CRYPTKEYTOOBIG, CRYPTKEYTOOBIG, Specified key has length xxxx, which is greater than the maximum allowed key length yyyy

Run Time Error: A key name value specified with the [I|O]KEY deviceparameter on an OPEN or USE command is too long.

Action: Verify that the key name portion of the [I|O]KEY deviceparameter's value (substring before the first space, if any) corresponds to an existing field name in the 'database.keys' or 'files' section of the configuration file and does not exceed yyyy characters in length.

CRYPTNOAPPEND

CRYPTNOAPPEND, CRYPTNOAPPEND, APPEND disallowed on the encrypted file xxxx

Run Time Error: An OPEN command specifies both an APPEND deviceparameter and a non-empty value for the [I|O]KEY deviceparameter.

Action: Because encryption algorithms maintain state as they process text, APPENDING encrypted data to a non-empty file is prohibited; revise your application code accordingly.

CRYPTNOKEY

CRYPTNOKEY, No encryption key specified

MUPIP Error: MUPIP REORG -ENCRYPT prints this message if no encryption key is specified.

Action: Provide the requisite encryption key to the command as instructed in GT.M documentation.

CRYPTNOKEYSPEC

CRYPTNOKEYSPEC, Key name needs to be specified with KEY, IKEY, or OKEY device parameter for encrypted I/O

Run Time Error: A key name value specified with the [I|O]KEY deviceparameter on an OPEN or USE command is empty while the initialization vector (IV) is not.

Action: If enabling encryption or modifying encryption attributes, be sure to include an appropriate key name; if disabling encryption, leave the IV portion of the [I|O]KEY deviceparameter's value (substring after the first space) empty.

CRYPTNOMM

CRYPTNOMM, ffff is an encrypted database. Cannot support MM access method.

MUPIP Error: This error is triggered by an attempt to mark an MM database as encrypted with GDE or to switch an encrypted database from BG to MM with MUPIP SET. The MM access method is not supported for encrypted databases.

Action: Use the BG access method for encrypted files.

CRYPTNOOVERRIDE

CRYPTNOOVERRIDE, Cannot override IVEC and/or key without compromising integrity

Run Time Error: An OPEN or USE command attempts to change the encryption attributes - that is: attempted to enable or disable encryption or change the key name, initialization vector (IV), or both, after a prior encrypted READ or WRITE.

Action: Because encryption algorithms maintain state as they process text, changing encryption attributes of a device is prohibited if an encrypted READ or WRITE has already occurred, so revise your application code accordingly.

CRYPTNOPSWDINTP

CRYPTNOPSWDINTP, Cannot prompt for password inside a TP transaction.

Run Time Error: This error occurs if the process used an external call to set the gtm_passwd environment variable to null string after startup and then accessed an encrypted database file for the first time within a TP transaction.

Action: If possible, set the gtm_passwd environment variable to the obfuscated password. Otherwise, revise the logic to touch a global mapped to each encrypted database, for example, \$DATA(myglobal), to ensure the prompting happens before entering any TP transaction.

CRYPTNOSEEK

CRYPTNOSEEK, SEEK disallowed on the encrypted file ffff

Run Time Error: An OPEN or USE command specifies a SEEK deviceparameter on an encryption-enabled device.

Action: Because encryption algorithms maintain state as they process text, SEEKs are prohibited with encrypted devices, so revise your application code accordingly.

CRYPTNOTRUNC

CRYPTNOTRUNC, Not positioned at file start or EOF. TRUNCATE disallowed on the encrypted file ffff

Run Time Error: An OPEN or USE command specifies a TRUNCATE deviceparameter on a encryption-enabled device which is not positioned at the end of a file.

Action: When using encryption, because encryption algorithms maintain state as they process text, a TRUNCATE is only permitted at the beginning or end of a file, the former deleting the entire contents, and the latter effectively a no-op.

CRYPTNOV4

CRYPTNOV4, ffff is an encrypted database. Cannot downgrade(to V4) with Encryption option enabled

MUPIP Error: An attempt to downgrade ffff which is an encrypted database to the V4 (GT.M version 4) format failed because the V4 format does not support encrypted database files.

Action: Use the database in the current format. If a V4 format is required, extract the data in unencrypted ZWRite format with MUPIP EXTRACT and load it into a newly created V4 database.

CRYPTOPFAILED

CRYPTOPFAILED, Encrypt/Decrypt operation failed for file ffff. eeee

Run Time Error: gtmcrypt plug-in reports there is problem with encryption or decryption.

Action: Examine the message (eeee) from the plug-in and take appropriate action.

CTLMNEMAXLEN

CTLMNEMAXLEN, The maximum length of a control mnemonic has been exceeded

Run Time Error: This indicates that GT.M encountered a controlmnemonic that exceeds the supported maximum length.

Action: Modify the controlmnemonic so that it does not exceed the permitted length.

CTLMNEXPECTED

CTLMNEXPECTED, Control mnemonic is expected in this context

Run Time Error: This indicates that GT.M requires a control mnemonic in this context.

Action: Modify the spelling of the control mnemonic. Refer to the Input Output Processing chapter in the GT.M Programmer's Manual.

CTRAP

CTRAP, Character trap \$C(yyyy) encountered

Run Time Error: This indicates that the current device encountered character yyyy in its input stream while yyyy was defined as an exception by a CTRAP deviceparameter.

Action: Determine why this character was defined as an error or why an EXCEPTION string was not defined to address it.

CTRLC

CTRLC, CTRL_C encountered

Run Time Information: This indicates that the principal device encountered a <CTRL>-C in its input stream and GT.M put the process into Direct Mode.

Action: GT.M compiles and executes all commands entered at the Direct Mode prompt as they are entered. To continue program execution, enter the ZCONTINUE command. Response to <CTRL>-C is controlled with the [NO]CENABLE and CTRAP = deviceparameters.

CTRLY

CTRLY, User interrupt encountered

Run Time Information: This indicates that the principal device encountered a <CTRL>-Y in its input stream, and GT.M gave control to the OpenVMS CLI. The normal CLI is DCL.

Action: You can resume operation with a CONTINUE command if your actions do not invoke other images. For more information on commands that invoke images, refer to the OpenVMS DCL Dictionary.

CURRSOCKOFR

CURRSOCKOFR, Current socket of index yyyy is out of range. There are only zzzz sockets.

Run Time Error: This indicates that an OPEN, USE , READ or WRITE attempted to select a socket outside the range of available sockets.

Action: Review the socket management logic and revise to use only available sockets.

CUSTERRNOTFND

CUSTERRNOTFND, Error mnemonic eeee specified in custom errors file is not valid for this version of GT.M

Run Time Error: This error indicates that the GT.M runtime did not recognize the error mnemonic eeee in the file referenced by \$gtm_custom_errors.

Action: Modify the file so that it no longer contains the invalid mnemonic or set the gtm_custom_errors environment variable to point to an appropriate file.

CUSTERRSYNTAX

CUSTERRSYNTAX, Syntax error in file ffff at line number nnnn

Run Time Error: This error indicates that the custom errors file ffff contains an inappropriate syntax on line nnnn.

Action: Modify the file ffff so that it contains a single valid error mnemonic on line nnnn or set the gtm_custom_errors environment variable to point to an appropriate file.

CUSTOMFILOPERR

CUSTOMFILOPERR, Error while doing oooo operation on file ffff

Run Time Error: This indicates that the operating system reported an error while performing operation oooo on custom errors file ffff.

Action: Check that ffff is a proper path to the custom errors file. If it is incorrect, set the gtm_custom_errors environment variable to point to the correct file. If the file path is correct, verify that the user has access to the file and correct any permissions issues.

DBADDRALIGN

DBADDRALIGN, Database file xxxx, element location aaaa: blk = bbbb: [yyyy] control cccc was unaligned relative to base dddd and element size eeee

Run Time Information: This indicates that a control structure in the database cache is damaged.

Action: None needed. GT.M fixes this error as part of cache recovery, which follows the cache verification. If this message shows up frequently or is reproducible, contact your GT.M support channel.

DBADDRANGE

DBADDRANGE, Database file rrrr element location aaaa: control vvvv was outside qqqq range bbbb to tttt

Run Time Information: This indicates a database control structure for database region rrrr at memory location aaaa contains a value vvvv outside range bbbb to tttt for quantity qqqq.

Action: This typically indicates a process terminated abnormally while updating the database. GT.M often fixes such an error unless there is a serious problem causing this error. If GT.M cannot correct the issue, the accompanying messages should expand on the situation; and you should report such database error to the group responsible for database integrity at your operation.

DBADDRANGE8

DBADDRANGE8, Database file rrrr element location aaaa: control vvvv was outside qqqq range bbbb to tttt

Run Time Error: This indicates a database control structure for database region rrrr at memory location aaaa contains a value vvvv outside range bbbb to tttt for quantity qqqq. This message is the same as a DBADDRANGE message except that vvvv, bbbb and tttt are 8-byte quantities (as opposed to 4-byte quantities in DBADDRANGE).

Action: This typically indicates a process terminated abnormally while updating the database. GT.M often fixes such an error unless there is a serious problem causing this error. If GT.M cannot correct the issue, the accompanying messages should expand on the situation; and you should report such database error to the group responsible for database integrity at your operation.

DBBADFREEBLKCTR

DBBADFREEBLKCTR, Database xxxx free blocks counter in file header: oooo appears incorrect; should be nnnn. Auto-corrected.

Run Time Warning: This indicates that during a file extension, because they differed, GT.M adjusted the free blocks counter (oooo) in the file header to agree with free blocks indicated by the master map (nnnn). Because this may indicate a master bitmap integrity error (DBMBPINCFL), check the next MUPIP INTEG carefully.

Action: Run MUPIP INTEG; if it reports a DBMBPINCFL integrity error, use DSE to correct it, and to increase the file header free blocks counter by the amount GT.M reduced it in the DBBADFREEBLKCTR message. Run an additional INTEG to confirm the corrections.

DBBADKYNM

DBBADKYNM, xxxx is an invalid key name

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBBADNSUB

DBBADNSUB, xxxx Bad numeric subscript

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBBADPNTR

DBBADPNTR, xxxx Bad pointer value in directory

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBBADUPGRDSTATE

DBBADUPGRDSTATE, Correcting conflicting values for fields describing database version upgrade state in the file header for region rrrr (ffff) - make fresh backups with new journal files immediately.

Run Time Warning: This warning message in the operator log indicates region rrrr (file ffff) had an out-of-design combination of database upgrade conditions, which may have caused defective journal files and -online BACKUPS. GT.M automatically corrects this condition, but you should investigate the possible causes for such file header damage.

Action: Make fresh backups with new journal files immediately.

DBBDBALLOC

DBBDBALLOC, xxxx Block doubly allocated

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBBFSTAT

DBBFSTAT, xxxx Block busy/free status unknown (local bitmap corrupted)

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBBLEVMN

DBBLEVMN, *xxxx* Block level less than zero

Run Time Information: This indicates that a database operation failed. The level specified for block *xxxx* is less than zero.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBBLEVMX

DBBLEVMX, *xxxx* Block level higher than maximum

Run Time Information: This indicates that a database operation failed. The level specified for block *xxxx* exceeds the maximum allowed during a block certification or a DSE integrity check.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBBLKSIZEALIGN

DBBLKSIZEALIGN, Database file *ffff* has AIO=ON and *block_size=bbbb* which is not a multiple of filesystem block size *ssss*

Run Time Error: This indicates that database file *ffff* has ASYNCIO enabled but has a block size *bbbb* that does not align with a multiple of the block size *ssss* supported by the current file system.

Action: Use a file system with an appropriate block size for the database file. Alternatively, find a compatible file system (perhaps the file system that previously held the database) for the database file and move the data using replication, MERGE, or MUPIP EXTRACT and LOAD to a database with appropriate block size for the target file system.

DBBMBARE

DBBMBARE, *xxxx* Bit map does not protect itself

DSE/Run Time Information: This indicates that a bitmap error was encountered during a block certification or a DSE integrity check.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBBMINV

DBBMINV, xxxx Bit map contains an invalid pattern

DSE/Run Time Information: This indicates that a bitmap error was encountered during a block certification or a DSE integrity check.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBBMLCORRUPT

DBBMLCORRUPT, Database xxxx: Bitmap blk yyyy is corrupt (Size = aaaa, levl = bbbb, tn = cccc: Dbtn = dddd): Database integrity errors likely

Run Time Error: This indicates that a local bitmap block was found corrupted in the global buffers. In the event that the message is followed by a GTMASSERT in the operator log, a dump-file/core may also be produced.

Action: MUPIP RUNDOWN the indicated database and check for integrity errors, check for bitmap related errors and fix them before resuming operations on the database. Report to your GT.M support channel with the operator log information and dump- cores/files, if any.

DBBMMSTR

DBBMMSTR, xxxx Bit map does not match master map

Run Time Information: This indicates that a bitmap error was encountered during a block certification or a DSE integrity check.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBBMSIZE

DBBMSIZE, xxxx Bit map has incorrect size

DSE/Run Time Information: This indicates that a bitmap error was encountered during a block certification or a DSE integrity check.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBBNPNTR

DBBNPNTR, Bit map block number as pointer

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBBPLMGT2K

DBBPLMGT2K, Blocks per local map is greater than 2k

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBBPLMLT512

DBBPLMLT512, Blocks per local map is less than 512

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBBPLNOT512

DBBPLNOT512, Blocks per local map is not 512

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBBSIZMN

DBBSIZMN, xxxx Block too small

Run Time Warning: This indicates that during block certification or DSE/MUPIP integrity check the size of block xxxx was found to be less than the minimum allowed.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBBSIZMX

DBBSIZMX, xxxx Block larger than file block size

Run Time Warning: This indicates that during block certification or DSE/MUPIP integrity check the size of block xxxx was found to exceed the block size for the database region.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBBSIZZRO

DBBSIZZRO, Block size equals zero

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBBTUFIXED

DBBTUFIXED, The blocks-to-upgrade file-header field has been changed to the correct value

MUPIP Information: MUPIP INTEG has corrected the blocks-to-upgrade field.

Action: Report this to the group responsible for database integrity at your operation.

DBBTUWRNG

DBBTUWRNG, The blocks-to-upgrade file-header field is incorrect. Expected xxxx, found yyyy

MUPIP Error: The "Blocks to Upgrade" counter was found to be incorrect by MUPIP INTEG (this is only checked for non-FAST integ).

Action: If there are no other integrity errors, MUPIP INTEG will repair the counter. If there are other integrity errors, fix those errors first, then rerun MUPIP INTEG which will repair the counter if it is still found to be in error. Although this error is not indicative of any specific kind of database damage it does represent an out-of-design condition (except following a system crash in which before image journaling was not in use) that your GT.M support channel would like to know about.

DBCBADFILE

DBCBADFILE, Source file xxx does not appear to have been generated by DBCERTIFY SCAN - rerun SCAN or specify correct file

DBCERTIFY Error: V5CBSU and DBCERTIFY CERTIFY require the output file from DBCERTIFY SCAN. The file which was specified is not in the correct format.

Action: Specify the file created by DBCERTIFY SCAN. Rerun DBCERTIFY SCAN if needed.

DBCCERR

DBCCERR, Interlock instruction failure in critical mechanism for region xxxx

Run Time Error: This indicates that an interlocked operation for the specified region failed.

Action: Report this database concurrency error to the group responsible for database integrity at your operation.

DBCCMDFAIL

DBCCMDFAIL, Executed command failed with return code xxxx yyyy which executed yyyy yyyy

DBCERTIFY Error: During processing, the DBCERTIFY attempts to execute certain DSE and/or MUPIP commands in temporary command scripts that DBCERTIFY creates. The specified command failed to execute.

Action: The action to take depends on the code returned by the attempt and if any associated messages were created on either the console or the operator log. Some common causes of problems could be that \$gtm_dist (UNIX) or GTM\$DIST (OpenVMS) are not properly pointing to the current GT.M V4 version or DBCERTIFY has no access or access to the wrong global directory for which it is executing commands.

DBCDBCERTIFIED

DBCDBCERTIFIED, Database xxx has been certified for use with xxxx

DBCERTIFY Information: DBCERTIFY CERTIFY has successfully completed and marked the database as certified for use by the specified GT.M version.

Action: Either keep running GT.M V4 version or proceed immediately to GT.M V5 MUPIP UPGRADE at user's discretion.

DBCDBNOCERTIFY

DBCDBNOCERTIFY, Database xxxx HAS NOT been certified due to the preceding errors - rerun DBCERTIFY SCAN

MUPIP Error: MUPIP UPGRADE for V5 triggers this error if it finds the DBCERTIFY CERTIFY command has not run to completion on database xxx.

Action: Complete the scan phase of DBCERTIFY by executing the DBCERTIFY SCAN command.

DBCINTEGERR

DBCINTEGERR, Encountered integrity error in database xxxx

DBCERTIFY Error: DBCERTIFY discovered what appears to be an integrity error while processing the specified database. This error is accompanied by a secondary message giving an explanation of what the error is.

Action: Run a MUPIP INTEG (not FAST integ) on the database in question; fix damage, then re-run the phase reporting the error. If the integrity error persists, contact your GT.M support channel.

DBCKILLIP

DBCKILLIP, Cannot proceed with kill-in-progress indicator set for database xxx

DBCERTIFY Error: DBCERTIFY discovered that the kill in progress indicator was on for the specified database. DBCERTIFY will not process a database with this indicator on.

Action: Run a MUPIP INTEG (FAST integ is OK) on the database in question; correct errors, then re-run the phase reporting the error. If the error persists, contact your GT.M support channel.

DBCLNUPINFO

DBCLNUPINFO, Database file xxxx / yyyy

Run Time Information: When a process that holds the critical sectionlock on one or more databases gets abnormally terminated, it dumps information pertaining to its current state into the global sections for each of the concerned databases. The next process that references the concerned database notices the previous abnormal termination and uses the dumped information to update the global buffers and takes the database to a safe and consistent state. During this transition, the process displays a subset of the dumped information in the operator log to be used for debugging purposes by your GT.M support channel, in case database integrity errors are experienced later.

Action: The message text describes the cause of this error. Report any database structure errors to the group responsible for database integrity at your operation.

DBCMODBLK2BIG

DBCMODBLK2BIG, Block 0xaaa has been modified since DCERTIFY SCAN but is still too large or has an earlier TN than in DCERTIFY SCAN - Rerun scan

DBCERTIFY Error: DBCERTIFY reports this error when the block it is processing has a different TN than it did in the scan phase yet the block is still too large.

Action: This condition indicates that something has been done to the database since the scan phase was run - either it was restored from an earlier backup or the reserved bytes value was (even temporarily) reduced. DBCERTIFY SCAN must be rerun.

DBCMPBAD

DBCMPBAD, xxxx yyyy Compression count not maximal

Run Time Warning: This indicates that a database operation failed because block xxxx contains a record at offset yyyy with a compression count that is too low.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBCMPMX

DBCMPMX, xxxx yyyy Record compression count is too large

Run Time Warning: This indicates that during block certification or DSE/MUPIP integrity check, the block xxxx was found to contain a record at offset yyyy that exceeds the compression count.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBCMPNZRO

DBCMPNZRO, xxxx yyyy First record of block has nonzero compression count

Run Time Warning: This indicates that during block certification or DSE/MUPIP integrity check the first record at offset yyyy of block xxxx was found to have a nonzero compression count.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBCNOEXTND

DBCNOEXTND, Unable to extend database xxx

DBCERTIFY Error: DBCERTIFY attempted to use MUPIP EXTEND to extend the database but the attempt failed.

Action: Examine the accompanying messages from the MUPIP EXTEND attempt to see why the extend failed. Some common causes for this are that \$gtm_dist on UNIX or GTM\$DIST on OpenVMS did not properly point to the currently installed V4 distribution, or there was insufficient disk space to perform the expansion.

DBCNOFINISH

DBCNOFINISH, DBCERTIFY unable to finish all requested actions

DBCERTIFY Error: This indicates DBCERTIFY encountered an error, which prevented the requested action from completing. The action has partially completed.

Action: Review the accompanying message(s) for additional information to identify the cause.

DBCNOTSAMEDB

DBCNOTSAMEDB, Database has been moved or restored since DBCERTIFY SCAN - Rerun scan

DBCERTIFY Error: DBCERTIFY has noted that the unique database identifiers for the database have changed since DBCERTIFY SCAN was run.

Action: The database is required to have not been moved around or restored or recovered since DBCERTIFY SCAN was run. DBCERTIFY SCAN must be rerun.

DBCNTRLERR

DBCNTRLERR, Database file xxxx: control error suspected but not found

Run Time Error: This indicates that GT.M detected the possibility of damage to database cache structures and performed a cache verification and rebuild, but found no evidence of damage.

Action: Verify that there are no locked or runaway processes. Check disk loads for evidence of resource constraints.

DBCOLLREQ

DBCOLLREQ, JOURNAL EXTRACT proceeding without collation information for globals in database. eeee ffff .

MUPIP Warning: This is MUPIP JOURNAL EXTRACT Warning. This indicates that MUPIP process uses the default collation as it is not able to read the database file ffff because of error eeee

Action: Be aware that if the EXTRACT contains variables with alternative collation that this extract represents them as GT.M stores them, rather than as they are used by the application. Attempting to LOAD such an EXTRACT will produce incorrect results.

DBCOMMITCLNUP

DBCOMMITCLNUP, Pid dddd [hhhh] handled error (code = eeee) during commit of xxxx transaction in database file yyyy

Success Information: This message is output to the operator log and indicates that there was an error in the midst of committing a xxxx (TP or non-TP) transaction that involved the database file yyyy, but the process (pid = dddd in decimal and hhhh in hexadecimal) handled the error and completed the commit. If non-zero, the error code eeee is what triggered the error in the first place. If zero, accompanying syslog messages will contain information on the cause.

Action: In most cases the commit will be successfully completed. But in very rare cases, there might be errors that prevent the transaction from being successfully completed. To determine if there was any

error, examine the following operator log messages. If there are more than 3 (three) DBCLNUPINFO messages for the same database file from the same process-id, then that particular database is suspect and an integrity check of that database needs to be done at the earliest. In addition, contact your GT.M support channel with the operator log messages.

DBCOMPTOOLRG

DBCOMPTOOLRG, xxxx Record has too large compression count

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBCREC2BIG

DBCREC2BIG, Record with key xxx is length yyy in block 0xaaa is greater than the maximum length yyy in database xxx

DBCERTIFY Error: DBCERTIFY has identified a record with the given key in the given block with a length that exceeds the maximum length allowed in the given database.

Action: This is typically due to the user reducing the maximum record length to meet the DBCERTIFY requirements but not verifying that no records exist that exceeds that length. The solution is to either delete or otherwise restructure the record or to MUPIP extract/load into a database with a larger blocksize.

DBCREC2BIGINBLK

DBCREC2BIGINBLK, A Record in block bbbb has a length greater than the maximum uuuuu in database dddd.

MUPIP Error: MUPIP UPGRADE for V5 triggers this error when the size of a record in block bbbb exceeds the maximum record size of uuuu in database region dddd.

Action: -

DBCREINCOMP

DBCREINCOMP, xxxx Header indicates database file creation was interrupted before completion

Run Time/MUPIP Error: This is either a MUPIP Integ error, or this indicates that a database operation tried to activate a database file that was improperly initialized.

Action: Delete the damaged file and use MUPIP CREATE to recreate the database. Refer to 'MUPIP INTEG Error Messages' table in the Chapter 11-Maintaining Database Integrity, chapter of the Administration and Operations Guide of GT.M.

DBCRERR

DBCRERR, Database file xxxx, cr location yyyy blk = zzzz error: aaaa was bbbb, expecting cccc -- called from module xxx at line yyy

Run Time Error: This usually indicates that a process was abnormally terminated and left database control structures in an inconsistent state in shared memory.

Action: GT.M often fixes this error unless there is a more serious problem causing this error. If there is a more serious problem, accompanying messages identify the cause.

DBCRERR8

DBCRERR8, Database file xxxx, or location yyyy blk = zzzz error: aaaa was bbbb, expecting cccc -- called from module yyy at line xxx

Run Time Error: This message is the same as a DBCRERR message except that bbbb and cccc are 8-byte quantities (as opposed to 4-byte quantities in DBCRERR). See Error description for message DBCRERR.

Action: GT.M often fixes this error unless there is a more serious problem causing this error. If there is a more serious problem, accompanying messages identify the cause.

DBCSCNNOTCMPLT

DBCSCNNOTCMPLT, Specified DBCERTIFY SCAN output file is not complete - Rerun scan

DBCERTIFY Error: DBCERTIFY CERTIFY has noted that the header of the scan phase output is not filled in indicating that the scan phase did not complete normally.

Action: Rerun DBCERTIFY SCAN to produce a complete output file for the certify phase to process.

DBDANGER

DBDANGER, Process pppp killed while committing update for database file xxxx. Possibility of damage to block yyyy.

Run Time Warning: This message is issued when a recovery of the database global buffer cache structures needs to be performed. It might discover that the cache recovery was necessary because of a GT.M process being killed (kill-9) while in the process of committing a change to the database. The cache recovery routine issues this message while proceeding with the recovery.

Action: This is a warning type message indicating possible database corruption due to process kills (kill-9). A database integrity check is recommended. Make sure that kill-9 or STOP/ID is not used to stop any GT.M processes.

DBDATAMX

DBDATAMX, xxxx Record too large

MUPIP Error: This is a MUPIP INTEG error. Refer to the MUPIP INTEG Errors section.

Action: N/A

DBDIRTSUBSC

DBDIRTSUBSC, <xxxx Directory tree block contains non name-level entries>

DSE/Run Time Information: This indicates that the specified database block has an internal structural damage since it contains subscripts global variable names even though this block is part of the directory tree.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBDSRDFMTCHNG

DBDSRDFMTCHNG, Database file xxx, Desired DB Format set to yyy by zzz with pid ppp [0xppp] at transaction number [0xttt]

MUPIP Information: The desired database block format has been changed to version yyy for database file xxx by the zzz command with process number ppp at transaction number ttt.

Action: N/A

DBDUPNULCOL

DBDUPNULCOL, Discarding kkkk=vvvv key due to duplicate null collation record

MUPIP Error: This indicates that MUPIP LOAD discarded a key-value pair from a binary EXTRACT because it contained conflicting empty string subscripts. This can only happen if someone changes the "Null" subscript representation used by a database while it contains such subscripts. FIS recommends against such a change.

Action: Determine whether the described data has value and restore it, typically with a SET command, appropriately.

DBENDIAN

DBENDIAN, Database file xxxx is aaaa endian on a gggg endian system

Run Time/MUPIP Error: This indicates that the database file being opened is in the wrong endian format for the current system. This usually means that the file was copied from another system with the opposite endian format.

Action: To use the database file on the current system, change the endian format using the MUPIP ENDIANCVT command.

DBFGTBC

DBFGTBC, xxxx File size larger than block count would indicate

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBFHEDERR

No longer in GT.M since: V5.3-001A

DBFHEDERR, Database file xxxx: control problem: yyyy was zzzz expecting aaaa

Run Time Error: This indicates that database cache recovery was triggered due to some abnormal event, and the recovery routine detected damage to the control structures in the database global buffer cache.

Action: The system automatically attempts to correct the problem. If this error continues to occur, attempt MUPIP RUNDOWN and if that fails too, restore database from backup and replay journal files. Report this error to your GT.M support channel if necessary.

DBFHEDERR4

DBFHEDERR4, DBFHEDERR4:Database file ffff: control problem: aaaa was xxxx expecting yyyy

Run Time Error: This indicates that database cache recovery was triggered due to some abnormal event, and the recovery routine detected damage to the control structures in the database global buffer cache.

Action: The system automatically attempts to correct the problem. If this error continues to occur, attempt MUPIP RUNDOWN and if that fails too, restore database from backup and replay journal files. Report the entire incident context to your GT.M support channel if necessary.

DBFHEDERR8

DBFHEDERR8, DBFHEDERR8: Database file ffff: control problem: aaaa was xxxx expecting yyyy

Run Time Error: This indicates that database cache recovery was triggered due to some abnormal event, and the recovery routine detected damage to the control structures in the database global buffer cache.

Action: The system automatically attempts to correct the problem. If this error continues to occur, attempt MUPIP RUNDOWN and if that fails too, restore database from backup and replay journal files. Report the entire incident context to your GT.M support channel if necessary.

DBFHEDERRANY

DBFHEDERRANY, Database file ffff: control problem: aaaa was xxxx expecting yyyy

Run Time Information: This indicates that database cache recovery was triggered due to an abnormal event and the recovery routine detected damage to the control structures in the database global buffer cache or the file header.

Action: The system automatically attempts to correct the problem. If this error continues to occur, attempt MUPIP RUNDOWN and if that fails too, restore database from backup and replay journal files. If necessary, report the entire incident context to your GT.M support channel.

DBFHEDLRU

DBFHEDLRU, Database file ffff LRU pointer: pppp is outside of range: bbbb to tttt or misaligned

All GT.M Components Error: An element used to manage global buffers is invalid, so GT.M has reset it; this message should appear only if there is a hardware issue or an abnormal termination.

Action: Not required, but FIS recommends an investigation to indentify a possible cause.

DBFILECREATED

DBFILECREATED, Database file DDDD created

Run Time/MUPIP Error: Indicates GT.M successfully created the database file DDDD.

Action: None required.

DBFILERDONLY

DBFILERDONLY, The database file ffff was opened as read-only (perms pppp)

All GT.M Components Error: Database file ffff was opened read-only with permissions pppp, but the read-only status is inconsistent with application expectations.

Action: Use the error and any follow-on messages to assess whether or not the read-only status is correct or the rejection is appropriate.

DBFILERR

DBFILERR, Error with database file. xxxx.

Run Time Error: This indicates that an I/O operation on the database file encountered an error.

Action: Review the accompanying message(s) for a detailed error status.

DBFILEXT

DBFILEXT, Database file xxxx extended from yyyy blocks to zzzz blocks at transaction aaaa

Run Time/MUPIP Information: This operator log message indicates that the specified database file extended as described by the message.

Action: -

DBFILNOFULLWRT

DBFILNOFULLWRT, Disabling fullblock writes. iiii tttt: bbbb

MUPIP Warning: Indicates full block writes were not successfully enabled. iiii describes the issue, tttt describes the type and bbbb is a block size.

Action: Consider planning to choose a blocksize better aligned with the file system blocksize at the next opportunity.

DBFILOPERR

DBFILOPERR, Error doing database I/O to region xxxx

Run Time Error: This indicates that the database manager portion of the run-time system encountered an error when it attempted to open, read, write, or close a database file.

Action: Report this error to the group responsible for database integrity at your operation. Review the accompanying message(s) for additional information and analyze the system error log.

DBFLCORRP

DBFLCORRP, xxxx Header indicates database file is corrupt

Run Time/MUPIP Error: This indicates that a database operation tried to activate database file xxxx, which was previously marked as damaged.

Action: If ROLLBACK (either -NOONLINE or -ONLINE) terminates abnormally (say because of a kill -9), it leaves the database in a potentially inconsistent state indicated by the FILE corrupt field in the database file header. When an ROLLBACK terminates leaving this field set, all other processes receive DBFLCORRP errors any time they attempt to interact with the database. The best way to clear DBFLCORRP is by running another ROLLBACK. MUPIP SET -FILE -PARTIAL_RECOV_BYPASS and DSE CHANGE -FILE -CORRUPT=FALSE -NOCRIT can also clear this condition but these commands

do not ensure that the database has consistent state so you should always run MUPIP INTEG after executing these commands.

DBFREEZE~~OFF~~

DBFREEZE~~OFF~~, Region rrrr (dddd) is UNFROZEN ([NO]OVERRIDE [NO]AUTOREL)

Operator log/MUPIP Information: The region rrrr mapped to database file dddd is no longer frozen, most likely due to a MUPIP FREEZE -OFF, with the selected options. [NO]OVERRIDE indicates whether the freeze was removed using an override [NO]AUTOREL indicates whether an autorelease of the region occurred prior to the MUPIP FREEZE -OFF command.

Action: Confirm that this was the desired action.

DBFREEZEON

DBFREEZEON, Region rrrr (dddd) is FROZEN ([NO]OVERRIDE [NO]ONLINE [NO]AUTOREL)

Operator log/MUPIP Information: The region rrrr mapped to database file dddd is frozen, most likely due to a MUPIP FREEZE -ON, with the reported options.

Action: Confirm that this was the desired action.

DBFRZRESETFL

DBFRZRESETFL, Freeze release failed on database file xxxx

MUPIP Error: This indicates that MUPIP failed to release the freeze on database file xxxx.

Action: Review the accompanying message(s) for additional information. Analyze DSE DUMP /FILE / ALL output.

DBFRZRESETSUC

DBFRZRESETSUC, Unfreeze successfully done on database file xxxx.

MUPIP Information: This indicates that RECOVER encountered a database file that had a state of FREEZE, and released the FREEZE.

Action: -

DBFSTBC

DBFSTBC, xxxx File size smaller than block count would indicate

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBFSTHEAD

DBFSTHEAD, xxxx File smaller than database header

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBFSYNCERR

DBFSYNCERR, Error synchronizing database file xxxx to disk

Run Time Error: While using before-image journaling, the database is hardened to disk every time GT.M writes an epoch-record. If this operation returns an error, then the DBFSYNCERR error is issued to the user accompanied by system information about the cause of the system service error.

Action: Trouble shoot the file system, on which the database file resides, for issues related to FSYNC(). Report the entire incident context to your GT.M support channel along with any GT.M operator log messages within the same time frame.

DBGTDBMAX

DBGTDBMAX, xxxx Key larger than database maximum

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBHEADINV

DBHEADINV, xxxx Header size not valid for database

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBIDMISMATCH

DBIDMISMATCH, Database file xxxx ID (region yyyy) does not match file ID in shared memory (ID=zzzz). Ensure region is properly rundown.

Run Time Error: When a GT.M process attaches to a database and finds the corresponding shared memory structures initialized already, it performs integrity checks on the shared memory contents to ensure that they correspond back to the database file. When the shared memory copy of the database file ID does not match with the actual file ID of the database, the above error is issued.

Action: Perform a MUPIP RUNDOWN on that region. If it fails with the same DBIDMISMATCH error, then the shared memory contents are corrupt. Consult your GT.M support channel before proceeding further.

DBINCLVL

DBINCLVL, xxxx Block at incorrect level

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBINCRVER

DBINCRVER, xxxx Incorrect version of GT.M database

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBINVGBL

DBINVGBL, xxxx Invalid mixing of global names

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBIOERR

DBIOERR, Error while doing write operation on region rrrr (ffff)

Run Time Error: This error indicates that the process encountered an I/O error (other than ENOSPC) while trying to write to database file ffff (corresponding to region rrrr).

Action: Examine accompanying messages to identify the cause of the I/O error and take actions to rectify it.

DBJNLNOTMATCH

DBJNLNOTMATCH, Database xxxx points to journal file name yyyy but the journal file points to database file zzzz

MUPIP Error: This indicates that there is a mismatch in the name of the database file xxxx and the name zzzz, saved in the journal file header yyyy.

Action: Contact your GT.M support channel if the cause of the error cannot be diagnosed. If appropriate change the database file name in the journal file using the command MUPIP SET /jnlfile /dbfilename=xxxx yyyy.

DBKEYGTIND

DBKEYGTIND, xxxx Key greater than index key

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBKEYMN

DBKEYMN, xxxx Key too short

Run Time Warning: This indicates that a block certification or DSE/MUPIP integrity check failed on block xxxx since it contains a record at offset yyyy with a key that does not meet the minimum size requirement.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBKEYMX

DBKEYMX, xxxx Key too long

Run Time Warning: This indicates that a block certification or DSE/MUPIP integrity check failed on block xxxx since it contains a record at offset yyyy whose key exceeds the allowable size.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBKEYORD

DBKEYORD, xxxx Keys out of order

DSE/Run Time/MUPIP Warning: This indicates that a DSE/MUPIP INTEG command determined that the block contains a record at offset yyyy whose key is not in proper M collating sequence. This error is also reported at run-time if block certification fails on a particular block. Block certification is active if GDSCERT is enabled by a VIEW command.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBKGTALLW

DBKGTALLW, xxxx Key larger than maximum allowed length

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBLOCMBINC

DBLOCMBINC, xxxx Local bit map incorrect

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBLRCINVSZ

DBLRCINVSZ, xxxx Last record of block has invalid size

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBLTSIBL

DBLTSIBL, xxxx Keys less than sibling's index key

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBLVLINC

DBLVLINC, xxxx Local bitmap block level incorrect

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBMAXKEYEXC

DBMAXKEYEXC, xxxx Maximum key size for database exceeds design maximum

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBMAXNRSUBS

DBMAXNRSUBS, XXXX Maximum number of subscripts exceeded.

Compile Time/Run Time Error: The subscripted variable required more than 31 subscripts.

Action: Modify the routine to observe this limit on subscripts in a single variable.

DBMAXREC2BIG

DBMAXREC2BIG, Maximum record size (xxx) is too large for this block size (yyy) - Maximum is zzz

DBCERTIFY/MUPIP Error: DBCERTIFY and MUPIP UPGRADE report this error when the maximum record size is too close to the database blocksize and does not allow room for the expanded V5 block header.

Action: Reduce the maximum record size or mupip extract/load into a database with a larger blocksize. Note that if the maximum record size is reduced with DSE, it is possible that records that exceed the reduced size still exist in the database which is now an integrity error. DBCERTIFY SCAN will find these blocks and report on them if they exist.

DBMAXRSEXBL

No longer in GT.M since: V5.5-000

DBMAXRSEXBL, xxxx Maximum record size for database exceeds what the block size can support

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBMBMINCFRE

DBMBMINCFRE, xxxx Master bit map incorrectly asserts this local map has free space

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBMBMINCFREFIXED

DBMBMINCFREFIXED, Master bitmap incorrectly marks local bitmap 0xAAAA as free. Auto-corrected

Run Time Warning: The above error is issued when the runtime engine detects an integrity error with the master map that indicates that the local bitmap 0xAAAA is free when in actually it is not. The error is also auto-corrected by the runtime engine by marking the local bitmap as full in the master bitmap.

Action: This error is entirely benign, but because it should not occur, be sure to check your next MUPIP INTEG output thoroughly and also check your operator logs prior to this warning for other unusual events.

DBMBPFLDIS

DBMBPFLDIS, xxxx Master bit map shows this map full, in disagreement with both disk and INTEG results

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBMBPFLDLBM

DBMBPFLDLBM, xxxx Master bit map shows this map full, agreeing with disk local map

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBMBPFLINT

DBMBPFLINT, xxxx Master bit map shows this map full, agreeing with MUPIP INTEG

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBMBPFRDLBM

DBMBPFRDLBM, xxxx Master bit map shows this map has space, agreeing with disk local map

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBMBPFRINT

DBMBPFRINT, xxxx Master bit map shows this map has space, agreeing with MUPIP INTEG

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBMBPINCFL

DBMBPINCFL, xxxx Master bit map incorrectly marks this local map full

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBMBSIZMN

DBMBSIZMN, xxxx Map block too small

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBMBSIZMX

DBMBSIZMX, xxxx Map block too large

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBMBTNSIZMX

DBMBTNSIZMX, xxxx Map block transaction number too large

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBMINRESBYTES

DBMINRESBYTES, Minimum RESERVED BYTES value required for certification/upgrade is xxx - Currently is yyy

DBCERTIFY/MUPIP Error: DBCERTIFY and MUPIP UPGRADE report this error when the reserved bytes field of the database file header (as shown by DSE DUMP -FILEHEADER) is not at a sufficient value for the GT.M V5 upgrade.

Action: Increase the reserved bytes value with either MUPIP or DSE so that the value is at least 8 bytes for UNIX and 9 bytes for OpenVMS. Note that the reserved bytes value is reduced by the above amounts by MUPIP UPGRADE.

DBMISALIGN

DBMISALIGN, Database file xxxx has yyyy blocks which does not match alignment rules. Reconstruct the database from a backup or extend it by at least zzzz blocks.

MUPIP Error: This error appears when GT.M detects a mismatch between the total block count in the file header and the expected block count based on the database file size reported by the file system. This error may appear when you perform a MUPIP INTEG -FILE after a GT.M upgrade on a database file which has not yet been opened by a process using a normal database access which performs an automatic database file header upgrade.

Action: If there are prior messages, address them first. Extend the database by at least one block, perform at least one \$GET() operation or run MUPIP INTEG -REGION. If the error persists, reconstruct the database from a backup.

DBMRKBUSY

DBMRKBUSY, xxxx Block incorrectly marked busy

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBMRKFREE

DBMRKFREE, xxxx Block incorrectly marked free

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBMXRSEXCMIN

DBMXRSEXCMIN, xxxx Maximum record size for database exceeds what the block size can support

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBNAMEMISMATCH

DBNAMEMISMATCH, Database file xxxx (region (yyyy) referenced by shared memory (ID=zzzz) is not accessible. Ensure region is properly rundown

Run Time Warning: When a GT.M process attaches to a database and finds the corresponding shared memory structures already initialized, it performs integrity checks on the shared memory contents to ensure that they correspond back to the database file. When the shared memory points to a database file name that is not valid, this error is issued.

Action: This error means that the shared memory contents are corrupt; consult your GT.M support channel before proceeding further.

DBNOCRE

DBNOCRE, Not all specified databases, or their associated journal files were created

MUPIP Warning: This indicates that MUPIP CREATE failed a task in creating the new database files.

Action: See accompanying messages for more detailed information on the failure.

DBNONUMSUBS

DBNONUMSUBS, XXXX Key contains a numeric form of subscript in a global defined to collate all subscripts as strings

Run Time/MUPIP Error: The record has a numeric subscript but the collation setting for the global or region indicates all subscripts are filed as strings. The leading context (XXXX) identifies the block and

offset of the problematic record. This can arise if an operator uses DSE to force a change to a collation setting or to modify a key when the global already has content.

Action: If you can determine the cause of, and reason for, the change and you may choose to reverse it. If you need to change the collation, the appropriate procedure is to EXTRACT the data, KILL the global, or remove and recreate the database file, and then LOAD the extracted data.

DBNOREGION

DBNOREGION, None of the database regions accessible

DSE/MUPIP Error: MUPIP INTEG or DSE can report this error. This indicates that none of the database files specified in the Global Directory could be opened (or they do not exist).

Action: Ensure the proper assignment for the environment variable, gtmglbdir/logical name GTM \$GBLDIR. Verify that the database file(s) specified in the Global Directory exist and that their protection allows access. Also, refer to the 'MUPIP INTEG Error Messages' table in the Chapter 11- Maintaining Database Integrity, chapter of the Administration and Operations Guide of GT.M.

DBNOTDB

DBNOTDB, xxxx File does not have a valid GDS file header

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBNOTGDS

DBNOTGDS, xxxx - Unrecognized database file format

Run Time Error: This indicates that a database operation attempted to activate file xxxx, which is not a GDS file.

Action: Use GDE to ensure that the files in the Global Directory are properly named. It is likely that something other than GT.M or its utilities wrote to a database file or created a file with a name that coincides with one specified in the current Global Directory.

DBNOTMLTP

DBNOTMLTP, xxxx Block size not a multiple of 512 bytes

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBNULCOL

DBNULCOL, XXXX NULL collation representation differs from the database file header setting

DSE/MUPIP/Run Time Error: This indicates the database contains a record with an empty subscript ("Null" subscript) representation that is incompatible with the current setting database file header setting for such a representation. The leading context (XXXX) specifies the block number and offset of the problematic record. This can only arise if someone changes the setting for the database while it contains one or more such subscripts. FIS recommends against making such a change. This message can originate from MUPIP INTEG, DSE INTEG or from running with VIEW "GDSCERT"

Action: Use the record and block information to remove the problematic record with DSE and restore the data appropriately, typically with a SET command. Note that the record and block of the record may change due to ongoing updates, so this operation requires great care and familiarity with DSE.

DBOPNERR

DBOPNERR, Error opening database file xxxx

Run Time Error: This indicates that a database operation tried to open the database file xxxx, which was inaccessible.

Action: Use GDE to ensure that the files in the Global Directory are properly named. Use the host shell command to ensure that the files exist and have proper security. Review the accompanying message(s) that indicate the reason for file-open failure.

DBPREMATEOF

DBPREMATEOF, Premature end of file with database file xxxx

Run Time Error: This indicates that the size of the database file is less than the size of the minimum required database file header. The file may not be a valid GT.M file.

Action: Investigate whether the file was properly created (with MUPIP) or inappropriately truncated. Also check whether the global directory points to a valid database.

DBPRIVERR

DBPRIVERR, No privilege for attempted update operation for file: xxxx

Run Time Error: This indicates that the process did not have write access to database file xxxx.

Action: Disable application access to the function that resulted in the error or have the security manager grant write access to the appropriate user. Under some circumstances, security considerations may require moving some globals to other regions.

DBPTRMAP

DBPTRMAP, xxxx Block pointer is a bit map block number

Run Time Error: This indicates that the block certification facility encountered a block pointer to a bitmap location (in the index block).

Action: Report this error to the group responsible for database integrity at your operation.

DBPTRMX

DBPTRMX, xxxx Block pointer larger than file maximum

Run Time Warning: This indicates that a database operation failed because the block contains a record at offset yyyy whose block pointer points beyond the end of the file.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBPTRNOTPOS

DBPTRNOTPOS, xxxx Block pointer negative

Run Time Warning: This indicates that xxxx block contains a record yyyy, which nests an invalid index pointer, and so failed block certification.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBQUELINK

DBQUELINK, Database file xxxx, element location yyyy: blk = zzzz: control aaaa queue problem: was bbbb, expecting cccc

Run Time Error: This indicates that database cache recovery was triggered due to some abnormal event and the recovery routine detected damage to an internal GT.M queue control structure in the database global buffer cache.

Action: The system automatically attempts to correct the problem. If this error continues to occur, attempt MUIP RUNDOWN and if that fails too, restore database from backup and replay the journal files. Report the error to your GT.M support channel if necessary.

DBRBNLBMN

DBRBNLBMN, xxxx Root block number is a local bit map number

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBRBNNEG

DBRBNNEG, xxxx Root block number negative

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBRBNTOLRG

DBRBNTOLRG, xxxx Root block number greater than the last block number in file

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBRDERR

DBRDERR, Cannot read database file xxxx after opening

Run Time Error: This indicates that a database operation attempted reading the file xxxx without having the read access.

Action: Use the host shell commands to verify the file access and adjust it, if appropriate.

DBRDONLY

DBRDONLY, Database file xxxx read only

Run Time Error: This indicates that a database operation tried to write to a read-only file or database.

Action: Verify the read and write privileges for the database and adjust it, if appropriate.

DBREADBM

DBREADBM, xxxx Read error on bitmap

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBREMOTE

DBREMOTE, Database region xxxx is remote; perform maintenance on the server node

DSE/MUPIP/LKE Error: This indicates that a database maintenance operation was attempted on region xxxx. This node does not maintain the region directly; instead, it uses GT.CM to access the node as a client. This error is also reported by ^%GBLDEF if the target global is mapped to another node and served by GT.CM.

Action: Perform database maintenance on the server node.

DBRLEVLTOE

DBRLEVLTOE, xxxx Root level less than one

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBRLEVTOOHI

DBRLEVTOOHI, xxxx Root level higher than maximum

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBRNDWN

DBRNDWN, Error during global database rundown for region xxxx. Please notify those responsible for proper database operation.

Run Time Error: This indicates that a process encountered a problem attempting to rundown the database file xxxx.

Action: Refer to the associated messages for more information.

DBRNDWNWRN

DBRNDWNWRN, Global database xxxx not rundown successfully by PID yyyy [zzzz]. Global section was not removed.

Run Time Error: When the last process attached to a GT.M database shared memory segment or global section detaches from the same, it normally removes the segment/section from the system. In case of an error while flushing the contents from the segment/section to the database file on disk, this removal is not done and this error is issued.

Action: Attempt a MUPIP RUNDOWN on that region. In case of an error, attempt corrective action corresponding to the displayed error.

DBROLLEDBACK

DBROLLEDBACK, Concurrent ONLINE ROLLBACK detected on one or more regions. The current operation is no longer valid

Run Time Error: This indicates a non-TP mini-transaction attempted to interact with the database and found that a concurrent online rollback had taken the database to a state earlier than the one at the end of the last mini-transaction by this process unless there has been an intervening TP transaction.

Action: Application dependent - this error indicates a discontinuity in the database state that may cause inconsistent application data.

DBROOTBURN

DBROOTBURN, xxxx Root block has data level

DSE/Run Time Information: This indicates that the specified block has a block certification error or a DSE integrity error.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBRSIZMN

DBRSIZMN, xxxx Physical record too small

Run Time Warning: This indicates that a DSE or MUPIP INTEG command failed because block xxxx contains a record that does not meet the minimum size requirement.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBRSIZMX

DBRSIZMX, xxxx Physical record too large

Run Time Warning: This indicates that a DSE or MUPIP INTEG command failed because block xxxx contains a record that exceeds the maximum record size (1MB) for a GDS database.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBSHMNAMEDIFF

DBSHMNAMEDIFF, Database file ffff points to shared memory mmmm which points to a different database file

Run Time Error: Database access gives this error, if the database is copied or moved without properly closing it. This error indicates that database ffff and shared memory mmmmm do not correspond to each other.

Action: Perform MUPIP RUNDOWN on the database.

DBSPANCHUNKORD

DBSPANCHUNKORD, xxxx Chunk of yyyy blocks is out of order

MUPIP Error: This is a MUPIP INTEG error. Refer to the MUPIP INTEG Errors section.

Action: N/A

DBSPANGLOINCMF

DBSPANGLOINCMF, xxxx Spanning node is missing. Block no yyyy of spanning node is missing

MUPIP Error: This is a MUPIP INTEG error. Refer to the MUPIP INTEG Errors section.

Action: N/A

DBSTARCMF

DBSTARCMF, DBSTARCMF xxxx Star record has nonzero compression count

Run Time Warning: This indicates that a block certification or DSE integrity check failed on xxxx. Block xxxx contains a record at offset yyyy that should be a star key; however, it has a non-zero compression count.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBSTARSIZ

DBSTARSIZ, xxxx Star record has wrong size

Run Time Warning: This indicates that a block certification or DSE integrity check failed on xxxx. Block xxxx contains a record at offset yyyy whose star key does not have the proper size.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DBSVBNMIN

DBSVBNMIN, xxxx Start VBN smaller than possible

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBSZGT64K

DBSZGT64K, xxxx Block size is greater than 64k

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBTN

DBTN, Block TN is xxxx

MUPIP Information: This is an auxiliary message and is preceded by a primary message.

Action: Follow the primary message description and action as specified in this manual.

DBTNLTCTN

DBTNLTCTN, Transaction numbers greater than the current transaction were found

MUPIP Information: This is an auxiliary message and is preceded by a primary message. It accompanies DBTNTOOLG.

Action: Follow the primary message description and action as specified in this manual.

DBTNNEQ

DBTNNEQ, xxxx Current tn and early tn are not equal

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBTNRESET

DBTNRESET, Cannot reset transaction number for this region

Run Time Error: This message is an auxiliary message to the DBRDONLY message.

Action: Follow the primary message description and action as specified in this manual.

DBTNRESETINC

DBTNRESETINC, WARNING: tn_reset for database is incomplete due to integrity errors

Run Time Warning: Automatic resetting of transaction number has not been done due to other errors.

Action: Clean up the other errors and then run integ again.

DBTNTOOLG

DBTNTOOLG, xxxx Block transaction number too large

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBTOTBLK

DBTOTBLK, File header indicates total blocks is tttt but file size indicates total blocks would be eeee

MUPIP Information: This is an auxiliary message, and is preceded by a primary message.

Action: Follow the primary message description and action as specified in this manual.

DBTTLBLK0

DBTTLBLK0, xxxx Total blocks equal zero

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: -

DBUNDACCMT

DBUNDACCMT, xxxx Cannot determine access method; trying with BG

MUPIP Error: This is a MUPIP INTEG error. Refer to the topic MUPIP INTEG Errors in About This Manual section of this manual.

Action: N/A

DBUPGRDREQ

DBUPGRDREQ, Database file DDDD is not fully upgraded (format FFFF) and cannot be used by this version of GT.M. Please upgrade the database.

MUPIP Error: The database file DDDD with block format FFFF has the fully upgraded flag set to FALSE indicating that it holds a mix of block versions.

Action: While GT.M V6.* can use database files with formats V4/V5/V6 to V6, GT.M V7.* cannot handle the V4 block format. Use GT.M V6.* to fully upgrade the database file to V6 format before using with GT.M V7.*. Note that a partial MUPIP UPGRADE of a V6 database leaves database in an incomplete state because MUPIP UPGRADE is not repeatable. Any attempt to access such a database results in this error.

DBVERPERFWARN1

No longer in GT.M since: V7.1-005

DBVERPERFWARN1, Performance warning: Database aaaa is running in compatibility mode which degrades performance. Run MUPIP REORG UPGRADE for best overall performance.

Run Time Warning: This is a warning that the database is currently in compatibility (downgrade) mode. This mode causes all modified GDS blocks to be reformatted (to the downgraded database format) before they are flushed to the database file on disk. This is a very large performance hit.

Action: As the message indicates, run MUPIP REORG UPGRADE as soon as possible to move away from compatibility mode. This command can be run without taking the database offline. Once that completes successfully, the database is fully upgraded and there is no reformatting overhead anymore while flushing modified blocks to disk.

DBVERPERFWARN2

No longer in GT.M since: V7.1-005

DBVERPERFWARN2, Performance warning: Database aaaa is running in compatibility mode which degrades performance. Run MUPIP REORG UPGRADE for best overall performance.

Run Time Warning: This is a warning that the database is currently in compatibility (downgrade) mode. This mode causes all modified GDS blocks to be reformatted (to the downgraded database format) before they are flushed to the database file on disk. This is a very large performance hit.

Action: As the message indicates, run MUPIP REORG UPGRADE as soon as possible to move away from compatibility mode. This command can be run without taking the database offline. Once that completes successfully, the database is fully upgraded and there is no reformatting overhead anymore while flushing modified blocks to disk.

DBWCVERIFYEND

DBWCVERIFYEND, Database file xxxx, write cache verification finished by pid pppp [aaaa] at transaction number yyyy

Run Time Information: This indicates that process-id pppp (aaaa in hexadecimal) has completed verification of the database cache for the database file xxxx.

Action: -

DBWCVERIFYSTART

DBWCVERIFYSTART, Database file xxxx, write cache verification started by pid pppp [aaaa] at transaction number bbbb

Run Time Information: This indicates that process-id pppp (aaaa in hexadecimal), has started a verification of the database cache for the database file xxxx.

Action: -

DCNINPROG

DCNINPROG, Attempt to initiate operation while disconnect was in progress

GT.CM Error: This indicates that the GT.CM tried to link while disconnecting or experiencing network problems.

Action: Review network error logs.

DELIMSIZNA

DELIMSIZNA, Delimiter size is not appropriate

Compile Time/Run Time Error: A socket related IO command (OPEN or USE) triggers this error if the delimiter string exceeds its maximum length.

Action: Use a delimiter string with an appropriate length.

DELIMWIDTH

DELIMWIDTH, Delimiter length xxxx exceeds device width yyyy

Run Time Information: This indicates that the length of the first delimiter string specified in the DELIMITER deviceparameter exceeds the WIDTH of the socket device being OPEND (or USEd).

Action: Modify the first delimiter string to have a length of at most the WIDTH of the socket device.

DEVICEOPTION

DEVICEOPTION, Option xxxx on yyyy command: zzzz

Run Time Error: The xxxx option in an OPTIONS device parameter on a yyyy command was incorrectly specified as described by zzzz.

Action: Correct the option as indicated.

DEVICEREADONLY

DEVICEREADONLY, Cannot write to a read-only device

Run Time Error: The application made an attempt to WRITE to a read-only device.

Action: Review code and context to see if the WRITE was intended for another device, and if so add the appropriate USE. If the WRITE is intended for this device, change the device OPEN to permit the WRITE.

DEVICEWRITEONLY

DEVICEWRITEONLY, Cannot read from a write-only device

Run Time Error: The application made an attempt to READ from a device in a WRITEONLY state, typically due to the OPEN command specifications.

Action: Check for logic errors and revise the code.

DEVNAMERESERVED

DEVNAMERESERVED, Cannot use NNNN as device name. Reserved for GTM internal usage.

Run Time Error: This error appears when there is an attempt to OPEN a device with the name YGTMSOCKETPOOL. GT.M internally reserves the name YGTMSOCKETPOOL to identify the socket pool and prevents any other device from using it.

Action: Use a different name for the SOCKET device.

DEVNOTIMP

DEVNOTIMP, XXXX device not implemented on in this environment

Run Time Error: This indicates that the device support is not available in the currently running version of GT.M.

Action: Refer to the GT.M documentation. Contact your GT.M support channel for information about the support available for this type of device on your platform.

DEVOPENFAIL

DEVOPENFAIL, Error opening xxxx

Run Time Error: This indicates that a GT.M process encountered an error while opening the device xxxx. A supplementary TEXT message and a system message provide more details about the cause of the error.

Action: Verify the device exists on the system where the OPEN is being attempted.

DEVPARINAP

DEVPARINAP, Device parameter inappropriate to this command

Compile Time Error: This indicates that an OPEN, USE, or CLOSE command specifies a deviceparameter that does not apply to the command.

Action: Look for deviceparameters that should be on other I/O commands. For example, the deviceparameter "DELETE" is valid on CLOSE but produces this error if it is applied to the USE command.

DEVARMNEG

DEVARMNEG, Deviceparameter must be a positive value

Run Time Error: This indicates that the argument to the deviceparameter had a negative value where only positive values are appropriate.

Action: Modify the argument to provide a positive value.

DEVARMTOOSMALL

DEVARMTOOSMALL, Deviceparameter must be greater than zero (0)

Compile Time/Run Time Error: This error occurs when the TIMEOUT=<seconds> deviceparameter of a CLOSE command specifies a value less than one second. For PIPE devices that are not OPEN'd with the INDEPENDENT deviceparameter, the CLOSE command waits for a maximum of TIMEOUT=<seconds> before checking the termination status of the PIPE co-process.

Action: Specify an integer value greater than 0 as the TIMEOUT.

DEVPARPROT

DEVPARPROT, The protection specification is invalid

Compile Time Error: This indicates that an OPEN, USE, or CLOSE command specified a protection deviceparameter with an improperly formatted argument.

Action: Modify the protection mask.

DEVPARTOOBIG

DEVPARTOOBIG, String deviceparameter exceeds 255 character limit

Compile Time/Run Time Error: This indicates that an OPEN, USE, or CLOSE command specified a deviceparameter that equated to a string expression whose evaluated length exceeds 255 characters.

Action: Verify the program logic and modify it to use shorter deviceparameter strings.

DEVPARUNK

DEVPARUNK, Deviceparameter unknown

Compile Time Error: This indicates that an OPEN, USE, or CLOSE command specified an unrecognized keyword instead of an expected deviceparameter.

Action: Modify the deviceparameter in question.

DEVPARVALREQ

DEVPARVALREQ, A value is required for this device parameter

Compile Time Error: This indicates that an OPEN, USE, or CLOSE command specified a valid deviceparameter that requires a value; however, one was not provided.

Action: Ensure that deviceparameters have values where required. For example, the deviceparameter WRAP is valid but must include a value for the wrap length.

DIRACCESS

DIRACCESS, Do not have full access to directory for temporary files: pppp

MUPIP Error: The message indicates that MUPIP BACKUP does not have appropriate access to the temporary directory pppp.

Action: Check the path and the directory permissions for the temporary directory. You can also set the gtm_baktmpdir environment variable to specify the location of the temporary directory.

DIRONLY

DIRONLY, Directories only are allowed in file specs: xxxx

Run Time Error: This indicates that a SET of \$ZROUTINES specified a SRC qualifier with an argument element xxxx that was not a valid directory specification.

Action: Look for missing parenthesis or brackets.

DISTPATHMAX

DISTPATHMAX, \$gtm_dist path is greater than maximum (xxxx)

Run Time Error: This indicates that the path specified by the gtm_dist environment variable has exceeded the indicated maximum limit of 1024 bytes.

Action: Move the directory or use a link to shorten the path.

DIVZERO

DIVZERO, Attempt to divide by zero

Run Time Error: This indicates that a divide or module operator had a zero for its divisor operand.

Action: Modify the routine to protect against zero division.

DLCKAVOIDANCE

DLCKAVOIDANCE, Possible deadlock detected: Database pppp: Dbtn qqqq: t_tries rrrr: dollar_trestart ssss: now_crit tttt: TP transaction restarted

Run Time Error: This indicates that GT.Ms deadlock avoidance algorithm got triggered and aborted a possible deadlock.

Action: Report the error to your GT.M support channel with complete operator log information.

DLLCHSETM

DLLCHSETM, Routine XXX in library YYY was compiled with CHSET=M which is different from \$ZCHSET. Recompile with CHSET=UTF-8 and re-link.

Run Time Error: This error is triggered when a UTF-8 mode process attempts to execute a shared library's routine that was compiled in M-mode.

Action: Recompile and relink the routine using UTF-8-mode settings or switch to M mode.

DLLCHSETUTF8

DLLCHSETUTF8, Routine XXX in library YYY was compiled with CHSET=UTF-8 which is different from \$ZCHSET. Recompile with CHSET=M and re-link.

Run Time Error: This error is triggered when an M mode process attempts to execute a shared library's routine that was compiled in UTF-8 mode.

Action: Recompile and relink the routine using M-mode settings or switch to UTF-8 mode.

DLLNOCLOSE

DLLNOCLOSE, Failed to unload external dynamic library

Run Time Error: This indicates that the process encountered a problem attempting to unload a dynamically linked library.

Action: Refer to the associated messages for more information.

DLLNOOPEN

DLLNOOPEN, Failed to load external dynamic library xxxx

Run Time Error: This indicates that the process encountered a problem attempting to load a dynamically linked library.

Action: Refer to the associated messages for more information.

DLLNORTN

DLLNORTN, Failed to look up the location of the symbol xxxx

Run Time Error: This indicates that the process was unable to find the routine it needed in the dynamically linked library.

Action: Ensure that the environment variable for dynamic library path is defined and correctly locates the shared library file, as well as any other dependent shared libraries. Also ensure that the symbol xxxx is defined in one of the libraries.

DLLVERSION

DLLVERSION, Routine aaaa in library bbbb was compiled with an incompatible version of GT.M. Recompile with the current version and re-link.

Run Time Error: This indicates that the routine aaaa that was loaded out of the shared library bbbb was compiled with a version of GT.M that is not compatible with the current version of GT.M.

Action: Recompile the M routine aaaa and re-link (recreate) the shared library. The linker options for creating a shared library are platform dependant. Refer to GT.M Programmer's Manual for details.

DLRCILLEGAL

DLRCILLEGAL, Illegal \$CHAR() value xxxx

MUPIP Error: This indicates that MUPIP LOAD with the qualifier FORMAT=GO or ZWR encountered an invalid Unicode code point xxxx for \$CHAR() in its input stream.

Action: Edit or recreate the input file so the value falls within the valid range of Unicode code points.

DLRCTOOBIG

DLRCTOOBIG, xxxx value cannot be greater than 255

MUPIP Error: This indicates that MUPIP LOAD with the qualifier FORMAT=GO encountered xxxx in its input stream. xxxx was in the \$CHAR() format used for non-graphic characters but it exceeded the maximum acceptable value of 255.

Action: Refer to the topic MUPIP LOAD Errors in About This Manual section of this manual. Edit the input file so the value falls within the range of 0-255.

DLRCUNXEOR

DLRCUNXEOR, xxxx unexpected end of record in \$CHAR()/\$ZCHAR() subscript

MUPIP Error: This indicates that MUPIP LOAD with the qualifier FORMAT=GO encountered xxxx in its input stream. xxxx was in the \$CHAR() format used for non-graphic characters but the \$C() format did not complete properly.

Action: Refer to the topic MUPIP LOAD Errors in About This Manual section of this manual. Edit the input file to remove a spurious "\$" or fix a \$CHAR() representation.

DONOBLOCK

DONOBLOCK, Argumentless DO not followed by a block

Compile Time Warning: This indicates the compiler detected an argumentless DO with no subsequent block with an appropriate level, and optimized it away.

Action: Generally this indicates a coding issue where the block is missing or has the wrong level indication, but it may also be unnecessary - correct as appropriate.

DSEBLKRDFAIL

DSEBLKRDFAIL, Failed attempt to read block

DSE Error: This indicates that DSE could not read the block from the database file. This error may also be caused by attempts to reference blocks outside of the database. It is very likely that the database may have integrity errors or that the process-private data structures are corrupted.

Action: Make sure that the referenced block is less than the total blocks. If not, report this database cache error to the group responsible for database integrity at your operation.

DSEFAIL

DSEFAIL, DSE failed. Failure code: xxxx.

DSE Error: This indicates that DSE could not complete a database operation. xxxx contains failure codes for the four attempts. It is very likely that the database may have integrity errors or that the process-private data structures are corrupted.

Action: Report this database structure error to the group responsible for database integrity at your operation.

DSEINVALBLKID

DSEINVALBLKID, Trying to edit DB with 64-bit block IDs using pre-V7 DSE

DSE Error: Indicates a mismatch between the version of DSE and the version of the target database

Action: Use the version of DSE that matches the database.

DSEINVLCLUSFN

DSEINVLCLUSFN, Specified function is invalid for clustered databases

DSE Error: This indicates that the DSE command (WCINIT or ALL used with the qualifiers RENEW or WCINIT) requested a cache reinitialization on a clustered database.

Action: This operation is managed automatically by the Cluster Control Program (CCP) on the first node to open the database file. Once the database is in use, all nodes must drop access in order to reinitialize the database cache.

DSEMAXBLKSAV

DSEMAXBLKSAV, DSE cannot SAVE another block as it already has the maximum of mmmm

DSE Error: The current SAVE -BLOCK operation exceeds DSE's capacity to hold more than mmmm saved blocks

Action: Delete some saved blocks, possibly after RESTORE'ng them to free blocks, or restart DSE if none of the currently saved blocks have value.

DSENOFINISH

DSENOFINISH, DSE unable to finish all requested actions

DSE Error: This indicates that DSE was not able to complete the actions it was directed to perform.

Action: Refer to the associated message(s) for more information.

DSENOTOPEN

DSENOTOPEN, DSE could not open region rrrr - see DSE startup error message for cause

DSE Error: DSE could not operate on region rrrr because it was not able to open it when DSE started.

Action: Review the error messages issued when DSE started and address the issue(s) they describe.

DSEONLYBGMM

DSEONLYBGMM, xxxx is supported only for BG/MM access methods

DSE Warning: This indicates that the current region has an access method that is neither Buffered Globals nor Memory Mapped. DSE can not flush such a region.

Action: Before starting DSE, make sure that the Global Directory contains regions that have an access method of Buffered Globals or Memory Mapped.

DSEWCINITCON

DSEWCINITCON, No action taken, enter YES at CONFIRMATION prompt to initialize global buffers

DSE Warning: This indicates that DSE did not yet perform the operation that was initiated by the WCINIT command or the ALL command with either the WCINIT or RENEW qualifier because the operator did not confirm it.

Action: To perform these operations, enter YES at the CONFIRMATION prompt to verify your intention to perform this potentially disruptive operation. The DSE WCINIT command reinitializes shared memory structures for the current region.

DSEWCREINIT

DSEWCREINIT, Database cache reinitialized by DSE for region rrrr

DSE Information: This indicates a DSE operator action to rebuild the database cache for region rrrr.

Action: None required.

DSKNOSPCAVAIL

DSKNOSPCAVAIL, Attempted write to file FFFF failed due to lack of disk space. Retrying indefinitely.

Run Time Error: This error indicates that GT.M could not update file FFFF due to lack of disk space in the file system. If -INST_FREEZE_ON_ERROR is enabled, GT.M automatically disables it (sending a DSKSPCAVAILABLE message to the operator log) when adequate disk space becomes available again.

Action: Make disk space available in the file system to allow updates to file FFFF.

DSKNOSPCBLOCKED

DSKNOSPCBLOCKED, Retry of write to file FFFF suspended due to new instance freeze. Waiting for instance to be unfrozen.

Run Time Error: This error indicates that a process waiting for space to write to file FFFF determined that another process froze the replication instance. The process will not make more attempts to write to the file until the replication instance is unfrozen.

Action: Check the system log for the most recent REPLINSTFROZEN message to determine the cause of the current freeze and resolve it.

DSKSPACEFLOW

DSKSPACEFLOW, Disk space for file xxxx nearing maximum size. YYYY blocks available.

Run Time Warning: This indicates that disk space for the specified file system, on which the database / journal files are located, is almost full.

Action: Review and make disk space.

DSKSPCAVAILABLE

DSKSPCAVAILABLE, Write to file FFFF succeeded after out-of-space condition cleared.

Success Information: This indicates that the file system of file FFFF has enough space to allow further updates (previously not possible as indicated by a DSKNOSPCAVAIL error message).

Action: None Required.

DSKSPCCHK

DSKSPCCHK, Error while checking for available disk space to create file DDDD

All GT.M Components Error: While checking if there was available space to create the database file some service failed. This error is followed by a description of what caused the failure.

Action: Address the reason for the failure and retry.

DUPTN

DUPTN, Duplicate transaction found [TN = xxxx] at offset aaaa in journal file yyyy

MUPIP Warning: This indicates that two different transactions have the same transaction number.

Action: Report the entire incident context to your GT.M support channel.

DUPTOKEN

DUPTOKEN, Token xxxx is duplicate in the journal file yyyy for database zzzz

MUPIP Error: This indicates that two transactions (TP or ZTP) have the same token (xxxx), in the specified journal file yyyy, violating the uniqueness of the ID that distinguishes transactions from one another. The result is that both transactions are considered broken and reported in the broken transactions extract file.

Action: Report the entire incident context to your GT.M support channel.

DVIKEYBAD

DVIKEYBAD, \$ZGETDVI("xxxx","yyyy") contains an illegal keyword

Run Time Error: This indicates that a \$ZGETDVI function encountered an invalid keyword. xxxx is the device. yyyy is the keyword.

Action: Verify the spelling of the keyword.

DYNUPGRDFAIL

DYNUPGRDFAIL, Unable to dynamically upgrade block 0xaaa in database yyy due to lack of free space in block

DBCERTIFY/Run Time Error: There was not enough free space in the block to convert it in place to the current format during normal database access. This indicates that the DBCERTIFY database certification procedure was not properly carried out.

Action: Either mark the block free (making appropriate index changes) or downgrade the database and re-run DBCERTIFY (both phases).

DZTRIGINTRIG

DZTRIGINTRIG, \$ZTRIGGER() is not allowed inside trigger context. Trigger name: nnnn

Run Time Error: This message indicates an attempt to use the \$ZTRIGGER() function, which potentially modifies triggers, while executing code within the context of some trigger.

Action: Rework the code to modify or examine triggers so that it falls outside of trigger execution.

DZWRNOALIAS

DZWRNOALIAS, \$ZWRTAC cannot be aliased.

Compile Time Error: This indicates the argument for a SET * command attempted to assign a \$ZWRTAC* pseudo-variable as a alias.

Action: Correct the code in question - the \$ZWRTAC* is only useful in restoring context from ZSHOW or ZWRITE output and has very narrow capabilities.

DZWRNOPAREN

DZWRNOPAREN, \$ZWRTACxxx is not allowed inside a parenthesized SET target

Compile Time Error: This indicates the argument for a SET command attempted to assign a \$ZWRTAC* pseudo-variable within a parenthesized list of left-hand arguments.

Action: Correct the code in question - the \$ZWRTAC* is only useful in restoring context from ZSHOW or ZWRITE output and has very narrow capabilities.

ECLOSTMID

ECLOSTMID, \$ECODE overflow, the first and last ecodes are retained, but some intervening ecodes have been lost

Run Time Warning: If the \$ECODE exceeds the maximum string length, references to it return only the codes for the earliest and latest errors separated by the code for ECLOSTMID, which indicates that suppression of intervening error codes has occurred to accommodate string length restrictions.

Action: Consider whether it would be appropriate to introduce code to SET \$ECODE= . This error is encountered either when the \$ETRAP error handling is recursing (and probably defective), or while using \$ZTRAP error handling that was coded prior to the introduction of \$ECODE.

ENCODING

ENCODING, M or W-1252 code designation for character set encoding, might return unexpected results when ""UTF-8"=\$ZCHSET

Compile Time Warning: When in UTF-8 mode (variable length encoding) and code contains \$ZCONVERT() with the second or third argument specified as literal M or W-1252 (single byte encodings) the compiler warns there may be encoding issues.

Action: If the first argument (string to convert) is always pure ASCII, the conversion is unnecessary, so consider removing it. With a second argument of M or W-1252 unless the first argument has an external source or has been generated by \$ZCHAR() it likely already has UTF-8 encoding, and an additional conversion won't yield desired results. With a third argument of M or W-1252 the result may contain characters unintended for, or incompatible (could generate BADCHAR errors) with, the running UTF-8 character set and therefore require handling with \$Z* byte-oriented functions. In other words, the \$ZCONVERT() second and third arguments specify how the function operates not whether its input or output are appropriate in the context of the specified operation so consider the use case

carefully. Note that when the second and/or third arguments are non-literal expressions, the compiler cannot determine whether an ENCODING warning might be appropriate. Also note that the UTF-16 encodings supported by the function have compatibility issues but because GT.M does not natively support those encodings the issues are more overt and do not generate ENCODING warnings.

ENCRYPTCONFLT

ENCRYPTCONFLT, MUPIP REORG -ENCRYPT and MUPIP EXTRACT -FORMAT=BIN cannot run concurrently - skipping oooo on region: rrrr, file: ffff

MUPIP Error: MUPIP cannot perform REORG -ENCRYPT and EXTRACT -FORMAT=BIN on file ffff at the same time; rrrr is the region that mapped the file; oooo is the just started operation.

Action: Reschedule the just started operation or terminate the conflicting operation to allow the just started operation to run immediately.

ENCRYPTCONFLT2

ENCRYPTCONFLT2, Message: A concurrent MUPIP REORG -ENCRYPT changed the encryption key for RRRR before the process could initialize it

Run Time Warning: Due to a concurrent MUPIP REORG -ENCRYPT, a process was forced to defer encryption key initialization for region RRRR.

Action: None. This information message is only important when followed by other encryption errors.

ENDIANCVT

ENDIANCVT, Converted database file xxxx from yyyy endian to zzzz endian on a wwww endian system

MUPIP Information: When MUPIP ENDIANCVT has successfully completed, it displays the conversion information. This information includes the database file, its previous endian format, the new endian format, and the endian format that is native to the current system.

Action: N/A

ENOSPCQIODEFER

ENOSPCQIODEFER, Write to file FFFF deferred due to lack of disk space

Information: This indicates GT.M chose to defer updating the file FFFF to avoid a possible deadlock. GT.M uses this message only if the environment is configured for Instance Freeze.

Action: None.

EORNOTFND

EORNOTFND, xxxx End of record not found

MUPIP Error: This indicates that LOAD encountered a database reference record containing an open parenthesis without a close parenthesis. xxxx is the record.

Action: Refer to the topic MUPIP LOAD Errors in About This Manual section of this manual.

EPOCHTNHI

EPOCHTNHI, At the EPOCH record at offset xxxx of yyyy transaction number [0xaaaa] is higher than database transaction number [0xbbbb]

MUPIP Error: This indicates that during turnaround point from where mupip applies logical records, backward recover found that epoch's transaction number is greater than the current database transaction number.

Action: Contact your system administrator and if necessary report the entire incident context to your GT.M support channel.

EQUAL

EQUAL, Equal sign expected but not found

Compile Time Error: This indicates that a SET or FOR specified the left side of an assignment statement but not the expected equal (=) sign.

Action: Look for a missing equal sign.

ERRCALL

ERRCALL, Error called from xxxx line yyyy

Run Time Error: This message provides additional diagnostic information related to accompanying messages.

Action: Review accompanying messages for additional information about the cause of this error. If necessary, report the entire incident context to your GT.M support channel.

ERRORSUMMARY

ERRORSUMMARY, Errors occurred during compilation

Compile Time Error: This indicates that GT.M encountered one or more errors during compilation.

Action: Review the individual error messages for further information. The compilation may have produced code that is usable as long as the execution path does not encounter the error(s).

ERRWETRAP

ERRWETRAP, Error while processing \$ETRAP

Run Time Error: This indicates that \$ETRAP contained invalid M code or caused a run time error.

Action: Check the \$ETRAP variable. To get more information about the errors- SET \$ZTRAP to empty string, and a temporary variable to the contents of \$ETRAP. Then, SET \$ETRAP to "BREAK" and XECUTE the temporary variable. It is best to keep the source code in \$ETRAP simple if \$ZTRAP is an empty string, since ETRAP specifies a string that GT.M invokes upon encountering an exception condition.

ERRWEXC

ERRWEXC, Error while processing exception string

Run Time Error: This indicates that an exception string contained invalid M code or caused a run-time error.

Action: Review the exception string and \$ZTRAP. To get more information about the errors, SET a temporary variable to the contents of the exception string. Then, SET the exception string to "BREAK" and XECUTE the temporary variable.

ERRWIOEXC

ERRWIOEXC, Error while processing I/O exception string

Run Time Error: This indicates that a device EXCEPTION string contained invalid M code or caused a run-time error.

Action: Review the exception string. To get more information about the errors, SET a temporary variable to the contents of the exception string and XECUTE the temporary variable. The EXCEPTION deviceparameter on an OPEN, USE, or CLOSE command defines an error handler for an I/O device.

ERRWZBRK

ERRWZBRK, Error while processing ZBREAK action string

Run Time Error: This indicates that a ZBREAK action contained invalid M code or caused a run-time error.

Action: Review the ZBREAK action string. To get more information about the errors, SET a temporary variable to the contents of the ZBREAK action string and XECUTE the variable. ZBREAK sets temporary break and trace points.

ERRWZINTR

ERRWZINTR, Error while processing \$ZINTERRUPT

Run Time Error: This indicates that a job interrupt had been signaled but that there was an error compiling the \$ZINTERRUPT string. This message is sent to the operator log facility and if at the direct mode prompt or executing a direct mode command to the user console.

Action: Correct the \$ZINTERRUPT to contain valid GT.M commands.

ERRWZTIMEOUT

ERRWZTIMEOUT, Error while processing \$ZTIMEOUT

Run Time Error: This indicates a problem invoking the current \$ZTIMEOUT vector and usually accompanies other error messages

Action: Examine and correct the code vector specified by \$ZTIMEOUT, or if there is none, examine the current value for \$ETRAP or \$ZTRAP. Unlike \$ETRAP and code values for \$ZTRAP, which are evaluated when they are assigned, compilation of \$ZTIMEOUT vectors occurs when the vector is invoked by the expiration of the specified time.

ERRWZTRAP

ERRWZTRAP, Error while processing \$ZTRAP

Run Time Error: This indicates that \$ZTRAP contained invalid M code or caused a run-time error.

Action: Verify the \$ZTRAP variable. To get more information about the errors, SET a temporary variable to the contents of \$ZTRAP. Then, SET \$ZTRAP to "BREAK" and XECUTE the variable. Make sure the source code in \$ZTRAP is simple because ZTRAP specifies a string that GT.M invokes when it encounters an exception condition.

EVENTLOGERR

EVENTLOGERR, Error in event logging subsystem

Run Time Error: This indicates that the user is unable to access the event logging shared library or an event logging routine within the shared library.

Action: Review accompanying messages for additional information.

EXCEEDRCTLNDWN

No longer in GT.M since: V7.1-003

EXCEEDRCTLNDWN, Maximum relinkctl rundown retries limit of nnnn exceeded

MUPIP Error: This indicates competing processes tried to rundown relinkctl more than nnnn times while another process was trying to connect to the relinkctl

Action: Consider a mupip stop to one (or more) of the competing processes

EXCEEDSPREALLOC

EXCEEDSPREALLOC, Preallocated size ssss for M external call label LLLL exceeded by string of length SSSS

Call out Error: The code invoked as externroutinename LLLL returned a string of length SSSS, but the call table specified a maximum length of ssss for the return.

Action: Revise the external routine to abide by the call table size or change the call table to preallocate a suitably larger size.

EXCLUDEREORG

EXCLUDEREORG, Global: xxxx is present in the EXCLUDE option. REORG will skip the global.

MUPIP Warning: This indicates that MUPIP did not reorg the specified global because it was also mentioned in the EXCLUDE qualifier.

Action: Take out the global name from the EXCLUDE option and do not specify a global name in both the SELECT and EXCLUDE options.

EXECOM

EXECOM, Executing command file xxxx

GDE/DSE Information: This indicates that an @ command activated command file xxxx.

Action: -

EXITSTATUS

EXITSTATUS, Unexpected process exit (xxxx), exit status aaaa -- called from module yyyy at line zzzz

Run Time Error: Indicates a non-zero exit status aaaa returned from a process started in the context of xxxx. The following are common values (other values are possible depending on the script called) and descriptions for the exit status: 1-"Catchall for general errors", 2-"Misuse of shell builtins", 126-"Command invoked cannot execute", 127-"Command not found", 128-"Invalid argument to exit" and 130-"Script terminated by Control-C".

Action: Use the exit status aaaa to adjust the script causing the unexpected exit.

EXPR

EXPR, Expression expected but not found

Compile Time Error: This indicates that GT.M did not encounter a valid expression when it expected one.

Action: Look for missing expressions or extra delimiters, such as a space, comma, or colon.

EXTCALLBOUNDS

EXTCALLBOUNDS, Wrote outside bounds of external call buffer. M label: LLLL

Call out Fatal: The code invoked as externroutinename LLLL violated the bounds of its allocated buffers.

Action: Ensure the non-GT.M code uses appropriate allocations, pointer management logic and bounds checking.

EXTGBLDEL

EXTGBLDEL, Invalid delimiter for extended global syntax

Run Time Error: This indicates that the global reference started with a vertical bar (|) or left-bracket ([), indicating that it includes an environment specification (Global Directory). However, the environment specification did not terminate with either a vertical bar (|) or right-bracket (]), respectively.

Action: Insert the appropriate trailing delimiter for the environment specification or remove the environment specification.

EXTRACTCTRL

EXTRACTCTRL, User interrupt encountered during extract, halting

MUPIP Warning: This indicates that EXTRACT encountered either a <CTRL>-Y or two <CTRL>-C in quick succession during the course of its operation and aborted prior to normal completion.

Action: If the results of the EXTRACT are needed, reactivate it.

EXTRACTFILERR

No longer in GT.M since: V4.4-000

EXTRACTFILERR, Error with extract file xxxx

MUPIP Error: This indicates that EXTRACT encountered an error when opening its output file: xxxx.

Action: Review the accompanying message(s) for additional information.

EXTRCLOSEERR

EXTRCLOSEERR, Error closing extract file xxxx

MUPIP Error: OpenVMS or RMS error closing the specified xtract output file, during the MUPIP EXTRACT.

Action: Refer to the accompanying message(s) for details and take appropriate action.

EXTRFAIL

EXTRFAIL, Extract failed for the global gggg. MUPIP INTEG should be run.

MUPIP Error: A MUPIP EXTRACT operation on the global gggg failed because of database consistency issues.

Action: Run the MUPIP INTEG command to identify the database consistency issues. See [verfiy_database_integrity_11.html](#) for more information.

EXTRFILEXISTS

EXTRFILEXISTS, Error opening output file: ffff -- File exists

Run Time Error: This message indicates that the specified output file already exists.

Action: Specify another file name and/or directory.

EXTRFMT

EXTRFMT, Extract error: invalid record format - no records found.

MUPIP Error: This indicates that LOAD could not process the sequential output file because the record after the header is invalid.

Action: Verify the file has a valid format and actually contains records.

EXTRINTEGRITY

EXTRINTEGRITY, Database ffff potentially contains spanning nodes or data encrypted with two different keys

MUPIP Error: MUPIP EXTRACT cannot run because the database file ffff might contain spanning nodes or be partially encrypted with a particular key. Proceeding on a live database in such situation could result in data corruption.

Action: If you encounter this error while running MUPIP EXTRACT with `-FORMAT="BINARY"`, re-run the command with the `-FREEZE` qualifier. MUPIP EXTRACT requires `-FREEZE` to acquire stand-alone access to produce a consistent copy of the data. However, not using `-FREEZE` when you request a MUPIP EXTRACT may produce a loadable, if inconsistent output. If you encountered this error while running MUPIP EXTRACT with ZWR or GO format, it is likely that your database is encrypted with more than one key; with BINARY output it may be multiple keys or spanning node data. If the issue is a key change, run MUPIP REORG -ENCRYPT to complete the encryption of the database. As a final resort, you may use an `-OVERRIDE` qualifier to proceed on a live database that either contains spanning

nodes or is undergoing (re)encryption. Although EXTRACT -OVERRIDE may produce text for analysis, the result is not suitable as input for MUPIP LOAD and FIS highly discourages using -OVERRIDE.

EXTRIOERR

EXTRIOERR, Error writing extract file xxxx

MUPIP Error: OpenVMS or RMS errors writing to the specified extract output file, during the MUPIP EXTRACT.

Action: Refer to the accompanying message(s) for details and take appropriate action.

EXTSRCLIN

EXTSRCLIN, xxxx yyyy

Run Time Error: This indicates that there is an error in the external call table. The message indicates the line where GT.M found the error.

Action: Review the line listed in the message and correct the error.

EXTSRCLOC

EXTSRCLOC, At column xxxx, line yyyy, source module zzzz

Run Time Error: This indicates that there is an error in the external call table. The message indicates the line and the location within that line where the error is located.

Action: Review the listed line and location and correct the error.

FAILEDRECCOUNT

FAILEDRECCOUNT, LOAD unable to process MMMM records

MUPIP Error: MUPIP LOAD was unable to load MMMM records from the specified input extract.

Action: Examine prior RECLOAD error messages for causes for the failed records and address them.

FALLINTOFLST

FALLINTOFLST, Fall-through to a label with formallist is not allowed

Run Time/Compile Time Error: This error indicates that M code reached a label with a formallist by falling through from the previous label. When issued as a warning, it indicates the compiler determined such an error could happen and may have inserted an implicit QUIT to prevent the run-time error

Action: Revisit your code to ensure that all invocations of labels with a formallist occur using a DO command or extrinsic function (\$\$).

FCHARMAXARGS

FCHARMAXARGS, Argument count of \$CHAR() function exceeded the maximum of 255

Compile Time Error: This indicates that a \$CHAR() function specified an argument that was not in the range of 0 to 255. This error is also reported by services that attempt to format data using \$CHAR() format.

Action: Look for large or negative \$CHAR() arguments and ensure that all the arguments contain valid ASCII codes.

FCNSVNEXPECTED

FCNSVNEXPECTED, Function or special variable expected in this context

Compile Time Error: This indicates that GT.M encountered a dollar sign in an expression that was not followed by a valid function or special variable name.

Action: Look for misspelled function and special variable names or a missing \$ in an extrinsic.

FDSIZELMT

FDSIZELMT, Too many nnnn descriptors needed by GT.CM server

GT.CM Error: A large number (nnnn) of regions accessed on behalf of GT.CM clients forced the file descriptor numerical value to its FD_SETSIZE limit. Under Linux as of this writing, this limit is fixed to 1024.

Action: Review the application, the database layout and the number of concurrent clients and adjust conditions to reduce the number of concurrent database files managed by a GT.CM server.

FILECREATE

FILECREATE, AAAA file xxxx created

MUPIP Information: This indicates that a file xxxx was created due to AAAA, where AAAA is lost transaction, broken transaction, or Journal Extract file.

Action: Look for the xxxx file for further relevant data.

FILECREERR

FILECREERR, Error OOOO for file DDDD during DB creation

Run Time/MUPIP Error: While creating a database file, some IO operation OOOO failed; this error is followed by the error that occurred.

Action: Address the error and retry.

FILEDEL

FILEDEL, File xxxx successfully deleted

Run Time/MUPIP Information: This indicates that GT.M or MUPIP has successfully deleted a file. This message is issued when a journal file in an inconsistent state found and deleted by the run-time system or MUPIP SET. This message is also issued by MUPIP JOURNAL RECOVER/ROLLBACK command when it deletes journal files that were created by a previously interrupted RECOVER/ROLLBACK command and are no longer necessary.

Action: -

FILEDELFAIL

FILEDELFAIL, Deletion of file xxxx failed

Run Time/MUPIP Warning: This indicates that GT.M or MUPIP failed to remove the specified journal file xxxx.

Action: Review the accompanying message(s) for additional information.

FILEEXISTS

FILEEXISTS, File xxxx already exists

MUPIP Error: This indicates that MUPIP discovered a file with the filename xxxx already existing and did not overwrite it while executing the specified command(s). In many cases, this is an expected outcome when the action has an explicit or implicit target of multiple database files which may be in differing states.

Action: If appropriate, rename the already existing file xxxx and reissue the MUPIP command(s), or modify the MUPIP command to name (explicitly/implicitly) a file different from xxxx. If you encountered this error with MUPIP BACKUP, use the -REPLACE qualifier if you want to replace the existing backup files.

FILEIDGBLSEC

FILEIDGBLSEC, File ID in global section does not match with the database file

Run Time Error: When a GT.M process attaches to a database and finds the corresponding shared memory structures initialized already, it performs integrity checks on the shared memory contents to ensure that they correspond back to the database file. When the shared memory copy of the database file ID does not match with the actual file ID of the database, this error is issued.

Action: Perform a MUPIP RUNDOWN on that region. If it fails with the same FILEIDGBLSEC error, then the shared memory contents are corrupt. Consult your GT.M support channel before proceeding further.

FILEIDMATCH

FILEIDMATCH, Saved File ID does not match the current ID - the file appears to have been moved

Run Time Error: This indicates that the journal file identified by a database in turn identifies itself as belonging to another database. Since a journal file must have a one-to-one relationship with a database, the process cannot do updates on this region until the problem is resolved.

Action: Create a new journal file, make a backup if appropriate and resume work.

FILENAMETOOLONG

FILENAMETOOLONG, File name too long

Run Time/MUPIP Information: This indicates that GT.M or MUPIP has encountered a file name exceeding the maximum permissible length. In OpenVMS all logical names are expanded and the expanded name must be within the maximum file name length permitted by GT.M.

Action: -

FILENOTCREATE

FILENOTCREATE, AAAA file xxxx not created

MUPIP Information: This indicates that the file xxxx was not created due to AAAA; where AAAA is lost transaction, or broken transaction, or Journal Extract file.

Action: Review accompanying messages for any further information. If there are no accompanying messages, it indicates that MUPIP did not find any lost or broken transactions for the corresponding extract file to be created.

FILENOTFND

FILENOTFND, File xxxx not found

Compile Time/Run Time Error: This indicates that GT.M could not locate the specified source file xxxx.

Action: Look for a misspelling of the file-specification or improper preparation of the environment. If xxxx is a source file, it could have been moved or modified since the object in the image was compiled. Use ZLINK to make the object match the source.

FILEOPENFAIL

FILEOPENFAIL, Failed to open file ffff.

MUPIP Error: This message indicates that the MUPIP LOAD failed to open input file ffff.

Action: Please verify path and permission of input file ffff.

FILEPARSE

FILEPARSE, Error parsing file specification: xxxx

Run Time Error: This indicates a problem with the specification of file xxxx, or the path to it. If the file is a source or object file, a ZLINK command or \$ZROUTINES-related action encountered the error.

Action: Look for, and correct any typographical errors in the file-specification.

FILEPATHTOOLONG

FILEPATHTOOLONG, Filename including the path cannot be longer than 255 characters

All GT.M Components Error: A file name with its path exceeds the maximum supported length

Action: Adjust the path and name to meet the supported maximum.

FILERENAME

FILERENAME, File xxxx is renamed to yyyy

Run Time Information: This indicates that an existing file xxxx has been renamed to yyyy so that a new file created with the original name does not overwrite the existing one. GT.M renames files during an automatic journal switch in case no explicit journal file name is specified, in which case the message is sent to the operator log. The utilities (MUPIP, GT.CM) rename files while opening log files or journal extract files and they send the message to the terminal. GT.M or utilities rename files only if the new file name specified already exists.

Action: This information messages confirms the success of the file rename operation. No further action is necessary unless there are other warning, fatal, and/or error category messages.

FILTERBADCONV

FILTERBADCONV, Bad conversion of transaction xxxx by filter

Run Time Error: This error is logged to the replication server log file. This indicates that the output of the user-supplied external replication filter for the transaction with journal sequence number xxxx is incorrect.

Action: Fix the filter. Restart the replication server with the fixed filter.

FILTERCOMM

FILTERCOMM, Error communicating transaction xxxx with the filter

Run Time Error: This error is logged to the replication server log file. This indicates that the replication server encountered an error writing transaction with journal sequence number xxxx to the user supplied external filter's input. The accompanying system error message gives more details.

Action: Stop the filter and restart the replication server with the filter. Report the entire incident context to your GT.M support channel.

FILTERNOTALIVE

FILTERNOTALIVE, Replication server detected that the filter is not alive while attempting to send transaction xxxx

Run Time Error: This error is logged to the replication server log file. This indicates that the replication server detected abnormal termination of the user supplied external filter while attempting to write transaction with journal sequence number xxxx to the filter's input.

Action: Determine the cause of the filter's abnormal termination. Fix the filter and restart the replication server with the fixed filter.

FILTERTIMEDOUT

FILTERTIMEDOUT, Replication server timed out attempting to read seqno ssss from external filter

MUPIP Error: This indicates that either a Source or Receiver Replication Server using an external filter took more than 30 sec to read a transaction with journal sequence number ssss from the user supplied external filter's output. The replication server reports this error in its log, stops the filter and terminates.

Action: Determine the cause for the filter's write delay. Fix the filter and restart the replication server with the fixed filter. If you cannot determine reason for delay, report the entire incident context to your GT.M support channel.

FMLLSTMISSING

FMLLSTMISSING, The formal list is absent from a label called with an actual list: xxxx

Compile Time/Run Time Error: This indicates that a DO attempted to transfer control with an actualist to a label xxxx that has no formallist.

Action: Look at the interface between the DO and the subroutine. Modify the actualist, formallist, and/or label as appropriate.

FMLLSTPRESENT

No longer in GT.M since: V5.4-002B

FMLLSTPRESENT, The actual list is absent from a call to a label with a formal list: xxxx

Compile Time/Run Time Error: This indicates that a DO attempted to transfer control with no actualist to a label xxxx that has a formallist.

Action: Look at the interface between the DO and the subroutine. Modify the actualist, formallist, and/or label as appropriate.

FNARGINC

FNARGINC, Format specifiers to \$FNUMBER are incompatible: "xxxx"

Run Time Error: This indicates that a \$FNUMBER function specified a format containing codes xxxx, which is incompatible code.

Action: Look for the character code "P" or "p" with any character other than the code ",".

FNNAMENEG

FNNAMENEG, Depth argument to \$NAME cannot be negative

Run Time Error: This indicates that GT.M encountered a \$NAME() reference with the optional integer expression that is set to a negative number.

Action: Modify the routine to ensure that \$NAME() arguments are never negative.

FNOTONSYS

FNOTONSYS, Function or special variable is not supported by this operating system

Compile Time Error: This indicates that GT.M encountered a function or special variable it cannot process on the current operating system.

Action: Some functions are not appropriate to all operating environments. Contact your GT.M support channel if you have questions about how to accomplish a particular task.

FNTRANSERROR

FNTRANSERROR, Filename including path exceeded 255 chars while trying to resolve filename FFFF

All GT.M Components Error: While creating a database, resolving environment variables in a database path exceeded the maximum supported file name size.

Action: Reduce the path size by altering base components of the path or database name and/or the values of the environment variables to create a shorter overall filename and retry.

FNUMARG

FNUMARG, \$FNUMBER format specifier xxxx contains an illegal character: yyyy

Run Time Error: This indicates that an \$FNUMBER function specified a format xxxx that contains invalid codes.

Action: Ensure that the format specifier in a \$FNUMBER function is a sequence of the code characters "P", "p", "T", "t", "+", "-", and ",".

FORCEDHALT

FORCEDHALT, Image HALTed by MUPIP STOP

Run Time Warning: This indicates that a GT.M process recognized the receipt of a MUPIP STOP command and is terminating. This command stops GT.M processes in an orderly fashion.

Action: Determine who initiated the MUPIP STOP and why they did so. Restart the process, if appropriate.

FORCEDHALT2

FORCEDHALT2, Receipt of 3 MUPIP STOP signals within xxxx seconds, process: yyyy shutting down with no exit handling like a kill -9

Run Time Fatal: This indicates that a GT.M process recognized the receipt of three MUPIP STOP commands within approximately 30 seconds and is shutting down without normal clean up - very similar to a kill -9 signal. This event doesn't stop GT.M processes in an orderly fashion, and might cause database damage if the target process is concurrently actively updating. Therefore use it only on processes that are deadlocked or otherwise stuck, say due to some type of FREEZE.

Action: Determine who initiated the MUPIP STOP and why they did so. Run MUPIP INTEG as appropriate.

FORCTRLINDX

No longer in GT.M since: V5.4-002A

FORCTRLINDX, Using a FOR with an indexed control variable that's assigned values calculated in extrinsics is not currently safe

Compile Time/Run Time Error: GT.M currently has trouble managing the interaction between a subscripted FOR control variable and expressions for its maintenance that have side effects that might change the array holding the control variable. Such elements include extrinsics (\$\$), external calls (\$&) and \$INCREMENT(). To avoid possible process context corruption, the compiler issues this error when it encounters the threatening circumstances. Note that the error can also appear at run-time without the accompanying indications of line and column if the construct appears in an XECUTE, the control variable is specified with indirection or the compiler warning is ignored.

Action: Chose an unsubscripted FOR control variable and / or evaluate the side-effect element(s) before setting up the FOR.

FOROFLOW

FOROFLOW, FOR commands nested too deeply

Compile Time Error: This indicates that a single line contained more than 32 FOR statements.

Action: Rework the routine so FORs are not so deeply nested in a single line.

FREEBLKSLOW

FREEBLKSLOW, Only bbbb free blocks left out of tttt total blocks for ffff

Run Time Warning: This message warns that database file ffff with automatic file extensions disabled has only bbbb blocks left out of a total allocation of tttt.

Action: Use MUPIP EXTEND to extend the file, or MUPIP SET to enable automatic extensions, or reduce the amount of data in the file.

FREEMEMORY

FREEMEMORY, Error occurred freeing memory

Run Time Error: Indicates an internal problem with storage management. The error is usually accompanied by a secondary message, which lists the reason towards the request failure.

Action: Report the entire incident context to your GT.M support channel.

FREEZE

FREEZE, Region: xxxx is already frozen

DSE/MUPIP Information: MUPIP FREEZE or DSE CHANGE commands generate this error if the region is already frozen.

Action: If the existing FREEZE is appropriate, no further action is necessary. If you decide to remove the prior FREEZE, issue a FREEZE command with the OFF qualifier.

FREEZECTRL

FREEZECTRL, Control Y or control C encountered during attempt to freeze the database. Aborting freeze.

MUPIP Information: This indicates that the user aborted the MUPIP FREEZE or MUPIP BACKUP/NOONLINE command; while the command was attempting to freeze the already frozen database.

Action: -

FREEZEERR

FREEZEERR, Error while trying to ffff region rrrr

MUPIP Error: This indicates an unsuccessful database freeze or unfreeze (ffff) operation on region rrrr.

Action: Look for accompanying text that explains the cause of the error and take appropriate action.

FSEXP

FSEXP, File specification expected but not found

Run Time Error: This indicates that a \$ZROUTINES-related action did not specify a valid file-specification.

Action: Look for missing brackets.

FSYNCTIMOUT

FSYNCTIMOUT, Timed out on fsync for journal file xxxx

Run Time Error: This indicates that the process has been unable to get the journal flush lock on the journal file for nearly two minutes and has timed out. It is very likely that another process is holding the journal flush lock, wanting to do an fsync() on the journal file and has not released it so long, which would suggest an issue with disk subsystem response times.

Action: Check the disk subsystem for a software or hardware problem.

FTOKERR

FTOKERR, Error getting ftok of the file xxxx

Run Time Error: This indicates that GT.M failed to take ftok of the database.

Action: Review the accompanying message(s) to identify the cause of the failure.

FTOKKEY

FTOKKEY, FTOK key 0xnxxx

MUPIP Information: This message reports additional information for an associated error which had trouble with the FTOK key 0xnxxx.

Action: Check "ipcs -s" for the given key, and see the associated error.

GBLEXPECTED

GBLEXPECTED, Global variable reference expected in this context

Run Time/MUPIP Error: This message indicates an attempt to apply a trigger definition to something other than a global variable.

Action: Review and correct the trigger definition.

GBLMODFAIL

GBLMODFAIL, Global variable Conflict Test failed. Failure code: xxxx.

Run Time Error: This indicates that a \$ZQGBLMOD function encountered an integrity error while restoring from a failover. It is very likely that the database may have integrity errors or that the process-private data structures are corrupted.

Action: Report this error to the group responsible for database integrity at your operation.

GBLNAMCOLLRANGE

GBLNAMCOLLRANGE, Collation sequence #nnnn is out of range (0 thru 255)

GDE Error: This indicates that the collation sequence nnnn is out of the supported range of 0 thru 255.

Action: Specify a collation sequence number inside the supported range.

GBLNAMCOLLUNDEF

GBLNAMCOLLUNDEF, Error opening shared library of collation sequence #nnnn for GBLNAME gggg

GDE Error: This indicates that there was an error opening the shared library for collation sequence nnnn.

Action: Define the environment variable gtm_collate_<nnnn> to point to the shared library for collation sequence nnnn. Also ensure the path to the library is readable and the library is usable on that platform.

GBLNAMCOLLVER

GBLNAMCOLLVER, Global directory indicates GBLNAME gggg has collation sequence #nnnn with a version #vvvv but shared library reports different version #llll

GDE Error: This indicates that the shared library for collation sequence nnnn reported the version as vvvv when collation properties for global name gggg were first added by GDE into the global directory and that this invocation of GDE noticed the shared library reporting an incompatible version llll.

Action: See Action section for COLLTYPVERSION error in the GT.M Message and Recovery Procedures Manual.

GBLNAME

GBLNAME, Either an identifier or a left parenthesis is expected after a ^ in this context

Compile Time Error: This indicates that GT.M encountered a circumflex in a valid location for a global variable name; however, the circumflex was not followed by a variable name or a left parenthesis.

Action: Look for unwanted circumflexes in expressions. Ensure that global variable names are valid.

GBLNAMEIS

GBLNAMEIS, in gblname gggg

GDE Information: This indicates the gblname where an out-of-range value was specified. This is usually a secondary message and is preceded by a VALTOOSMALL or VALTOOBIG error.

Action: Fixing the preceding error would automatically address this accompanying informational message.

GBLNOEXIST

GBLNOEXIST, Global xxxx no longer exists

MUPIP Information: The specified global variable does not exist in the database. This indicates that the global variable xxxx was present when MUPIP reorg started, but was killed when reorg was working on it.

Action: -

GBLNOMAPTOREG

No longer in GT.M since: V6.1-BL03

GBLNOMAPTOREG, Global gggg does not map to region rrrr in current global directory

Run Time Error: Run Time Error: This indicates that a VIEW "YDIRTREE" or \$VIEW("YDIRTREE") was done with global gggg and region rrrr as parameters but the global does not map to that region in the current global directory.

Action: VIEW "YDIRTREE" or \$VIEW("YDIRTREE") is an undocumented feature and so should NOT be used directly. \$\$get^%GBLDEF is the only tool that uses this but internally catches the GBLNOMAPTOREG error. This means the GBLNOMAPTOREG error message will never be visible to the end-user.

GBLOFLOW

GBLOFLOW, Database file FFFF is full

Run Time/MUPIP Error: This indicates that an error was encountered while extending database file FFFF.

Action: Examine the accompanying message(s) for the cause of the error. If the error is due to insufficient authorization, address that. If the error is due to TOTALBLKMAX (refer to the explanation of that message) or a lack of enough free space on the disk to fit the size of a database file, try performing a KILL of some nodes in the database to get free blocks in the existing allocated space (you may need to KILL several subscripted nodes before you can KILL a name node).

GBLSECNOTGDS

GBLSECNOTGDS, Global section xxxx is not a GT.M global section

Run Time Error: This indicates that when attempting to startup a database file, GT.M encountered an existing global section whose contents it did not recognize.

Action: Investigate whether you have a global section name conflict between GT.M and some other application. GT.M uses GT\$ as a prefix for all global section names that it creates. Make sure no other application in the system is using the same naming convention; it is very likely the global section contents are damaged. If necessary, report the entire incident context to your GT.M support channel.

GDCREATE

GDCREATE, Creating global directory File xxxx

GDE Information: This indicates that an EXIT command caused GDE to write a new Global Directory into file xxxx.

Action: N/A

GDEASYNCIONOMM

GDEASYNCIONOMM, ssss segment has ASYNCIO turned on. Cannot support MM access method

GDE Error: This indicates that segment ssss has enabled ASYNCIO, which is not compatible with the MM access method.

Action: For MM do not use ASYNCIO; in order to choose ASYNCIO, use the BG access method.

GDECHECK

GDECHECK, Internal GDE consistency check

GDE Fatal: This indicates that an internal consistency check failed.

Action: Look in the user's current working directory for a GDEDUMP.DMP context file that your GT.M support channel can examine to help determine the cause of the error. If necessary, report the entire incident context to your GT.M support channel.

GDECRYPTNOMM

GDECRYPTNOMM, ssss segment has encryption turned on. Cannot support MM access method

GDE Error: This error is triggered by an attempt to mark an MM database segment ssss as encrypted with GDE. The MM access method is not supported for encrypted databases.

Action: Use the BG access method for encrypted files.

GDELOGFAIL

GDELOGFAIL, GDE failed to log command. Check operator log for more information

GDE Error: This message appears when LGDE is specified with the AZA_ENABLE facility and there is a problem with logging the GDE commands. This message also prevents the execution of the GDE command.

Action: Review the operator log for the exact reason of the failure to log the GDE command

GDINVALID

GDINVALID, Unrecognized Global Directory file format: ffff, expected label: eeee, found: bbbb

Run Time Error: This indicates that a version of the global directory file ffff does not match with the version expected by GT.M. The file might have been created by an incompatible GT.M version. If the text of eeee or bbbb contain non-graphic characters, GT.M replaces each of them with a period (.).

Action: Compare the labels eeee and bbbb. If the global directory was created by an earlier GT.M version, upgrade the file by loading and then saving the file using the GDE of the new GT.M version.

GDNOTSET

GDNOTSET, Global Directory not changed because the current GD cannot be written

GDE Information: This indicates that GDE could not complete a SETGD command because it could not verify the current Global Directory. This prevented a write of the current information.

Action: Either modify the current Global Directory or abandon it by adding the QUIT qualifier to the SETGD command.

GDREADERR

GDREADERR, Error reading Global Directory: xxxx

GDE Information: This indicates that GDE encountered an error when it attempted to read the existing Global Directory in file xxxx.

Action: Review the accompanying message(s) for additional information.

GDUNKNFMT

GDUNKNFMT, xxxx is not formatted as a global directory

GDE Information: This indicates that GDE could not load the specified file xxxx because it is not a valid Global Directory file. GDE aborts the load after it issues this message.

Action: Verify that the file is valid and look for typographical errors. Something other than GT.M or its utilities may have written to the Global Directory file or created a file with a name that coincides with the one specified by GTM\$GBLDIR / gtmgbldir.

GDUPDATE

GDUPDATE, Updating Global Directory File xxxx

GDE Information: This indicates that an EXIT or SETGD command caused GDE to write a new version of the existing Global Directory in file xxxx.

Action: -

GDUSEDEFS

GDUSEDEFS, Using defaults for Global Directory xxxx

GDE Information: This indicates that GDE did not find an existing Global Directory using the logical name GTM\$GBLDIR / gtmgbldir. As a result, it is starting the session with default values.

Action: -

GETADDRINFO

GETADDRINFO, Error in getting address info

Run Time Error: This message indicates a problem converting a host name to an IP address.

Action: See associated TEXT message for more details. Check host names used for replication, backup, SOCKET devices, or GT.CM.

GETCWD

No longer in GT.M since: V4.0-001E

GETCWD, Error getting current working directory for file xxxx

Run Time/MUPIP Error: This indicates that GT.M could not get the full path of current working directory.

Action: Review up the accompanying message(s) for additional information.

GETNAMEINFO

GETNAMEINFO, Error in getting name info

Run Time Error: This message indicates a problem converting an IP address to a readable format.

Action: See associated TEXT message for more details. Report the error to your GT.M support channel.

GETSOCKNAMERR

GETSOCKNAMERR, Getting the socket name failed from getsockname(): (errno==aaaa) xxxx

Run Time Error: This indicates getsockname() system call, which retrieves the locally bound address of the specified socket, failed.

Action: Review the accompanying messages and error code.

GETSOCKOPTERR

GETSOCKOPTERR, Getting the socket attribute xxxx failed: (errno == yyyy) zzzz

Run Time Error: This indicates that an attempt to determine a socket's attributes failed.

Action: Consider the OPEN or USE deviceparameters, and the error code.

GOQPREC

GOQPREC, Numeric precision in key error: Blk #xxxx, Key #yyyy. Record not loaded.

MUPIP Information: This indicates that GT.M was unable to precisely represent a key in the GOQ input file to a MUPIP LOAD.

Action: Examine the key on the source system, modify it, and repeat the process, or manually enter the modified record into GT.M.

GTMASSET

GTMASSET, xxxx - assert failed yyyy line zzzz

Compile Time/Run Time Fatal: This indicates that a design assumption failed at the location specified.

Action: Preserve the core (dump) files and report the entire incident context to your GT.M support channel for further analysis. If appropriate, verify database integrity by using the -FAST qualifier.

GTMASSERT2

GTMASSERT2, GT.M eeee - Assert failed LLLL for expression (eeee)

Compile Time/Run Time Fatal: This indicates a design assumption failed at the location LLLL because the expression eeee was FALSE.

Action: Preserve the core (dump) files and report the entire incident context to your GT.M support channel for further analysis. If appropriate, verify database integrity by using the -FAST qualifier.

GTMCHECK

GTMCHECK, Internal GT.M error. Report to GT.M Support.

Compile Time/Run Time Fatal: This indicates that a design assumption failed at the location specified.

Action: Preserve the core (dump) files and report the entire incident context to your GT.M support channel for further analysis. If appropriate, verify database integrity by using the -FAST qualifier.

GTMCURUNSUPP

GTMCURUNSUPP, The requested operation is unsupported in this version of GT.M

All GT.M Components Error: GT.M tried to perform an operation that is unsupported in the current version. Currently this is only thrown by GT.M when trying to perform an upgrade/downgrade operation.

Action: GT.M does not currently support upgrade/downgrade between V6 and V7 databases. This feature will be added in a future release.

GTMDISTUNDEF

GTMDISTUNDEF, Environmental variable \$gtm_dist is not defined

DSE/Run Time/MUPIP/LKE Error: This indicates that the environment variable gtm_dist, is not defined for all processes attempting to use (a particular version of) GT.M.

Action: Define the environment variable.

GTMDISTUNVERIF

GTMDISTUNVERIF, Environment variable \$gtm_dist (dddd) could not be verified against the executables path (pppp)

MUPIP/LKE/GT.CM/DSE/Run Time Error: This indicates that the executable pppp does not reside in the path pointed to by environment variable gtm_dist, dddd.

Action: Ensure that the setting for \$gtm_dist matches that of the executable.

GTMDUMPFAIL

GTMDUMPFAIL, Could not create DUMP FILE

Run Time Error: This indicates that an unanticipated error caused GT.M to attempt to create a context file GTMDUMP.DMP in the SYS\$LOGIN directory of the process. GT.M could not create the file.

Action: Verify that privileges are appropriately assigned and that adequate disk space exists (usually less than 100 host blocks).

GTMEISDIR

GTMEISDIR, dddd : Is a directory

Run Time Error: The file dddd opened for reading is a directory. Directories cannot be opened for reading.

Action: Check the argument to the OPEN for the appropriate file and its path.

GTMERREXIT

GTMERREXIT, GTM image has exited with errors

Run Time Error: Seen when GT.M on VMS is exiting due to a FATAL error (previously displayed) but wishes to exit with error status and not generate a dump file (if SET PROC/DUMP were in effect).

Action: See previous FATAL error.

GTMSECSHR

GTMSECSHR, xxxx Error during GTMSECSHR operation

Run Time Error: This indicates that user privileges do not allow access to GTMSECSHR; or GTMSECSHR was not properly installed.

Action: Verify that SECSHR is properly installed and review user privileges in the SECSHR log file.

GTMSECSHRBADDIR

GTMSECSHRBADDIR, gtmsecshr is not running from \$gtm_dist/gtmsecshrdir or \$gtm_dist cannot be determined

Run Time Error: This message indicates an inappropriate gtmsecshr invocation. Either gtmsecshr is improperly installed or an inappropriate access attempt is underway.

Action: Verify that GT.M (and gtmsecshr) are correctly installed following FIS documented procedures and that filesystem mount points have not changed. If GT.M is correctly installed and filesystem mount points have not changed, investigate this as an attempt to break system security.

GTMSECSHRCHDIRF

GTMSECSHRCHDIRF, gtmsecshr unable to chdir to its temporary directory (dddd). GTMSECSHR process error: GTMSECSHR is not able to change directory to its temporary directory, dddd.

GTMSECSHR Error: The UNIX gtmsecshr process, which assists other process with cross-user signaling and similar things, uses a temporary directory determined by the operating system defined temporary directory (typically /tmp or /var/tmp) when it needs to save a core file, but it was unable to find that directory.

Action: Verify that the environment provides the desired dddd, that dddd exists and that it is a directory.



the permissions on dddd should not matter (as long as it is a directory) since GTMSECSHR runs as root.

GTMSECSHRDEFLOG

No longer in GT.M since: V5.5-000

GTMSECSHRDEFLOG, \$gtm_log is either undefined or not defined to an absolute path, so gtm_log is set the default xxxx

Run Time Information: This indicates that GTMSECSHR has selected the default log file described in the message because the environment variable was not defined or had an unsuitable definition.

Action: When specifying the log file, be sure to select a full path and define the environment variable gtm_log properly.

GTMSECSHRDMNSTARTED

GTMSECSHRDMNSTARTED, [client pid pppp] File (ffff) removed

GTMSECSHR Information: This message indicates that GTMSECSHR removed file ffff on behalf of process pppp.

Action: N/A

GTMSECSHRFORKF

GTMSECSHRFORKF, GTMSECSHR server unable to fork off a child process

Run Time Error: This indicates that a GTMSECSHR was unsuccessful in starting because it was unable to create an independent process to run as a daemon.

Action: Refer to the associated message(s) for more information.

GTMSECSHRGETSEMFAIL

GTMSECSHRGETSEMFAIL, error getting semaphore errno = xxxx

GTMSECSHR Error: This error indicates that GTMSECSHR failed to obtain a semaphore set identifier for a specific IPC key during process termination, and that the error code returned by semget() is xxxx.

Action: The IPC resources that GTMSECSHR uses should be unique to GT.M, and this message indicates an unexpected condition. Investigate whether other software is using IPC resources in a way that conflicts with GT.M. If you can't find an explanation, report the entire incident context to your GT.M support channel.

GTMSECSHRISNOT

GTMSECSHRISNOT, GTMSECSHRISNOTgtmsecshr is not running as gtmsecshr but xxxxxx - must be gtmsecshr

Run Time Error: gtmsecshr is running with a name other than the one it is allowed to run by design.

Action: Verify that GT.M (and gtmsecshr) are correctly installed following FIS documented procedures and that filesystem mount points have not changed. If GT.M is correctly installed and filesystem mount points have not changed, investigate this as an attempt to break system security.

GTMSECSHRLOGF

No longer in GT.M since: V5.5-000

GTMSECSHRLOGF, XXXX - YYYY; Error while creating GTMSECSHR log file

Run Time Warning: This indicates that the [UNIX] GTMSECSHR daemon was not able to create its log file.

Action: Check the accompanying message(s) for additional information. Check gtm_log environment variable.

GTMSECSHRLOGSWH

No longer in GT.M since: V5.5-000

GTMSECSHRLOGSWH, Error switching GTMSECSHR log file

Run Time Error: This indicates that an operator attempt to start a new log file failed.

Action: Refer to the associated message(s) for more information.

GTMSECSHRNOARG0

GTMSECSHRNOARG0, GTMSECSHRNOARG0gtmsecshr cannot identify its origin - argv[0] is null

Run Time Error: This message occurs when gtmsecshr is called in an inappropriate manner by facilities other those allowed by design (like the gtmsecshr wrapper).

Action: Investigate this as an attempt to break system security.

GTMSECSHROPCMP

GTMSECSHROPCMP, GTMSECSHR operation may be compromised

Run Time Error: This indicates that GTMSECSHR could not acquire the privileges required to assist more than a restricted set of processes.

Action: If this is the proper mode of operation, ignore the warning. Normally GTMSECSHR should be a setuid executable owned by root.

GTMSECSHRPERM

GTMSECSHRPERM, The gtmsecshr module in \$gtm_dist (DDDD) does not have the correct permission and uid (permission: PPPP, and UID: UUUU)

Run Time Error: This indicates that a client did not start GTMSECSHR, installed in DDDD, because the executable was not owned by root (UUUU is the actual owner) and/or did not have setuid and/or execute permissions (actual permissions are PPPP).

Action: Arrange to provide the GTMSECSHR executable with the proper characteristics. The executable must be SETUID root with execute permissions for the current user.

GTMSECSHRRECVF

GTMSECSHRRECVF, GTMSECSHR receive on server socket failed

Run Time Error: This indicates that a receive operation failed in GTMSECSHR.

Action: Refer to the associated message(s) for more information.

GTMSECSHRREMFIL

GTMSECSHRREMFIL, [client pid pppp] File (ffff) removed

GTMSECSHR/Operator log Information: This message indicates that GTMSECSHR removed file ffff on behalf of process pppp.

Action: -

GTMSECSHRREMSEM

GTMSECSHRREMSEM, [client pid pppp] Semaphore (ssss) removed

GTMSECSHR Error: This message indicates that GTMSECSHR removed a semaphore identified by the key ssss on behalf of process pppp.

Action: This is benign. No action necessary.

GTMSECSHRREMSEMFAIL

GTMSECSHRREMSEMFAIL, error removing semaphore errno = xxxx

GTMSECSHR Error: This error indicates that GTMSECSHR failed to remove a semaphore set identified by a specific IPC key during process termination, and that the error code returned by semctl() is xxxx.

Action: The IPC resources that GTMSECSHR uses should be unique to GT.M, and this message indicates an unexpected condition. Investigate whether other software is using IPC resources in a way that conflicts with GT.M. If you can't find an explanation, report the entire incident context to your GT.M support channel.

GTMSECSHRREMSHM

GTMSECSHRREMSHM, [client pid pppp] Shared memory segment (ssss) removed, natch = nnnn

GTMSECSHR Information: This message indicates that GTMSECSHR removed a shared memory segment identified by the key ssss on behalf of process pppp, and that there were nnnn processes attached to that segment.

Action: N/A

GTMSECSHRCKSEL

GTMSECSHRCKSEL, GTMSECSHR select on socket failed

Run Time Error: This indicates that a select operation failed in GTMSECSHR.

Action: Refer to the associated message(s) for more information.

GTMSECSHRSEMGET

GTMSECSHRSEMGET, semget error errno = xxxx

GTMSECSHR Error: This error indicates that GTMSECSHR process failed to obtain a semaphore set identifier for a specific IPC key, and that the error code returned by semget() is xxxx.

Action: Consult your system administrator to ensure semaphores are appropriately configured.

GTMSECSHRSEPDF

GTMSECSHRSEPDF, GTMSECSHR send on server socket failed

Run Time Error: This indicates that a socket operation failed in a GTMSECSHR.

Action: Refer to the associated message(s) for more information.

GTMSECSHRSGIDF

GTMSECSHRSGIDF, GTMSECSHR server setGID to root failed

Run Time Error: This indicates that the setgid operation failed during GTMSECSHR startup.

Action: Refer to the associated message(s) for more information.

GTMSECSHRSHMCONCPROC

GTMSECSHRSHMCONCPROC, More than one process attached to Shared memory segment (ssss) not removed (nnnn)

GTMSECSHR Error: This error indicates that the shared memory segment identified by the key ssss has not been removed because nnnn processes are currently attached to it.

Action: The IPC resources that GTMSECSHR uses should be unique to GT.M, and this message indicates an unexpected condition. Investigate whether other software is using IPC resources in a way that conflicts with GT.M. If you can't find an explanation, report the entire incident context to your GT.M support channel.

GTMSECSHRSHUTDN

GTMSECSHRSHUTDN, GTMSECSHR process has received a shutdown request. Shutting down.

Run Time Information: This indicates that the GTMSECSHR daemon has shutdown.

Action: -

GTMSECSHRSOCKET

GTMSECSHRSOCKET, xxxx - yyyy; Error initializing GTMSECSHR socket

Run Time Error: This indicates that a GT.M process or GTMSECSHR with PID yyyy was unable to open a socket for communication with either the server or client.

Action: Refer to the associated message(s) for more information.

GTMSECSHRSRVF

GTMSECSHRSRVF, Client - yyyy; Attempt to service request failed (retry = zzzz)

Run Time Error: This indicates that a GT.M process with PID yyyy was unable to communicate with gtmsecshr after zzzz attempts (a maximum of four retries).

Action: This message is displayed when a process that needs service from gtmsecshr, cannot communicate with gtmsecshr, or cannot start one. While the most likely cause is a mismatch in the value of the gtm_tmp environment variable between the GT.M process and the gtmsecshr process, examples of other causes include removal of socket files used for communication between GT.M and gtmsecshr processes. Check for a following associated message in syslog or in the stderr of the GT.M process.

GTMSECSHRSRVFD

GTMSECSHRSRVFD, xxxx: yyyy - Attempt to service request failed. Client ID: zzzz, mesg ID: aaaa, mesg code: bbbb

Run Time Warning: This indicates that the GTMSECSHR was unable to complete the request of GT.M client.

Action: Examine the information in the message to see whether the message is appropriate to the environment; examine the environment and correct any inappropriate set up (such as the privileges available for GTMSECSHR).

GTMSECSHRSRVFIL

GTMSECSHRSRVFIL, xxxx: yyyy; Attempt to service request failed. Client ID: zzzz, mesg type: aaaa, file: bbbb

GTMSECSHR Warning: This indicates that the GTMSECSHR was unable to complete the request of GT.M client.

Action: Review accompanying message(s) for information on why GTMSECSHR could not delete the file.

GTMSECSHRSSIDF

GTMSECSHRSSIDF, GTMSECSHR server setSID failed

Run Time Error: This indicates that the setsid operation failed during GTMSECSHR startup.

Action: Refer to the associated message(s) for more information.

GTMSECSHRSTART

GTMSECSHRSTART, xxxx - yyyy; GTMSECSHR failed to startup

Run Time Warning: This indicates that GTMSECSHR startup failed.

Action: Refer to the associated message(s) for more information.

GTMSECSHRSUIDF

GTMSECSHRSUIDF, GTMSECSHR server setUID to root failed

Run Time Error: This indicates that the setuid operation failed during GTMSECSHR startup.

Action: Refer to the associated message(s) for more information.

GTMSECSHRTMOUT

GTMSECSHRTMOUT, GTMSECSHR exiting due to idle timeout

Run Time Information: This indicates that the GTMSECSHR had been idle long enough to time out and terminate.

Action: No action is required, another GTMSECSHR is started when it is needed.

GTMSECSHRTMPPATH

GTMSECSHRTMPPATH, gtmsecshr path is pppp

Information: GT.M displays this message when different users of an instance of GT.M connect using a socket or a semaphore and when gtmsecshr is started and it detects an existing gtmsecshr. pppp indicates the gtm_tmp path set in the clients. Gtmsecshr inherits the path from the first GT.M process that uses its services.

Action: If different clients of the same instance of GT.M are using different gtmsecshr paths, then set a common value for the environment variable gtm_tmp for all users of an instance of GT.M, then stop and restart the processes that were using incorrect paths. If gtmsecshr itself has the incorrect path, all processes that are using that incorrect path must be stopped first - then stop gtmsecshr with a kill command.

GTMSECSHRUPDDBHDR

GTMSECSHRUPDDBHDR, [client pid pppp] database fileheader (dddd) updated iiiii

GTMSECSHR Information: This message indicates that GTMSECSHR updated database fileheader dddd on behalf of process pppp for the purpose of iiiii.

Action: N/A

GVDATAFAIL

GVDATAFAIL, Global variable \$DATA function failed. Failure code: xxxx

Run Time Error: This indicates that a \$DATA function encountered a database problem. xxxx contains the failure codes for the four attempts. It is very likely that the database may have integrity errors or that the process-private data structures are corrupted.

Action: Report this database error to the group responsible for database integrity at your operation.

GVDATAGETFAIL

GVDATAGETFAIL, Global variable DATAGET sub-operation (in KILL function) failed. Failure code: cccc.

Trigger/Run Time Error: The target node for a KILL operation could not present its state to the trigger logic due to a database problem. cccc contains the failure codes for the failed attempts. The database may have integrity errors or the process-private data structures may be corrupted.

Action: Report this database error to the group responsible for database integrity at your operation.

GVFAILURECORE

GVFAILURECORE, A core file is being generated for later analysis if necessary

Run Time Error: This is an operator log-only message, which indicates that a core (dump) is being generated for the immediately preceding xxxxFailure error message.

Action: Report this database error to the group responsible for database integrity at your operation. If the cause of the xxxxFailure message is not otherwise known (for example, database damage due to recent system crash), the produced core will contain information that your GT.M support channel can use to determine the source of failure (UNIX only).

GVGETFAIL

GVGETFAIL, Global variable retrieval failed. Failure code: xxxx.

Run Time Error: This indicates that a database lookup of a global variable encountered an error. xxxx contains the failure codes for the four attempts. It is very likely that the database may have integrity errors or that the process-private data structures are corrupted.

Action: Report this database error to the group responsible for database integrity at your operation.

GVINCRFAIL

GVINCRFAIL, <Global variable \$INCR failed. Failure code: xxxx>

Run Time Error: This indicates that a \$INCREMENT command encountered a database problem when it attempted to update a global variable. xxxx contains the failure codes for the four attempts. It is very likely that the database may have structural damage or that the process-private data structures are corrupted.

Action: Report this database error to the group responsible for database integrity at your operation.

GVINCRISOLATION

GVINCRISOLATION, <\$INCREMENT cannot be performed on global xxxx as it has NOISOLATION turned ON>

Run Time Error: Global xxxx has NOISOLATION turned ON (through a VIEW "NOISOLATION" command). \$INCREMENT is currently not supported for such globals.

Action: Change the application either to turn OFF NOISOLATION on the global or not use \$INCREMENT on it.

GVINVALID

GVINVALID, xxxx Invalid global name

MUPIP Error: This indicates that LOAD encountered invalid global name xxxx in the input stream.

Action: Refer to the topic MUPIP LOAD Errors in About This Manual section of this manual.

GVIS

GVIS, Global variable: xxxx

Run Time Information: This message identifies a global variable.

Action: Refer to the accompanying message(s) for more information.

GVKILLFAIL

GVKILLFAIL, Global variable kill failed. Failure code: xxxx.

Run Time Error: This indicates that a KILL of a global variable encountered a database problem. xxxx contains the failure codes for the four attempts. It is very likely that the database may have integrity errors or that the process-private data structures are corrupted.

Action: Report this database error to the group responsible for database integrity at your operation.

GVNAKED

GVNAKED, Illegal naked global reference

Run Time Error: This indicates that the naked indicator was referenced before any named global reference or after an event that left it undefined.

Action: Review naked indicator references and correct them, if necessary. For example, the naked indicator cannot be the first global symbol referenced.

GVNAKEDEXTNM

GVNAKEDEXTNM, Cannot reference different Global Directory in a naked reference

Compile Time Error: This indicates that a global variable reference used the environment syntax but did not specify a name.

Action: Verify that the environment specifies a full global name.

GVNEXTARG

GVNEXTARG, Argument to global variable \$NEXT must be subscripted

Compile Time Error: This indicates that an attempt was made to use an un-subscripted global or local variable as the argument for a \$NEXT() function. In contrast to \$ORDER(), which can operate on un-subscripted names, \$NEXT() requires subscripted names.

Action: Use \$ORDER() or revise the code.

GVORDERFAIL

GVORDERFAIL, Global variable \$ORDER or \$NEXT function failed. Failure code: xxxx.

Run Time Error: This indicates that a \$ORDER or \$NEXT function encountered a database problem. xxxx contains the failure codes for the four attempts. It is very likely that the database may have integrity errors or that the process-private data structures are corrupted.

Action: Report this database error to the group responsible for database integrity at your operation.

GVPUTFAIL

GVPUTFAIL, Global variable put failed. Failure code: xxxx.

Run Time Error: This indicates that a SET command encountered a database problem when it attempted to update a global variable. xxxx contains the failure codes for the four attempts. It is very likely that the database may have integrity errors or that the process-private data structures are corrupted.

Action: Report this database error to the group responsible for database integrity at your operation.

GVQUERYFAIL

GVQUERYFAIL, Global variable \$QUERY function failed. Failure code: xxxx.

Run Time Error: This indicates that a \$QUERY function failed. xxxx contains the failure codes for the four attempts. It is very likely that the database may have integrity errors or that the process-private data structures are corrupted.

Action: Report this database error to the group responsible for database integrity at your operation.

GVQUERYGETFAIL

GVQUERYGETFAIL, Global variable QUERY and GET failed. Failure code: xxxx.

Run Time Error: This indicates that database query and Lookup in the same atomic transaction encountered a problem. xxxx contains the failure codes for the four attempts.

Action: Contact the system administrator and if needed report to your GT.M support channel.

GVREPLERR

GVREPLERR, Error replicating global in region xxxx

Run Time Error: This indicates that the database system successfully updated a global node on the primary copy of the database but it encountered an error making the same update in a replicated copy.

Action: Examine any secondary error. Investigate whether the problem is with the disk where the copy is located or with the communications system to the secondary copy, if it is remote. Correct the problem and resynchronize the copies.

GVRUNDOWN

GVRUNDOWN, Error during global database rundown

Run Time Error: This indicates that the process encountered an error when it attempted to RUNDOWN all database files as part of image termination.

Action: Report this database error to the group responsible for database integrity at your operation.

GVSUBOFLOW

GVSUBOFLOW, The combined length of subscripts (xxxx) is greater than maximum allowed limit (yyyy) for region: zzzz

Run Time/MUPIP Error: This indicates that a global variable reference specified a total subscript length *xxxx* that exceeds the maximum length *yyyy* permitted for region *zzzz*. The region name *zzzz* may be unavailable in some cases. In such instance, use the global name mapping in the Global Directory to find the region. In some instances *xxxx* may exceed the space available for the error message, in which case it ends with "...".

Action: Ensure that the subscript is correct. If appropriate, adjust the key size for the region with MUPIP SET -REGION -KEY=.

GVSUBSERR

GVSUBSERR, GVSUBSERR, Invalid subscripted global name specification in \$VIEW() function

Run Time Error: This indicates that an invalid subscripted global name was specified as the second parameter in a \$VIEW("REGION",namevalue) function call.

Action: Fix the syntax error in the subscripted global name. The subscripted global variable name must be in the form returned by \$NAME(). For example, use \$VIEW("REGION", "^abcd(1,2000)") instead of \$VIEW("REGION", "^abcd(1,2E4)")

GVUNDEF

GVUNDEF, Global variable undefined: *xxxx*

Run Time Error: This indicates that the program attempted to evaluate an undefined global variable.

Action: Review the program flow and the preparation of the environment.

GVZPREVFAIL

GVZPREVFAIL, Global variable \$ZPREVIOUS function failed. Failure code: *xxxx*

Run Time Error: This indicates that a \$ZPREVIOUS function encountered a database problem. *xxxx* contains the failure codes for the four attempts. It is very likely that the database may have integrity errors or that the process-private data structures are corrupted.

Action: Report this database error to the group responsible for database integrity at your operation.

GVZTRIGFAIL

GVZTRIGFAIL, ZTRIGGER of a global variable failed. Failure code: *cccc*.

Run Time Error: A ZTRIGGER command failed because of problems in the database. *cccc* is a list of four codes indicating the reason for the failure on each of the attempts to commit the ZTRIGGER action.

Action: Report this database error to the group responsible for database integrity at your operation.

HEX64ERR

HEX64ERR, Error: cannot convert VVVV value to 64 bit hexadecimal number

All GT.M Components Error: The entered value does not correspond to a valid hexadecimal number representable in no more than 64 binary digits.

Action: Enter an appropriate hexadecimal value starting with 0X, using decimal integers 0-9 and ASCII letters A-F.

HEXERR

HEXERR, Error: cannot convert VVVV value to hexadecimal number

All GT.M Components Error: The entered value does not correspond to a valid hexadecimal number.

Action: Enter an appropriate hexadecimal value starting with 0X, using decimal integers 0-9 and ASCII letters A-F.

HLPPROC

HLPPROC, Helper Process error

MUPIP Error: GT.M replication was not able to start a helper process.

Action: Ensure that the gtm_dist environment variable points to a valid GT.M distribution that is executable by the user.

HOSTCONFLICT

HOSTCONFLICT, Host hhhh could not open database file dddd because it is marked as already open on node nnnn

Run Time Error: The database file (dddd) has already been opened by a host (nnnn) other than the local host (hhhh).

Action: Ensure that host nnnn has closed dddd. Make sure both host names are correct. Changing host names in the middle of a database access can cause this error.

HTEXPFAIL

No longer in GT.M since: V5.3-001A

HTEXPFAIL, Hash table expansion failed for lack of memory

Run Time/MUPIP Error: The hash table, an internally expanding data structure maintained by GT.M, has exceeded its maximum capacity. In GT.M, each unique local variable name uses up some hash table space. In MUPIP, it is backward recovery (or rollback) that might encounter this error. Here each

TP transaction that is encountered in the backward processing phase of recovery uses up some hash table space. In either case, it is more likely that a process will run out of virtual memory much before it reaches the maximum hashtable capacity.

Action: Increase process memory quotas to increase available process virtual memory. Reduce the number of unique local variable names referenced by the GT.M process. For MUPIP backward recovery/rollback, reduce the number of TP transactions encountered in the backward processing phase by using a later timestamp in the SINCE_TIME qualifier or higher RESYNC_SEQNO for rollback.

HTOFLOW

HTOFLOW, Hash table overflow, local or region name space exceeded

Run Time/MUPIP Error: This indicates that the hash table contains too many local names or region names.

Action: Reduce the number of local and region name entries in the table.

HTSHRINKFAIL

HTSHRINKFAIL, Hash table compaction failed to allocate new smaller table due to lack of memory

Run Time Error: GT.M found an internal hash table over-allocated but was unable to reduce its size because the process memory was too large to allocate a new smaller table; GT.M must allocate the new table before it can release the old table because it must copy the contents out of the "too-large" table into the smaller one. After this warning, the process continues running with the larger table.

Action: Investigate whether the process size can be reduced, or the available memory increased.

ICUERROR

ICUERROR, ICU returned status ssss which is either unrecognized or inconsistent with the operating context

Run Time Error: The open-source ICU module which GT.M uses for some Unicode processing return an error code ssss that GT.M did not recognize as valid for the current context.

Action: Consult the ICU documentation and / or refresh the ICU library with a known correct version.

ICUNOTENABLED

ICUNOTENABLED, ICU libraries not loaded

Run Time Warning: The operation required the library containing support for International Components for Unicode (ICU) but GT.M could not find libicu. There may be other messages.

Action: If you require UTF-8 support, install an appropriate ICU library - see the GT.M Administration and Operations Guide for information on ICU setup.

ICUSYMNOTFOUND

ICUSYMNOTFOUND, Symbol xxxxxx not found in ICU libraries. ICU needs to be built with symbol-renaming disabled or gtm_icu_version environment variable needs to be specified

Run Time Error: ICU version installed on the machine is built with symbol renaming and gtm_icu_version has not been defined

Action: Build ICU without symbol renaming or set gtm_icu_version environment variable to point to an appropriate ICU version.

ICUVERT36

ICUVERT36, Type 1 - \$gtm_icu_version is aaa.bbb. ICU version greater than or equal to 3.6 should be used. Type 2 - libicuio has version aaa.bbb. ICU version greater than or equal to 3.6 should be used.

Run Time Error: This message indicates an attempt to use an ICU version less than 3.6 with GT.M or utilities like MUIP or DSE.

Action: Upgrade ICU version to at least 3.6.

IFBADPARAM

IFBADPARAM, External Interface Bad Parameter

Run Time Error: This indicates that an external routine could not access a GT.M database library routine because it had an invalid parameter in its call argument list. The GT.M database library routines allow an external routine to access a GT.M database.

Action: Look for and correct any typographical errors in the call format for the GT.M library routine.

IFNOTINIT

IFNOTINIT, External Interface must first call GTM\$INIT or M routine

Run Time Error: This indicates that an external routine could not access a GT.M database library routine because it did not call the GTM\$INIT library routine first. The GTM\$INIT library routine initializes the GT.M run-time environment.

Action: Call GTM\$INIT or a GT.M M routine before calling any other database access library routine.

IGNBMPMRKFREE

IGNBMPMRKFREE, Ignoring bitmap free-up operation for region rrrr (dddd) due to concurrent ONLINE ROLLBACK

Run Time Information: A multi-node KILL bit map cleanup operation detected a concurrent online rollback in region rrrr mapped to database file dddd, and abandoned the cleanup, possibly leaving incorrectly marked busy errors.

Action: If there are incorrectly marked busy errors, match them with this cause and clean them up using DSE.

ILLCHAR

ILLCHAR, xxxx is not a legal character in this context

GDE Information: This indicates that GDE encountered the invalid character xxxx in its command input stream. This character should never appear in the context in which it was found.

Action: Review and re-enter a valid command sequence.

ILLEGALUSE

ILLEGALUSE, Illegal use of the special character "?" in %GSEL

Utility Error: This is an illegal use of the special character "?" in %GSEL. The special character "?" is not valid as the first character of a global name search pattern. "?" only valid as the first character of a search pattern when invoking the commands "?D" or "?d".

Action: Review and re-enter a valid search pattern.

ILLESOCKBFSIZE

ILLESOCKBFSIZE, The specified socket buffer size is xxxx, which is either 0 or too big

Run Time Error: This indicates that the OPEN command specified an inappropriate buffer size.

Action: Revise the command.

IMAGENAME

IMAGENAME, The executing module name should be xxxx instead of yyyy

Run Time Error: This indicates that the executable invoked should have been named xxxx instead of its current name yyyy.

Action: Revisit the GT.M installation.

INDEXTRACHARS

INDEXTRACHARS, Indirection string contains extra trailing characters

Compile Time Error: This indicates that an indirection string ends with a syntactically incorrect sequence.

Action: Look for extra trailing characters in the indirection string.

INDMAXNEST

No longer in GT.M since: V6.0-000

INDMAXNEST, Maximum nesting of indirection expressions exceeded

Run Time Error: This indicates that indirection nesting required more space than GT.M provides. The space needed by GT.M is a function of the number, type and complexity of the indirect expressions being nested.

Action: Review the program logic and reduce the amount of nested indirection in the routine.

INDRCOMPFAIL

INDRCOMPFAIL, Compilation of indirection failed

Run Time Error: This indicates that an indirection or XECUTE command failed due to syntax errors.

Action: Review the code and make sure the indirection or XECUTE string has valid syntax and contains no non-graphic characters. Consider using \$ZWRITE to identify any such characters.

INDRMAXLEN

INDRMAXLEN, Maximum length xxxxx of an indirection argument was exceeded

Run Time Error: This indicates that an indirection or XECUTE used a value that exceeded the maximum length for a source code element.

Action: Review the the code to shorten the length of the XECUTE or indirection string.

INITORRESUME

INITORRESUME, UPDATERESYNC on a Supplementary Instance must additionally specify INITIALIZE or RESUME

Receiver Server log/MUPIP Error: Issued by a Receiver Server when started with -UPDATERESYNC on a Supplementary Instance which allows local updates, but started without specifying either -INITIALIZE or -RESUME.

Action: Additionally specify -INITIALIZE if this is the first time this supplementary instance is connecting to the source side OR if the receiver side databases have been refreshed from a backup

of the source side. If on the other hand, the receiving instance had already been replicating from the source before and only had its instance file recreated in between, `-RESUME` might be appropriate with the `-UPDATERESYNC`. Check `-RESUME` documentation for more details.

INPINTEG

INPINTEG, Input integrity error -- aborting load

GDE Fatal: This indicates that GDE is aborting the session because integrity errors prevented it from loading the specified Global Directory. GDE usually displays this message with other error messages. GDE aborts the load after issuing this message.

Action: Review the accompanying message(s) for additional information. Verify whether the command specified the intended file. Something other than `GT.M` and its utilities probably wrote to a Global Directory file or created a file with a name identical to the one specified by `GTM$GBLDIR / gtmgblidir`.

INSFFBCNT

INSFFBCNT, Insufficient byte count quota left for requested operation

Run Time Error: This indicates that an `OPEN` or `JOB` command could not establish a mailbox because it would exceed the process OpenVMS `BYTLM`.

Action: Review the I/O flow of the program and make adjustments to minimize concurrently open buffered I/O devices, or talk to your system manager about increasing the user `BYTLM`.

INSNOTJOINED

INSNOTJOINED, Replicating Instance RRRR is not a member of the same Group as Instance IIII

Receiver Server log/MUPIP Error: A Receiver Server or a MUPIP `JOURNAL -ROLLBACK -FETCHRESYNC` on instance RRRR produces this error when it attempts to establish a replication connection with an instance that belongs to a different replication configuration or Group. MUPIP performs this safety check at the time it establishes a replication connection between two instances.

Action: Use the Remote IP Address in the Receiver / Source Server log files or the primary instance name field from `MUPIP REPLICATE -JNLPOOL -SHOW` command to identify the Source Server that may have inadvertently attempted to establish a replication connection with your Source Server. Shut down the Source Server if the Source Server does not belong to your replication configuration. If you are attempting to move a Source Server from a different Group, reinitialize the Source Server. Note that only supplementary instances started with `-UPDOK` can accept updates from a different Group.

INSROLECHANGE

INSROLECHANGE, Supplementary Instance SSSS and non-Supplementary Instance IIII belong to the same Group

Receiver Server log/MUPIP Error: Issued by a Receiver Server or a MUPIP JOURNAL -ROLLBACK -FETCHRESYNC on Supplementary Instance SSSS attempted to connect to non-Supplementary Instance IIII, but found they have the same Group identification. Because supplementary and non-Supplementary Instances cannot belong to the same Group, one of these instances must have changed roles without appropriate re-initialization.

Action: Either reinitialize the instance that is changing roles or revert the inappropriate role change.

INSTFRZDEFER

INSTFRZDEFER, Instance Freeze initiated by eeee error on region rrrr deferred due to critical resource conflict.

Run Time Information: eeee error encountered on region rrrr triggered the Instance Freeze mechanism in an attempt to set the freeze, but couldn't do complete the freeze due to a critical resource conflict. Any process subsequently attempting an update will reattempt the freeze later until one succeeds or the error subsides.

Action: None necessary.

INSUNKNOWN

INSUNKNOWN, Supplementary Instance SSSS has no instance definition for non-Supplementary Instance IIII

Receiver Server log/MUPIP Error: Issued by a Receiver Server or a MUPIP JOURNAL -ROLLBACK -FETCHRESYNC on Supplementary Instance SSSS, started with -UPDOK, attempted to connect to non-Supplementary Instance IIII, but found it has no matching instance information.

Action: Take a backup of the database and replication instance file from a current instance on the non-Supplementary Group, load the backup data on the Supplementary Instance and start the Receiver Server on the supplementary instance using -UPDATERESYNC=<instbak.repl> where instbak.repl is the backup of the replication instance file taken along with the database backup.

INTEGERRS

INTEGERRS, Database integrity errors

MUPIP Error: This indicates that INTEG encountered one or more errors in the database file.

Action: Review the accompanying errors for more information, and report this database error to the group responsible for database integrity at your operation.

INVACCMETHOD

INVACCMETHOD, Invalid access method

MUPIP Error: This indicates that the user specified an invalid access method in a MUPIP SET command.

Action: This command can only use Memory Map (MM) or Buffered Globals (BG) access methods.

INVADDRSPEC

INVADDRSPEC, Invalid IP address specification

Run Time Error: This indicates the IP address and/or port specified is not in a valid format.

Action: Verify and correct the IP address and port.

INVALIDAUODELDB

INVALIDAUODELDB, Autodelete DB must be specified as non-journaled autodb

GDE Error: The AUTODELETE region qualifier cannot be used with a -JOURNAL qualifier.

Action: Use an appropriate combination of qualifiers

INVALIDGBL

INVALIDGBL, Search pattern is invalid

Utility Error: The search pattern used is invalid due to either using invalid characters or improper formatting.

Action: Review and re-enter a valid search pattern

INVALIDRIP

INVALIDRIP, Invalid read-in-progress field in Cache Record. Resetting and continuing. Region: xxxx.

Run Time Error: This indicates that the read-in-progress field corresponding to a particular global buffer had an invalid value. The read-in-progress field usually indicates whether this global buffer is currently being read into from disk or not, and hence takes on two values only. Whenever the field takes on any value outside of these two, GT.M detects the situation and corrects it in addition to logging this incident in the operator log.

Action: Report the operator log message with any other relevant information to your GT.M support channel.

INVBITLEN

INVBITLEN, Invalid size of the bit string

Run Time Error: This indicates that an attempt was made to create a bit string of size less than 1 or more than 253,952 bits.

Action: Modify the code so it adheres to the permitted range.

INVBITPOS

INVBITPOS, Invalid position in the bit string

Compile Time/Run Time Error: This indicates that GT.M encountered a bit position argument to a \$ZBITGET or \$ZBITSET function that exceeded the length of the bit string, or was less than one (1).

Action: Use \$ZBITLEN() to modify the code so the bit reference falls within the allocated length of the bit string.

INVBITSTR

INVBITSTR, Invalid bit string

Run Time Error: This indicates that an attempt was made to use a bit string with a leading character that was not within the permitted range of values.

Action: Determine the source for the first character of the bit string and modify the method of its creation to limit possible values to the valid range of 0 to 7.

INVCMD

INVCMD, Invalid command keyword encountered

Compile Time Warning: This indicates that the program attempted to use an invalid keyword where a command was expected.

Action: Look for typographical errors or improper command abbreviations.

INVCTLMNE

INVCTLMNE, Invalid control mnemonics

Run Time Error: The current device does not support the specified controlmnemonic.

Action: Check the spelling of the controlmnemonic, and be sure the mnemonicspace (if any) for the current device supports the requested usage of the controlmnemonic.

INVDLRCVAL

INVDLRCVAL, Invalid \$CHAR() value.

Run Time Error: The \$CHAR() function triggers this error if its arguments contains an invalid code-point. According to the Unicode Standard version 5.0, invalid code-points include the following sets:

1. The "too big" code-points (those greater than the maximum U+10FFFF).
2. The "surrogate" code-points (in the range [U+D800, U+DFFF]) which are reserved for UTF-16 encoding.
3. The "non-character" code-points that are always guaranteed to be not assigned to any valid characters. This set consists of [U+FDD0, U+FDEF] and all U+nFFFE and U+nFFFF (for each n from 0x0 to 0x10).

Action: Specify argument in the range of valid Unicode code-points.

INVECODEVAL

INVECODEVAL, Invalid value for \$ECODE (xxxx).

Run Time Error: This indicates that an attempt was made to assign \$ECODE an invalid value. Such an action modifies \$ECODE to have a valid value indicating this error, which triggers an error trap.

Action: Revise the SET \$ECODE value complies with the required specification of the error codes of the format ,Mnnn,Zxxx,Uxxx,. The error codes in the form of ,Mnnn,, ,Zxxx, and ,Uxxx, represent ANSI standard codes, implementation-specific codes and end-user defined codes respectively.

INVEORLIM

INVEORLIM, Invalid ERROR_LIMIT qualifier value. Must be at least zero

MUPIP Error: This indicates that the value assigned to the ERROR_LIMIT qualifier is negative (less than zero).

Action: Assign a value greater than zero (0) for ERROR_LIMIT qualifier.

INVFCN

INVFCN, Invalid function name

Compile Time Error: This indicates that an expression contained a string of the form "\$name(...)", but "name" was not a valid function name.

Action: Look for typographical errors, improper function name abbreviation, or a missing \$ in an extrinsic.

INVGBLDIR

INVGBLDIR, Invalid Global Directory spec: xxxx. Continuing with yyyy.

GDE Information: This indicates that the Global Directory xxxx specified by GTM\$GBLDIR / gtmgblidir or by SETGD and the qualifier FILE= is not a valid file-specification.

Action: When this error occurs, GDE uses the default specification of the current process default directory. Continue with the default and rename the result after leaving GDE, or change the specification with a SETGD command and the FILE= qualifier.

INVGLOBALQUAL

INVGLOBALQUAL, Error in GLOBAL qualifier : Parse error at offset xxxx in yyyy

MUPIP Error: This indicates a syntax error in GLOBAL qualifier value yyyy at offset xxxx.

Action: Specify correct value for GLOBAL.

INVGTMEXIT

INVGTMEXIT, Inappropriate invocation of gtm_exit. gtm_exit cannot be invoked from external calls.

Call in/Run Time Error: This indicates that the call-in shut-down function gtm_exit() has been called from an external call C function. Since the GT.M run-time system must be operational even after the external call function returns, gtm_exit() is meant to be called only once during a process lifetime, and only from the base C/C++ program when GT.M functions are no longer required by the program.

Action: Remove all invocations of gtm_exit() from external call functions.

INVGVPATQUAL

INVGVPATQUAL, Invalid Global Value Pattern file qualifier value

MUPIP Error: This indicates that -GVPATFILE did not specify a valid file name. The maximum file name length is 256.

Action: Specify a valid file name with the appropriate path.

INVICUVER

No longer in GT.M since: V5.3-004

INVICUVER, xxx not found in the ICU libraries. ICU version 3.6.x must be used.

Run Time Error: GT.M triggers this error when it encounters an incompatible ICU version.

Action: Install ICU version 3.6.x. See "V5.2-000 Release Notes" for instructions on installing ICU Version 3.6.x on a supported platform.

INVIDQUAL

INVIDQUAL, Invalid ID qualifier value xxxx

MUPIP Error: This indicates that an invalid value xxxx was assigned to the ID qualifier.

Action: Assign a valid value for ID qualifier.

INVINTMSG

INVINTMSG, Invalid interrupt message received

GT.CM Error: An invalid interrupt request was received. This may indicate a network problem.

Action: Check the DECnet error logs and other network components.

INVLINKTMPDIR

INVLINKTMPDIR, Value for \$gtm_linktmpdir is either not found or not a directory: dddd

Run Time Error: Indicates the process cannot access directory dddd, which it needs in order to do auto-relink as specified by its \$ZROUTINES; the directory may not exist as a directory or the process lacks authorization to the directory.

Action: The directory specification comes from \$gtm_linktmpdir if it is defined, otherwise from \$gtm_tmp if that is defined; otherwise it defaults to the system temporary directory, typically /tmp. Either correct the environment variable definition or ensure directory dddd is appropriately set up. Note that all users of auto-relink for a directory normally need to use the same temporary directory for their relink control files.

INVLOCALE

INVLOCALE, Attempt to reset locale to supplied value of \$gtm_locale xxxx failed

All GT.M Components Error: GT.M found the value of \$gtm_locale xxxx did not specify a valid currently supported local

Action: Correct the locale setup and restart the process.

INVMEMRESRV

INVMEMRESRV, Could not allocate GT.M memory reserve (xxxx)

Images Warning: GT.M could not allocate xxxx KiB of reserve memory for handling and reporting out-of-memory conditions. Examine the subsequent messages for more information on why the memory reserve allocation failed.

Action: If \$gtm_memory_reserve is too high, specify a lower value and retry. If the value is reasonable, determine what else is preventing the allocation (process or system limits or usage by other system components). Note that GT.M uses this reserve only when a process runs out of memory so it mostly requires address space and almost never requires actual memory.

INVMNEMCSPC

INVMNEMCSPC, Unsupported mnemonicspace xxxx

Run Time Error: The mnemonicspace xxxx specified in an OPEN command is not supported by GT.M.

Action: Replace the mnemonicspace with a supported one.

INVMVXSZ

INVMVXSZ, Invalid block size for GOQ load format

MUPIP Error: This indicates that the LOAD command with the qualifier FORMAT=GOQ determined that the input file did not have the proper block size for that format.

Action: Determine how the file was created and use the proper specification for the FORMAT= qualifier.

INVNETFILNM

INVNETFILNM, Invalid file name following node designation in global directory

GT.CM Error: This indicates that the GT.CM Server received a node name that does not exist on the network.

Action: Use GDE to check the Global Directory on the originating node for typographical errors in a remote node file-specification.

INVOBJ

INVOBJ, Cannot ZLINK object file due to unexpected format

Run Time Error: This indicates that ZLINK encountered invalid records in the object file it was trying to integrate into the image.

Action: Determine whether ZLINK has the intended argument. If the object file has been damaged, recreate it with a ZLINK that specifies the source file using an .M extension.

INVOBJFILE

INVOBJFILE, Cannot ZLINK object file ffff due to unexpected format

Run Time Error: This indicates that ZLINK encountered invalid records in the object file ffff it was trying to integrate into the image.

Action: Determine whether ZLINK has the intended argument. If the object file has been damaged, recreate it with a ZLINK that specifies the source file using an .M extension, a ZCOMPILE or a mumps command at the shell.

INVPORTSPEC

INVPORTSPEC, Invalid port specification

Run Time Error: This indicates that the OPEN command socket parameter contained an invalid port number.

Action: Redefine the socket parameter to a value between 0 and 65535.

INVPROT

INVPROT, Invalid protocol specified by remote partner

GT.CM Error: This indicates that the remote networked system used a protocol incompatible with the locally installed version of GT.CM.

Action: Verify that both systems have compatible versions of GT.CM installed.

INVQUALTIME

INVQUALTIME, Invalid time qualifier value. Specify as xxxx=delta_or_absolute_time.

MUPIP Error: This indicates that time qualifier value specified for xxxx is invalid.

Action: Reissue the command with correct syntax.

INVREDIRQUAL

INVREDIRQUAL, Invalid REDIRECT qualifier value. xxxx

MUPIP Error: This indicates a syntax error in REDIRECT qualifier value.

Action: Reissue the command with correct syntax for REDIRECT.

INVROLLBKLVL

INVROLLBKLVL, Rollback level (xxxx) not less than the current \$tlevel (yyyy). Cannot rollback.

Run Time Error: This indicates that the application is attempting to ROLLBACK to a transaction level that is zero (0) or negative. The minimum transaction level that an application can be rolled back to is one (1).

Action: Review the logic and code path that led to the error and modify the code appropriately.

INVSEQNOQUAL

INVSEQNOQUAL, Invalid SEQNO qualifier value xxxx

MUPIP Error: This error indicates that MUPIP JOURNAL -EXTRACT -SEQNO command could not extract a journal file because an invalid SEQNO format was specified.

Action: Enter a comma separated list of valid sequence numbers ('0' or positive integers) as value for the SEQNO qualifier. The format of the -SEQNO qualifier is -SEQNO=seqno1[,seqno2,seqno3.....] where seqno is the region sequence number in decimal format.

INVSHUTDOWN

INVSHUTDOWN, Shutdown timeout should be from 0 to 3600 seconds

MUPIP Error: This error appears when the -TIMEOUT specified with -SOURCE -SHUTDOWN exceeds 3600 seconds (1 hour).

Action: Specify -TIMEOUT between 0 to 3600 seconds

INVSPECREC

INVSPECREC, Invalid global modifier record

Run Time Error: This indicates that GT.M could not access the header information for a global; therefore, it could not determine the collation characteristics of the global.

Action: Use the %gbldef utility routine to investigate the current state of the global header and correct it.

INVSTACODE

INVSTACODE, Invalid value for second parameter of \$STACK (xxxx).

Run Time Error: This indicates that the intrinsic function \$STACK received an unrecognized string xxxx for the info (second) parameter.

Action: Make sure the second argument is "MCODE", "ECODE" or "PLACE".

INVSTATSDB

INVSTATSDB, Database file SSSS associated with statistics database region RRRR is not a valid statistics database

Run Time Error: Indicates the file SSSS designated as a statistics database is either not a valid database at all, or is not a statistics database.

Action: Rename (if it might be a valid database) or delete (if its origin is unknown) the file in question as appropriate and retry.

INVSTRLEN

INVSTRLEN, Invalid string length xxxx: max yyyy

Run Time Error: This indicates that GT.M encountered a string with a length of xxxx that exceeds the maximum acceptable length yyyy in this context.

Action: Modify the string to an acceptable length.

INVSVN

INVSVN, Invalid special variable name

Compile Time Error: This indicates that a variable of the form "\$name" did not match any valid special variable name.

Action: Look for typographical errors, an improper special variable name abbreviation, or a missing \$ in an extrinsic.

INVTMPDIR

INVTMPDIR, Value for \$gtm_tmpdir is either not found or not a directory: dddd - Reverting to default value

Error: Indicates the process cannot access directory dddd, which it may need for a number of actions; the directory may not exist as a directory or the process lacks authorization to locate the directory.

Action: The directory specification comes from \$gtm_tmp if it is defined, otherwise it defaults to the system temporary directory, typically /var/tmp on Solaris and /tmp in other environments. Either correct the environment variable definition or ensure directory dddd is appropriately set up. Note that all users of a particular GT.M instance normally need to use the same temporary directory to ensure proper interprocess communication.

INVTRCGRP

INVTRCGRP, Invalid trace group specified in \$gtm_trace_groups: gggg

Run Time Error: The process startup environment attempted to activate a diagnostic tracing facility but specified a group name of gggg and there is currently no such group.

Action: Check with your GT.M support channel for the currently available group names.

INVTRNSQUAL

INVTRNSQUAL, Invalid TRANSACTION qualifier. Specify only one of TRANSACTION=[NO]SET or TRANSACTION=[NO]KILL.

MUPIP Error: This indicates that an invalid value was assigned to the -TRANSACTION qualifier.

Action: Specify appropriate value to the -TRANSACTION qualifier.

INVZBREAK

INVZBREAK, Cannot set ZBREAK in direct mode routine (GTM\$DMOD)

Run Time Error: GTM\$DMOD is an embedded routine that provides direct mode and it does not permit insertion of a ZBREAK.

Action: Issue ZBREAK only for application code

INVZDIRFORM

INVZDIRFORM, Illegal value (xxxx) specified for ZDIR_FORM

Run Time Error: This indicates that the value specified for ZDIR_FORM in the VIEW command is not recognized by GT.M.

Action: Specify a valid value for ZDIR_FORM.

INVZROENT

INVZROENT, xxxx is neither a directory nor an object library(DLL)

Run Time Error: This indicates that an invalid entry (xxxx), neither an object directory, nor a shared library, has been specified in \$ZROUTINES.

Action: Remove xxxx or replace it with a valid directory or a shared library.

INVZSTEP

INVZSTEP, Invalid ZSTEP qualifier

Run Time Error: This indicates that ZSTEP had an argument other than OVER, INTO, or OUTOF.

Action: ZSTEP only accepts these three keyword arguments. It does not accept variables or indirection. Use one of the valid arguments. If you need additional control, consider using ZBREAK.

INVZWRITECHAR

INVZWRITECHAR, Invalid characters for a ZWRITE format

Run Time/Compile Time Error: When transforming an expression from ZWRITE format to full text format with \$ZWRITE(expr,1), the expression must be in a format that GT.M would have produced when transforming a text string to ZWRITE format.

Action: Examine the expression and ensure that it is in proper ZWRITE format

IOEOF

IOEOF, Attempt to read past an end-of-file

Run Time/MUPIP Error: This indicates that a READ command for a run-time system or a MUPIP command attempted to move past an end-of-file.

Action: Verify that the \$ZEOF special variable is tested by the function between READs or that an EXCEPTION code string is assigned to handle EOFs. Alternatively, have your \$ETRAP (or \$ZTRAP) error handling deal with this error. The USE command has a REWIND deviceparameter that allows you to read from the beginning of the file without having to CLOSE and OPEN again, which may facilitate recovery from this error. Attempting to READ from a non-existent file not opened READONLY also causes this error. In the event of a MUPIP error, make sure the file being read is not corrupted.

IOERROR

IOERROR, Error occurred while doing aaaa in oooo operation -- called from module mmmm at line LLLL

Run Time Error: On UNIX this indicates a system call used to manage the underlying O/S device for a FIFO, PIPE or Sequential Disk failed in a way that GT.M did not anticipate.

Action: Use the OS documentation to investigate the failure.

IONOTOPEN

IONOTOPEN, Attempt to USE an I/O device which has not been opened

Run Time Error: This indicates that a USE command attempted to make the current device one that had not been OPENed. The current device remains unchanged when this error occurs.

Action: Look for a missing OPEN or an extra CLOSE command.

IORUNDOWN

IORUNDOWN, Error during image rundown

Run Time Error: This indicates that as part of image termination, the process attempted to deallocate all devices and files allocated in GT.M but encountered an error.

Action: Use the appropriate host shell commands to display the statuses of the devices being used by the process, and deallocate any device that is still allocated.

IOWRITERR

IOWRITERR, IO write by PID xxxx to block yyyy of database zzzz failed. PID aaaa retrying the IO.

Run Time Error: This error message is sent to operator log when a queued write fails and is about to be retried. If an error status is available, it follows this message.

Action: Appearance of this message usually indicates disk subsystem error condition. Check disk error logs, in addition to operator logs for accompanying messages.

IPADDRREQ

No longer in GT.M since: V6.1-000

IPADDRREQ, Active connection requires IP address

Run Time Error: This indicates that an OPEN command specified a TCP mnemonicspace; however, it did not have a socket for an active connection or a LISTEN deviceparameter to designate a passive connection.

Action: Determine the type of connection desired and add a SOCKET=socket-id and/or a LISTEN deviceparameter.

IPCNOTDEL

IPCNOTDEL, xxxx : yyyy did not delete IPC resources for region zzzz

MUPIP Information: This indicates that MUPIP did not delete the shared system resources of the region. The shared system resources may still be being in use by some other processes.

Action: Find out if some other process was attached to the shared system resource. If appropriate, issue MUPIP RUNDOWN REG * to remove the shared resource.

ISOLATIONSTSCHN

ISOLATIONSTSCHN, Error changing NOISOLATION status for global xxxx within a TP transaction from aaaa to bbbb

Run Time Error: In GT.M, the VIEW "NOISOLATION" command changes the isolation-status of the global variable(s) specified. If a process attempts to change the global variable's isolation-status

within a TP transaction after it has referenced the global variable in the same TP transaction, the ISOLATIONSTSCHN error gets triggered.

Action: Change the application to issue the VIEW "NOISOLATION" command in conformance with the allowed usage.

ISSPANGBL

ISSPANGBL, Operation cannot be performed on global ^gggg as it spans multiple regions in current global directory

Run Time Error: This indicates that a \$\$set^%GBLDEF or \$\$kill^%GBLDEF was attempted on a global that spans multiple regions.

Action: Only \$\$get^%GBLDEF is supported for spanning globals. Specify a non-spanning global or change the set/kill to a get. For spanning globals, use the GDE ADD -GBLNAME command to set collation characteristics.

IVTIME

IVTIME, Invalid time specification: xxxx

Run Time Error: This indicates that a JOB command specified a SCHEDULE jobparameter with an invalid time xxxx.

Action: Specify the time for the jobparameter according to the OpenVMS time format. GT.M requires a space between the date and time; DCL commands require a colon (:). For more information about the OpenVMS time format, refer to the OpenVMS DCL Dictionary.

JIUNHNDINT

JIUNHNDINT, An error during \$ZINTERRUPT processing was not handled: eeee;

Run Time Error: When returning from code invoked by MUPIP INTRPT (clearing \$ZININTERRPT), GT.M implicitly clears any error(s) detected while 1=\$ZININTERRUPT, sends this error notification to the operator log and continues processing; eeee is the mnemonic for the unhandled error.

Action: Fix \$ZINTERRUPT handler to either not generate the error or to correctly handle it before returning to interrupted code

JNI

JNI, xxxx

Run Time Error: GT.M uses this message with appropriate accompanying text, xxxx, to indicate an error condition with a Java call-out invocation.

Action: Examine the text and address the described error condition.

JNLACCESS

JNLACCESS, Error accessing journal file jjjj

Run Time Error: GT.M sends this message to the system log followed by other messages detailing the failure. jjjj is the file-specification for the inaccessible journal. In most situations, this error occurs when the journal file storage runs out of disk space.

Action: Review the accompanying message(s) for additional information. This means an error while trying to write to the journal file.

JNLACTINCMPLT

JNLACTINCMPLT, Mupip journal action might be incomplete

MUPIP Warning: This indicates that MUPIP did not finish to completion successfully.

Action: Review and analyze the accompanying message(s).

JNLALIGNSZCHG

JNLALIGNSZCHG, Journal ALIGNSIZE is rounded up to xxxx blocks (closest next higher power of two)

Run Time Information: This indicates that the ALIGNSIZE specified in the MUPIP SET JOURNAL command was not a perfect power of two. It has been rounded up to the closest next higher power of two and the new journal file created (if any) will use this value for ALIGNSIZE.

Action: None required

JNLALIGNTOOSM

JNLALIGNTOOSM, Alignsize xxxx (bytes) is smaller than block size yyyy (bytes) for aaaa bbbb. Using alignsize of cccc (bytes) instead.

MUPIP Warning: This indicates that the specified alignsize xxxx is smaller than the specified block size yyyy for the mentioned region/database (aaaa) file bbbb. MUPIP will use the default cccc bytes instead of the specified xxxx.

Action: If the alignsize cccc used is not acceptable, choose some other legal value for alignsize and reissue the command.

JNLALLOCGROW

JNLALLOCGROW, Increased Journal ALLOCATION from [ssss blocks] to [aaaa blocks] to match AUTOSWITCHLIMIT for ffff nnnn

GDE/MUPIP Information: The utility increased the journal allocation value from ssss to aaaa for the journal files associated with ffff nnnn, which is either "database file" followed by a database file name or "region" followed by a region name. This indicates that the specified journal allocation and journal extension values combined exceed the specified journal autoswitchlimit and the utility has adjusted the journal allocation value accordingly.

Action: None required.

JNLBADLABEL

JNLBADLABEL, Specified File xxxx fdoes not have a GT.M Journal File Label

MUPIP Error: This indicates that the journal file indicated in the accompanying previous message does not match the expected format.

Action: If a command specification caused this error, determine whether the command has the proper file-specification. Make sure the journal file was created by the current GT.M version. Also ensure that a process is not using a journal file-specification for some other purpose.

JNLBADRECFMT

JNLBADRECFMT, Journal Record Format Error encountered for file jjjj at disk address yyyy

MUPIP/Run Time Error: This indicates that an attempt to open a journal file encountered an invalid record.

Action: Report the entire incident context to your GT.M support channel.

JNLBUFFDBUPD

JNLBUFFDBUPD, Journal file buffer size for database file dddd has been adjusted from xxxx to yyyy

MUPIP Warning: The journal buffer size specified by the user for the database file dddd or previously stored in the database file header fell outside the permissible range, and was automatically adjusted, up or down, from xxxx to a legitimate value of yyyy.

Action: None Required.

JNLBUFFPHS2SALVAGE

JNLBUFFPHS2SALVAGE, Salvaged journal records from process PPPP for database file DDDD at transaction number NNNN and journal-sequence-number/unique-token JJJJ with journal file starting offset OOOO and length LLLL

Run Time Information: Operator log message indicating clean up of journaling information abandoned by an abnormally terminated process.

Action: Investigate the cause of the process termination; report to your GT.M support channel when coincident with other issues.

JNLBUFFREGUPD

JNLBUFFREGUPD, Journal file buffer size for region rrrr has been adjusted from xxxx to yyyy

MUPIP Warning: The journal buffer size specified by the user for the region rrrr or previously stored in the corresponding database file header fell outside the permissible range, and was automatically adjusted, up or down, from xxxx to a legitimate value of yyyy. If the journal buffer size is within the limits it may also be adjusted slightly upwards producing an alignment that slightly improves journal I/O performance.

Action: None Required.

JNLBUFFTOOLG

No longer in GT.M since: V5.5-000

JNLBUFFTOOLG, Journal file buffer xxxx is greater than the maximum allowed size of yyyy. Journal file not created.

MUPIP Warning: This indicates that a MUPIP SET command with the JOURNAL qualifier failed because BUFFER_SIZE=xxxx exceeded the maximum number of pages allowed. yyyy is the maximum buffer size permitted.

Action: Reduce the BUFFER_SIZE= definition.

JNLBUFFTOOSM

No longer in GT.M since: V5.5-000

JNLBUFFTOOSM, Journal file buffer xxxx is less than minimum of database block size in 512 byte pages + 1 (yyyy)

MUPIP Warning: This indicates that a SET command with the JOURNAL qualifier failed because the BUFFER_SIZE=xxxx was inadequate to handle a database block. yyyy is the minimum buffer size permitted for the existing block size.

Action: Increase the BUFFER_SIZE so it contains at least one more page than the database block, that is, bytes divided by 512.

JNLBUFINFO

JNLBUFINFO, Pid aaaa dsk bbbb free cccc bytent dddd io_in_prog eeee fsync_in_prog ffff dskaddr gggg freeaddr hhhh qiocnt iiiii now_writer xxxx fsync_pid yyyy filesize zzzz cycle oooo errcnt pppp wrtsize qqqq fsync_dskaddr rrrr

Run Time Information: This message always accompanies some other GT.M journaling error message. This gives detailed information on the state of the journal buffers at the time of the accompanying error.

Action: For information purposes only. Review the accompanying message(s) for additional information.

JNLCLOSE

JNLCLOSE, Error closing journal file: xxxx

Run Time Error: This indicates that GT.M could not properly close journal file xxxx.

Action: Review the accompanying message(s) for additional information.

JNLCLOSED

JNLCLOSED, Journaling closed for database file dddd at transaction number xxx

Run Time Warning: This message indicates GT.M had to turn journaling OFF on the specified database. Other preceding messages identify the cause (e.g. lack of disk space while writing to journal file, permissions issue while auto-switching to new journal files etc.). The message also displays the database transaction number.

Action: Fix the issue that caused journaling to get turned OFF in the first place (disk space, permissions etc.).

Turn journaling back ON by issuing a MUPIP SET JOURNAL=ON or MUPIP BACKUP NEWJNL command. This command can work while processes are concurrently updating the database and causes GTM to journal subsequent updates in the journal file.

JNLCTRL

JNLCTRL, Journal control unsynchronized for ffff.

Run Time Error: This indicates that there is a discrepancy between the journal file updates and the database updates. The system is not updating journal files.

Action: Review the accompanying message(s) and take appropriate action. After the cause is resolved, to reestablish durability, perform a MUPIP BACKUP that turns journaling back on. Once the system is backup and running, contact your GT.M support channel with operator log information and any additional information that you feel is relevant for further diagnosis.

JNLCREATE

JNLCREATE, Journal file xxxx created for <database/region> yyyy with aaaa

MUPIP Information: This indicates that a journal file xxxx is created for database/region yyyy with NOBEFORE_IMAGES or BEFORE_IMAGES journaling option (aaaa).

Action: This informational message confirms the success of the new journal file creation operation for a region. No further action is necessary unless there are other warning, fatal, and/or error category messages.

JNLCREATERR

No longer in GT.M since: V5.4-001

JNLCREATERR, Error creating journal file xxxx

Run Time Error: This indicates that there was an error while trying to create journal file xxxx.

Action: Review the accompanying message(s) for additional information.

JNLCRESTATUS

JNLCRESTATUS, xxxx at line aaaa for journal file yyyy, database file zzzz encountered error

Run Time/MUPIP Warning: This indicates the creation of journal file yyyy for database file zzzz failed.

Action: Review the accompanying messages and take appropriate action.

JNLCYCLE

JNLCYCLE, Journal file jjjj causes cycle in the journal file generations of database file dddd

MUPIP Error: This indicates that MUPIP encountered journal file jjjj causing cycle in the journal file generations of database file dddd; that is following the back-pointers in the journal files can wind up repeatedly finding the same journal file.

Action: Contact your GT.M support channel with appropriate log messages.

JNLDBERR

No longer in GT.M since: v4.4-002

JNLDBERR, Journal file jjjj does not correspond to database dddd

Run Time Error: This indicates that GT.M could not open journal file jjjj for database file dddd because the journal file header identifies itself as belonging to a different database file that does not exist in the system.

Action: Use a MUPIP SET command with the qualifier JOURNAL to create a journal file that matches the database.

JNLDBSEQNOMATCH

JNLDBSEQNOMATCH, Journal file ffff has beginning region sequence number jjjj but database dddd has region sequence number ssss

MUPIP Error: MUPIP JOURNAL ROLLBACK FORWARD has found that journal file ffff has beginning region sequence number jjjj, but the corresponding database file dddd has region sequence number ssss. This condition may arise due to missing or incorrect journal files, for example due to a -NOCHAIN specification.

Action: Use "*" and / or do not use -NOCHAIN to specify the list of journal files. If specifying explicit list of journal file names verify you are specifying the exact set of needed journal file names.

JNLDBTNNOMATCH

JNLDBTNNOMATCH, Journal file xxxx has beginning transaction number aaaa but database yyyy has current transaction number bbbb

MUPIP Error: MUPIP JOURNAL FORWARD has found that journal file xxxx has beginning transaction number aaaa, but the corresponding database file yyyy has current transaction number bbbb. This condition may arise due to missing or duplicate transactions.

Action: Verify that the correct journal file names were specified. If appropriate, force forward recovery using the NOCHECKTN qualifier.

JNLDISABLE

JNLDISABLE, Specified journal option(s) cannot take effect as journaling is DISABLED on database file dddd

MUPIP Warning: This indicates that none of the specified journal option(s) in MUPIP SET -JOURNAL or MUPIP BACKUP command took effect, because journaling was found DISABLED on database file dddd.

Action: Revise the selection qualification to exclude the DISABLED region(s) or, if appropriate, enable journaling on those regions.

JNLDSKALIGN

No longer in GT.M since: V4.3-000

JNLDSKALIGN, Journal Record Alignment xxxx is not a multiple of 512

MUPIP Warning: This indicates that the system is not updating the journal file correctly.

Action: Close the journal file and begin journaling with a new journal file. If the error continues, check the disk subsystem.

JNLENDIANBIG

JNLENDIANBIG, Journal file jjjj is BIG endian on a LITTLE endian system

MUPIP Error: The MUPIP command on a little endian system specified journal file jjjj which was created on a big endian system. GT.M does not convert journal files with incompatible byte ordering.

Action: Set up operational procedures that ensure journal files are used on systems with the same byte ordering as where they are created. If necessary, extract journal file data on the source system and use an M program on the opposite endian system to restore it.

JNLENDIANLITTLE

JNLENDIANLITTLE, Journal file jjjj is LITTLE endian on a BIG endian system

MUPIP Error: The MUPIP command on a big endian system specified journal file jjjj which was created on a little endian system. GT.M does not convert journal files with incompatible byte ordering.

Action: Set up operational procedures that ensure journal files are used on systems with the same byte ordering as where they are created. If necessary, extract journal file data on the source system and use an M program on the opposite endian system to restore it.

JNLEOFPREZERO

No longer in GT.M since: V4.4-000

JNLEOFPREZERO, Error while zeroing journal file xxxx

Run Time Error: Write operation fails. When the last process with write access to a journaled database leaves, the system closes the journal file by writing an end-of-file (EOF) record at a 512-byte boundary. To do this, the system zeroes the journal file from the current offset until the next aligned 512-byte boundary. It is this write operation whose failure causes this error.

Action: Check the integrity of the journal file by doing a MUPIP JOURNAL -FORWARD -VERIFY jnl-file.

JNLEXTEND

JNLEXTEND, Journal file extension error for file jjjj.

Run Time/MUPIP Error: Journal file jjjj failed to extend. If the environment is not configured for instance freeze, this causes journaling to be turned off for the region.

Action: Review the accompanying message(s) and take appropriate action. If the environment is not configured for instance freeze, perform a MUPIP BACKUP, that turns journaling on again, to reestablish durability.

JNLEXTR

No longer in GT.M since: V4.4-002

JNLEXTR, Error writing journal extract file: xxxx

MUPIP Error: This indicates that an error was encountered while trying to write to either the JNL EXTRACT file or lost-transaction file or broken-transaction file as part of a MUPIP JOURNAL command.

Action: Review the accompanying message(s) for additional information.

JNLEXTRCTSEQNO

JNLEXTRCTSEQNO, Journal Extracts based on sequence numbers are restricted to a single region when replication is OFF

MUPIP Error: When replication is enabled GT.M applies a uniform set of sequence numbers across regions, but when it is not in use each region has its own set of sequence numbers, and, in that case, MUPIP only works on a region at a time.

Action: If you need cross region sequence numbers, start replication with at least a passive Source Server; otherwise use one MUPIP JOURNAL -EXTRACT command for each region when using the -SEQNO qualifier.

JNLFILECLOSERR

JNLFILECLOSERR, Error closing journal file xxxx

MUPIP Error: This indicates that MUPIP JOURNAL command failed to close the specified journal file xxxx.

Action: Review the accompanying message(s) for additional information.

JNLFILEDUP

JNLFILEDUP, Journal files xxxx and yyyy are the same

MUPIP Information: MUPIP JOURNAL -RECOVER -FORWARD does not allow duplicated journal files in forward recovery.

Action: Remove any duplicated journal file(s) and re-issue the forward recovery command.

JNLFILEOPNERR

JNLFILEOPNERR, Error opening journal file xxxx

MUPIP Error: This indicates that MUPIP JOURNAL command failed to open the specified journal file xxxx.

Action: Ensure the journal file name specified is correct. Review the accompanying message(s) for additional information.

JNLFILEXTERR

JNLFILEXTERR, Error during extension of journal file xxxx

Run Time Error: This indicates that an error was encountered during the course of journal file extension, while trying to determine the available space on the file system housing the journal file xxxx. This causes the journaling to be turned off.

Action: Locate appropriate disk space and adjust the journal file path. To reestablish durability, perform a MUPIP BACKUP that turns back journaling on again.

JNLFILNOTCHG

JNLFILNOTCHG, Journal file not changed

MUPIP Error: This indicates that the MUPIP SET-JNLFILE command was unable to change the journal file as specified.

Action: Review accompanying message(s) for additional information.

JNLFILOPN

JNLFILOPN, Error opening journal file jjjj for database file dddd

Run Time/MUPIP Error: This indicates that GT.M was unable to open journal file jjjj for the specified database file dddd. The Source Server exits with a JNLFILOPN message after six failed attempts to open journal files.

Action: Check the authorizations for the user of the process and the health of the file system holding the journal file.

JNLFILRDOPN

JNLFILRDOPN, Error opening journal file xxxx for read for database file yyyy

Source Server log/MUPIP Error: This indicates that GT.M was unable to open journal file xxxx in read-only mode for the specified database file. The Source Server exits with a JNLFILRDOPN message after six failed attempts to open journal files.

Action: Review the accompanying message(s) for additional information.

JNLFLUSH

JNLFLUSH, Error flushing journal buffers to journal file xxxx

Run Time Error: This indicates that an attempt to write existing journal records to the journal file failed.

Action: Review the accompanying message(s) for additional information.

JNLFLUSHNOPROG

JNLFLUSHNOPROG, No progress while attempting to flush journal file jjjj

Run Time Warning: Indicates processes needing space in the journal buffers were unable to write journal jjjj because even though multiple processes have controlled the resource, this process has not been able to flush records. JNLPROCSTUCK means one process is hogging, while this message means more than one process has tried but none have succeeded. Might indicate a clogged disk subsystem on which journal file JJJJ resides.

Action: Check the log file for other journaling related messages. Consider balancing disk subsystem load.

JNLFNF

JNLFNF, Journal file xxxx not found

MUPIP Information: This indicates that MUPIP did not find the specified journal file xxxx while executing the command.

Action: Revise the command to correct the path and/or investigate whether the user has authorizations to the full path and the file.

JNLFSYNCERR

JNLFSYNCERR, Error synchronizing journal file xxxx to disk

Run Time Error: This indicates that the fsync() function on the journal file xxxx failed. This is likely a disk subsystem related problem.

Action: Review the accompanying messages for cause of the failure.

JNLFSYNCLSTCK

JNLFSYNCLSTCK, JNLFSYNCLSTCK, Journaling fsync lock is stuck in journal file jjjj

Run Time Error: A resource controlling journal file actions has remained unavailable for a long period.

Action: Check on the condition of the process identified in the associated messages.

JNLINVALID

JNLINVALID, jjjj is not a valid journal file Region: rrrr

MUPIP Error: This indicates that GT.M could not open journal file jjjj, due to an error that is detailed in the accompanying previous message(s). While trying to create a new journal file for the same region it encountered errors. rrrr is the region name associated with the journal.

Action: Review the accompanying error message(s) to determine the cause of the failure of the new journal file creation. After the cause is resolved, to reestablish durability, perform a MUPIP BACKUP that turns journaling back on.

JNLINVALLOC

JNLINVALLOC, Journal file allocation xxxx is not within the valid range of yyyy to zzzz. Journal file not created.

MUPIP Warning: This indicates that a SET command modified with the JOURNAL qualifier failed because ALLOCATION=xxxx was less than the minimum or greater than the maximum number of blocks. yyyy is the minimum allocation permitted. zzzz is the maximum allocation permitted.

Action: Adjust the ALLOCATION= to adhere to the valid range.

JNLINVEXT

JNLINVEXT, Journal file extension xxxx is greater than the maximum allowed size of yyyy. Journal file not created.

MUPIP Warning: This indicates that a SET command modified with the JOURNAL qualifier failed because the EXTENSION=xxxx argument exceeded the maximum number of pages. yyyy is the maximum extension permitted.

Action: Reduce the EXTENSION= qualifier definition.

JNLINVSWITCHLMT

JNLINVSWITCHLMT, Specified AUTOSWITCHLIMIT xxxx falls outside of allowed limits aaaa and bbbb

MUPIP Error: This indicates that the specified autoswitchlimit for the journal file is outside of the allowed range [that is indicated in the error message].

Action: Specify an autoswitchlimit within the specified allowed range.

JNLMEMDSK

No longer in GT.M since: V5.3-001A

JNLMEMDSK, Journal file unsynchronized with the journal buffer. Journaling closed for xxxx.

Run Time Error: This indicates that the structures in the journal buffer reflect an out-of-design situation. As a result, GT.M has shut down journaling for the xxxx region.

Action: Review the accompanying message(s) and take appropriate action. After the cause is resolved, to reestablish durability, perform a MUPIP BACKUP that turns journaling back on. Once the system is backup and running, contact your GT.M support channel with operator log information and any additional information that you feel is relevant for further diagnosis.

JNLMINALIGN

JNLMINALIGN, Journal Record Alignment xxxx is less than the minimum value of yyyy

MUPIP Warning: This indicates that a MUPIP SET JOURNAL command specified an alignsize for the new journal file, which is less than the minimum allowed yyyy.

Action: Specify an alignsize that is greater than the allowed minimum.

JNLMOVED

JNLMOVED, Journal file appears to have been moved. Journaling activity will not be done.

Run Time Error: This indicates that while opening a journal file the system encountered the journal file name in the database header file, pointing to a different location than the journal file ID.

Action: Use MUPIP SET to specify the correct journal file location.

JNLNAMLEN

No longer in GT.M since: V4.4-002

JNLNAMLEN, Journal file jjjj: for database file dddd exceeds maximum of MMMM

MUPIP Error: This indicates that the file-specification jjjj of the journal for database file dddd exceeds the maximum supported length of MMMM.

Action: Modify the journal file-specification to adhere to the file length restrictions.

JNLNEWREC

JNLNEWREC, Target system cannot recognize journal record of type xxxx. Last recognized type is yyyy.

MUPIP Error: This error is logged to the replication server log file. This indicates that the GT.M application on the replication primary generated a newly introduced journal record (of type xxxx) that is not recognized by the secondary system. The highest numbered journal record type on the secondary is yyyy. A new type that can be transformed to an older type internally by the source server on the primary side will be automatically done. This error occurs when the primary source server cannot transform the new type to an older type due to impact on the application logic.

Action: The application either should not generate a journal record that is not recognized by the secondary, or, write a filter that transforms the unknown type to a known type on the target system. The replication source server on the primary should be restarted with the filter.

JNLNMBKNOTPRCD

JNLNMBKNOTPRCD, Journal file xxxx does not match the current journal file yyyy of database file zzzz

MUPIP Error: This indicates that MUPIP JOURNAL BACKWARD cannot proceed because the journal file name xxxx is not same as the journal file name yyyy in the database file header of zzzz.

Action: Specify the correct journal file name for the database zzzz. If the database file header is not pointing to the correct journal file, fix it using MUPIP SET JOURNAL.

JLNNOBIJBACK

JLNNOBIJBACK, MUPIP JOURNAL BACKWARD cannot continue as journal file xxxx does not have before image journaling

MUPIP Error: This indicates that an attempt to use BACKWARD qualifier on xxxx journal file was made without enabling before image journaling on the file.

Action: Ensure before image journaling is enabled prior to the usage of BACKWARD qualifier, alternatively use FORWARD qualifier for nobefore image journaling enabled files.

JLNNOCREATE

JLNNOCREATE, Journal file jjjj not created

MUPIP/Run Time Error: This indicates that GT.M could not create journal file jjjj.

Action: Review the accompanying message(s) for additional information.

JNLNOREPL

JNLNOREPL, Replication not enabled for journal file jjjj (database file dddd)

Source Server log/MUPIP Error: Replication Source Server startup encountered a database dddd with journal file jjjj for which replication was turned off because of a journaling issue and has not since been re-enabled.

Action: Use MUPIP SET to re-enable replication. Take steps to ensure that there is sufficient management of journal file space to prevent a reoccurrence of this issue.

JNLNOTALLOWED

JNLNOTALLOWED, Did not enable journaling on xxxx region yyyy

MUPIP Warning: MUPIP SET -JOURNAL was not able to enable journaling on region yyyy due to it being xxxx, either an AUTODB or an AUTODELETE DB,

Action: Journaling is incompatible with AUTODELETE and AUTODB. Adjust the global directory mapping to specify that the database should be -NOAUJTODB -NOAUTODELETE, recreate the database file, and enable journaling.

JNLNOTFOUND

No longer in GT.M since: V4.4-000

JNLNOTFOUND, File xxxx does not exist -- possibly moved or deleted

MUPIP Information: This indicates that MUPIP has encountered a journal file link name xxxx, which does not exist in the system anymore.

Action: This message is usually accompanied by a NORECOVER error message. Either a closer turn-around-point mapping to an existing prior journal file generation needs to be specified, or the missing journal file needs to be restored from the backup.

JNLOPNERR

JNLOPNERR, Error opening journal file xxxx for region yyyy

Run Time/MUPIP Error: This indicates that GT.M could not open the journal file xxxx.

Action: Review and trouble shoot accompanying messages.

JNLORDBFLU

JNLORDBFLU, Error flushing database blocks to dddd. See related messages in the operator log

MUPIP Error: This message indicates that hardening journal or database records could not be completed due to an error. The operator log should contain one or more accompanying messages indicating the cause of the error.

Action: Verify the normal state of the file system and appropriate permissions of the database and journal files. Report the entire incident context to your GT.M support channel along with any GT.M operator log messages within the same time frame.

JNLPOOLBADSLLOT

JNLPOOLBADSLLOT, Source server slot for secondary instance xxxx is in an inconsistent state. Pid = pppp, State = ssss, SlotIndex = iiii

Source Server log/MUPIP Warning: This is a debugging message sent to the syslog (operator log) whenever a source server startup or showbacklog command finds a structure in the journal pool holding inconsistent information.

Action: Forward the information to your GT.M support channel. No action otherwise necessary. The source server command will automatically fix the inconsistency of that structure

JNLPOOLPHS2SALVAGE

JNLPOOLPHS2SALVAGE, Salvaged journal records from process PPPP for replication instance file iiii at journal sequence number JJJJ with journal pool starting offset OOOO and length LLLL

Run Time Information: Operator log message indicating clean up of replication information abandoned by an abnormally terminated process.

Action: Investigate the cause of the process termination; report to your GT.M support channel when coincident with other issues.

JNLPOOLRECOVERY

JNLPOOLRECOVERY, The size of the data written to the journal pool (xxxx) does not match the size of the data in the journal record (yyyy) for the replication instance file zzzz. The journal pool has been recovered.

Run Time Error: An internal error was detected while writing to the journal pool associated with instance file zzzz, and the journal file has been recovered. Subsequent transactions will be written to the journal pool, but the source server will switch to reading from files until it reaches them. A core file may have been produced.

Action: Report the entire incident context to your GT.M support channel.

JNLPOOLSETUP

JNLPOOLSETUP, Journal Pool setup error

Run Time/MUPIP Error: This indicates that an error occurred in the replication subsystem while opening the journal pool.

Action: Verify that the source server has been configured correctly. Review accompanying messages for more information about the cause of this error.

JNLPREVRECOV

JNLPREVRECOV, Journal file has nonzero value in prev_recov_end_of_data field

Run Time Error: This indicates that GT.M encountered a non-zero value for the journal file header prev_recov_end_of_data field. MUPIP JOURNAL RECOVER/ROLLBACK can cause the field to be non-zero but it cannot become a current generation journal file for GT.M run-time. Run-time considers the journal file as bad and switches to a new journal file cutting the back-link.

Action: Report the complete error to GT.M support along with appropriate log messages within the same time frame.

JNLPROCSTUCK

JNLPROCSTUCK, Journal file writes blocked by process xxxx

Run Time Warning: This indicates that a GT.M process waited for nearly one minute and is not able to flush the journal as the journal write mechanism seems to be blocked by process xxxx.

Action: If the situation does not improve, kill the offending process xxxx. This may indicate an overloaded disk subsystem on which journal file xxxx resides. Consider balancing disk subsystem load. If necessary, report the entire incident context with operator log information to your GT.M support channel.

JNLPVTINFO

JNLPVTINFO, Pid aaaa cycle mmmm fd_mismatch nnnn channel rrrr sync_io ssss pini_addr xxxx qio_active yyyy

Run Time Information: This message always accompanies some other GT.M journaling error message. This gives detailed information on the state of the journal buffers at the time of the accompanying error.

Action: For information purposes only. Review the accompanying message(s) for additional information.

JNLQIOLOCKED

No longer in GT.M since: V4.4-000

JNLQIOLOCKED, Error obtaining io_in_prog lock on journal file xxxx

Run Time Error: When the last process with write access to a journaled database exits, it does a cleanup of the journal file by attempting to get an exclusive write lock on the journal file. If that fails after waiting for nearly one minute, it issues this error.

Action: Attempt MUPIP RUNDOWN on the region making sure to run down all processes actively attached to this database. If the error persists even after no one is attached, contact your GT.M support channel before proceeding.

JNLQIOSALVAGE

JNLQIOSALVAGE, Journal IO lock salvaged

Run Time Information: An active process salvaged a critical resource marked as belonging to a no longer active (terminated) process during a journal flush.

Action: The system automatically returns the critical resource to normal operation and continues execution. If this message continues to occur, please investigate why the process holding the crit abnormally exited.

JNLRDERR

JNLRDERR, Error reading journal file xxxx: unable to initialize.

Run Time Error: This indicates that GT.M encountered an error while trying to read from the journal file xxxx. This can happen if the journal file size is less than the minimum size of the journal file header, or if the journal-file-specification does not match the intended file, or if the intended file is not accessible by the processes that update the database. GT.M automatically attempts to create a new journal file. If the attempt to create a new journal file fails, GT.M issues another error and the intended update is lost and does not get registered in the database and journal.

Action: To reestablish durability, perform a MUPIP BACKUP that switches to a new set of journal files.

JNLRDONLY

JNLRDONLY, Journal file xxxx read only

MUPIP Error: This indicates that the process in use does not have journal file write privileges or the journal file has been set to read-only.

Action: You may be performing an invalid operation. Contact your Systems Administrator.

JNLREAD

JNLREAD, Error reading from journal file xxxx at offset yyyy

MUPIP Error: This indicates that MUPIP failed to read from journal file xxxx at offset yyyy.

Action: Review the accompanying message(s) for additional information.

JNLREADBOF

JNLREADBOF, Beginning of journal file encountered for xxxx

MUPIP Error: This indicates that MUPIP JOURNAL command reached the beginning of journal file xxxx, while processing backward, and is not able to process backward anymore. This maybe due to the time qualifiers used to control the length of the backward processing.

Action: Verify that the time qualifiers specified are as intended.

JNLREADEOF

JNLREADEOF, End of journal file encountered for jjjj

MUPIP/Run Time Error: This indicates that MUPIP JOURNAL or a run-time journal operation encountered the end-of-file for the journal file jjjj, before it completed processing.

Action: This error indicates an improperly closed journal file. Restart journaling with a MUPIP BACKUP -NEWJNLFILES or a MUPIP SET -JOURNAL and report all available circumstance to those responsible for supporting your database operations.

JNLRECFMT

JNLRECFMT, Journal file record format error encountered

MUPIP Error: This indicates that MUPIP JOURNAL encountered an invalid record in the journal file.

Action: In the event of GT.M issuing this error message, use MUPIP BACKUP to ensure durability by creating a fresh set of journals consistent with the database. Else, to resume operation, restore the database from the last backup and play forward the updates using the appropriate MUPIP JOURNAL command. As soon as possible, report the entire incident context with information from the operator log and any other relevant information to your GT.M support channel.

JNLRECINCMPL

JNLRECINCMPL, Incomplete journal record at disk address aaaa for file jjjj while attempting to read seqno ssss

Source Server log/MUPIP Error: The replication Source Server had a problem with journal file jjjj at disk offset aaaa attempting to read the record with sequence number ssss.

Action: Report the entire incident context to your GT.M support channel for further analysis. Use MUPIP SET JOURNAL -EXTRACT to investigate the issue.

JNLRECTYPE

JNLRECTYPE, Journal record type does not match expected type

Run Time Error: This indicates that when GT.M tried to open the journal file as part of an M update, the end of the journal file as indicated by the journal-file-header did not contain an EOF journal record implying that the journal file is either damaged or corrupted. This message follows a JNLOPNERR message, which indicates the journal file name and the corresponding region. GT.M automatically attempts to create a new journal file and errors out if the attempt does not succeed, in which case the intended update is not reflected in the database and journal.

Action: To reestablish durability, perform a MUPIP BACKUP that switches to a new set of journal files consistent with the database.

JNLSENDOPER

JNLSENDOPER, pid = aaaa : status = bbbb : jpc_status = cccc : jpc_status2 = dddd : iosb.cond = eeee

Run Time Information: This message gives information on the process that encountered an error in GT.M journaling and the error code encountered. This message is always followed by a GT.M journaling error message that gives the error detail.

Action: Review the accompanying message(s) for additional information.

JNLSETDATA2LONG

JNLSETDATA2LONG, SET journal record has data of length xxxx. Target system cannot handle more than yyyy bytes.

MUPIP Error: This error message is logged to the replication server log file. The version of GT.M running on the replication primary system supports longer data lengths for globals than the GT.M version running on the secondary system.

Action: Until the secondary is upgraded to the newer version of GT.M, the application should not use the new feature of longer data lengths.

JNLSPACELOW

JNLSPACELOW, Journal file jjjj nearing maximum size, nnnn blocks to go

Run Time Information: Depending on your settings for ALLOCATION, AUTOSWITCHLIMIT, and EXTENSION journaling options, you may see one to three JNLSPACELOW messages for each generation of a journal file. When the difference between AUTOSWITCHLIMIT and ALLOCATION is an exact multiple of EXTENSION, GT.M attempts to write the JNLSPACELOW message to the operator log three times as a journal file reaches its maximum size. The first JNLSPACELOW message

appears in the operator log when the available free space (blocks) in a journal file is equal to twice the EXTENSION, the second appears when the available free space is equal to EXTENSION, and the third appears when the journal file reaches the maximum size (AUTOSWITCHLIMIT). With EXTENSION=0 or EXTENSION=AUTOSWITCHLIMIT, GT.M logs the JNLSPACELOW message only once per journal file to the operator log.

Action: The JNLSPACELOW message is an information message and requires no action. However, you can use the JNLSPACELOW messages as part of monitoring journaling space requirements or as an operational practice to a trigger to intervene in journal file management. Use the frequency of JNLSPACELOW messages to proactively monitor how fast a journal file grows and as part of a monitoring algorithm that helps predict how soon the disk is likely to hit a quota limit.

JNLSTATE

JNLSTATE, Journaling state for <database/region> xxxx is now yyyy

MUPIP Information: This indicates that journal state for the database/region xxxx is now yyyy.

Action: This information message confirms the success of journal state change operation. No further action is necessary unless there are other warning, fatal, and/or error category messages.

JNLSTATEOFF

JNLSTATEOFF, ROLLBACK or RECOVER BACKWARD cannot proceed as database file xxxx does not have journaling ENABLED and ON

MUPIP Error: This indicates that ROLLBACK or RECOVER cannot proceed because MUPIP encountered a database file xxxx, which does not have journaling ENABLED and ON.

Action: Verify that the file(s) specified is correct. Ensure that Journaling is ENABLED and ON for RECOVER BACKWARD to work.

JNLSUCCESS

JNLSUCCESS, xxxx successful

MUPIP Success: This indicates that xxxx command has finished successfully.

Action: -

JNL SWITCHFAIL

JNL SWITCHFAIL, Failed to switch journal file xxxx for database file yyyy

All GT.M Components Error: This indicates that GT.M could not create a new generation of journal file xxxx, due to an error that is detailed in the accompanying previous message(s). yyyy is the database file associated with the journal.

Action: Review the accompanying error message(s) to determine the cause of the failure of the new journal file creation. After the cause is resolved, to reestablish durability perform a MUPIP BACKUP that turns journaling back on.

JNL SWITCHRETRY

JNL SWITCHRETRY, Retrying previously abandoned switch of journal file jjjj for database dddd

All GT.M Components Information: Internal message, not delivered to the user.

Action: n/a

JNL SWITCHSZCHG

JNL SWITCHSZCHG, Journal AUTOSWITCHLIMIT [aaaa blocks] is rounded down to [bbbb blocks] to equal the sum of journal ALLOCATION [cccc blocks] and a multiple of journal EXTENSION [dddd blocks]

MUPIP Information: This indicates that the specified AUTOSWITCHLIMIT value was rounded down as little as possible to make it aligned to the ALLOCATION + a multiple of EXTENSION. Any subsequently created journal file will use this value for AUTOSWITCHLIMIT.

Action: If the automatically rounded value for AUTOSWITCHLIMIT is inappropriate, specify an appropriate value for ALIGNSIZE, ALLOCATION, and/or EXTENSION .

JNL SWITCHTOOSM

JNL SWITCHTOOSM, Journal AUTOSWITCHLIMIT [aaaa blocks] is less than journal ALLOCATION [bbbb blocks] for database file dddd

MUPIP Error: This indicates that the specified value or the automatically calculated value for AUTOSWITCHLIMIT from a MUPIP SET JOURNAL command is less than the default or specified value of ALLOCATION. This error also indicates that the AUTOSWITCHLIMIT value specified was greater or equal to the ALLOCATION but in turn got rounded down, and this rounded down value is less than the ALLOCATION.

Action: Specify a higher value of AUTOSWITCHLIMIT or specify an ALLOCATION value that is less than the AUTOSWITCHLIMIT.

JNL TMQUAL1

JNL TMQUAL1, Time qualifier BEFORE_TIME=xxxx is less than SINCE_TIME=yyyy

MUPIP Error: This indicates that the specified before time xxxx is earlier than the since time yyyy.

Action: Specify correct values for time qualifiers and make sure that BEFORE_TIME is specified to be later than the SINCE_TIME.

JNLTMQUAL2

JNLTMQUAL2, Time qualifier LOOKBACK_TIME=xxxx is later than SINCE_TIME=yyyy

MUPIP Error: This indicates that the specified lookback time xxxx is later than the since time yyyy.

Action: Specify correct values for time qualifiers and make sure that the LOOKBACK_TIME qualifier is set to an earlier time value than the SINCE_TIME qualifier.

JNLTMQUAL3

JNLTMQUAL3, Time qualifier BEFORE_TIME=xxxx is less than the journal file(s) minimum timestamp=yyyy

MUPIP Error: This error indicates that the -BEFORE_TIME xxxx is earlier than the earliest timestamp yyyy found in the journal file(s).

Action: Issue the MUPIP command again with an appropriate value for -BEFORE_TIME. Note that journal files record time based on a UTC clock, which is time zone independent, while MUPIP interprets time-based input based your local clock and adjusts its actions accordingly. If you use a local clock (in UNIX, set by the TZ environment variable) that is subject to significant shifts, such as between standard time and daylight savings, when the time shifts back (for example, from daylight to standard), the time change may cause this error. One way to address this is to, possibly temporarily, switch your local time setting to UTC.

JNLTMQUAL4

JNLTMQUAL4, Time qualifier BEFORE_TIME="xxxx is less than AFTER_TIME="yyyy"

MUPIP Error: This indicates that the specified BEFORE_TIME xxxx is earlier than the AFTER_TIME yyyy specified

Action: Specify correct values for the time qualifiers and make sure that AFTER_TIME is earlier than BEFORE_TIME qualifier.

JNLTNOUTOFSEQ

JNLTNOUTOFSEQ, End transaction aaaa of journal xxxx different from Begin transaction bbbb of next generation journal yyyy

MUPIP Error: MUPIP JOURNAL FORWARD command has found that the transaction numbers (aaaa and bbbb) of two consecutive generation journal files (xxxx and yyyy) are not in sequence. It is expected that the end transaction of a journal file is the same as the begin transaction of the immediately succeeding generation.

Action: Ensure the specification of journal file names is as intended. Verify if the journal file xxxx and yyyy are really in sequence. Find out if any of the transactions are missing or duplicate using MUPIP

JOURNAL SHOW=HEAD FORWARD NOVERIFY. If appropriate, force forward recovery using the NOTNCHECK qualifier.

JNLTPNEST

JNLTPNEST, Mupip journal command found nested TP transactions for journal file jjjj at offset oooo at transaction number nnnn

MUPIP Warning: MUPIP JOURNAL -RECOVER or ROLLBACK encountered a TSTART record for transaction nnnn at offset oooo in journal file jjjj while already processing an uncommitted transaction. Since the run-time system should never produce this situation, the journal file is suspect. MUPIP discards the in-progress transaction and proceeds.

Action: Extract the journal file(s) and use the context from the message to find the transactions in question and adjust for any lost or tangled transaction(s).

JNLTRANS2BIG

JNLTRANS2BIG, Transaction needs an estimated [aaaa blocks] in journal file xxxx which exceeds the AUTOSWITCHLIMIT of bbbb

Run Time Error: This indicates that a database update transaction needs aaaa blocks of space in the journal file for its corresponding journal records and this exceeds the AUTOSWITCHLIMIT value of the current journal file.

Action: Increase the AUTOSWITCHLIMIT, or if the transaction is a TP transaction decrease the number of updates done within one transaction thereby decreasing its journal file space requirement.

JNLTRANSGTR

JNLTRANSGTR, Transaction number in journal is greater than in database

Run Time Warning: This indicates that GT.M was unable to open the journal file because its transaction number does not match the database files transaction number

Action: GT.M automatically closes the current journal file and creates a new one. To reestablish durability, perform MUPIP BACKUP to create a fresh set of journals consistent with the database. Review the accompanying message(s) for information on the journal file name.

JNLTRANSLSS

JNLTRANSLSS, Transaction number in journal is less than in database

Run Time Warning: This indicates that GT.M was unable to open the journal file because its transaction number does not match the database files transaction number.

Action: GT.M automatically closes the current journal file and creates a new one. To reestablish durability, perform MUPIP BACKUP to create a fresh set of journals consistent with the database. Review the accompanying message(s) for information on the journal file name.

JNLUNXPCTERR

JNLUNXPCTERR, Unexpected error encountered for Journal aaaa at disk address 0xbbbb

MUPIP Error: This indicates that MUPIP JOURNAL has detected an unexpected error in the journal file that prevents the command from proceeding. A recovery or rollback that uses this journal file cannot successfully complete.

Action: Report the entire incident context to your GT.M support channel.

JNLVSIZE

JNLVSIZE, Journal File xxxx has incorrect virtual_filesize aaaa Allocation is bbbb extension is cccc filesize is dddd file_system_block_size is eeee

Run Time Error: This indicates that journal file xxxx has incorrect value in the Virtual file size file header field. Either it is less than the actual filesize or it is not the same as allocation + n * extension.

Action: Run time system creates and switches to a new journal file and continues to run. Report to your GT.M support channel with any accompanying message(s).

JNLWRERR

JNLWRERR, Error writing journal file xxxx. Unable to update header Region: yyyy

Run Time/MUPIP Error: This indicates that GT.M encountered an error while updating the journal file header as part of trying to open the journal file.

Action: Review the accompanying message(s) for detail on the cause of the error. GT.M automatically closes the current journal file and creates a new one. To reestablish durability, perform MUPIP BACKUP to create a fresh set of journals consistent with the database.

JNLWRTDEFER

JNLWRTDEFER, Journal write start deferred

Run Time Information: This message always accompanies some other GT.M journaling message. This indicates that a flush of the journal buffer to the disk system was deferred since some other process is currently busy flushing the journal buffer.

Action: Review the accompanying message(s) for additional information.

JOBACTREF

JOBACTREF, Actual parameter in job command passed by reference

Compile Time Error: This indicates that arguments to JOB cannot be passed by reference.

Action: Arguments to JOB must be passed by value.

JOBARGMISSING

JOBARGMISSING, Missing job argument nnnn - can't skip non-trailing arguments to a JOB command in OpenVMS editions

Run Time Error: Indicates a JOB command parameter list contains two adjacent commas (,,), which should show an intention to not supply an actualist value for the corresponding formallist parameter. nnnn is the ordinal number of the first argument with this issue.

Action: If the parameter was not intentionally skipped, correct the JOB command. If the parameter should be optional, reorder the lists so the parameter in question is at the end of the list where it can be omitted or establish a distinguished value, such as an empty string, to serve in place of an omitted value.

JOBEXAMDONE

JOBEXAMDONE, GT.M process aaaa completed job examine to xxxx

Run Time/Operator log Information: This informational message reports that a \$ZJOBEXAM was performed and gives a complete file specification. The message is sent to the operator log.

Action: -

JOBEXAMFAIL

JOBEXAMFAIL, GT.M process aaaa executing \$ZJOBEXAM function failed with the preceding error message

Run Time/Operator log Error: This is a secondary message that accompanies a \$ZJOBEXAM function error. This error message is sent to the operator log.

Action: Review the accompanying message(s) and take appropriate action.

JOBFAIL

JOBFAIL, JOB command failure

Run Time Error: This indicates that a JOB command did not complete successfully.

Action: Review the accompanying message(s) for additional information. If a STARTUP jobparameter is specified, make sure that the file is accessible and has the desired content.

On OpenVMS systems: Verify the logical names and the LOGIN.COM file of the process that is issuing the JOB command because differences in the environment are the most common reason for failure.

JOBLABOFF

JOBLABOFF, Label and offset not found in created process

Run Time Error: This indicates that a JOB command specified an entry reference that could not be located in the image used by the new job.

Action: Verify that the image being JOBBed is properly linked. If the image has been changed since it was last LINKed, determine whether the new job has access to the files necessary to ZLINK the changes. You can also LINK the image to include the changes.

JOBLVN2LONG

JOBLVN2LONG, The zwrite representation of a local variable transferred to a JOB'd process is too long. The zwrite representation cannot exceed MMMM. Encountered size: LLLL

Run Time Error: This error indicates that the total length LLLL (in bytes) of the ZWRITE representation of the variable name, subscripts, and value exceeds the maximum MMMM supported by the PASSCURLVN facility. Note that the ZWRITE representation contains the appropriate punctuation for any subscripts, the equal-sign and replaces any non-graphic characters with their \${Z]CHAR() representations.

Action: Consider whether the JOB'd process needs the variable(s) that exceed the maximum for PASSCURLVN - if not, they can be taken out of scope before the JOB command. Alternatively, pass them using global variables or a local SOCKET device.

JOBLVNDETAIL

No longer in GT.M since: V6.2-003

JOBLVNDETAIL, The zwrite representation of a local variable transferred to a JOB'd process is too long. The zwrite representation cannot exceed XXXX. Encountered size: YYYY

Run Time Error: The length of the zwrite representation of a local, (including the quotes, the '=', concatenate operator "_", and "\${Z]C()") has the length of YYYY which exceeds the maximum limit of XXXX.

Action: Please check the sizes of locals that needs to be sent and make sure their lengths are less than XXXX. For those big locals, consider using another mechanism such as sockets.

JOBPARM

No longer in GT.M since: V5.4-000A

JOBPARM, Error accessing job parameters

Run Time Error: GT.M could not retrieve the job information piped from the originating job.

Action: Check for appropriate permissions for the parent and child job environments, also for operational actions that might delete temporary pipes; if necessary, report the entire incident context to your GT.M support channel for additional diagnostic assistance.

JOBPARNOVAL

JOBPARNOVAL, This job parameter cannot take a value

Compile Time Error: This indicates that a JOB command specified a value for a jobparameter that does not accept a value.

Action: Modify the jobparameter or remove its argument.

JOBPARNUM

JOBPARNUM, The value of this job parameter must be an integer

Compile Time Error: This indicates that a JOB command specified a valid jobparameter but it did not assign an integer value, which is required.

Action: Verify that the jobparameter has an integer literal argument and not a string or variable argument.

JOBPARSTR

JOBPARSTR, The value of this job parameter must be a string

Compile Time Error: This indicates that a JOB command specified a valid jobparameter but did not assign the jobparameter a string value as expected.

Action: Ensure that the jobparameter has a string literal argument and not a variable or keyword argument.

JOBPARTOOLONG

JOBPARTOOLONG, *JOBPARTOOLONG* Total parameter length is too long for job command

Run Time Error: This indicates that the total length of jobparameters that must be passed to the created job exceeded the size of the buffer that was available to handle them.

Action: Use fewer and/or shorter items in parameter passing; consider passing information in a global.

JOBPARUNK

JOBPARUNK, Job parameter unknown

Compile Time Error: This indicates that a JOB command specified an invalid jobparameter keyword.

Action: Specify a valid jobparameter keyword. Refer to the Programmer's Guide for a valid keyword.

JOBPARVALREQ

JOBPARVALREQ, A value is required for this job parameter

Compile Time Error: This indicates that a JOB command specified a valid jobparameter but did not assign the jobparameter a value, which is required.

Action: Review the jobparameters for proper assignments.

JOBSETUP

JOBSETUP, Error receiving aaaa from parent process

Run Time Error: This message indicates that a process created by the JOB command was unable to receive setup information aaaa from the process which issued the JOB command.

Action: Report this and the associated SYSTEM-E-ENO## message to your GT.M support channel.

JOBSTARTCMDFAIL

JOBSTARTCMDFAIL, JOB command STARTUP script invocation failed.

Run Time Error: This message indicates STARTUP script specified as JOB command process parameter failed.

Action: Verify the STARTUP script is present, and check it has appropriate permissions to execute.

JRTNULLFAIL

JRTNULLFAIL, Applying NULL journal record failed. Failure code: xxxx.

Update Process log/MUPIP Error: Issued by an Update Process, MUPIP JOURNAL -ROLLBACK or MUPIP JOURNAL -RECOVER indicating it encountered a database problem when it attempted to play a NULL journal record into the database. xxxx contains the failure codes for the four attempts. It is

very likely that the database may have integrity errors or that the process-private data structures are corrupted.

Action: Report the entire incident context to your GT.M support channel for further analysis.

JUSTFRACT

JUSTFRACT, Fraction specifier to \$JUSTIFY cannot be negative

Run Time Error: This indicates that a \$JUSTIFY or \$FNUMBER function specified a negative value as its third argument.

Action: Modify the third argument of the function so that it specifies the positive number of fractional digits to which the function rounds its result.

KEY2BIG

KEY2BIG, Key size (xxxx) is greater than maximum (yyyy) for region zzzz

Run Time Error: This indicates that a SET command attempted to establish a global variable with a total subscript length xxxx, which exceeds the maximum length yyyy specified in the file header for the current region zzzz.

Action: Verify that the subscripts are as intended. Use the DSE DUMP command and qualifier FILEHEADER to examine the key size for the region. Modify KEYSIZE if required by the application.

KEYFORBLK

KEYFORBLK, But block size bbbb and reserved bytes rrrr limit key size to kkkk.

GDE Error: The maximum key for a region must fit in the block size less record overhead and any reserved bytes for that region; kkkk is the maximum key size for block size bbbb.

Action: Reduce the key size or reserved bytes or increase the block size.

KEYSIZIS

KEYSIZIS, Key size is xxxx

GDE/DSE Information: This message displays the maximum key size xxxx of the REGION with which you are working.

Action: -

KEYTOOBIG

KEYTOOBIG, But record size xxxx can only support key size yyyy

GDE Warning: This indicates that an ADD, CHANGE, or TEMPLATE command specified a value for the KEYSIZE qualifier that is incompatible with the value xxxx assigned to RECORDSIZE. yyyy is the maximum value of KEYSIZE that this RECORDSIZE value can support.

Action: Review the accompanying message for the key size. Modify the key size and/or record size so that they are compatible.

KEYWRDAMB

KEYWRDAMB, xxxx is ambiguous for yyyy

GDE Error: This indicates that the keyword xxxx is ambiguous for the command or local qualifier yyyy.

Action: Ensure that the command or qualifier has enough characters to differentiate it from similar command elements.

KEYWRDBAD

KEYWRDBAD, xxxx is not a valid yyyy in this context

GDE Error: This indicates that GDE did not encounter a valid syntax element. xxxx is the invalid element. yyyy designates whether the element in context is a verb (command), object, or qualifier.

Action: Look for and correct typographical errors.

KILLABANDONED

KILLABANDONED, Abandoned kills counter is greater than zero for file ffff, tttt

Run Time Error: This indicates a process terminated during KILL cleanup in database file ffff; tttt is text warning of the implications. Generally, this leaves a database with block incorrectly marked busy errors. Such errors are benign in that they only cause blocks to be inappropriately unavailable. Nonetheless they should be addressed promptly to avoid operators becoming desensitized to errors in INTEGs.

Action: Use DSE MAP to carefully FREE individual incorrectly marked busy block. If there are many blocks, you can edit the output of the integ (run with NOMAP) to create a script for driving repeated DSE MAP FREE. Alternatively, if you can get standalone access, to the database you may use DSE MAP RESTORE - never use MAP RESTORE on an active database.

KILLBYSIG

KILLBYSIG, Process xxxx has been killed by a signal yyyy

Run Time Error: This indicates that the xxxx process failed due to signal yyyy.

Action: Preserve the core (dump) files and report the entire incident context to your GT.M support channel for further analysis.

KILLBYSIGSINFO1

KILLBYSIGSINFO1, iiii process xxxx has been killed by a signal yyyy at address aaaa (vaddr bbbb)

Run Time Error: This indicates that the process failed due to the yyyy signal, which occurred at the code address aaaa. bbbb is the virtual address attempting to be accessed from code address aaaa.

Action: Preserve the core (dump) files and report the entire incident context to your GT.M support channel for further analysis.

KILLBYSIGSINFO2

KILLBYSIGSINFO2, iiii process xxxx has been killed by a signal yyyy at address aaaa

Run Time Error: This indicates that the process iiii failed due to a signal, which occurred while attempting a memory access with an instruction at location aaaa.

Action: Preserve the core (dump) files and report the entire incident context to your GT.M support channel for further analysis.

KILLBYSIGSINFO3

KILLBYSIGSINFO3, iiii process xxxx has been killed by a signal yyyy accessing vaddress aaaa

Run Time Error: This indicates that the iiii (GTM, MUPIP, DSE, and so on) process failed due to the yyyy signal, which occurred while attempting to access virtual address aaaa.

Action: Preserve the core (dump) files and report the entire incident context to your GT.M support channel for further analysis.

KILLBYSIGUINFO

KILLBYSIGUINFO, Process xxxx has been killed by a signal yyyy from process zzzz with userid number aaaa

Run Time Error: This indicates that the process failed due to a signal, sent by another process zzzz, owned by user ID aaaa.

Action: Preserve the core (dump) files and report the entire incident context to your GT.M support channel for further analysis.

KRNLKILL

KRNLKILL, Process was terminated by SIGDANGER signal from the system --System swap space is too low --Report to System Administrator

Run Time Error: This indicates that a GT.M process received the SIGDANGER signal from AIX, which means that virtual memory is critically low. This message is sent to the user and the system log, notifying that the GT.M process is terminating.

Action: Report this condition to the system administrator as soon as possible. Check the system configuration to ensure sufficient swap space for the expected workload. Investigate whether the paging space is adequate.

LABLEXPECTED

LABLEXPECTED, Label expected in this context

Compile Time Error: This indicates that GT.M did not find a valid line reference where expected.

Action: Look for a missing label in an extrinsic or in a command such as DO, GOTO, or JOB.

LABELMISSING

LABELMISSING, Label referenced but not defined : xxxx

Compile Time Error: This indicates that a transfer of control command specified a label xxxx that does not exist in the routine.

Action: Look for a missing or misspelled label.

LABELNOTFND

LABELNOTFND, GOTO referenced a label that does not exist

Run Time Error: A GOTO referenced a label with neither a routine nor an offset but that label does not currently exist in the current routine. The location that accompanies this message is the last line in the routine.

Action: Check the errors from the compilation, as they provide the name of the missing label. As appropriate add the label or a routine, or better yet refactor to remove the GOTO.

LABELONLY

LABELONLY, Routine xxxx was compiled for label-only entry.

Run Time Error: This indicates that a transfer of control command specified an offset in routine xxxx that was compiled with the NOLINE_ENTRY qualifier; therefore, it can be invoked only at a label.

Action: Modify the invocation or recompile the routine without the NOLINE_ENTRY qualifier.

LABELUNKNOWN

LABELUNKNOWN, Label referenced but not defined

Compile Time Error: This indicates that a transfer of control command specified a label that is not defined in the image.

Action: Look for an unresolved reference in the last LINK caused by a missing or misspelled label.

LASTFILCMPLD

LASTFILCMPLD, The file currently being compiled is xxxx

Compile Time Information: This indicates that the GT.M compiler encountered a <CTRL>-C in the input stream and issued this status. xxxx is the name of the routine the compiler is currently processing.

Action: Use <CTRL>-Y to abort the process.

LASTTRANS

LASTTRANS, Last transaction sequence number SSSS : NNNN

MUPIP Information: This message appears with the output of MUPIP REPLICATE -SOURCE -SHOWBACKLOG. SSSS denotes the three states the latest transaction sequence number - posted, sent, and acknowledged. NNNN denotes the associated count for each state. A transaction is first "posted" on the Journal Pool, "sent" to the Receiver Server, and finally "acknowledged" once the Source Server receives confirmation that it has reached the Receiver Server.

Action: None

LASTWRITERBYPAS

LASTWRITERBYPAS, The last writer for database file xxxx bypassed the rundown

All GT.M Components Warning: This indicates that the last process which had the xxxx database file open for writing bypassed the rundown while disconnecting.

Action: This may occur due to an instance freeze. If so, first ensure that the Instance Freeze is resolved, manually clearing the Instance Freeze if necessary. If there is a source server still running, a normal shutdown of the source server will perform the rundown. Otherwise, the DSE ALL -B[UFFER_FLUSH] command may be used to ensure that any changes remaining in shared memory are written to disk.

LCKGONE

LCKGONE, Lock removed: xxxx

LKE Success: This indicates that CLEAR removed an M LOCK. xxxx is the resource name.

Action: -

LCKSCANCELLED

LCKSCANCELLED, Error on remote node holding locks or zallocates. All locks and zallocates cancelled.

Run Time Error: This indicates that when a GT.M process encounters a network error that involves a node holding LOCKs and/or ZALLOCATEs, the process attempts to cancel all LOCKs and ZALLOCATEs regardless of their node.

Action: If GT.M determines that communication with any part of its lock database is suspect, it releases all locks to establish a known state and minimize the impact of the failure on remaining network processes. After this error occurs, ensure that any restart reinstates ALL locks.

LCKSGONE

LCKSGONE, Locks selected for deletion removed

LKE Success: This indicates that CLEAR removed an M LOCK on a remote database.

Action: -

LCKSTIMOUT

LCKSTIMOUT, DAL timed lock request expired

Run Time Warning: This indicates that a call to seize a named M resource specified a timeout, and the resource was not available within the timeout.

Action: This is a normal signal to the calling process. If it occurs at an inappropriate time, use LKE to examine the lock environment.

LDBINFMT

LDBINFMT, Unrecognized header for load file

MUPIP Error: This message identifies a MUPIP load file that is not having the correct header format in either BINARY, ZWR or GO format.

Action: Examine the file with a text editor for possible correction to format header. If fixing the header does not resolve the error, attempt MUPIP EXTRACT with a different file format.

LDGOQFMT

LDGOQFMT, Corrupt GOQ format header information

MUPIP Error: This indicates that MUPIP terminated the loading of a GOQ format file because of a corrupt file header.

Action: Ensure that the proper tape is mounted and review how it was created. Use the host shell DUMP command to examine the first few blocks of the tape.

LDSPANGLOINCMP

LDSPANGLOINCMP, Incomplete spanning node found during load!!_!_at File offset : 0000

MUPIP Error: This error indicates that MUPIP LOAD encountered an issue with a spanning node in the input file at offset 0000. MUPIP LOAD produces the following LDSPANGLOINCMP errors:

- **Expected chunk number : ccccc but found a non-spanning node**
- **Expected chunk number : ccccc but found chunk number : ddddd**
- **Not expecting a spanning node chunk but found chunk : ccccc**
- **Global value too large: expected size : sssss actual size : ttttt chunk number : ccccc**
- **Expected size : sssss actual size : ttttt**

Action: Refer to the LDSPANGLOINCMP Errors section in the Maintaining Database Integrity chapter of the Administration and Operations Guide

LINETOOLONG

LINETOOLONG, UUUU prompt input exceeds NNNN bytes

DSE/LKE/MUPIP Error: This error appears when the GT.M parser detects the input to a GT.M Utility (DSE, LKE, or MUPIP) prompt exceeds the allowed maximum of NNNN bytes.

Action: Reduce the size of input to the utility prompt. If input to the UUUU prompt is from a GT.M PIPE device, set the RECORDSIZE deviceparameter to a value less than NNNN bytes.

LINKVERSION

LINKVERSION, This image must be relinked with the current version of GT.M

Run Time Fatal: This indicates that GT.M attempted to access an image that was created with a previous version of GT.M.

Action: Relink the image using the current version of GT.M. If the previous version of GT.M is still available, adjust the logical names to activate the appropriate old version of GT.M.

LISTENPASSBND

LISTENPASSBND, Controlmnemonic LISTEN can be applied to PASSIVE socket which is in the state BOUND ONLY

Run Time Error: This indicates that the LISTEN control mnemonic can only be applied to passive sockets in a bound state.

Action: Use ZSHOW to verify that the command syntax is correct. Use the USE command to bind the socket.

LITNONGRAPH

LITNONGRAPH, standard requires graphics in string literals; found non-printable: \$ZCHAR(cccc)

Compile Time Warning: flags a standard violation. The generated code will accept the string, even though it contains cccc, which is not a visible character.

Action: Consider revising the literal to use \${Z}CHAR() and possibly concatenation to make the code more maintainable.

LKENOFINISH

LKENOFINISH, LKE unable to finish all requested actions

LKE Error: This indicates that the previously reported error(s) prevented LKE from completing the requested action.

Action: Review the accompanying error message(s).

LKNAMEXPECTED

LKNAMEXPECTED, An identifier is expected after a ^ in this context

Compile Time Error: This indicates that the LOCK command specified an argument that started with ^, but does not contain a valid global name.

Action: Look for and correct any typographical errors or attempted naked references in LOCK names.

LKRUNDOWN

LKRUNDOWN, Error during lock database rundown

Run Time Error: This indicates that the process encountered an error when it attempted to release its LOCKs as part of image termination.

Action: Report this error to the group responsible for database integrity within your organization. Although this is not strictly a database error, other processes can be affected if LOCKs were left behind.

LKSECINIT

LKSECINIT, Error creating lock section for database xxxx

Run Time Error: This indicates that GT.M encountered a problem initializing the lock database associated with the database file (xxxx) it was trying to open.

Action: Review the accompanying message(s) for additional information.

LNKNOTIDLE

LNKNOTIDLE, Attempt to initiate operation before previous operation completed

GT.CM Error: This indicates that the networking protocol failed by trying to open an already accessed connection.

Action: Review DECnet error logs to determine the cause and location of the failure. Report the entire incident context to your GT.M support channel.

LOADABORT

LOADABORT, Aborting load at record xxxx

MUPIP Error: This indicates that LOAD encountered an error while processing input record number xxxx.

Action: Refer to the topic MUPIP LOAD Errors in About This Manual section in this manual.

LOADBGSZ

LOADBGSZ, Load error: BEGIN too small. No records loaded.

MUPIP Error: This indicates that an operation initiated by MUPIP LOAD with the qualifier FORMAT=GO did not take place because the record specified for the qualifier BEGIN= is negative or zero.

Action: Specify a record that is within the actual file.

LOADBGSZ2

LOADBGSZ2, Load error: BEGIN too large. No records loaded

MUPIP Error: This error is returned when the BEGIN qualifier's value exceeds the maximum (4GB - 1) value.

Action: Reduce the size of the parameter value and retry.

LOADCTRLY

LOADCTRLY, Control Y encountered during load. Load halting.

MUPIP Warning: This indicates that LOAD encountered a <CTRL>-Y in its input stream and terminated.

Action: The result of the LOAD is incomplete. If the LOAD was with FORMAT=GO, the database is usable. If the LOAD was with FORMAT=BIN, the database may be corrupt.

LOADEDDBG

LOADEDDBG, Load error: END smaller than BEGIN. No records loaded.

MUPIP Error: This indicates that a MUPIP LOAD operation did not occur because the record specified for the qualifier END= is smaller than the record specified for the qualifier BEGIN=.

Action: Specify a record for the qualifier END= that is greater than or equal to the record for the qualifier BEGIN=.

LOADED SZ

LOADED SZ, Load error: END too small. No records loaded.

MUPIP Error: This indicates that a MUPIP LOAD operation did not occur because the record specified for the qualifier END= is smaller than 2.

Action: Modify the qualifier END= value.

LOADED SZ2

LOADED SZ2, Load error: END too large. No records loaded.

MUPIP Error: This error is produced when the END qualifier's value exceeds the maximum (4GB - 1) value.

Action: Reduce the size of the parameter value and retry.

LOADEOF

LOADEOF, Load error: EOF reached prior to BEGIN record xxxx No records loaded

MUPIP Error: This indicates that LOAD did not transfer any records to the database because its input steam reached the end-of-file before the record specified by the qualifier BEGIN=xxxx.

Action: Specify a record for the qualifier BEGIN= that does not exceed the number of records in the file.

LOADFILERR

LOADFILERR, Error with load file xxxx

MUPIP Error: This indicates that LOAD encountered an error when opening its input file xxxx.

Action: Make sure correct load file has been specified. Review the accompanying message(s) for additional information.

LOADFMT

LOADFMT, Load error: bad format type. Must be GO, BINARY, or GOQ.

MUPIP Error: This indicates that a MUPIP LOAD operation did not take place because the qualifier FORMAT= specified an unsupported format.

Action: Look for and correct any typographical errors in the qualifier FORMAT= value.

LOADGD

LOADGD, Loading Global Directory xxxx

GDE Information: GDE displays this message at the beginning of a GDE session when Global Directory xxxx already exists.

Action: -

LOADINVCHSET

LOADINVCHSET, Extract file CHSET xxx is incompatible with gtm_chset.

MUPIP Information: This indicates that a MUPIP LOAD operation did not take place because the value of the environment variable gtm_chset at the time of creating the extract file was not the same as the current value of gtm_chset.

Action: Determine whether to change the current character set or redo the EXTRACT with a different character set. Alternatively, you can edit the extract file so the EXTRACT file header matches the gtm_chset environment variable. This enables an M mode MUPIP LOAD to treat the input as a byte stream or a UTF-8 mode MUPIP LOAD, which either detects BADCHAR errors or not, depending on the setting of the gtm_badchar environment variable..

LOADRECCNT

LOADRECCNT, Last EXTRACT record processed by LOAD: RRRR

MUPIP Information: This message indicates number of records (RRRR) MUPIP LOAD processed. The number of records represents the sum of header records, successfully loaded data records, and failed records. Note LOAD may have stopped processing due to a record limit in the command or a <CTRL-C>.

Action: Ensure the identified stopping point corresponds with your intentions.

LOADRUNNING

LOADRUNNING, Cannot ZLINK an active routine xxxx

Run Time Error: This indicates that a ZLINK specified a routine xxxx, that is currently on the M invocation stack. A routine cannot be altered in the image if its current form may be required for continued processing.

Action: ZLINK the routine prior to or after running it. Use QUIT or ZGOTO to remove the routine from the M stack.

LOCALSOCKREQ

LOCALSOCKREQ, LOCAL socket required

Run Time Error: The operation attempted requires a LOCAL socket, and a non-LOCAL (TCP) socket was specified.

Action: Make sure the correct socket is being used and that the socket is OPENed with the ":LOCAL" suffix. ZSHOW "D" may provide useful details on the current socket state.

LOCKCRITOWNER

LOCKCRITOWNER, LOCK crit is held by: PPPP

Run Time/LKE Information: This shows any current owner of the resource managing M LOCKs.

Action: If a process persists in this state investigate what it's doing and, if appropriate, consider terminating it.

LOCKINCR2HIGH

LOCKINCR2HIGH, Attempt to increment a LOCK more than LLLL times

Run Time Error: This message indicates that a LOCK + command attempted to increase a LOCK increment higher than LLLL (the maximum level). The following associated message gives the resource name for the LOCK that failed.

Action: Examine the application for pathological use of incremental LOCKs (LOCK +) and ensure that no process LOCKs a single resource more than 511 increments with no intervening decrements (LOCK -) for that resource or lock releases (LOCK with no + or - in its argument).

LOCKIS

LOCKIS, Resource name: RRRR

Run Time Information: This message identifies a lock resource.

Action: Refer to the accompanying message(s) for more information.

LOCKSPACEFULL

LOCKSPACEFULL, No more room for LOCK slots on database file ffff

Run Time Error: This indicates that the environment attempted more concurrent M LOCKs than the configured LOCK_SPACE for file ffff can support.

Action: Analyze the LOCK protocol for efficiency. Use mupip set -file -lock_space=size ffff to increase the lock space for region xxx. To avoid the same problem the next time you recreate the database, use GDE to make the analogous change to lock_space for the segment mapped to the ffff file in the global directory used to MUPIP CREATE this region

LOCKSPACEINFO

LOCKSPACEINFO, Region: rrrr: processes on queue: pppp/qqqq; LOCK slots in use: llll/kkkk; SUBSCRIPT slot bytes in use: ssss/tttt

Run Time Error: This indicates that the environment attempted more concurrent M LOCKs than the configured LOCK_SPACE for region rrrr can support. pppp processes are waiting on a lock. llll locks are in use. qqqq and kkkk indicate maximum number of process queue entries, and maximum number of locks respectively.

Action: Analyze the LOCK protocol for efficiency. Use mupip set -region -lock_space=size "rrrr" to increase the lock space for region rrrr. To avoid the same problem the next time you recreate the database, use GDE to make the analogous change to lock_space for the segment mapped to the ffff file in the global directory used to MUPIP CREATE this region.

LOCKSPACEUSE

LOCKSPACEUSE, Estimated free lock space: xxx% of pppp pages.

LKE Information: SHOW command displays the amount of free space along with the number of pages configured for lock space.

Action: If the free lock space report does not show a comfortable amount of free space, use MUPIP SET -LOCK_SPACE to increase the space; remember to also use GDE to revise the LOCK_SPACE in the global directory used to create the region in question so the change remains when the database is recreated.

LOCKSUB2LONG

LOCKSUB2LONG, Following subscript is xxxx bytes long which exceeds 255 byte limit.

Run Time Error: This indicates that one of the substrings of a lock is taking more than 255 bytes. Check the following message to see which substring caused this error.

Action: Make sure none of the substrings are larger than 255 bytes. If UTF-8 is enabled, use the encoded byte length rather the character length for the key size.

LOCKTIMINGINTP

LOCKTIMINGINTP, A LOCK at pppp within a TP transaction is waiting in a final TP retry, which may lead to a general response gap

Run Time Warning: This message indicates that a LOCK command at location pppp with a non-zero (0) or no timeout and within a critical resource holding retry of a TP transaction is waiting to acquire a resource currently owned by another process. This condition may cause other processes to pause for perceptible periods. The associated LOCKIS message identifies the LOCK resource name.

Action: Examine the application, especially at pppp, for pathological use of LOCKs within TP. A zero (0) timeout prevents this warning. Note that FIS recommends avoiding the use of LOCK commands within TP transactions.

LOGOFF

LOGOFF, No longer logging to file xxxx

GDE Information: This indicates that a LOG command with the qualifier OFF terminated logging of GDE commands to log file xxxx.

Action: When appropriate, resume logging with LOG and the qualifier ON[=]. GDE closes the log file(s) at the end of the GDE session.

LOGON

LOGON, Logging to file xxxx

GDE Information: This indicates that a LOG command with the qualifier ON[=] initiated the logging of GDE commands to log file xxxx.

Action: You can suspend logging with LOG and the qualifier OFF.

LOGTOOLONG

LOGTOOLONG, Environment variable eeee is too long. Maximum length allowed is llll bytes.

Information: This error is triggered whenever the length of an environment variable that GT.M cares about exceeds the maximum allowed limit.

Action: The maximum allowed limit is indicated in the message. Specify a value for the environment variable within this length.

LOWSPACECRE

LOWSPACECRE, Disk space for database file xxxx is not enough for yyyy future extension. aaaa blocks are needed, only bbbb available.

MUPIP Warning: This indicates that the database file xxxx was created but it was found that the file system/volume does not have enough space for even yyyy future extensions.

Action: Check the allocations and extension sizes specified in the Global Directory. If no extensions are anticipated, no action is required. Otherwise, consider moving some files to another file system/volume, or reconfiguring the file system/volume housing the database file.

LOWSPC

LOWSPC, WARNING: Database DDDD has less than PPPP% of the total block space remaining. Blocks Used: UUUU Total Blocks Available: AAAA

Operator log Information: The database has UUUU block in use and is approaching its current limit of AAAA blocks. When the database reaches the 88% size threshold, and for every 1% increase in size and beyond, GT.M reports the blocks used in the LOWSPC warning as the sum of the data blocks and the local bit map blocks.

Action: Purge data if possible. Consider a MUPIP REORG to compact the remaining data. Investigate whether migrating to a database created by a current version has a higher limit. Move some data to another, possibly new, region and delete it from this one.

LPARENMISSING

LPARENMISSING, Left parenthesis expected

Compile Time Error: This indicates that GT.M did not find a left parenthesis in the next source position.

Action: Look for invalid subscripts in indirection operations and errors in SET \$PIECE commands.

LPARENREQD

LPARENREQD, xxxx Left parenthesis expected

MUPIP Error: This indicates that LOAD failed because it found xxxx in the input stream where it expected to find a left parenthesis.

Action: Refer to the topic MUPIP LOAD Errors in About This Manual section of this manual.

LQLENGTHNA

LQLENGTHNA, Listening queue length xxxx not appropriate, it should be between 1 and 5

Run Time Error: This indicates that the GT.M listening queue restricts the number of pending connections between one (1) and five (5).

Action: Specify the number of pending connections in the queue as a number between one and five.

LSEXPECTED

LSEXPECTED, A line separator is expected here

Compile Time Error: This indicates that a source line did not specify a space or tab before the first command.

Action: Look for and correct typographical errors. If missing, put a tab or space at the beginning of the line.

LSINSERTED

LSINSERTED, Line YYYY, source module XXXX exceeds maximum source line length; line separator inserted, terminating scope of any prior IF, ELSE, or FOR

Compile Time Warning: Indicates that source XXXX line YYYY exceeded the maximum line length and GT.M separated it into multiple lines to allow continued parsing. Internally, GT.M represents the generated code as N lines for this source line, where N is the number of segments extracted from this source line. Be aware that as a result of this, source lines containing a command whose scope is rest of the line (IF, ELSE, FOR), are now split into multiple lines, each with a separate scope.

Action: Consider refactoring code to avoid source line lengths in excess of 8192 characters.

LVNULLSUBS

LVNULLSUBS, LVNULLSUBS Null subscripts not allowed in local variables

Run Time Error: This indicates that an attempt was made to set a local variable with null subscript.

Action: Modify the subscript generation to avoid the null subscript or change the LVNULLSUBS parameter for this job or process. For information on changing LVNULLSUBS, refer to documentation on GTM\$DEFAULTS and the VIEW command in the Programmer's Guide.

LVORDERARG

LVORDERARG, Argument to local variable \$NEXT must be subscripted

Compile Time Error: This indicates that a \$NEXT function specified an unsubscripted local variable as an argument.

Action: Use the \$ORDER function or ZWRITE command to display local variables.

LVSTARALON

LVSTARALON, The * name cannot be deleted or renamed

GDE Error: This indicates that a DELETE or RENAME command attempted to delete or rename the * namespace. The * namespace is protected because it is associated with namespaces that are not explicitly mapped.

Action: None.

MALLOCRIT

MALLOCRIT, Memory allocation critical due to request for bbbb bytes from aaaa

All GT.M Components Warning: Indicates a GT.M process exceeded the memory allocation threshold established with \$ZMALLOCLIM with a request for bbbb bytes. The address aaaa gives a location in a GT.M executable, likely only useful to your GT.M support channel.

Action: Consider diagnosing the process behavior. For example, look for a resource leak, or a more resource efficient approach. The size of the request may be helpful in indicating how aggressively the process is growing. The MALLOCRIT invokes the error handler, and may need special handling to resume execution at the point it was detected. By default, some later request for memory is likely to produce a fatal MEMORY error, unless a subsequent SET \$ZMALLOCLIM reestablishes the same or higher limit not exceeding any system limit. MEMORY errors are fatal and terminate the process. Independent of this mechanism, the OS may kill the process without recourse if it determines the greed of the process for memory jeopardizes the viability of the system.

MALLOCMAXUNIX

MALLOCMAXUNIX, Exceeded maximum allocation defined by \$gtm_max_storalloc.

Run Time Error: This error accompanies a MEMORY error as a secondary error to indicate that the limit the process hit was not an OS limit but one artificially defined by the \$gtm_max_storalloc environment variable.

Action: Increase the value of, or unset, \$gtm_max_storalloc, or identify the source of the memory consumption (for example, creating and keeping lots of local variables) and reduce it.

MALLOCMAXVMS

MALLOCMAXVMS, Exceeded maximum allocation defined by GTM_MAX_STORALLOC.

Run Time Error: This error accompanies a MEMORY error as a secondary error to indicate that the limit the process hit was not an OS limit but one artificially defined by the GTM_MAX_STORALLOC logical.

Action: Increase the value of or unset the GTM_MAX_STORALLOC logical or identify the source of the memory consumption (for example, creating and keeping lots of local variables) and reduce it.

MAPBAD

MAPBAD, xxxx for yyyy does not exist

GDE Information: This indicates that a NAME points to a REGION or a REGION points to a SEGMENT that does not exist. xxxx is the missing object. yyyy describes the type of the object. When you enter the VERIFY or EXIT command, GDE displays this message after it verifies the global directory.

Action: Use the ADD command to add the REGION or SEGMENT.

MAPDUP

MAPDUP, xxxx and yyyy both map to zzzz

GDE Information: This indicates that GDE encountered two REGIONS mapped to the same SEGMENT or two SEGMENTS mapped to the same FILE. xxxx and yyyy are the REGIONS or SEGMENTS with the same mapping. zzzz is the SEGMENT or FILE with more than one mapping. When you enter the VERIFY or EXIT command, GDE displays this message after it verifies the global directory.

Action: Delete mappings to eliminate duplication.

MAXACTARG

MAXACTARG, Maximum number of actual arguments exceeded

Compile Time Error: This indicates that a DO or extrinsic function supplied an actualist with more than 32 elements.

Action: Modify the routine so that it passes fewer parameters explicitly.

MAXARGCNT

No longer in GT.M since: V4.4-000

MAXARGCNT, Maximum number of arguments xxxx exceeded

Compile Time/Run Time Error: If this error occurs during compilation, it indicates that a command or function specified more than xxxx arguments. If this error occurs during run-time execution, it indicates that a SET of a \$ZROUTINES has more than the allowed number of elements in an array. The maximum number of arguments is xxxx.

Action: If this error occurs during compilation, it indicates that a command or function specified more than xxxx arguments. If this error occurs during run-time execution, it indicates that a SET of a \$ZROUTINES has more than the allowed number of elements in an array. The maximum number of arguments is xxxx.

MAXBTLEVEL

MAXBTLEVEL, Global ^gggg in region rrrr reached maximum level

Run Time/MUPIP Error: This indicates that the global-variable-tree for global xxxx reached the maximum level permissible. Very likely, MUPIP REORG was specified with a fill-factor much less than 100. Small fill-factors can cause REORG to revise existing GDS-blocks (in order to accommodate the fill-factor requirement), in turn causing block-splits, which might lead to an increase of the tree height. Alternatively a SET or MERGE has made the global really too large for the current block size, which is most likely to happen with large (spanning) database nodes. Note that if this message does not specify the global name, it means the directory tree for the region hit the limit - FIS believes the directory tree full condition is almost impossible to create in practice.

Action: If MUPIP reorg was specified with a small fill-factor, try higher number (close to 100) to reduce tree-height. Other techniques include increasing GDS-block-size, reducing reserved bytes, killing unwanted portions of the tree or moving some nodes in the global to a different database region.

MAXFORARGS

MAXFORARGS, Maximum number of arguments to a single FOR command exceeded

Compile Time Error: This indicates that a FOR statement specified more than 127 arguments.

Action: Modify the routine so that it uses fewer arguments in one FOR command.

MAXGTMPATH

MAXGTMPATH, The executing module path is greater than the maximum xxxx

Run Time Error: This indicates that the path specified for the mumps executable environment variable has a length limitation of xxxx.

Action: Move the directory or use a link to shorten the path.

MAXNRSUBSCRIPTS

MAXNRSUBSCRIPTS, Maximum number of subscripts exceeded

Compile Time Error: This indicates that a subscripted variable exceeded the maximum limit of 31 subscripts.

Action: Modify the routine to observe this limit on subscripts in a single variable.

MAXSEMGETRETRY

MAXSEMGETRETRY, Failed to get ftok semaphore after tttt tries because it is being continually deleted

Run Time Error: A process was unable to open a database file because on every one of tttt tries it found something kept deleting the IPC semaphore that gates access to the file.

Action: Check for one or more rogue processes disrupting IPC semaphore, or for damage to the Operating System semaphore services.

MAXSSREACHED

MAXSSREACHED, Maximum snapshots - mmmm - for region rrrr reached. Please wait for the existing snapshots to complete before starting a new one.

MUPIP Error: Starting this snapshot would exceed the maximum number of snapshots.

Action: Wait for a currently active process using snapshots to complete or terminate an existing snapshot activity.

MAXSTRLEN

MAXSTRLEN, Maximum string length exceeded

Run Time Error: This indicates that a string exceeded the maximum limit of 1,048,576 bytes. In M mode, each byte holds a character, but in UTF-8 mode, a character may take between one and four bytes.

Action: Modify the routine so it uses shorter strings.

MAXTRACEHEIGHT

No longer in GT.M since: V5.4-002B

MAXTRACEHEIGHT, <The maximum trace tree height (xxxx) has been exceeded. The trace information will be incomplete>

Run Time Information: The internal GT.M data structure used to gather information during M Profiling can not hold all the information.

Action: Not all lines executed will be reported in the global specified by VIEW "TRACE". There is no impact on the actual execution of the user program. Report the entire incident context with all information necessary to reproduce this error to your GT.M support channel.

MAXTRACELEVEL

No longer in GT.M since: V5.4-002B

MAXTRACELEVEL, The maximum traceable level of xxxx has been exceeded. The frame information will not be maintained.

Run Time Information: This indicates that M profiling reached the maximum level (\$ZLEVEL) it can manage. The information for frames will not be maintained from this point on. Line information is maintained and reported correctly and information gathered about frames upto this point will be reported. Further MAXTRACELEVEL errors will not be reported to the users.

Action: Determine if the number of levels of execution is as intended, if not, correct the application.

MAXTRIGNEST

MAXTRIGNEST, Maximum trigger nesting level LLLL exceeded

Trigger/Run Time Error: GT.M limits trigger invocation depth to LLLL.

Action: If you are sure that you do not have an application code bug or misfeature, reduce the depth of trigger invocation, possibly by consolidating triggers.

MBXRONLY

MBXRONLY, Mailbox is read only, cannot write to it

Run Time Error: This indicates that a WRITE command attempted to access a mailbox that was opened read-only.

Action: Verify that the routine is using the right mailbox and that the mailbox was opened with the appropriate deviceparameter.

MBXWRONLY

MBXWRONLY, Mailbox is write only, cannot read from it

Run Time Error: This indicates that a READ command attempted to access a mailbox that was opened write-only.

Action: Verify that the routine is using the correct mailbox and that the mailbox was opened with the appropriate deviceparameter.

MEMORY

MEMORY, Central memory exhausted during request for xxxx bytes

Compile Time/Run Time Error: This indicates that the compiler or the run-time system could not allocate sufficient storage.

Action: Look for very large variables. This error can also be caused by problems in the GT.M environment, such as using components of different versions or different platforms. Verify that there is no such problem in the environment.

MEMORYRECURSIVE

MEMORYRECURSIVE, Memory Subsystem called recursively

Run Time Error: This indicates that GT.M made an error calling the memory subsystem.

Action: Report the entire incident context to your GT.M support channel.

MERGEDESC

MERGEDESC, Merge operation not possible. xxxx is descendent of yyyy.

Run Time Error: This indicates that GT.M was not able to MERGE xxxx into yyyy or vice versa, because xxxx is a descendent of yyyy. When merging global variables specifications included extended references, the MERGE command issues a MERGEDESC error if any part of the source or target tree, as mapped, is a descendant of the other. In MERGE `^"x.gld"|a(1)=^"mumps.gld"|^a` there is no error if mumps.gld maps ^a to different database files than those to which x.gld maps ^a(1). A MERGEDESC error occurs if any part of ^a as mapped by mumps.gld overlaps any part of ^a(1) as mapped by x.gld.

Action: Modify the routine to avoid MERGE operation between two variables where one is the descendant of the other.

MERGEINCOMPL

MERGEINCOMPL, Error encountered during MERGE; operation may be incomplete

Run Time Error: This indicates that GT.M was not able to complete MERGE operation.

Action: Review the accompanying message(s) for additional information.

MISSINGDELIM

MISSINGDELIM, Delimiter dddd expected before qqqq vvvv

GDE Error: This indicates that the delimiter dddd (usually dash character in Unix, slash character in VMS) is expected just before vvvv is specified. vvvv is a GDE object or qualifier indicated by qqqq.

Action: Specify the delimiter as indicated.

MLKCLEANED

MLKCLEANED, LOCK garbage collection freed aaaa lock slots for region rrrr

LKE Information: LKE CLNUP was able to free lock slots when requested.

Action: No action required.

MLKHASHRESIZE

MLKHASHRESIZE, LOCK hash table for region rrrr (dddd) increased in size from aaaa to bbbb and placed in shared memory (id = mmmm)

Operator log Information: GT.M needed to expand a hash table for region rrrr mapped to database file dddd used for managing LOCK information.

Action: No user action is required, but shared memory monitoring will show an additional shared memory segment with id mmmm.

MLKHASHRESIZEFAIL

MLKHASHRESIZEFAIL, Failed to increase LOCK hash table for region rrrr (dddd) size from aaaa to bbbb. Will retry with larger size.

Operator log Warning: GT.M needed to expand a hash table for region rrrr mapped to database file dddd used for managing LOCK information needed to be expanded, but the initial attempt failed, necessitating a retry.

Action: A subsequent MLKHASHRESIZE indicates that the retry succeeded and no user action is required.

MLKHASHTABERR

MLKHASHTABERR, A LOCK control structure is damaged and could not be corrected. Lock entry for LLLL is invalid.

LKE Error: LKE CLNUP -INTEG encountered an out-of-design situation for LOCK LLLL and was unable to repair it automatically.

Action: Immediately report the entire incident context with information from the operator log and any other relevant information to your GT.M support channel.

MLKHASHWRONG

MLKHASHWRONG, A LOCK control structure has an invalid state; LOCK table failed integrity check. TTTT

LKE Error: MLK CLNUP -INTEG encountered damage to the data structures related to LOCK management. The text in TTTT describes whether LKE was able to correct the error or not.

Action: If LKE was not able to correct the error, immediately report the entire incident context with information from the operator log and any other relevant information to your GT.M support channel as soon as possible.

MLKREHASH

MLKREHASH, LOCK hash table rebuilt for region rrrr (dddd) (seed = ssss)

Run Time Information: GT.M has detected an issue with the LOCK hash table for region rrrr mapped to database file dddd and regenerated it using a new seed value ssss.

Action: This information message confirms the success of the rehash operation.

MMBEFOREJNL

MMBEFOREJNL, BEFORE image journaling cannot be set with MM access method in database file ffff

MUPIP Error: MM access method is incompatible with BEFORE_IMAGE journaling.

Action: If you require BEFORE_IMAGE journaling, use the BG access method. If you wish to use MM, turn off BEFORE_IMAGE journaling before selection MM as the access method.

MMFILETOOLARGE

MMFILETOOLARGE, Size of rrrr region (ffff) is larger than maximum size supported for memory mapped I/O on this platform.

Run Time Error: GT.M and its Utility programs issue this to indicate an attempt to open the database ffff corresponding to region rrrr when the size of the database file is greater than the maximum size supported for memory mapped I/O.

Action: Consider as appropriate: migrating to a platform not having this limitation, using more, but smaller, regions, or using the BG access method.

MMNOBEFORIMG

MMNOBEFORIMG, MM segments do not support before image journaling

GDE Information: This indicates that a JOURNAL=BEFORE_IMAGE region qualifier appeared on a segment that has segment qualifier ACCESS_METHOD=MM.

Action: Change the segment qualifier to ACCESS_METHOD=BG or use NOBEFORE_IMAGE for the region.

MMNOBFORRPL

MMNOBFORRPL, Replication cannot be used in database file ffff which uses MM access method and NOBEFORE image journaling

MUPIP Error: You can't turn on replication for MM access method database file ffff.

Action: Forgo replication for the file or change the access method to BG.

MMNODYNDWNGRD

MMNODYNDWNGRD, Unable to use dynamic downgrade with MM access method for region xxx. Use BG access method for downgrade

Run Time/MUPIP Error: An attempt was made to use MM mode on a database that has not completed being downgraded. MM mode is only supported on fully downgraded or fully upgraded databases.

Action: Use MUPIP SET FILE or MUPIP SET REGION with the ACCESS_METHOD parameter to set the access mode to BG. Then complete the file downgrade using MUPIP REORG DOWNGRADE or file upgrade using MUPIP REORG UPGRADE. And finally set the access mode back to MM using the MUPIP SET FILE or MUPIP SET REGION command again.

MMNODYNUPGRD

MMNODYNUPGRD, Unable to use MM access method for region yyy until all database blocks are upgraded

Run Time/MUPIP Error: An attempt was made to use MM mode on a database that has not completed being upgraded. MM mode is only supported on fully upgraded databases.

Action: Use MUPIP SET FILE or MUPIP SET REGION with the ACCESS_METHOD parameter to set the access mode to BG. Then complete the file upgrade using MUPIP REORG UPGRADE. And finally set the access mode back to MM using the MUPIP SET FILE or MUPIP SET REGION command again.

MMREGNOACCESS

MMREGNOACCESS, Region rrrr (ffff) is no longer accessible. See prior error messages in the operator and application error logs

Run Time Error: Issued when a process attempts to access region rrrr corresponding to database file ffff (opened with the MM access method) which previously became inaccessible to this process due to failure during file extension.

Action: Review the operator log for DBFILERR messages and application error logs for GBLOFLOW status to diagnose the circumstances for the earlier failure of memory mapped I/O operations and take corrective action.

MPROFRUNDOWN

MPROFRUNDOWN, Error during M-profiling rundown

Run Time Error: During process exit, GT.M attempted to store the results of an M-profiling trace but encountered an error.

Action: Report this database error to the group responsible for database integrity at your operation.

MRTMAXEXCEEDED

MRTMAXEXCEEDED, Maximum value of xxxx for SOCKET deviceparameter MOREREADTIME exceeded.

Compile Time/Run Time Error: GT.M triggers this error when MOREREADTIME exceeds its maximum value of 999ms.

Action: Specify a value between 1 and 999. Never set MOREREADTIME to 0 as it may cause a CPU to "spin". See "Input/Output Processing" Chapter of the Programmer's Guide for more information.

MSTACKCRIT

MSTACKCRIT, User-specified M stack size critical threshold of xxxx not appropriate; must be between mmmm and nnnn; reverting to kkkk

Run Time Error: The environment variable gtm_mstack_crit_threshold was set to an invalid value, either too large, in which case GT.M uses the largest acceptable value or too low, in which case GT.M uses the smallest acceptable value.

Action: If the adjusted value is unacceptable, revise or unset the environment variable.

MSTACKSZNA

MSTACKSZNA, User-specified M stack size of SSSS KiB not appropriate; must be between LLLL KiB and MMMM KiB; reverting to VVVV KiB

Run Time Information: The gtm_mstack environment variable species an M stack size outside the range GT.M supports, where LLLL and MMMM are the lower and upper bounds respectively; VVVV is the value actually used.

Action: None required immediately as the process operates with the reported size M stack, however it would be preferable to eliminate such messages by setting gtm_mstack to a value in the supported range.

MTANSIFOR

No longer in GT.M since: V5.3-003

MTANSIFOR, Use of ANSI labels does not allow stream format

Run Time Error: This indicates that the LABEL="ANSI" device parameter appeared in a device command for a tape with STREAM format.

Action: Modify the format to FIXED or VARIABLE, delete the LABEL device parameter, or use LABEL="DOS11" for STREAM format.

MTANSILAB

No longer in GT.M since: V5.3-003

MTANSILAB, Tape label is not in valid ANSI format

Run Time Error: This indicates that the magnetic tape device driver expected an ANSI label but did not find one.

Action: Verify that the tape was properly made and that current processing device parameters match.

MTBLKTOOBIG

No longer in GT.M since: V5.3-003

MTBLKTOOBIG, Magtape BLOCK_SIZE exceeds maximum size allowed

Run Time Error: This indicates that an OPEN command specified a BLOCK_SIZE deviceparameter that is larger than this type of tape can accommodate.

Action: Review the routine to ensure that block sizes do not exceed host I/O driver limitations.

MTBLKTOOSM

No longer in GT.M since: V5.3-003

MTBLKTOOSM, Magtape BLOCK_SIZE is less than xxxx bytes

Run Time Error: This indicates that an OPEN command specified a BLOCK_SIZE device parameter that is smaller than this type of tape can handle.

Action: Review the program to ensure that block sizes do not fall below host driver limitations. For example, the industry standard for 9-track tapes is to treat blocks smaller than 14 bytes as noise in an inter-record gap.

MTDOSFOR

No longer in GT.M since: V5.3-003

MTDOSFOR, Use of DOS-11 labels requires stream format

Run Time Error: This indicates that the LABEL="DOS11" deviceparameter appeared in a device command for a tape with FIXED or VARIABLE format.

Action: Modify the format to STREAM, delete the LABEL deviceparameter, or use LABEL="ANSI" for FIXED or VARIABLE format.

MTDOSLAB

No longer in GT.M since: V5.3-003

MTDOSLAB, Tape label is not in valid DOS-11 format

Run Time Error: This indicates that the magnetic tape device driver did not find the expected DOS11.

Action: Verify that the tape was properly made and that the current processing deviceparameters match.

MTFIXRECSZ

No longer in GT.M since: V5.3-003

MTFIXRECSZ, BLOCK_SIZE xxxx must be a multiple of fixed record size yyyy

Run Time Error: This indicates that an OPEN command specified a BLOCK_SIZE that is not a multiple of its FIXED RECORDSIZE.

Action: Ensure that the block size is evenly divisible by the record size.

MTINVLAB

No longer in GT.M since: V5.3-003

MTINVLAB, Invalid label type specified in magtape OPEN

Run Time Error: This indicates that the LABEL= deviceparameter appeared in a device command for a tape with an argument evaluating to arguments other than "DOS11" or "ANSI", which are the only valid ones.

Action: Remove or modify the LABEL=.

MTIOERR

No longer in GT.M since: V5.3-003

MTIOERR, I/O Error with magnetic tape device xxxx

Run Time Error: This indicates that an attempt to access a magnetic tape encountered a hardware error on tape drive xxxx.

Action: Review accompanying system error messages. If appropriate, try another tape or another drive. Initiate diagnostics on the tape drive in question.

MTIS

No longer in GT.M since: V5.3-003

MTIS, Magnetic tape: xxxx

Run Time Information: This message identifies magnetic tape xxxx as the current device at the time of an error.

Action: Review the accompanying message(s) for additional information.

MTNOSKIP

MTNOSKIP, SKIP operation not supported on this device

Run Time Error: This indicates that the program attempted to use the SKIP deviceparameter for a type of tape that is not able to SKIP.

Action: Remove the SKIP deviceparameter or select a type of tape that supports SKIP.

MTRDBADBLK

No longer in GT.M since: V5.3-003

MTRDBADBLK, Block read too small, contained only xxxx bytes, block size = yyyy

Run Time Error: This indicates that a READ command encountered a block on the tape that contained xxxx bytes, which is less than the BLOCKSIZE=yyyy deviceparameter specified.

Action: Verify that the proper tape is mounted and that the appropriate BLOCKSIZE is used when OPENing the magtape.

MTRDONLY

No longer in GT.M since: V5.3-003

MTRDONLY, Cannot write to a READONLY magtape

Run Time Error: This indicates that a WRITE command attempted to access a read-only tape.

Action: Verify that the proper tape is mounted. If the tape is to be written, insert the write ring and remount. If the tape is properly mounted, ensure that the tape was OPENed NOREADONLY.

MTRDTHENWRT

No longer in GT.M since: V5.3-003

MTRDTHENWRT, Attempt to read after a write to a magtape

Run Time Error: This indicates that a READ command followed a WRITE command to a magnetic tape with no intervening positioning toward the beginning of the tape.

Action: Look for a logic problem or a missing USE command. If previously written data is to be read, the tape must first be repositioned by a REWIND, a SKIP, or a SPACE with negative arguments.

MTRECGTRBLK

No longer in GT.M since: V5.3-003

MTRECGTRBLK, Magtape record size cannot exceed block size

Run Time Error: This indicates that an OPEN command attempted to initialize a magnetic tape with a RECORDSIZE that exceeds the BLOCKSIZE.

Action: Review the program and modify the value for BLOCKSIZE or RECORDSIZE.

MTRECTOOBIG

No longer in GT.M since: V5.3-003

MTRECTOOBIG, Magtape record size exceeds maximum allowed

Run Time Error: This indicates that an OPEN command attempted to initialize a magnetic tape with a RECORDSIZE larger than this type of tape can accommodate. Note that the maximum size allowed may depend on whether the records are FIXED or VARIABLE.

Action: Modify the routine to use smaller record sizes.

MTRECTOOSM

No longer in GT.M since: V5.3-003

MTRECTOOSM, Magtape record size is too small for record type

Run Time Error: This indicates that an OPEN command attempted to initialize a magnetic tape with a variable length record size that is smaller than this type of tape can accommodate.

Action: Modify the routine to use a larger record size or use FIXED length records. For example, in OpenVMS the minimum variable RECORDSIZE requires a single byte of data and 4 bytes of overhead in every variable-length record.

MUBCKNODIR

MUBCKNODIR, MUPIP backup aborted due to error in output directory

MUPIP Error: This indicates that the output directory specified in a BACKUP command could not receive the output file.

Action: Use the host shell commands to verify that the output directory exists, that it is properly protected, and has enough space.

MUCREFILERR

MUCREFILERR, Error in/at EEEE creating database DDDD (region RRRR)

Run Time Error: Message accompanying another message indicating the failure to create an autodb database file. EEEE indicates the \$ZPOSITION of the application which made the global reference that attempted to bring the database file into existence.

Action: Use the preceding message to diagnose and correct the problem, which may include missing environment variables and/or insufficient space or user privileges. Consider whether autodb creation is appropriate for this database file.

MUDWNGRDNOTPOS

MUDWNGRDNOTPOS, Start VBN value is [xxx] while downgraded GT.M version can support only [yyy]. Downgrade not possible

MUPIP Error: Older versions of GT.M require the first GDS block be at Virtual Block Number yyy but it is at VBN xxx. This is likely due to the file initially being created using a newer version of GT.M and thus cannot be downgraded.

Action: To use the database with an older version of GT.M, it must be extracted with the current version and loaded into the older version both in ZWR format.

MUDWNGRDNRDY

MUDWNGRDNRDY, Database xxx is not ready to downgrade - still yyy database blocks to downgrade

MUPIP Error: A MUPIP DOWNGRADE was attempted when the file-header blks_to_upgrd counter was not equal to the database used block count. This means that not all database blocks have been converted to V4 format.

Action: Before the database file-header can be downgraded, all of the blocks in the database must be downgraded to V4 format. This is normally accomplished with MUPIP REORG DOWNGRADE. If this fails to set the counter correctly, run MUPIP INTEG (not FAST) on the region which will compute and set the correct counter.

MUDWNGRDTN

MUDWNGRDTN, Transaction number 0xaaa in database xxx is too big for MUPIP [REORG] DOWNGRADE. Renew database with MUPIP INTEG TN_RESET

MUPIP Error: A MUPIP DOWNGRADE or MUPIP REORG DOWNGRADE was attempted when the database transaction number was greater than 4,026,531,839 (the TN_RESET warning limit for V4 databases).

Action: Before the database can be downgraded, the transaction number must be reset with the MUPIP INTEG TN_RESET command. This requires standalone access to the database and may take a significant amount of time.

MUFILRNDWNFL

MUFILRNDWNFL, File: xxxx rundown failed

MUPIP Error: This indicates that the RUNDOWN command could not close a database.

Action: This message indicates that information in memory may need to be transferred to disk. Review the accompanying message(s) for additional information.

MUFILRNDWNFL2

MUFILRNDWNFL2, Database section (id = dddd) belonging to database file ffff rundown failed

MUPIP Error: This error indicates that an argumentless MUPIP RUNDOWN failed for database ffff and could not safely remove the shared memory with ID dddd from the system.

Action: Refer to accompanying for more detail on why the argumentless MUPIP RUNDOWN failed.

MUFILRNDWNSUC

MUFILRNDWNSUC, File successfully rundown

MUPIP Success: This indicates that RUNDOWN ensured that the disk file is current.

Action: -

MUINFOSTR

MUINFOSTR, xxxx : aaaa

MUPIP Information: MUINFOSTR message is issued by a variety of MUPIP commands to inform the user of the command's progress. This indicates the string xxxx has the value aaaa.

Action: None necessary.

MUIINFOUNT4

MUIINFOUNT4, xxxx : aaaa [0xbbbb]

MUPIP Information: MUIINFOUNT4 message is issued by a variety of MUPIP commands to inform the user of the command's progress. This indicates the string xxxx has the decimal value aaaa and hexadecimal value bbbb.

Action: None necessary.

MUIINFOUNT6

MUIINFOUNT6, <tttt : vvvv [0x!hhhh] ; \$H=dddddd,ttttt

MUPIP Information: This is secondary information message that provides additional context for some other MUPIP message; tttt is explanatory text, vvvv is a numeric value, hhhh is the hexadecimal equivalent of vvvv, ddddd and ttttt are a date and time in \$HOROLOG format.

Action: Refer to the preceding message.

MUIINFOUNT8

MUIINFOUNT8, xxxx : aaaa [0xbbbb]

MUPIP Information: MUIINFOUNT4 message is issued by a variety of MUPIP commands to inform the user of the command's progress. This indicates the string xxxx has the decimal 8-byte value aaaa and hexadecimal 8-byte value bbbb.

Action: None necessary.

MUINSTFROZEN

MUINSTFROZEN, tttt : Instance iiii is frozen. Waiting for instance to be unfrozen before proceeding with writes to database file ffff

Run Time/MUPIP Information: This indicates the process attempting a write to database file ffff finds the instance iiii frozen (due to either a manual or an anticipatory freeze action). All writes suspend until the instance is unfrozen.

Action: Examine the cause of the Instance Freeze and take necessary actions to unfreeze the instance.

MUINSTUNFROZEN

MUINSTUNFROZEN, tttt : Instance iiii is now unfrozen. Continuing with writes to database file ffff

Run Time/MUPIP Information: This indicates that the instance *iiii* (that was previously frozen) is now unfrozen and the MUPIP operation can continue with writes to database file *ffff* that were previously suspended. Additionally, *tttt* provides the time stamp at which the MUPIP operation noticed the unfrozen instance.

Action: None needed.

MUJNLDBMISSING

No longer in GT.M since: V5.4-000

MUJNLDBMISSING, Journal files for required database *dddd* missing in the MUPIP JOURNAL command

MUPIP Error: MUPIP JOURNAL processing requires journal files for database *dddd* in order to perform the requested recovery, but the invoking command did not supply a path for those files.

Action: Revise the command to include the appropriate journal specification(s) and reissue it.

MUJNLPREVGEN

MUJNLPREVGEN, Previous generation journal file *xxxx* included for database file *yyyy*

MUPIP Information: This indicates that MUPIP included journal file *xxxx* for database file *yyyy* for recovery.

Action: -

MUJNLSTAT

MUJNLSTAT, *xxxx* at *yyyy*

MUPIP Information: This displays the system time *yyyy*, when the step *xxxx* was executed.

Action: -

MUJPOOLRNDWNFL

MUJPOOLRNDWNFL, Jnlpool section (*id = xxxx*) belonging to the replication instance *yyyy* rundown failed

MUPIP Error: This indicates that an attempt to run-down the shared memory for a journal pool failed; *xxxx* is the resource ID of the memory and *yyyy* is the instance designation.

Action: Analyze the preceding messages for additional information on the failure before attempting the run-down again.

MUJPOOLRNDWNSUC

MUJPOOLRNDWNSUC, Jnlpool section (id = xxxx) belonging to the replication instance yyyy successfully rundown

MUPIP Information: This indicates that the journal pool for instance yyyy was successfully closed and removed; xxxx is the shared memory resource id for the pool and yyyy is the instance designation.

Action: -

MUKEEPNODEC

MUKEEPNODEC, Expected decimal integer input for keep

MUPIP Error: The value for the MUPIP REORG -keep qualifier does not have the appropriate syntax.

Action: Revise the argument for -keep= to be a decimal integer number of blocks, or a 0-99 percentage followed by a percent sign (%).

MUKEEPNOTRUNC

MUKEEPNOTRUNC, Keep issued without -truncate

MUPIP Error: The -keep qualifier for MUPIP REORG only applies when used with -truncate.

Action: Adjust the MUPIP REORG command qualifiers to provide a valid combination.

MUKEEPPERCENT

MUKEEPPERCENT, Keep threshold percentage should be from 0 to 99

MUPIP Error: The MUPIP REORG -KEEP= qualifier can accept either a number of blocks or a percentage from 0% to 99%.

Action: If you wish to specify a number of blocks, remove the trailing %; if you wish to use a percentage, ensure it is within range.

MUKILLIP

MUKILLIP, Kill in progress indicator is set for file xxxx, incorrectly marked busy errors should follow

MUPIP Warning: This indicates that the kill-in-progress flag (shows up as KILLS in progress in DSE DUMP file) is set to a non zero value for database file xxxx.

Action: If there are no accompanying integrity errors, no action is required. Else fix those integrity errors and then perform a MUPIP INTEG -F[AST] -FILE on the database which will then reset the kill-in-progress flag to zero.

MULOGNAMEDEF

MULOGNAMEDEF, logical name xxxx, needed to start replication server is already defined for this job. Check for an existing or improperly terminated server.

MUPIP Error: This indicates that the logical name xxxx is already defined, which prevents MUPIP from starting the replication server. Either there is an already running server, or a previous server was not properly terminated.

Action: Check for an existing or improperly terminated server, use MUPIP RUNDOWN to clean up.

MULTFORMPARM

MULTFORMPARM, This formal parameter is multiply defined

Compile Time Error: This indicates that an element appears more than once in a formallist.

Action: Modify the formallist.

MULTIPROCLATCH

MULTIPROCLATCH, Failed to get multi-process latch at xxxx

MUPIP Error: A process was unable to acquire a multi-process latch (the resource that ensures correctness of execution amongst multiple processes) in a timely manner; xxxx is the address of the failing request.

Action: Report the entire incident context to your GT.M support channel.

MULTLAB

MULTLAB, This label has been previously defined

Compile Time Error: This indicates that a label is defined more than once in the routine.

Action: Rework the labels so that each one is unique. If labels contain more than eight characters, they are truncated to eight characters, which can cause conflicts.

MUNOACTION

MUNOACTION, MUPIP unable to perform requested action

MUPIP Error: This indicates that MUPIP encountered an error, which prevented the requested action.

Action: Review the accompanying message(s) to identify the cause that prevented MUPIP from performing the requested operation.

MUNODDBNAME

MUNODDBNAME, A database name or the region qualifier must be specified

MUPIP Error: This indicates that a MUPIP command did not have a FILE or REGION or JNLFILE qualifier.

Action: Add one of the required qualifiers to the command.

MUNODWNGRD

MUNODWNGRD, MUPIP downgrade did not occur because of preceding errors

MUPIP Error: This indicates that MUPIP failed to downgrade a database.

Action: Review the accompanying message(s) for additional information.

MUNOFINISH

MUNOFINISH, MUPIP unable to finish all requested actions

MUPIP Error: This indicates that MUPIP encountered an error, which prevented the requested action from completing. The action has partially completed.

Action: Review the accompanying message(s) for additional information to identify the cause.

MUNOSTRMBKUP

MUNOSTRMBKUP, Database xxxx has a block size larger than yyyy and thus cannot use stream (incremental) backup

MUPIP Warning: GT.M does not support bytestream (a.k.a incremental) backup of a database file that is created with a GDS block size larger than xxxx. As of GT.M version V5.0-000, this limit is 32256 bytes. MUPIP CREATE issues MUNOSTRMBKUP warning when creating a database file with a block size that exceeds the limit. MUPIP BACKUP -BYTESTREAM issues MUNOSTRMBKUP error and skips backing up a file that has block size that exceeds the limit. NOTE: Comprehensive BACKUP does not impose any limit on the GDS block size of the database file being backed up.

Action: Create the database file with a block size that does not exceed the limit.

MUNOTALLINTEG

MUNOTALLINTEG, At least one region skipped. See the earlier messages

MUPIP Warning: The INTEG report is incomplete because MUPIP could not access all of the selected regions.

Action: If appropriate, correct the issue(s) that caused INTEG to skip one or more regions

MUNOTALLSEC

MUNOTALLSEC, WARNING: not all global sections accessed were successfully rundown

MUPIP Warning: This indicates that RUNDOWN encountered at least one database that appeared to be in use and therefore could not be processed.

Action: If appropriate, initiate actions to cause all GT.M users to exit from GT.M and repeat the MUPIP RUNDOWN.

MUNOUPGRD

MUNOUPGRD, MUPIP upgrade did not occur because of preceding errors

MUPIP Error: This indicates that MUPIP could not upgrade a database from one version to another.

Action: Review the preceding error messages. Review all the release notes for the new version and for all versions between it and the existing version.

MUPCLIERR

MUPCLIERR, Action not taken due to CLI errors

MUPIP Error: This indicates that a MUPIP command did not process because of invalid syntax.

Action: Review the command documentation for correct syntax. Review the accompanying message(s) if any, for more information about the cause of this error.

MUPGDERR

MUPGDERR, Command aborted due to global directory errors

MUPIP Error: This indicates that a MUPIP command failed because it required a Global Directory and that file was inaccessible or damaged.

Action: Verify that GTM\$GBLDIR / \$gtmgblDir identifies the proper file and that the file is accessible to the process. Use GDE to recreate the Global Directory, if necessary.

MUPGRDSUCC

MUPGRDSUCC, Database file xxx successfully yyy to zzz

MUPIP Information: The database file header for xxx has been upgraded or downgraded to the version zzz format.

Action: -

MUPIPINFO

MUPIPINFO, xxxx

MUPIP Information: The LOAD command with the FORMAT qualifier defined to GO or GOQ uses this message to display the input file label xxxx.

Action: -

MUPIPSET2BIG

MUPIPSET2BIG, vvvv too large, maximum tttt allowed is mmmm

MUPIP Error: The value vvvv for tttt specified in a MUPIP SET command is above the maximum mmmm for tttt

Action: Decrease the specified value to not exceed the maximum.

MUPIPSET2SML

MUPIPSET2SML, vvvv too small, minimum tttt allowed is mmmm

MUPIP Error: The value vvvv for tttt specified in a MUPIP SET command is below the minimum mmmm for tttt

Action: Increase the specified value to meet or exceed the minimum.

MUPIPSIG

MUPIPSIG, STOP (signal xxxx) issued from process yyyy to process zzzz

MUPIP Information: This message indicates that process yyyy issued a MUPIP STOP to process zzzz, and xxxx signal is sent to process zzzz. Note that the message is logged at the time the signal is sent, regardless of when or if it is processed by process zzzz.

Action: -

MUPJNLINTERRUPT

MUPJNLINTERRUPT, Database file xxxx indicates interrupted MUPIP JOURNAL command. Restore from backup for forward recover/rollback.

MUPIP Error: This indicates that a MUPIP JOURNAL -ROLLBACK -FORWARD or a MUPIP JOURNAL -RECOVER -FORWARD did not proceed because a previous MUPIP JOURNAL command attempted on the database was terminated abnormally.

Action: Restore the database and journal files from a backup to proceed with the MUPIP JOURNAL -ROLLBACK -FORWARD or MUPIP JOURNAL -RECOVER -FORWARD.

MUPRECFLCK

MUPRECFLCK, Database file xxxx is locked by MUPIP RECOVER. Could not secure access.

Run Time Error: This indicates that GT.M could not open a database file xxxx because MUPIP JOURNAL with the RECOVER qualifier was applying a journal to the file.

Action: Wait for RECOVER command to complete.

MUPRESTERR

MUPRESTERR, MUPIP RESTORE aborted due to preceding errors

MUPIP Error: This indicates that a RESTORE operation failed, which left the database in an indeterminate state.

Action: Review the preceding errors for additional information.

MUQUALINCOMP

MUQUALINCOMP, Incompatible qualifiers - FILE and REGION

MUPIP Error: This indicates that the FILE and REGION qualifiers cannot be used in the same command.

Action: Choose one or the other.

MURAIMGFAIL

MURAIMGFAIL, MUPIP RECOVER failed while processing after-image journal record. Failure code: xxxx.

MUPIP Error: This indicates that MUPIP RECOVER/ROLLBACK encountered an error when processing an after-image journal record written for each DSE database update. xxxx contains the failure codes for the four attempts. It is very likely that the database may have integrity errors or that the process-private data structure are corrupted.

Action: Attempt the MUPIP RECOVER/ROLLBACK again. If the error persists, report the entire incident context with as much information about the system as possible to your GT.M support channel.

MURENCRYPTEND

MURENCRYPTEND, Database ffff : MUPIP REORG ENCRYPT finished by pid pppp at transaction number 0xtttt

MUPIP Information: The MUPIP REORG -ENCRYPT initiated by process pppp completed an encryption change for database file ffff at transaction number 0xtttt

Action: None required.

MURENCRYPTSTART

MURENCRYPTSTART, Database ffff : MUPIP REORG ENCRYPT started by pid pppp at transaction number 0xtttt

MUPIP Information: Process pppp used MUPIP REORG -ENCRYPT to start or restart an encryption change at transaction number 0xtttt for database file ffff

Action: None required.

MURENCRYPTV4NOALLOW

MURENCRYPTV4NOALLOW, Database (re)encryption supported only on fully upgraded V5 databases. ffff has V4 format blocks

MUPIP Error: MUPIP cannot enable or perform encryption on database file ffff while it contains GDS V4 format blocks.

Action: Upgrade the database to V5 and re-run the action.

MUREORGFAL

MUREORGFAL, MUPIP REORG failed. Failure code: xxxx.

MUPIP Error: This indicates that a REORG encountered a database error with failure code xxxx.

Action: Report this error to the group responsible for database integrity within your organization.

MUREPLPOOL

MUREPLPOOL, Error with replpool section xxxx

MUPIP Error: This indicates that MUPIP RUNDOWN command found the specified replication pool shared memory section having a problem.

Action: Refer to the subsequent message text for details.

MUREPLSECDEL

MUREPLSECDEL, Replication section xxxx deleted

MUPIP Information: This indicates that a replication pool was successfully closed and removed; xxxx is the shared memory resource ID for the pool.

Action: -

MUREPLSECNOTDEL

MUREPLSECNOTDEL, Replication section xxxx not deleted

MUPIP Error: This indicates that an attempt to rundown the shared memory for a replication pool failed; xxxx is the resource ID of the memory.

Action: Review the preceding messages for additional information on the failure before attempting a rundown again.

MUREUPDWNGRDEND

MUREUPDWNGRDEND, Region xxxx : MUPIP REORG UPGRADE/DOWNGRADE finished by pid aaaa [0xbbbb] at transaction number [0xcccc]

MUPIP Information: This is an informational message printed by MUPIP REORG UPGRADE or DOWNGRADE when the reorg has successfully completed its upgrade or downgrade respectively.

Action: None necessary.

MURNDWNARGLESS

MURNDWNARGLESS, Argumentless MUPIP RUNDOWN started with process id PPPP by userid UUUU from directory DDDD

MUPIP Information: Operator log message indicating an argumentless MUPIP RUNDOWN, which uses IPC resources on the node to clean up inactive GT.M shared resources (memory and semaphores).

Action: None typically required; may be useful in diagnosing operational issues.

MURNDWNOVRD

MURNDWNOVRD, OVERRIDE qualifier used with MUPIP RUNDOWN on database file dddd

MUPIP Information: This message records use of the OVERRIDE qualifier with a MUPIP RUNDOWN command to bypass an error, which would normally suggest a more appropriate action.

Action: No action required. This message serves primarily to facilitate analysis of database crashes and recovery procedures.

MURPOOLRNDWNFL

MURPOOLRNDWNFL, Recvpool section (id = xxxx) belonging to the replication instance yyyy rundown failed

MUPIP Error: This indicates that an attempt to rundown the shared memory for a receive pool failed; xxxx is the resource ID of the memory and yyyy is the instance designation.

Action: Review the preceding messages for additional information on the failure before attempting a rundown again.

MURPOOLRNDWNSUC

MURPOOLRNDWNSUC, Recvpool section (id = xxxx) belonging to the replication instance yyyy successfully rundown

MUPIP Information: This indicates that the receive pool for the specified instance was successfully closed and removed; xxxx is the shared memory resource ID for the pool and yyyy is the instance designation.

Action: -

MUSECDEL

MUSECDEL, Section xxxx deleted

MUPIP Information: This indicates that RUNDOWN removed the global memory section xxxx that is associated with an inactive database.

Action: -

MUSECNOTDEL

MUSECNOTDEL, Section xxxx not deleted

MUPIP Information: This indicates that RUNDOWN could not eliminate the global memory section xxxx that is associated with an apparently inactive database.

Action: -

MUSELFBKUP

MUSELFBKUP, Database file xxxx can not be backed upon itself

MUPIP Error: This indicates that GT.M attempted to perform a backup that would have overlaid the database being backed up.

Action: Modify the name of the output file and reissue the command.

MUSIZEFAIL

MUSIZEFAIL, MUPIP SIZE : failed. Failure code: xxxx.

MUPIP Error: This error indicates that **MUPIP SIZE** command encountered a database error with failure code xxxx.

Action: Report this error to the group responsible for database integrity within your organization.

MUSIZEINVARG

MUSIZEINVARG, MUPIP SIZE : Invalid parameter value for: xxxx

MUPIP Error: This indicates that **MUPIP SIZE** encountered a qualifier or parameter xxxx with an invalid value

Action: Review the proper syntax for **MUPIP SIZE**. Refer to the Administration and Operations Guide or the online help for the **MUPIP SIZE command**.

MUSTANDALONE

MUSTANDALONE, Could not get exclusive access to xxxx

MUPIP Information: This indicates that the process required but could not get exclusive access to the listed resource.

Action: Retry the process at a time when there are no other users accessing the resource or log off the resource users.

MUTEXERR

MUTEXERR, Mutual Exclusion subsystem failure

Run Time Error: This indicates that GT.M encountered a system error while initializing mutual exclusion resource(s).

Action: Review the accompanying message(s) for more information about the cause of the error.

MUTEXFRCDTERM

MUTEXFRCDTERM, Mutual Exclusion subsystem detected forced termination of process pppp. Crit salvaged from database file dddd.

Run Time Warning: This indicates that GT.M confirmed inappropriate termination of the process pppp, while holding crit on database file dddd.

Action: Determine the cause of the termination and take appropriate action.

MUTEXLCKALERT

MUTEXLCKALERT, Mutual Exclusion subsystem ALERT - Lock attempt threshold crossed for region rrrr. Process pppp is in crit cycle cccc.

Run Time Error: This warning indicates that a process could not obtain a critical section lock for region rrrr even after waiting longer than the GT.M determined threshold (approximately 32 seconds) because the critical section lock was held that entire time by another process pppp. cccc is the crit cycle count which GT.M increases by one every time it successfully grants the mutual exclusion (mutex) lock to a process. cccc provides a measure of the frequency of mutex lock use. MUTEXLCKALERT messages indicate that process pppp is blocking access to region rrrr for inappropriately long periods of time and thereby impacting performance for other processes needing access that region.

GT.M produces this warning when:

- A process owning a critical section dies (most likely because of a kill -9) and the OS gives its PID to another process. To reclaim the inappropriately held critical section, GT.M first checks whether the process is alive and whether it holds the critical section. On finding that the process is alive but does not hold the critical section, GT.M concludes that it is not safe to free the critical section and alerts the operator with this message.
- The process holding the critical section is using a non-Isolated command such as ZSYSTEM, BREAK or a timed command in a way that creates a deadlock or a live-lock. GT.M attempts to limit this by limiting the time a process using one of these commands can hold a critical section, but your use of non-Isolated commands and your settings for \$ZMAXTPTIM and / or the environment variable \$gtm_tptime may be such that you get MUTEXLCKALERT messages.
- There is an IO bottleneck that caused GT.M to slow down: GT.M detects that process pppp is currently using the critical section lock.



Note

GT.M blocks signals during MUTEXLCKALERT warnings. This means that GT.M defers error handling as a result of TP timeout (\$ZMAXTPTIME), interrupt handler invocation, \$ztimeout action, MUPIP STOP, etc. until the mutex is released. For example, a process may have a 10 seconds \$ZMAXTIMEOUT but GT.M may execute the error handler at a materially later time, until after the MUTEXLCKALERT condition has cleared.

Action: Monitor the system to determine whether there is a process with process id pppp and whether that process is a GT.M process.

Implement a script to get a stack trace for process pppp or take other appropriate action and use the \$gtm_procstuckexec environment variable to activate it before the block process sends the MUTEXLCKALERT message.

Identify and terminate process pppp to release control of that resource. If the process is a GT.M process, use a MUPIP STOP to terminate it. If a process of another application, use an appropriate mechanism to stop it.

If this message is due to an IO bottleneck, adopt a strategy that reduces IO. Some of the IO reducing strategies are:

- Revisit your database configuration parameters (especially block size, number of global buffers, journal buffers, and so on) to see if you can make improvements.
- Create separate region (database) for temporary globals and do not replicate them.
- Consider whether a different database access method and journaling strategy could improve throughput while satisfying your operational needs.
- Consider tuning your filesystem
- For application configurations with large numbers of concurrent processes and/or large process memory footprints, consider placing object code in shared libraries on GT.M editions that support it. This may free system memory which the OS can use for its file system cache, or which you can use to increase the number of global buffers.



Do not apply IO reduction strategies all at once. Try them one at a time and always verify/measure the results of each strategy.

MUTEXRELEASED

MUTEXRELEASED, Process xxxx [aaaa] has released the critical section for database yyyy to avoid deadlock. \$TLEVEL: pppp t_tries: qqqq

Run Time Information: This indicates an out-of-design state within GT.M that was recoverable.

Action: If this message is frequent, report the entire incident context to your GT.M support channel.

MUTEXRSRCLNUP

MUTEXRSRCLNUP, Mutex subsystem leftover resource xxxx removed.

Run Time Information: This indicates that GT.M removed leftover system resource xxxx, used by the mutual exclusion subsystem. The resource was leftover due to abnormal termination of a GT.M component.

Action: -

MUTNWARN

MUTNWARN, Database file xxxx has 0xaa more transactions to go before reaching the transaction number limit (0xbbbb). Renew database with MUPIP INTEG TN_RESET.

MUPIP Warning: This indicates that MUPIP INTEG detected that the transaction numbers in the named database are approaching the maximum number as specified by the Maximum TN Warn field in the database file header. The actual maximum TN is less than this theoretical limit. DSE DUMP

FILEHEADER shows what the limit is. The actual limit reflects some overhead used, for example, during a TN_RESET operation.

Action: Use MUPIP INTEG with the qualifier TN_RESET to reset the transaction numbers in the database. If the database is in the V4 format, consider converting it to the V5 format.

MUTRUNC1ATIME

MUTRUNC1ATIME, Process with PID iiii already performing truncate in region rrrr

MUPIP Information: Issued when a REORG -TRUNCATE on a region rrrr detects some other active REORG process concurrently processing a truncation.

Action: No action required. The other process will complete the truncate.

MUTRUNCBACKINPROG

MUTRUNCBACKINPROG, Truncate detected concurrent backup in progress for region rrrr

MUPIP Information: REORG truncate process detected concurrent backup. Database file not truncated.

Action: Ensure the backup has completed and rerun MUPIP REORG -TRUNCATE command.

MUTRUNCERROR

MUTRUNCERROR, Truncate of region rrrr encountered service error eeee

MUPIP Error: This indicates that a system call failed during REORG truncate.

Action: Use the OS documentation to investigate the failure.

MUTRUNCFAIL

MUTRUNCFAIL, Truncate failed after reorg

MUPIP Error: This indicates that REORG encountered an unexpected error. Truncate may be partially complete.

Action: Review accompanying message(s) for more information.

MUTRUNCNOSPACE

MUTRUNCNOSPACE, Region rrrr has insufficient space to meet truncate target percentage of yyyy

MUPIP Information: MUPIP REORG -TRUNCATE produces this message in the following conditions when it determines that there is insufficient free space at the end of the database file to meet the

requested percentage, the region is almost full or there are globals not mapped to the region, or there is a concurrent MUPIP EXTEND.

Action: Specify a less aggressive threshold. If a global is not mapped to the region, REORG cannot perform any operation on that global. Create a separate global directory for the global mapped to the region and then perform the REORG.

MUTRUNCNOSPKEEP

MUTRUNCNOSPKEEP, Region rrrr has insufficient space to meet truncate target percentage of pppp with keep at bbbb blocks

MUPIP Information: MUPIP REORGE -KEEP for region rrrr could not meet the specified percentage pppp so it left all the available blocks bbbb.

Action: None required, other than evaluating the space situation for the region and file system to ensure that it is wholesome and does not require additional intervention.

MUTRUNCNOTBG

MUTRUNCNOTBG, Region rrrr does not have access method BG

MUPIP Error: The truncate feature is only supported with the BG access method.

Action: Use the BG access method for files you wish to truncate.

MUTRUNCNOV4

MUTRUNCNOV4, Region rrrr is not fully upgraded from V4 format.

MUPIP Error: The truncate feature is only available for fully upgraded database files.

Action: In order to use truncate, first upgrade the database file to the current major version.

MUTRUNCPERCENT

MUTRUNCPERCENT, Truncate threshold percentage should be from 0 to 99

MUPIP Error: This indicates the the value entered for MUPIP REORG -TRUNCATE is invalid.

Action: Specify a valid threshold percentage.

MUTRUNCSSINPROG

MUTRUNCSSINPROG, Truncate detected concurrent snapshot in progress for region rrrr

MUPIP Information: REORG truncate process detected concurrent snapshot; database file not truncated.

Action: Ensure snapshot, for example a MUPIP INTEG, has completed and rerun the MUPIP REORG - TRUNCATE command.

MUTRUNCSUCCESS

MUTRUNCSUCCESS, Database file dddd truncated from oooo blocks to nnnn at transaction tttt

MUPIP Information: This operator log message indicates that the specified database file was truncated by MUPIP REORG as described by the message.

Action: -

MUUPGRDNRDY

MUUPGRDNRDY, Database xxx has not been certified as being ready to upgrade to yyy format

MUPIP Error: The named database file is in an older format than is in use by this GT.M version and has not been certified as ready for use by this GT.M version.

Action: Run DBCERTIFY to certify the database as being ready for upgrade.

MUUSERECOV

MUUSERECOV, Abnormal shutdown of journaled database dddd detected

Run Time Error: This error is issued when attempting a MUPIP RUNDOWN on a previously crashed journaling-enabled database dddd.

Action: Use MUPIP RECOVER to restore the normal state of the database.

MUUSERLBK

MUUSERLBK, Abnormal shutdown of replication-enabled database dddd detected

Run Time Error: This error is issued when attempting a MUPIP RUNDOWN on a previously crashed replication-enabled (with BEFORE IMAGE journaling) database dddd.

Action: Use MUPIP ROLLBACK to restore the normal state of the database.

NAMEEXPECTED

NAMEEXPECTED, A local variable name is expected in this context

Compile Time Error: This indicates that an actualname or a formallist item did not specify a local variable name.

Action: Look for and correct typographical errors. Verify that actualnames and formallist items are local variable names.

NAMENDBAD

NAMENDBAD, Subscripted name ssss must end with right parenthesis

GDE Error: This indicates that a subscripted name ssss (global name immediately followed by a left parenthesis) was specified without a balancing right parenthesis at the end of the subscripts.

Action: Specify the subscripted name with the appropriate right parenthesis.

NAMGVSUBOFLOW

NAMGVSUBOFLOW, Subscripted name hhhh...tttt is too long to be represented in the database using collation value #nnnn

GDE Error: This indicates that the subscripted name is too big to be represented in the database (exceeds the maximum limits of GT.M for the key size). The message also reports the alternative collation nnnn which was used to arrive at the subscript/key representation inside the database. The head (hhhh) and tail (tttt) of the long subscript is displayed with a ... in the middle.

Action: Specify a shorter subscripted name.

NAMGVSUBSMAX

NAMGVSUBSMAX, Subscripted Name specification nnnn has more than the maximum # of subscripts (mmmm)

GDE Error: This indicates that a name nnnn was specified with more than the maximum allowed number mmmm.

Action: Specify a name within the maximum allowed number of subscripts.

NAMLARENNOTBEG

NAMLARENNOTBEG, Subscripted Name specification nnnn needs to have a left parenthesis at the beginning of subscripts

GDE Error: This indicates that a name was specified using : or , or), which indicates a subscripted name, but the left parenthesis was missing.

Action: Specify a name with the appropriate left parenthesis.

NAMNOTSTRSUBS

NAMNOTSTRSUBS, Subscript #nnnn with value vvvv in name specification is not a properly formatted string subscript

GDE Error: This indicates that the nnnn'th subscript in a name did not have a valid string subscript. For example usages like GBL("AB"_) where the _ syntax is used to do concatenation of string subscripts but the right side of the _ operator is missing the string specification.

Action: Specify the name with a properly formatted string subscript.

NAMNUMSUBSOFLOW

NAMNUMSUBSOFLOW, Subscript #nnnn with value vvvv in name specification has a numeric overflow

GDE Error: This indicates that the nnnn'th subscript in a name specification includes a number that is too big to be represented in GT.M.

Action: Specify a subscript with a number that is inside the numeric range supported by GT.M.

NAMONECOLON

NAMONECOLON, Subscripted Name specification nnnn must have at most one colon (range) specification

GDE Error: This indicates that a subscripted name was specified with a range specification using : in the last subscript but more than one colon character was used.

Action: Specify a range with only one colon.

NAMRANGELASTSUB

NAMRANGELASTSUB, Ranges in name specification nnnn are allowed only in the last subscript

GDE Error: This indicates that one or more ranges (using : syntax) were specified in a name somewhere other than the last subscript.

Action: Specify any ranges only in the last subscript of a name.

NAMRANGEORDER

NAMRANGEORDER, Range in name specification nnnn specifies out-of-order subscripts using collation sequence #cccc

GDE Error: This indicates that the range in the name specification is out-of-order. For example yy(10:1) specifies numeric subscripts that are not in order (10 is greater than 1 and so it should have been 1:10 instead). In case of string subscripts, the collation sequence ccc is used to arrive at the subscript representation in the database and this is what gets compared for the left and right ends of the range to determine if they are in order or not. For example yy("a":"g") is in order in case of collation sequence 0 (ascii ordering) but might not be in order if the name yy has a non-zero collation defined and that collation sorts strings in reverse ascii order.

Action: Specify ranges in order i.e. lower end of the range on the left hand side and the higher end of the range on the right hand side.

NAMRANGEOVERLAP

NAMRANGEOVERLAP, Range in name specifications mmmm and nnnn overlap using collation sequence #cccc

GDE Error: This indicates that the subscripted name specifications mmmm and nnnn belong to the same unsubscripted global name and map to different regions but define ranges that overlap.

Action: Ranges that overlap cannot map to different regions. The only exception is sub-ranges where one range lies completely inside of another. Fix the range specifications to either map to the same region or split the ranges further to avoid overlap.

NAMRPARENNOTEND

NAMRPARENNOTEND, Subscripted Name specification nnnn cannot have anything following the right parenthesis at the end of subscripts

GDE Error: This indicates that a subscripted name was specified where the right parenthesis denoting the end of the subscripts was followed by more characters.

Action: Specify all subscripts of a name inside the left and right parenthesis that immediately follow the unsubscripted name.

NAMSTARSUBSMIX

NAMSTARSUBSMIX, Name specification nnnn cannot contain * and subscripts at the same time

GDE Error: This indicates that the name nnnn contains both * and subscripts which is not allowed.

Action: Specify a wildcard (*) or subscripts, but not both.

NAMSTARTBAD

NAMSTARTBAD, xxxx must start with '%' or an alphabetic character

GDE Error: This indicates that an ADD or CHANGE command specified a name xxxx that does not begin with a '%' sign or an alphabetic character.

Action: Add a '%' sign or an alphabetic character to the beginning of the name.

NAMSTRSUBSCHARG

NAMSTRSUBSCHARG, Subscript #nnnn with value vvvv in name specification specifies a \$C/\$ZCH with number cccc that is invalid in the current \$zchset

GDE Error: This indicates that the nnnn'th subscript in a name specifies a string subscript using \$CHAR/\$ZCHAR but one of the arguments to this function (potentially in a comma-separated list) is invalid.

Action: An invalid integer argument is one which returns a null string when passed to \$CHAR/\$ZCHAR with the current \$zchset setting. Specify the string subscript with a valid argument to \$CHAR/\$ZCHAR.

NAMSTRSUBSCHINT

NAMSTRSUBSCHINT, Subscript #nnnn with value vvvv in name specification does not have a positive integer inside \$C/\$CHAR/\$ZCH/\$ZCHAR

GDE Error: This indicates that the nnnn'th subscript in a name specifies a string subscript using \$CHAR/\$ZCHAR but one of the arguments to this function (potentially in a comma-separated list) is not a positive integer.

Action: Specify the string subscript with a positive integer argument to \$CHAR/\$ZCHAR.

NAMSTRSUBSFUN

NAMSTRSUBSFUN, Subscript #nnnn with value vvvv in name specification uses function other than \$C/\$CHAR/\$ZCH/\$ZCHAR

GDE Error: This indicates that the nnnn'th subscript in a name specifies a string subscript using an unsupported function. The only two supported functions are \$CHAR or \$ZCHAR (long form and short forms).

Action: Specify the string subscript using only the supported functions.

NAMSUBSBAD

NAMSUBSBAD, Subscript #nnnn with value vvvv in name specification is an invalid number or string

GDE Error: This indicates that the nnnn'th subscript in a name specification is neither a valid number or a string.

Action: Specify a valid subscript.

NAMSUBSEMPY

NAMSUBSEMPY, Subscript #nnnn is empty in name specification

GDE Error: This indicates that the nnnn'th subscript in a name specification is empty. For example the 2nd subscript in a(1,,3) is empty.

Action: Specify the subscripted name with a non-empty subscript.

NCTCOLLDIFF

NCTCOLLDIFF, Source and destination for MERGE cannot have different numerical collation type

Run Time Error: This indicates that two arguments of the MERGE command have different numerical collation type.

Action: Use the %GBLDEF utility to set the same numerical collation type for both the arguments or use another method, such as a \$ORDER() loop or MUPIP EXTRACT and LOAD to move the data.

NCTCOLLSPGBL

NCTCOLLSPGBL, Database region rrrr contains portion of spanning global ^gggg and so cannot support non-zero numeric collation type

Run Time Error: This indicates that region rrrr contains parts of a global gggg that spans multiple regions according to the current global directory but the directory tree in rrrr indicates gggg has a non-zero numeric collation type.

Action: Spanning globals only support a value of zero for numeric collation (i.e. numbers collate as numbers, not as strings). Access region rrrr using a temporary global directory that maps all names (including gggg) to rrrr, extract the gggg global, KILL it, use \$\$set^%^GBLDEF to fix the numeric collation to 0, reload the global from the extract, switch back to the regular global directory. An alternative recovery action that does not require extract/load is to change the global directory so gggg is no longer a spanning global or has no mappings into any region that collates numbers using their string value.

NEEDTRIGUPGRD

NEEDTRIGUPGRD, Cannot do trigger operation on database file ffff until it is upgraded; Run MUPIP TRIGGER -UPGRADE first

Run Time Error: Upgrades from some versions to some more recent versions change aspects of the trigger definitions. This message indicates GT.M encountered a trigger definition in an old format.

Action: Run MUPIP TRIGGER -UPGRADE. Alternatively, revert to the older version, use MUPIP TRIGGER or \$ZTRIGGER() to select all triggers and save the result, delete all the triggers, return to the newer version and reinstall the triggers.

NEGFRACPWR

NEGFRACPWR, Invalid operation: fractional power of negative number

Run Time Error: This indicates that the power of an exponentiation operation is negative and contains a fractional portion. This type of operation produces an imaginary component in its result, and M does not specify such operations.

Action: Modify the code to prevent negative powers with fractional parts in exponentiation operations or trap the resulting errors.

NESTFORMP

NESTFORMP, Formal parameter list cannot be combined with nested line

Compile Time Error: This indicates that a line included both a formallist and a nesting level-indicator (.).

Action: Parameter passing is incompatible with argumentless DO commands. Remove the formallist or the level-indicator and reorganize the routine, if appropriate.

NETDBOPNERR

NETDBOPNERR, Error while attempting to open database across net

Run Time Error: This indicates that the GT.M encountered an error when it attempted to open a database that is on a remote node served by a GT.CM server.

Action: Review subsequent message(s) to determine the nature of the problem.

NETFAIL

NETFAIL, Failure of Net operation

Run Time Error: This indicates that a network failure occurred but it could not be traced to any current activity.

Action: If the problem persists, contact the group responsible for database operations on your network.

NETLCKFAIL

NETLCKFAIL, Lock operation across Net failed

Run Time Error: This indicates that a LOCK, ZALLOCATE, or ZDEALLOCATE that involved a remote database failed.

Action: This network failure involves M LOCKs. Retry the operation from a point that establishes all necessary LOCKs. If the problem persists, contact the group responsible for database operations on your network.

NEWJNLFILECREAT

NEWJNLFILECREAT, Journal file xxxx nearing maximum size. New journal file created.

Run Time/MUPIP Information: This indicates that GT.M created a new journal file as it reached the maximum allowed journal size.

Action: Refer to the documentation on maximum allowed journal file size.

NLMISMATCHCALC

NLMISMATCHCALC, Location of xxxx expected at yyyy, but found at zzzz

Run Time Error: This indicates that the shared memory location of xxxx shows a layout problem. Typically, this is caused by attempting to use databases opened by a GT.M version, different from the currently running version.

Action: Rundown the database and ensure a stable and consistent database configuration before attempting to use it again.

NLRESTORE

NLRESTORE, DB file header field FFFF: VVVV does not match the value used in original mapping - restoring to: OOOO

DSE Warning: When DSE encounters a internal header field named FFFF whose value VVVV conflicts with the original value OOOO, DSE issues a warning message and uses the original value in order to successfully access shared memory.

Action: Please restore the header fields to their correct values. As a low level database repair tool of last resort, DSE assumes a knowledgeable user, and does no edit checking of input values. Do not use DSE to make routine changes, and do not use DSE to change a parameter if you can accomplish the same goal with MUPIP. As the normal system administration and operations tool, MUPIP has the ability to change parameters you might normally need to change, and it does check that input values are reasonable. Changing fileheader parameters with DSE should normally be performed with stand-alone access. Change fileheader parameters on an open database only under the guidance of an expert GT.M support channel.

NOACTION

NOACTION, Not updating Global Directory xxxx

GDE Information: This indicates that GDE did not write a new version of existing Global Directory xxxx due to a QUIT or an EXIT when no changes had been made.

Action: GDE displays this message when you EXIT GDE without making any changes to the Global Directory. It also displays this message when you terminate a GDE session with the QUIT command. If you made changes you want to save, you must restart GDE , perform your work and save the changes before exiting GDE.

NOALIASLIST

NOALIASLIST, Parenthetical lists of multiple arguments cannot have a preceding alias introducer or include alias (*) forms

Run Time Error: This indicates the argument for a SET command attempted to assign an alias using a parenthesized list as a left-hand argument, which is unsupported syntax.

Action: Correct the code in question to avoid the parenthesized list.

NOCANONICNAME

NOCANONICNAME, Value is not a canonic name (xxxx).

Run Time Error: This indicates that the argument supplied to \$QLENGTH, or the first argument to \$QSUBSCRIPT is not a valid glvn.

Action: Pass valid argument to \$QLENGTH/\$QSUBSCRIPT

NOCCPID

NOCCPID, Cannot find CCP process ID

CCE Error: This indicates that a CCE DUMP did not complete because it could not find a process with the name for the CCP.

Action: The CCP is not running properly on your node. Report this error to the group responsible for clustered databases at your site.

NOCHLEFT

NOCHLEFT, Unhandled condition exception (all handlers exhausted) process terminating

Run Time Fatal: This indicates an internal error in handling of error conditions in GT.M.

Action: Report the entire incident context with the complete operator log generated to your GT.M support channel.

NOCREMMBIJ

NOCREMMBIJ, MM access method not compatible with BEFORE image journaling; Database file DDDD not created

MUPIP/Run Time Error: While creating a database file with access mode MM, GTM found the database file DDDD to be configured for BEFORE image journaling which is not supported with that access method.

Action: Either change the access mode of the file or do not enable BEFORE image journaling and retry.

NOCRENETFILE

NOCRENETFILE, Database file DDDD not created; cannot create across network

All GT.M Components Error: While creating a database with the AUTODB flag on GTM discovered the database configured to be a remote GT.CM database. This configuration is not supported.

Action: Either change the file to be local or remove the AUTODB flag from the file description in the global directory and retry.

NODFRALLOCSUPP

NODFRALLOCSUPP, The NODEFER_ALLOCATE qualifier is not allowed on this operating system. Not changing the defer allocation flag

MUPIP Error: Indicates the disk space preallocation is not supported on the current operating system.

Action: Consider using an external utility, such as FALLOCATE, to fulfill the need. Currently, Linux and AIX are the supported operating systems for the NODEFER_ALLOCATE feature.

NOEDITOR

NOEDITOR, Can't find an executable editor: eeee

Run Time Error: The ZEDIT command cannot find an executable editor.

Action: Ensure that the EDITOR environment variable points to an editor that is executable by the user..

NOENDIANCVT

NOENDIANCVT, Unable to convert the endian format of file dddd due to eeee

MUPIP Error: One of the requirements for the MUPIP ENDIANCVT command was not met. The problems include: "database format is not the current version", "minor database format is not the current version", "some blocks are not upgraded to the current version", "kills in progress", "the database is frozen", "a GT.CM server accessing the database", "recovery was interrupted", "database creation in progress", "wc_blocked is set- rundown needed", "the database is corrupted".

Action: Resolve the reported conditions and repeat the command or use the -OVERRIDE qualifier if it is appropriate to bypass the error condition.

NOEXCLUDE

NOEXCLUDE, None of the excluded variables exist

MUPIP Information: This indicates that MUPIP REORG did not find any of the variables specified in the EXCLUDE qualifier to be present in the database.

Action: Verify the names specified in the EXCLUDE qualifier in case you expected them to be present in the database file and not be reorged.

NOEXCNOZTRAP

NOEXCNOZTRAP, Neither an exception nor a Ztrap is specified

Run Time Warning: This indicates that a \$CTRAP character arrived but no EXCEPTION or \$ZTRAP existed to handle it.

Action: Determine why these circumstances coincide. This error never appears on a device; in this particular case, it is assigned to the image termination status as a warning.

NOEXIT

NOEXIT, Cannot exit because of verification failure

GDE Information: This indicates that GDE encountered errors in the REGION-SEGMENT or SEGMENT-FILE mappings and cannot exit.

Action: Review the accompanying message(s) for additional information. Verify the mappings and modify them as appropriate.

NOFILTERNEST

NOFILTERNEST, Filter nesting not allowed

Run Time Error: Filter code must not invoke other code that requires a filter.

Action: Revise the filter code to adhere to the requirement.

NOFORKCORE

NOFORKCORE, Unable to fork off process to create core. Core creation postponed.

Run Time Warning: This indicates that the process, which failed was unable to create a memory dump file, possibly due to lack of system resources.

Action: Reduce the number of users and stop any unnecessary processes.

NOGTCMDB

NOGTCMDB, ffff does not support operation on GT.CM database region: rrrr

Utility Error: Facility ffff cannot perform the requested operation on a GT.CM database such as rrrr.

Action: Use the utility on the remote GT.CM server system or move the database so it is local rather than remote.

NOJNL

NOJNL, ssss segments do not support journaling.

MUPIP Error: This error indicates that the segment type ssss does not support journaling.

Action: For more information on Journaling, refer to the GT.M Journaling chapter in the Administration and Operations Guide.

NOJNLPOOL

NOJNLPOOL, No journal pool info found in the replication instance of xxxx

Run Time/MUPIP Error: This indicates that GT.M / MUPIP did not get replication information from the instance file specified. Replication instance file was not initialized because replication did not start, or some other process reset the replication instance file.

Action: Start the Source Server if it was not started. Note that the first Source Server process creates the Journal Pool. Subsequent Source Server processes use the Journal Pool that the first Source Server process creates. If the source server was running, stop the server and perform an optimum recovery using MUPIP JOURNAL -ROLLBACK -BACKWARD "*" and restart the Source Server. If optimum recovery command fails, perform a MUPIP RUNDOWN (or a MUPIP RUNDOWN -REGION "*"), and then restart the Source Server.

NOLBRSRC

NOLBRSRC, Object libraries cannot have SRC paths associated

Run Time Error: This indicates that GTM\$ROUTINES / gtmroutines or a SET \$ZROUTINES attempted to place a source specification (SRC qualifier / source directory path) on an object library.

Action: Remove the source specification. GT.M does not use the qualifier SRC= or source directories on object libraries. On OpenVMS, if you must provide access to source corresponding to objects in an object library, move the objects to a directory. If the objects exist only in the library, use LIBRARY with the qualifier EXTRACT to recreate them. On UNIX, if you must provide access to sources corresponding to objects in the shared library, attach the source directory to an existing object directory entry. Since GT.M does not support automatic recompilations into libraries, care must be taken when providing access to sources of library routines.

NOLOCKMATCH

NOLOCKMATCH, No matching locks were found in rrrr

LKE Information: SHOW or CLEAR, found that no LOCKs match the specified criteria in region rrrr; note that specifying no search criteria acts like a wildcard, checking all LOCKs in the region.

Action: If this is not the expected result, check the search criteria and / or research the LOCK protocol to validate its correct operation.

NOLOG

NOLOG, Logging is currently disabled. Log file is xxxx.

GDE Error: This indicates that GDE is not logging user activities.

Action: Use the LOG -ON command to turn on GDE logging.

NOMORESEMCNT

NOMORESEMCNT, SSSS counter semaphore has reached its maximum and stopped counting for database DDDD. Run MUPIP JOURNAL -ROLLBACK -BACKWARD, MUPIP JOURNAL -RECOVER -BACKWARD or MUPIP RUNDOWN to restore the database files and shared resources to a clean state

All GT.M Components Information: The counter semaphore reached its system-imposed limit so GT.M no longer maintains the count. SSSS is either "access" or "ftok" signifying the particular counter type that stopped. DDDD is the database of the corresponding counter.

Action: GT.M will not automatically shutdown the database. To clean the database file header and shared resources after the last process has exited the database file, do an explicit MUPIP -ROLLBACK -BACKWARD (for replicated database files), MUPIP JOURNAL -RECOVER -BACKWARD (for database files that are journaled but not replicated), or MUPIP RUNDOWN (for database files that are neither replicated nor journaled), on the database file DDDD.

NONASCII

NONASCII, ssss is illegal for a oooo as it contains non-ASCII characters

GDE Error: The specification ssss contains non-ASCII characters which are required for an object of type oooo.

Action: Chose an object name or value containing only ASCII characters.

NONEGATE

NONEGATE, Qualifier xxxx cannot be negated

GDE Error: This indicates that the qualifier does not support this usage.

Action: Review the Administration and Operations Guide or the Programmer's Guide for the correct usage.

NONTPRESTART

NONTPRESTART, Database dddd; code: cccc; blk: bbbb in gbl: ^gggg; blkvl: llll, type: tttt, zpos: pppp

Run Time Information: This is an informational message for non-TP transaction messages. The frequency of this message can be set by `$gtm_nontprestart_log_delta` and `$gtm_nontprestart_log_first` environment variables. `dddd` is the database the restart occurred; `cccc` is the code described in the Maintaining Database Integrity chapter of the Administration and Operations Guide; `bbbb` is the block where GT.M detected a concurrency conflict that caused the restart; `gggg` shows the global reference within that block; `llll` is the level of that block; `tttt` indicates the type of activity that detected the conflict; `pppp` is the source line where restart occurred on.

Action: None required in most cases. If the messages are too frequent either investigate the processes that reference to that particular global and its block, or reduce the number of messages by tweaking `$gtm_nontprestart_log_delta` and `$gtm_nontprestart_log_first` environment variables.

NONUTF8LOCALE

NONUTF8LOCALE, Locale has character encoding (`cccc`) which is not compatible with UTF-8 character set

Run Time Error: This error is reported by GT.M when it recognizes that the `LC_CTYPE` locale category `cccc` (as shown by the UNIX locale command) does not use UTF-8 character encoding when `gtm_chset` is "UTF-8".

Action: Set the environment variable `LC_CTYPE` to a Unicode locale name with UTF-8 character encoding. Note that `LC_ALL`, if defined, overrides `LC_CTYPE`. The name of the locale varies between different UNIX platforms, but mostly in the form of `<lang>_<country>.<charset>`, where each element (without the angular brackets) has the form shown below:

- `<lang>` is the language code in lower case (such as `en`, or `de`).
- `<country>` is the country name in upper case (such as `US`, `GB`)
- `<charset>` is the character set encoding (such as `UTF-8`, `ISO8859-1`)

Refer to the operating system manuals for the specific details of available locale names on the system.

NOPERCENTY

NOPERCENTY, `^%Y*` is a reserved global name in GT.M

GDE Error: This indicates an attempt to map user values to GT.M reserved space `^%Y*`.

Action: Map application names to something other than `^%Y*`.

NOPINI

NOPINI, PINI journal record expected but not found in journal file `xxxx` at offset `yyyy`

MUPIP Error: This indicates that MUPIP did not encounter a valid and expected Process Initialization Record (PINI), at offset yyyy of the journal file xxxx.

Action: Run MUPIP JOURNAL EXTRACT -FULL DETAIL FORWARD FENCE=NONE NOERROR_LIMIT xxxx. Report the entire incident context with the appropriate extract file and error message(s) to your GT.M support channel.

NOPLACE

NOPLACE, Line specified in a ZBREAK cannot be found

Run Time Warning: This indicates that the ZBREAK was ignored because it specified a line that could not be found in the image.

Action: Modify the ZBREAK or ZLINK the routine that has the missing label.

NOPREVLINK

NOPREVLINK, Journal file xxxx has a null previous link

MUPIP Error: This indicates that MUPIP found the previous link of journal file xxxx to be null, when it needed to process backward beyond the journal files first record.

Action: Verify the specified resync or time qualifiers are as intended. If correct values were specified, and null link was due to operator action, restore the journal generation link and reissue the command.

NOPRINCIO

NOPRINCIO, Unable to dddd principal device: DDDD at LLLL due to: SSSS

Run Time Fatal: This indicates that GT.M attempted to, but could not, READ from, or WRITE to (direction indicated by dddd), the PRINCIPAL device, and therefore attempted to issue an appropriate error, for example, an IOEOF, TERMHANGUP, or TERMWRITE at location LLLL, with a status of SSSS. However, if the error handling does not prevent any and all subsequent READs and WRITEs to the no longer available PRINCIPAL device, the next subsequent I/O error shuts down the process immediately to prevent mysteriously lost output, or, worse, an indefinite loop. The NOPRINCIO message appears in the operator log

Action: The NOPRINCIO error message is FATAL which does not drive device or trap handlers and terminates the process. This termination does not allow any application level orderly shutdown and, depending on the application, may lead to out-of-design application state. Therefore FIS recommends appropriate application level error handling that recognizes the preceding error and performs an orderly shutdown without issuing any additional READ or WRITE to the principal device. The most common causes for the principal device to cease to exist involve terminal sessions or socket connections (including those from processes started by inetd/xinetd). When the remote client terminates the connection, the underlying PRINCIPAL device becomes inaccessible making any subsequent attempt to READ from, or WRITE to, it hopeless. In the case of terminals, a user closing the

window of a session without cleanly exiting from the GT.M process sets up the case that can drive this error. GT.M does not issue NOPRINCIO errors from Direct Mode, because it is a developer tool, or at the completion of a HEREDOC in a shell script. However, this means a HEREDOC must use ZHALT to return a specific status to the shell, and that a \$ETRAP that bounces a process into Direct Mode terminates without evidence.

NORECVPOOL

NORECVPOOL, No receiver pool info found in the replication instance of xxxx

Run Time/MUPIP Error: This indicates that GT.M / MUPIP did not get replication information from the instance file specified. Replication instance file was not initialized because receiver server did not start or, some other process reset the replication instance file.

Action: Start the receiver server if the server was not started. If the receiver server was running, stop the server and perform MUPIP RUNDOWN (if MUPIP RUNDOWN fails, try MUPIP RUNDOWN region *).

NOREGION

NOREGION, REGION not found: xxxx

LKE Error: This indicates that a SHOW or CLEAR command with the qualifier REGION=xxxx could not locate region xxxx in the current Global Directory.

Action: Look for and correct any typographical errors in the region name. Use GDE to look in the Global Directory for names of defined regions.

NOREPLCTDREG

NOREPLCTDREG, Replication subsystem found no region replicated for dddd ffff

MUPIP Warning: This indicates that the replication system is present, but no globals are configured for replication in ffff where dddd is "instance file" for UNIX and "global directory" for OpenVMS.

Action: Use MUPIP SET to specify which database regions to replicate.

NORESYNCSUPPLONLY

NORESYNCSUPPLONLY, NORESYNC only supported for Supplementary Instances

Receiver Server log/MUPIP Error: Issued by a Receiver Server on a non-Supplementary Instance when it is started with a -NORESYNC; -NORESYNC only applies to Supplementary Instances started with -UPDOK, not to non-Supplementary Instances.

Action: Use this qualifier only in a valid context.

NORESYNCUPDATERONLY

NORESYNCUPDATERONLY, NORESYNC qualifier only allowed on a Supplementary Instance which allows local updates

Receiver Server log/MUPIP Error: Issued by a Receiver Server when started with -NORESYNC on a Supplementary Instance but started without -UPDOK; -NORESYNC applies only to Supplementary Instances started with -UPDOK.

Action: Use this qualifier only in a valid context.

NORTN

NORTN, Routine name missing

Run Time Error: This indicates the specification used to locate a routine for compilation and / or zlinking was missing the name.

Action: Correct the routine specification.

NOSELECT

NOSELECT, None of the selected variables exist, halting

MUPIP Information: This indicates that a MUPIP EXTRACT or REORG operation did not occur because the global variables specified by the SELECT= qualifier do not exist.

Action: Look for an inappropriate definition for GTM\$GBLDIR / gtmgbldir or typographical errors in the specified variables.

NOSOCKETINDEV

NOSOCKETINDEV, There is no socket in the current socket device

Run Time Error: This indicates that either no sockets have been established for the device or that all the sockets attached to the device have been closed prior to the current command.

Action: Review the logic managing the sockets and correct it.

NOSOCKHANDLE

NOSOCKHANDLE, No socket handle specified in WRITE /PASS

Run Time Error: WRITE /PASS was called without specifying at least one socket handle to pass.

Action: Make sure the code is specifying at least one socket handle.

NOSPACECRE

NOSPACECRE, Not enough space to create database file xxxx. aaaa blocks are needed, only bbbb available.

MUPIP Error: This indicates that the requested file was not created because the file system (in UNIX) or volume (in OpenVMS) did not have sufficient space.

Action: Check the allocation size specified in the global directory. Choose another location or reconfigure the file system or volume.

NOSPACEEXT

NOSPACEEXT, Not enough disk space for file xxxx to extend. aaaa blocks needed. bbbb blocks available.

Run Time Error: This indicates that there is not adequate space to do a needed journal file extension of the currently specified extension size of aaaa. If the Instance Freeze mechanism is active, GT.M modifies the NOSPACEEXT message from error (-E-) to warning (-W-) to indicate it is performing the extension even though the available space is less than the specified extension amount. In OpenVMS, this causes journaling to be turned off for the region.

Action: Locate appropriate disk space and adjust the journal file path. To reestablish durability, perform a MUPIP BACKUP that turns journaling on again.

NOSTARFILE

NOSTARFILE, Only star(*) argument can be specified with xxxx

MUPIP Error: This indicates that the qualifier xxxx, specified with the MUPIP JOURNAL command allows only star (*) as an argument.

Action: Specify star (*) as an argument instead of explicit journal file names.

NOSUBSCRIPT

NOSUBSCRIPT, No such subscript found (xxxx)

Run Time Error: This indicates that the second argument to \$QSUBSCRIPT is less than -1.

Action: Pass a value greater than -1 as the second argument to \$QS.

NOSUCHPROC

NOSUCHPROC, Process xxxx does not exist no need to yyyy it

Run Time Information: This indicates the specified process xxxx does not exist, to which an attempt to signal yyyy was made. This may occur in normal operation, but is reported to the operator logging facility in case an abnormal situation needs to be studied.

Action: -

NOSUPPLSUPPL

NOSUPPLSUPPL, Instance ssss is configured to perform local updates, so it cannot receive from Supplementary Instance iiiii

Receiver Server log/MUPIP Error: Issued by a Receiver Server or a MUPIP JOURNAL -ROLLBACK -FETCHRESYNC on a Supplementary Instance ssss started with -UPDOK attempted to connect to instance iiiii, but found IIII is also a Supplementary Instance. A Supplementary Instance that permits local updates can only replicate updates that originate on a non-Supplementary Instance.

Action: Reconfigure the instances to a supported configuration.

NOTALLDBOPN

NOTALLDBOPN, Not all required database files were opened

MUPIP Fatal: This indicates that all databases needed for replication could not be opened; the server will not start.

Action: Refer to the accompanying message(s) to determine why all required files would not open. Fix the problem and retry.

NOTALLDBRNDWN

NOTALLDBRNDWN, Not all regions were successfully rundown

Run Time Error: This message indicates an error while running down the database. It could be caused by various conditions such as running out of disk space or IO error.

Action: Look at the previous error messages to identify the cause of this error

NOTALLJNLEN

NOTALLJNLEN, Journaling disabled/off for dddd regions

MUPIP Warning: This indicates that some or all regions do not have journal state ON.

Action: Ensure you have journaling enabled for all regions that require it; use MUPIP SET to enable journaling.

NOTALLREPLON

NOTALLREPLON, Replication off for dddd regions

MUPIP Warning: This indicates that some or all regions have replication state OFF.

Action: Ensure you have replication on for all regions that require it; use MUPIP SET to enable replication.

NOTERMENTRY

NOTERMENTRY, TERM = "xxxx" has no "terminfo" entry. Possible terminal handling problems.

Run Time Information: This indicates that while opening a terminal device, the value of the environment variable TERM was xxxx for which no matching entry was found in the terminfo database. GT.M uses this information in the terminfo entry to perform terminal specific functions such as cursor movement on screen clearing. With an incorrect entry, such functions are not performed properly.

Action: Exit GT.M and set the TERM environment variable to a value which exists in the terminfo database and which matches the terminal or terminal emulator being used. See the UNIX user documentation for more information about terminfo.

NOTERMENV

NOTERMENV, Environment variable TERM not set. Assuming "unknown."

Run Time Information: This indicates that the TERM environmental variable indicating the terminal type in use does not have a value specified.

Action: Find the correct value for the TERM environmental variable for the terminal in use and specify that terminal type.

NOTERMINFODB

NOTERMINFODB, No "terminfo" database. Possible terminal handling problems.

Run Time Information: This indicates that the operating system could not find the terminfo database. The database may be deleted or moved to different location. GT.M needs this database to display information and accept user input correctly.

Action: This message reflects an operating system problem. Refer to the operating system troubleshooting.

NOTEXTRINSIC

NOTEXTRINSIC, Quit does not return to an extrinsic function, argument not allowed

Run Time Error: This indicates that a QUIT command specified an argument but did not match to an extrinsic function or special variable.

Action: Look for a missing double space after a QUIT, a faulty logic path, or a routine that should be invoked as an extrinsic but was invoked with a DO.

NOTGBL

NOTGBL, Expected a global variable name starting with an up-arrow (^): xxxx

Run Time/MUPIP Error: This indicates that the VIEW argument expression for tracing specifies xxxx which is not a valid global name. In case of MUPIP error, it indicates that LOAD aborted because it encountered xxxx in its input stream, which is not a valid global name.

Action: Correct the argument of the VIEW command to point to a valid global name. For MUPIP error, refer to the topic MUPIP LOAD Errors in About This Manual section of this manual.

NOTMNAME

NOTMNAME, XXXX is not a valid M name

Compile Time Error: M names must be ASCII, start with a "%" or an alpha and thereafter contain only alphanumeric characters. In GT.M M, names are currently functionally limited to 31 characters, in most cases, by truncation.

Action: Correct the, typically routine, name to comply with the supported format. Names are also used for labels and both global and local variables. Note that GT.M usually truncates names longer than its supported maximum, which, FIS recommends against as, while it can provide embedded information, can lead to ambiguity or other unintended behavior.

NOTPOSITIVE

NOTPOSITIVE, xxxx qualifier must be given a value greater than zero

MUPIP Error: This indicates that the value assigned to the xxxx qualifier value is negative (less than zero).

Action: Assign a value greater than zero (0) for qualifier xxxx.

NOTPRINCIO

NOTPRINCIO, Output currently directed to device xxxx

Run Time Warning: This message displays the current device xxxx when it is not the principal device and the process enters Direct Mode.

Action: To redirect all I/O to the terminal, note the current device or save it in a temporary variable and USE \$P. If you decide to resume program execution, remember to restore the current device with a USE command.

NOTREPLICATED

NOTREPLICATED, Transaction number xxxx generated by the yyyy process (PID = zzzz) is not replicated to the secondary

DSE Information: This indicates that a transaction generated by DSE update was not replicated to secondary side. This is an expected behaviour. Inappropriate DSE updates while running replication can cause primary and secondary to be out of sync.

Action: -

NOTRNDMACC

NOTRNDMACC, Only random access files are supported as backup files for non-incremental backup

MUPIP Error: This indicates that for comprehensive BACKUP, only random access files are supported, other types of devices, for example, TCP devices and pipes, are not supported.

Action: Perform the BACKUP to a random access file.

NOTTOEOFONPUT

NOTTOEOFONPUT, Not positioned to EOF on write (sequential organization only)

Run Time Error: This indicates that a WRITE command attempted to update a sequential disk file that was not positioned to end-of-file (EOF).

Action: Read to end-of-file or OPEN the file with the APPEND deviceparameter if you want to add to the file. If you need a fresh copy of the file, OPEN it with the NEWVERSION deviceparameter.

NOUSERDB

NOUSERDB, ffff does not support operation on non-GDS format region: rrrr

Utility Error: Facility ffff cannot perform the requested operation on a user-defined database such as rrrr.

Action: Convert the database to a GDS format or use the utilities appropriate to the user-defined format.

NOVALUE

NOVALUE, Qualifier xxxx does not take a value

GDE Error: This indicates that GDE encountered a value for a qualifier that does not accept a value. xxxx is the name of the qualifier.

Action: Specify the qualifier without a value.

NOZBRK

NOZBRK, No zbreak at that location

Run Time Information: This indicates that a ZBREAK command attempted to remove a ZBREAK from a line that did not specify one. Therefore, no action occurred.

Action: Review the current ZBREAKs using ZSHOW "B". All breaks can be removed using ZBREAK -*.

NOZTRAPINTRIG

NOZTRAPINTRIG, Use of \$ZTRAP in a database trigger environment (\$ZTLEVEL greater than 0) is not supported.

Trigger/Run Time Error: GT.M requires the use of \$ETRAP for error handling within trigger logic.

Action: Modify the application code to use \$ETRAP to handle errors in trigger logic.

NULLCOLLDIFF

NULLCOLLDIFF, Null collation order cannot be different for all regions

Run Time Error: Standard null collation setting is not same for all regions.

Action: Using GDE show or DSE dump fileheader, check standard null collation field for all regions and make sure they are same.

NULLENTRYREF

NULLENTRYREF, JOB command did not specify entryref

Run Time Error: This error is issued when mandatory entryref is not specified with JOB command.

Action: Specify the entryref for JOB command.

NULLPATTERN

NULLPATTERN, Empty line found in the Pattern file

MUPIP Warning: MUPIP JOURNAL -EXTRACT pattern file contained an empty line, which generates this message.

Action: Remove the empty line

NULSUBSC

NULSUBSC, XXXX Null subscripts are not allowed for current region: FFFF

Run Time/MUPIP/DSE Error: This indicates that a global variable specified a null (empty string) subscript in a database file FFFF which does not accept null subscripts. The leading context (XXXX) specifies more about the event or location of the issue. This message should be followed by a message presenting the reference containing the null subscript.

Action: Look for the source of the null subscript(s) and consider whether they are appropriate or due to a coding error. If they are appropriate, use MUPIP SET -NULL_SUBSCRIPTS, and remember to make the same adjustment with GDE CHANGE REGION -NULL_SUBSCRIPTS to ensure the next time you recreate a database that the characteristic persists.

NUM64ERR

NUM64ERR, Error: cannot convert VVVV value to 64 bit decimal or hexadecimal number

All GT.M Components Error: The entered value does not correspond to a valid decimal number or hexadecimal number representable in no more than 64 binary digits.

Action: Enter an appropriate decimal value or hexadecimal value starting with 0X, and using decimal integers 0-9 and ASCII letters A-F.

NUMERR

NUMERR, Error: cannot convert VVVV value to 64 bit decimal or hexadecimal number

All GT.M Components Error: The entered value does not correspond to a valid decimal number or hexadecimal number.

Action: Enter an appropriate decimal value or hexadecimal value starting with 0X, and using decimal integers 0-9 and ASCII letters A-F.

NUMOFLOW

NUMOFLOW, Numeric overflow

Compile Time/Run Time Error: This indicates that a numeric literal or a string evaluated to a numeric that exceeds the numeric range of GT.M.

Action: Look for the source of the large number.

NUMPROCESSORS

NUMPROCESSORS, Could not determine number of processors

Run Time Warning: This indicates that the process was unable to determine the number of CPUs in the machine. (The subsequent message(s) give more detailed information.) This causes the number to default to one (1), which if incorrect may cause sub-optimal tuning.

Action: Analyze the accompanying message(s). If you require assistance, report the entire incident context to your GT.M support channel.

NUMUNXEOR

NUMUNXEOR, xxxx unexpected end of record in numeric subscript

MUPIP Error: This indicates that LOAD aborted because it encountered an improperly formatted numeric subscript xxxx in its input stream.

Action: Refer to the topic MUPIP LOAD Errors in About This Manual section in this manual.

OBJDUP

OBJDUP, xxxx yyyy already exists

GDE Error: This indicates that an ADD command attempted to add a NAME, REGION, or SEGMENT xxxx, that already exists. yyyy is the NAME, REGION, or SEGMENT.

Action: Use the CHANGE command or specify a different object name.

OBJFILERR

OBJFILERR, Error with object file I/O on file xxxx

Run Time Error: This indicates that [auto]ZLINK processing encountered an error when it attempted to access object file-specification xxxx.

Action: Use host shell commands to examine the file and its protection.

OBJNOTADD

OBJNOTADD, Not adding xxxx

GDE Error: This indicates that GDE did not add the specified NAME, REGION, or SEGMENT. xxxx is the NAME, REGION, or SEGMENT specified with the ADD command.

Action: Review the accompanying message(s) for additional information.

OBJNOTCHG

OBJNOTCHG, OBJNOTCHG Not changing xxxx

GDE Error: This indicates that GDE has not changed the specified NAME, REGION, or SEGMENT. xxxx is the NAME, REGION, or SEGMENT specified with the CHANGE command.

Action: Review the accompanying message(s) for additional information.

OBJNOTFND

OBJNOTFND, xxxx does not exist

GDE Error: This indicates that a CHANGE or DELETE command specified a NAME, REGION, or SEGMENT that does not exist. xxxx is the NAME, REGION, or SEGMENT.

Action: Use the ADD command or look for and correct any typographical errors.

OBJREQD

OBJREQD, xxxx required

GDE Error: This indicates that an ADD, CHANGE, DELETE, RENAME, or TEMPLATE command does not specify a NAME, REGION, or SEGMENT. xxxx is the required object-type.

Action: Look for a missing space or supply the NAME, REGION, or SEGMENT.

OFFSETINV

OFFSETINV, Entry point xxxx+yyyy not valid

Compile Time/Run Time Error: This indicates that GT.M encountered a label xxxx and an offset yyyy that did not fall within the actual lines of the routine.

Action: Modify the routine so the entry point is a valid entryref.

OFRZACTIVE

OFRZACTIVE, Region aaaa has an Online Freeze

MUPIP Warning: A MUPIP operation has been requested while an Online Freeze is in place, but the operation can not be performed with an Online Freeze.

Action: The operation was not performed. Remove the freeze with MUPIP FREEZE -OFF and retry the operation.

OFRZAUTOREL

OFRZAUTOREL, Online Freeze automatically released for region aaaa

Operator log Warning: A process needed to modify the database file for region aaaa, which had an Online Freeze, but with AutoRelease selected. The process continued normally, modifying the file.

Action: Discard any database copy or snapshot made after the Online Freeze, as its contents are suspect. Perform a MUPIP FREEZE -OFF to clean up the prior Online Freeze. If the AutoRelease behavior is not desired, try again with MUPIP FREEZE -ON -ONLINE -NOAUTORELEASE. If the cause of the AutoRelease is unclear, report this and the accompanying ERRCALL message to your GT.M support channel.

OFRZCRITREL

OFRZCRITREL, Proceeding with a write to region aaaa after Online Freeze while holding crit

Operator log Warning: A process previously encountered a OFRZCRITSTUCK condition, which has since been resolved.

Action: None.

OFRZCRITSTUCK

OFRZCRITSTUCK, Unable to proceed with a write to region !AD with Online Freeze while holding crit. Region stuck until freeze is removed.

Operator log Warning: A process needed to do a database write while holding a critical resource, but an Online Freeze was in place without AutoRelease enabled. No other process will be able to acquire the critical resource until the Online Freeze is removed.

Action: MUPIP FREEZE -OFF will remove the freeze and allow the process to continue, at which time it will send a OFRZCRITREL message to the operator log. This situation can be avoided by specifying MUPIP FREEZE -ON -ONLINE without the -NOAUTORELEASE option, or by including the -AUTORELEASE option.

OFRZNOTHELD

OFRZNOTHELD, Online Freeze had been automatically released for at least one region

MUPIP Warning: A MUPIP FREEZE -OFF command encountered at least one region which previously had an Online Freeze, but a process had AutoReleased it.

Action: The command cleaned up the region with the AutoReleased Online Freeze, and database operations are back to normal. However, any database file snapshots or copies made after the Online Freeze should be discarded, as processes likely will have written to the file since the AutoRelease. An OFRZAUTOREL message in the operator log will report which process performed the AutoRelease.

OLDBINEXTRACT

OLDBINEXTRACT, Loading an older version (xxxx) of binary extract

Run Time Error: This indicates that a MUPIP LOAD input file is of an older type that may not properly deal with collations other than the default (standard M) collation.

Action: No action is required if collation is not an issue. If collation is an issue, the source of the EXTRACT should be upgraded and the MUPIP EXTRACT re-run before the LOAD.

OMISERVHANG

OMISERVHANG, GTCM OMI server is hung

GT.CM Error: The GT.CM OMI server has gone a long time, exceeding the design expectation without acknowledged activity. At the point of this error, GT.M creates a core image of the GT.CM OMI server.

Action: Investigate the state of the server and its clients. Restart processes including the server as appropriate; refer diagnostic information to the the group responsible for database integrity at your operation.

OPCOMMITTED

OPCOMMITTED, n errors and m MBFULLs sending prior operator messages

Information: GT.M issues this message to the operator log if any operator messages prior to the immediately preceding one had not been sent due to errors from \$SNDOPR. m is the number of time a persistent MBFULL error prevented a messages from being sent and n is the number of other errors whose reports were bypassed.

Action: None.

OPENCONN

OPENCONN, Error opening socket connection

Run Time Error: This indicates that the process of opening a socket resulted in a device error.

Action: Review the accompanying message(s) for additional information.

OPRCCPSTOP

OPRCCPSTOP, The Cluster Control Program has been halted by an operator stop request

CCE Error: This indicates that a CCE STOP command halted access to clustered databases from this node.

Action: Contact the group responsible for databases at your site for information about when clustered operation will resume.

ORDER2

ORDER2, Invalid second argument to \$ORDER. Must be -1 or 1

Run Time Error: This indicates that the second argument to a \$ORDER function was not a 1 or -1, which are the values the standard permits.

Action: Modify the argument.

ORLBKCMPLT

ORLBKCMPLT, ONLINE ROLLBACK completed successfully on instance iiiii corresponding to dddd

MUPIP Information: Issued by MUPIP ROLLBACK -ONLINE when it successfully completes work on database file dddd on instance iiiii.

Action: None required.

ORLBKDBUPGRDREQ

ORLBKDBUPGRDREQ, Region RRR (DDDD) is not fully upgraded. ONLINE ROLLBACK cannot continue

MUPIP Error: Region RRR pointing to database file DDDD has the fully upgraded flag set to FALSE and the database format is not V7 indicating that there are V4 blocks in the database. ONLINE ROLLBACK in GT.M V7.* cannot process these database files.

Action: Because an ONLINE ROLLBACK is not possible for this database, stop all access to the database files and perform a ROLLBACK with standalone access.

ORLBKFRZOVER

ORLBKFRZOVER, tttt : FREEZE on region rrrr (ddd) cleared

MUPIP Information: Issued by MUPIP ROLLBACK -ONLINE when it clears a FREEZE on region rrrr mapped to database file dddd; tttt is the time it cleared the FREEZE.

Action: None required.

ORLBKFRZPROG

ORLBKFRZPROG, tttt : waiting for FREEZE on region rrrr (dddd) to clear

MUPIP Information: Issued by MUPIP ROLLBACK -ONLINE when it encounters a region rrrr mapped to dabase file dddd which is frozen; tttt is the time it encountered the condition.

Action: ROLLBACK waits for a period determined the the gtm_db_startup_max_wait environment variable, after which it clears the FREEZE and proceeds. The ROLLBACK is inappropriate due to the conditions that lead to the FREEZE, cancel the ROLLBACK, otherwise cancel the FREEZE or wait for ROLLBACK to clear it automatically.

ORLBKINPROG

ORLBKINPROG, Online ROLLBACK in progress by PID pppp in region rrrr

Run Time Information: This message in the operator log indicates an online rollback has been in progress by process pppp on region rrrr for more than 30 seconds.

Action: None Required.

ORLBKNOSTP

ORLBKNOSTP, ONLINE ROLLBACK proceeding with database updates. MUPIP STOP will no longer be allowed

MUPIP Information: Issued by MUPIP ROLLBACK -ONLINE when it starts processing that cannot be interrupted without jeopardizing database integrity.

Action: Wait for the ROLLBACK to complete.

ORLBKNOV4BLK

ORLBKNOV4BLK, Region rrrr (dddd) has V4 format blocks. Database upgrade required. ONLINE ROLLBACK cannot continue

MUPIP Error: Issued by MUPIP ROLLBACK -ONLINE when it finds the region rrrr mapped to database file dddd contains V4 format blocks - online rollback does not support old format blocks.

Action: Upgrade the database to the current major version before attempting to use online rollback.

ORLBKREL

ORLBKREL, ONLINE ROLLBACK releasing all locking resources to allow a freeze OFF to proceed

MUPIP Information: MUPIP ROLLBACK -ONLINE encountered an Instance Freeze and must release its resources and restart to prevent a possible deadlock.

Action: None Required as this is an informational message

ORLBKRESTART

ORLBKRESTART, ONLINE ROLLBACK restarted on instance iiii corresponding to rrrr

MUPIP Information: MUPIP ROLLBACK -ONLINE is restarting on the instance iiii with replication journal pool rrrr

Action: None required for this informational message

ORLBKROLLED

ORLBKROLLED, ORLBKROLLED, ONLINE ROLLBACK took the database for instance iiiii region rrrr corresponding to dddd to a prior state

MUPIP Warning: This message is issued to the system log when an online rollback has taken the database back to an earlier state. iiiii indicates the instance ID and rrrr indicates the region for the database file ffff.

Action: Check the content of any broken or lost transaction files - this warning indicates a wholesome change in the GT.M database state, but one that may cause inconsistent application data.

ORLBKSTART

ORLBKSTART, ONLINE ROLLBACK started on instance iiiii corresponding to dddd

MUPIP Information: Issued by MUPIP ROLLBACK -ONLINE when it starts work on database file dddd on instance iiiii.

Action: None required.

ORLBKTERMNTD

ORLBKTERMNTD, ONLINE ROLLBACK terminated on instance iiiii corresponding to dddd with the above errors

MUPIP Error: Issued by MUPIP ROLLBACK -ONLINE when it encounters issues that prevent it from operating on database file dddd on instance iiiii.

Action: Analyze and address the errors in the output preceding this message.

OUTOFSPACE

OUTOFSPACE, Database file xxxx ran out of disk space. Detected by process aaaa. Exit without clearing shared memory due to the disk space constraints. Make space and then perform mupip rundown to ensure database integrity.

Run Time Fatal: This indicates that the specified database is full and cannot extend due to lack of disk space. The database could not properly run down.

Action: Examine the space management procedures and take actions to prevent any reoccurrence of this error. The database might get damaged if you do not make enough space for MUPIP RUNDOWN to succeed.

PADCHARINVALID

PADCHARINVALID, PAD deviceparameter cannot be greater than 127.

Run Time Error: The PAD deviceparameter (valid only for Sequential Disk files) specified in the open command can be between 0 and 127 (both inclusive).

Action: Specify a value within the allowed range.

PARBUFSM

No longer in GT.M since: V6.3-010

PARBUFSM, Parse buffer too small

Run Time Error: This indicates that an attempt to parse a file-specification exceeded the maximum length for file-specifications.

Action: Review the file-specification for valid syntax; if it is a logical name / environment variable, confirm its definition.

PARFILSPC

PARFILSPC, Parameter: xxxx file specification: yyyy

Run Time Error: This indicates that a JOB command jobparameter xxxx specified an invalid file-specification yyyy. For file specifications of the form "SOCKET:<handle>", this message indicates that "<handle>" is not a valid socket handle in the socket pool.

Action: Review the file-specification for valid syntax based on the operating system. For sockets, verify that the socket handle is in the socket pool.

PARNORMAL

PARNORMAL, Parse successful

Run Time Information: This indicates that the parse was completed successfully.

Action: -

PATALTER2LARGE

PATALTER2LARGE, Pattern match alternation exceeded the LLLL repetition limit on prospective matches

Run Time Error: An alternation pattern applied to a long occurrence of that pattern reached a GT.M limit (LLLL) on tracking the match.

Action: Revise the logic to reduce the size of the string being matched or to otherwise break up the match into smaller parts.

PATCLASS

PATCLASS, Illegal character class for pattern code

Compile Time Error: This indicates that a pattern match specified an invalid pattern class code.

Action: Look for a code that is not supported by the current code definitions or for a literal match that is not enclosed in quotes.

PATCODE

PATCODE, Illegal syntax for pattern

Compile Time Error: This indicates that a pattern match specified an invalid syntax.

Action: Look for a missing repeat count.

PATLIT

PATLIT, Illegal character or unbalanced quotes for pattern literal

Compile Time Error: This indicates that a pattern match included the start of a string literal that did not finish properly.

Action: Look for unbalanced quotes in the string literal.

PATLOAD

PATLOAD, Error loading pattern file xxxx

Compile Time Error: This indicates that GT.M failed to load the pattern file.

Action: Review accompanying messages for additional information about the cause of this error.

PATMAXLEN

PATMAXLEN, Pattern code exceeds maximum length

Compile Time Error: This indicates that a pattern match specification required more temporary storage than is available.

Action: Modify the routine so it uses shorter pattern specifications.

PATNOTFOUND

PATNOTFOUND, Current pattern table has no characters with pattern code xxxx

Run Time Error: This indicates that the specified pattern code does not exist in the pattern table.

Action: Update the pattern table with the code, or change the program to make sure the specified pattern code is not referenced in the table.

PATTABNOTFND

PATTABNOTFND, Pattern table xxxx not found

Run Time Error: This indicates that an attempt to load a pattern table failed because it was not found in the file described by the logical name / environment variable `gtm_pattern_file` or loaded by the VIEW "PATLOAD" command.

Action: Use host shell commands to examine the file and modify either the file or the VIEW command that performs the load.

PATTABSNTAX

PATTABSNTAX, Error in xxxx at line yyyy

Compile Time/Run Time Error: This indicates that GT.M found an error on line yyyy of the file xxxx that defines the patterns to be used by the pattern match operator.

Action: Modify the pattern match file and reload it. For more information, refer to the "Internationalization" chapter in the Programmer's Guide.

PATUPPERLIM

PATUPPERLIM, Pattern code upper limit is less than lower limit

Compile Time Error: This indicates that a pattern match specified a repeat count range with an upper limit that is below the lower limit.

Action: Look for improperly ordered repeat count ranges.

PBNINVALID

PBNINVALID, ssss does not have a field named ffff

Utility Error: This message comes from `%PEEKBYNAME()` when a valid struct but an invalid field name is given as the first argument. A struct, ssss, does not have a field named ffff.

Action: Check the field name. Verify the field exists and its specification has no typo.

PBNNOFIELD

PBNNOFIELD, `%ZPEEKBYNAME()` requires a field.item as its first parameter

Utility Error: The first argument of %ZPEEKBYNAME() may be missing, empty, contain an unsupported field or be missing an item.

Action: Verify the first parameter to %ZPEEKBYNAME() is not NULL.

PBNNOPARM

PBNNOPARM, First parameter pppp does not support a second parameter

Utility Error: pppp does not take a region name or index number as the second parameter to %PEEKBYNAME().

Action: Omit the second parameter of %PEEKBYNAME() or make it NULL.

PBNPARAMREQ

PBNPARAMREQ, A first parameter value pppp requires a second parameter specified containing rrrr

Utility Error: pppp requires a second parameter but the second parameter of %PEEKBYNAME() is NULL or undefined. rrrr indicates whether the required parameter is an index number or region name.

Action: Depending on rrrr, choose a valid index number or region name and make sure the second parameter is not NULL.

PBNUNSUPSTRUCT

PBNUNSUPSTRUCT, \$ZPEEK() does not support structure ssss

Utility Error: The first argument of %PEEKBYNAME() is a value that is not known to \$ZPEEK().

Action: Make sure the first argument of %PEEKBYNAME() is a valid struct name that is accessible to \$ZPEEK.

PBNUNSUPTYPE

PBNUNSUPTYPE, \$ZPEEK() does not support type tttt

Run Time Error: The \$ZPEEK() function has encountered an invalid type argument: tttt.

Action: Refer to the \$ZPEEK() documentation for information on valid types. Examine the \$ZPEEK invocation to determine and correct the source of the invalid type.

PCONDEXPECTED

No longer in GT.M since: V4.4-000

PCONDEXPECTED, Post-conditional expression expected but not found

Compile Time Error: This indicates that a colon (:) appeared to start a postconditional but it was not followed by a valid postconditional expression.

Action: Look for unwanted colons or missing post-conditional expressions.

PCTYRESERVED

PCTYRESERVED, Attempted operation not supported on `^%Y*` namespace

All GT.M Components Error: The `^%Y*` global namespace is reserved to GT.M and is not available to application code except as otherwise documented.

Action: Map all application globals to other than `^%Y*` and make sure application code references are correct.

PEERPIDMISMATCH

PEERPIDMISMATCH, Local socket peer with PID=pppp does not match specified PID=qqqq

Run Time Error: WRITE /PASS or WRITE /ACCEPT was given a process id qqqq to verify, but the connection peer process id is pppp.

Action: Make sure that only the specified process has opened the socket connection.

PERMGENDIAG

PERMGENDIAG, Permissions: Proc(uid:uuuu,gid:gggg), DB File(uid:vvvv,gid:hhhh,perm:pppp), Lib File(gid:iiii,perm:qqqq), Group Mem(opener:jjjj,owner:kkkk)

Run Time Information: This shows the permissions involved in a resource creation for the process, the associated database file, the libgtmshr and the process group membership.

Action: Typically none, but if you have a permission issue use this key information for diagnosis.

PERMGENFAIL

PERMGENFAIL, Failed to determine access permissions to use for creation of xxxx for file yyyy

Run Time/MUPIP Error: This message indicates that GT.M was unable to determine the permissions to use when creating a file or resource associated with database file yyyy. xxxx may be "ipc resources", "journal file", "backup file", or "snapshot file".

Action: Note the user and group ownership of the database file and `$gtm_exe/libgtmshr.*`, and the user and group permissions of the GT.M process, and report them to your GT.M support channel.

PIDMISMATCH

PIDMISMATCH, Global variable with PID=pppp does not match specified PID=qqqq

Run Time Warning: pppp is the process_id global variable while qqqq is produced by getpid(). This message indicates we skip exit handling after fork() to avoid a child process from removing the statsdb entry of its parent, which causing symptoms including damage to a database or to a routine repository.

Action: No action is required, unless we see a REQRUNDOWN or REQRLNKCTLRNDWN shortly afterwards.

PIDRESET

PIDRESET, Region RRRR had PID PPP doing MMMM but PID did not exist, reset to zero

MUPIP Warning: The region RRRR had an internal field indicating that process PPPP was doing a MMMM, but that process no longer exists. Therefore the current process reset the field.

Action: Please check the log files for messages from the MMMM operation that terminated unexpectedly. Additional messaging from GT.M should help determine if there is a larger problem.

PINENTRYERR

PINENTRYERR, Custom pinentry program failure

Run Time Error: The encryption reference plugin's custom pinentry program failed.

Action: Please refer to the documentation for the supplemental error messages and correct the errors.

PRCNAMLEN

PRCNAMLEN, Process name xxxx length is greater than yyyy

Run Time Error: This indicates that a JOB command PROCESS_NAME=xxxx jobparameter specified a value that exceeds the maximum acceptable length yyyy.

Action: Modify the process name so that it does not exceed yyyy characters.

PREALLOCATEFAIL

PREALLOCATEFAIL, Disk space reservation for SSSS segment has failed

MUPIP/Run Time Error: Indicates the disk space preallocation has failed due to a system call error.

Action: Please read the accompanying system message to find out why the system call error occurred and resolve that problem.

PREFIXBAD

PREFIXBAD, xxxx must start with an alphabetic character to be a yyyy

GDE Error: This indicates that an ADD, CHANGE, DELETE, RENAME, or TEMPLATE command specified a REGION or SEGMENT name that does not begin with an alphabetical character. xxxx is the REGION or SEGMENT name. yyyy is the object-type.

Action: Look for and correct typographical errors.

PREMATEOF

PREMATEOF, Premature end of file detected

MUPIP/Run Time Error: A file read or write detected an end-of-file when it was expecting additional records.

Action: Analyze accompanying messages for the type of file on which the operation failed. If the operation was a MUPIP LOAD, refer to the About this Manual section on MUPIP LOAD errors earlier in this manual. If the circumstances warrant, group responsible for database integrity at your operation with all the diagnostic context you can gather.

PREVJNLLINKCUT

PREVJNLLINKCUT, Previous journal file name link set to NULL in new journal file xxxx created for database file yyyy

Run Time/MUPIP Error: This indicates that GT.M or MUPIP has removed the link of previous journal file name and set it to NULL in the new xxxx journal files header. This could possibly be because journal state was ON for the database file yyyy and its corresponding journal file was inaccessible, this triggered MUPIP or GT.M to create new journal file xxxx clearing the previous generation journal file name(s).

Action: If the error is issued by GT.M review the accompanying message(s) in the operator log.

If a MUPIP SET -JOURNAL=ON command produces this message for the region in the operator log, it may indicate that one or more of the current generation journal files are damaged/missing and new journal files were created with no back pointers to the previous journal files. FIS recommends taking a database backup at the earliest convenience because a MUPIP RECOVER/ROLLBACK will not be able to go back past xxxx. If this message is for a specified region(s), consider switching the journal files for all regions (with REGION "**") that the process has opened (all journaled/replicated regions in the instance if replication is in use) to ensure that the RECOVER/ROLLBACK for other regions remains unaffected.

No action is required if the MUPIP BACKUP -NEWJNLFILES=NOPREVLINK issues the error.

PREVJNLLINKSET

PREVJNLLINKSET, Previous generation journal file name is changed from xxxx to yyyy

MUPIP Information: This indicates that MUPIP SET -JNLFILE command has changed previous generation journal file name from xxxx to yyyy.

Action: -

PREVJNLNOEOF

PREVJNLNOEOF, A previous generation journal file xxxx does not have valid EOF

MUPIP Error: This indicates that while opening the previous generation journal file xxxx MUPIP encountered the journal file in an inconsistent state; it had not been terminated properly.

Action: Report the entire incident context to your GT.M support channel.

PRIMARYISROOT

PRIMARYISROOT, Attempted operation not valid on root primary instance xxxx

MUPIP Error: If a replication instance has local updates enabled, that is: the Source Server that created the journal pool was started with -UPDOK, issuing any Source Server command with the start, activate or deactivate qualifiers where the command explicitly specifies the propagateprimary qualifier or that qualifier is implicitly assumed by default, or, if this is a not a supplementary instance, attempting to start a Receiver Server causes MUPIP to issue this error.

Action: Do not start a Receiver Server on a root primary non-supplementary instance. Use rootprimary qualifier instead of propagateprimary in the source server command.

PRIMARYNOTROOT

PRIMARYNOTROOT, Attempted operation not valid on non-root primary instance xxxx

MUPIP Error: If a replication instance is not a root primary (the journal pool already exists and was created by a source server command that specified propagateprimary), issuing a source server command with the start or deactivate qualifiers that has the rootprimary qualifier explicitly specified (or implicitly assumed) on this instance will cause this error to be issued. This error can also be issued by the receiver server or mupip rollback if the instance that the source server is running on is not a root primary and it connects to a receiver server or a mupip journal -rollback -fetchresync running on an instance that was formerly a root primary and has not yet had a mupip replic -source -losttncomplete command run either explicitly or implicitly on it.

Action: Use propagateprimary qualifier instead of rootprimary in the source server command. If this error is issued by the receiver server or fetchresync rollback, the secondary instance has to be brought up as the secondary of a root primary since it was a root primary immediately before this. The rule is

that any instance that was previously a root primary should be brought up as a secondary of the new root primary. This will create a lost transaction file that needs to be applied on the new root primary. Once that is done, a mupip replic -source -losttncomplete command should be run either explicitly or implicitly on this instance before trying to bring this up as a secondary of a propagating primary.

PROCTERM

PROCTERM, uuuu process termination due to cccc from eeee

Utility Warning: A utility uuuu, typically MUPIP, executing application code, possibly from a trigger, encountered a command cccc to terminate at \$zposition location pppp.

Action: It is not typically wholesome for MUPIP to terminate this way - review your error handling and trigger definitions for a possible bug or misfeature.

PROTNOTSUP

PROTNOTSUP, Protocol xxxx not supported

Run Time Error: This indicates that the protocol specified on the CONNECT or LISTEN deviceparameters is not currently supported.

Action: Use TCP/IP domain sockets by specifying TCP for the protocol string or LOCAL (aka UNIX) domain sockets by specifying LOCAL.

QUALBAD

QUALBAD, xxxx is not a valid qualifier

GDE Error: This indicates that GDE encountered a command with an invalid qualifier xxxx.

Action: Look for and correct typographical errors in the qualifier.

QUALDUP

QUALDUP, xxxx qualifier appears more than once in the list

GDE Error: This indicates that GDE encountered the qualifier xxxx more than once in the command.

Action: Specify the qualifier only once in the list.

QUALEXP

QUALEXP, Qualifier expected but not found

Run Time Error: This indicates that a \$ZROUTINES function did not encounter a qualifier, which is the next valid syntax element.

Action: In OpenVMS, look for a missing / (slash) preceding SRC or NOSRC. In UNIX, look for a missing right parenthesis or extra left parenthesis in a source directory specification.

QUALREQD

QUALREQD, xxxx required

GDE Error: This indicates that a command was missing the required xxxx qualifier.

Action: Enter the missing qualifier.

QUALVAL

QUALVAL, Qualifier value required but not found

Run Time Error: This indicates that a \$ZROUTINES function did not specify a value for the SRC qualifier.

Action: The SRC qualifier requires a value.

QUITALSINV

QUITALSINV, QUIT * return when the extrinsic was not invoked with SET *

Run Time Error: A [sub-]routine tried to pass an alias back to the caller, but the routine was not invoked to accept an alias return.

Action: Rework either the invocation or the return, or troubleshoot why the inappropriate invocation occurred. If the routine should conditionally return an alias, use \$QUIT to select the proper type of return.

QUITARGLST

QUITARGLST, Quit cannot take a list of arguments

Compile Time Error: This indicates that a QUIT specified multiple arguments; M accepts only one argument.

Action: Look for a missing space after the QUIT or a typographical error. Modify the QUIT argument so that it consists of a single expression.

QUITARGREQD

QUITARGREQD, Quit from an extrinsic must have an argument

Run Time Error: This indicates that a QUIT did not specify an argument but it corresponded to an invocation by an extrinsic function or special variable.

Action: Review the interface between the extrinsic and the invoked routine. Modify the QUIT or the invocation.

QUITARGUSE

QUITARGUSE, Quit cannot take an argument in this context

Compile Time Error: This indicates that a QUIT in the scope of a FOR command specified an argument.

Action: Look for a missing space after the QUIT.

RANDARGNEG

RANDARGNEG, Random number generator argument must be greater than or equal to one

Run Time Error: This indicates that a \$RANDOM function specified a zero or a negative argument.

Action: Look for the source of the argument. If you want to generate a 0 or 1 result, the argument should be 2 because a seed of 1 always produces the less-than-random result of 0.

RAWDEVUNSUP

RAWDEVUNSUP, RAW device for region RRRR is not supported

Run Time/MUPIP Error: This indicates an attempt to configure a raw device database. This is no longer supported.

Action: Create the database in a regular filesystem.

RBWRNNOTCHG

RBWRNNOTCHG, Not all specified databases were changed

MUPIP Warning: This indicates that the MUPIP SET command did not include a value for the RESERVED_BYTES qualifier, or, the value specified was out of permissible range. Therefore, it did not modify the specified database.

Action: Verify the RESERVED_BYTES qualifier specification.

RCVR2MANY

No longer in GT.M since: V5.5-000

RCVR2MANY, The instance already has the maximum supportable number of receiver servers nnnn active

MUPIP Error: Issued by a Receiver Server on a Supplementary Instance (started with -UPDOK) which found it exceeds nnnn, the currently permitted number of Receiver Servers.

Action: Reconfigure the instances to a supported configuration.

RCVRMANYSTRMS

RCVRMANYSTRMS, Receiver server now connecting to source stream NNNN but had previously connected to a different stream nnnn

Receiver Server log/MUPIP Error: Issued by a Receiver Server on a Supplementary Instance (started with -UPDOK) which had formerly connected to a source server corresponding to non-Supplementary stream nnnn, later disconnected and on reconnection found the Source Server corresponds to a different non-Supplementary stream NNNN.

Action: Mixing of non-Supplementary streams are not allowed in the same Receiver Server process. Restart the Receiver Server.

RDFLTOOLONG

RDFLTOOLONG, Length specified for fixed length read exceeds the maximum string size

Run Time Error: The size specified in the fixed length READ is too large. It should not exceed 1048576, which is the maximum string size supported by GT.M.

Action: Modify the READ to specify a length less than or equal to 1048576.

RDFLTOOSHORT

RDFLTOOSHORT, Length specified for fixed length read less than or equal to zero

Run Time Error: This indicates that a READ fixed length (#) specified a value of less than one.

Action: Change the length (i.e., the portion of the READ argument that appears after the delimiter (#)) to a valid value, or add a postconditional to the READ command to suppress the length when it is less than or equal to zero.

READONLYNOBG

READONLYNOBG, Read-only cannot be enabled on non-MM databases

MUPIP Error: This indicates an attempt to change a BG database to -READ_ONLY or to change a -READ_ONLY to MM access method; -READ_ONLY only compatible with the MM access mode.

Action: Verify whether the database should not be read only and adjust, if appropriate. Alternatively, set the database to MM access mode then mark it as read-only.

REC2BIG

REC2BIG, Record size (xxxx) is greater than maximum (yyyy) for region: zzzz

Run Time Error: This indicates that a SET attempted to create a database node with a combined length of keys and data (xxxx) that exceeds the maximum length yyyy permitted for region zzzz.

Action: Use smaller data records or keys in the program. If you want to enlarge the record size for the region, use GDE to change the Global Directory and recreate the database with MUPIP CREATE. If it is necessary to permit the data without allowing time to rebuild the database, use MUPIP CHANGE - RECORD_SIZE. Be careful when you increase the size for existing databases; use GDE to ensure that they have proper characteristics the next time they are CREATED.

RECCNT

RECCNT, Last LOAD record number: xxxx

MUPIP Information: EXTRACT and LOAD use this message to display xxxx, the total number of records processed.

Action: -

RECLoad

RECLoad, Error loading record number: nnnn

MUPIP Error: This message identifies a record nnnn that MUPIP could not LOAD and follows a message about the cause. If this message is Fatal, which it can be for BIN format, it produces a core file for diagnostic analysis.

Action: Address the cause or, for GO and ZWR format input files, examine the record with a text editor for possible correction or alternate action and for BIN format if fixing the cause does not resolve the error switch to ZWR format EXTRACT.

RECNOCREJNL

No longer in GT.M since: V4.3-001F

RECNOCREJNL, Recover could not create new journal file xxxx.

Run Time Error: This message is generated when recover/rollback fails to create the temporary forw_phase journal file. The database is restored to a consistent state with some earlier time, but recovery to the specific time could not be performed.

Action: Review the accompanying messages for additional information. Refer to the *Maintaining Database Integrity* chapter in the Administration and Operations Guide.

RECORDSTAT

RECORDSTAT, gggg: Key cnt: kkkk max subsc len: ssss max rec len: dddd max node len: rrrr

MUPIP Information: LOAD and EXTRACT use this to report on some characteristics of the global variables they processed, where gggg is an unsubscripted global name (region name appears in parentheses if gggg spans multiple regions), kkkk is the number of unique data cells in the array, ssss is the maximum subscripted key length, dddd is the maximum data length and rrrr is the maximum combined length of keys and subscripts.

Action: Use the information as appropriate.

RECSIZENOTEVEN

RECSIZENOTEVEN, RECORDSIZE [xxxx] needs to be a multiple of 2 if ICHSET or OCHSET is UTF-16, UTF-16LE or UTF-16BE

Run Time Error: This error is issued when the OPEN command specifies an ICHSET or OCHSET or CHSET of UTF-16 or UTF-16LE or UTF-16BE and the RECORDSIZE specified (xxxx) is not a multiple of 2.

Action: Specify a RECORDSIZE that is a multiple of 2.

RECSIZIS

RECSIZIS, Record size is xxxx

GDE Information: This message displays the record size of the REGION with which you are working.

Action: Review the accompanying message(s) for additional information.

RECTOOBIG

RECTOOBIG, Block size xxxx and yyyy reserved bytes limit record size to zzzz

GDE Warning: This indicates that an ADD, CHANGE, or TEMPLATE command specified a value for the qualifier RECORDSIZE that is incompatible with the value of xxxx specified for BLOCKSIZE. zzzz is the maximum RECORDSIZE supported by this BLOCKSIZE, and yyyy RESERVED_BYTES for the block. GDE displays this message with other error messages, including one that reports the specified record size.

Action: Modify the RECORDSIZE, BLOCKSIZE and/or RESERVED_BYTES, so they are compatible.

RECVPOOLSETUP

RECVPOOLSETUP, Receive Pool setup error

Run Time Error: This indicates that an error occurred in the replication subsystem while initializing the receive pool.

Action: Verify that the receiver server has been configured correctly. See accompanying messages for more information about the cause of this error.

REGFILENOTFOUND

REGFILENOTFOUND, Database file DDDD corresponding to region RRRR cannot be found

MUPIP Error: This indicates MUPIP cannot locate the database file DDDD mapped to region RRRR.

Action: Ensure that the current global directory is the one intended and that it maps the file intended. If the path is relative or includes environment variables, ensure that the current working directory and any environment variable are appropriate. Also ensure the file exists and has authorizations, including its path, that make it available to the user attempting to access it. If the MUPIP command involves a statsDB (for example MUPIP INTEG -STATS), ensure that the appropriate regions have STATS enabled, that the \$gtm_statsdir environment variable has been properly defined, and that other processes are using shared statistics, as MUPIP by itself does not create new statsDB databases. Note that MUPIP INTEG does not create statsDB and reports any that it skips with an informational message, but exits with a normal status after such skips.

REGIS

REGIS, in region xxxx

GDE Information: This message displays the name of the REGION with which you are working.

Action: Review the accompanying message(s) for additional information.

REGNTFND

REGNTFND, Region referenced not initialized

GT.CM Error: This indicates that there has been a region management error. The region may not be present, or there may have been an error during initialization.

Action: Record any accompanying messages and if necessary report the entire incident context to your GT.M support channel.

REGOPENFAIL

REGOPENFAIL, Failed to open region rrrr (dddd) due to conflicting database shutdown activity

DSE/LKE Error: Another process or processes repeatedly removed shared memory right after each one of the interlocking bypass. As a result of this, LKE/DSE failed to initialize region rrrr (database for dddd)

Action: Identify the process or processes that causes LKE/DSE to bypass interlocking mechanism by holding semaphore(s). To do that, follow RESRCINTRLCKBYPAS messages. They should tell you the PID of the process currently holding the semaphore. Check that process to see if it is stuck. If it is not stuck or has already terminated, it is likely that the database is being closed and opened abnormally fast. You may try running LKE/DSE again to achieve successful initialization.

REGOPENRETRY

REGOPENRETRY, Attempt to open region rrrr (dddd) using startup shortcut failed due to conflicting database shutdown. Retrying...

DSE/LKE Information: Another process removed shared memory right after the interlocking bypass, so LKE/DSE could not attach to the shared memory of region rrrr (database dddd). LKE/DSE is repeating database initialization for database file dddd.

Action: None necessary.

REGSSFAIL

REGSSFAIL, Process pppp encountered error contributing to the snapshot for region rrrr - the snapshot is no longer valid.

MUPIP Error: A GT.M process encountered failure while opening snapshot file or attaching to shared memory or writing a block to the snapshot file, any of which invalidate the snapshot file. The original error should be in the operator log.

Action: Examine the operator log for messages issued by process pppp to obtain details of the failure and take action, possibly by modifying file access characteristics or user roles, to address the problem.

RELINKCTLERR

RELINKCTLERR, Error with relink control structure for \$ZROUTINES directory dddd

Run Time Error: Indicates a problem accessing a relink control file in the temporary directory typically specified by the gtm_linktmpdir environment variable.

Action: Use the accompanying message(s) for a detailed error status to diagnose and address the access issue.

RELINKCTLFULL

RELINKCTLFULL, Relinkctl file for directory dddd is full (maximum entries mmmm)

Run Time Error: A process using directory dddd for initiated an auto-relink action with ZLINK or ZRUPDATE, or an autolink check with DO, GOTO, ZBREAK, ZGOTO, ZPRINT or \$TEXT() which

required adding information for the routine in question to the relinkctl file for directory dddd, but that relinkctl file was full with mmmm entries.

Action: Shut down all processes accessing the relinkctl file and issue MUPIP RUNDOWN -RELINKCTL dddd to cleanup the relinkctl file of potentially unused entries. Additionally, reduce the number of objects in the directory, typically by adding an additional object directory.

REMOTEDBNOSPGBL

REMOTEDBNOSPGBL, Database region rrrr contains portion of a spanning global and so cannot point to a remote file

Run Time Error: This indicates that region rrrr of the current global directory contains parts of a spanning global and therefore cannot point to a remote database file.

Action: Fix the global directory file so region rrrr points to a local file or remove the global nodes that span into this region.

REMOTEDBNOTRIG

REMOTEDBNOTRIG, Trigger operations on global gggg not supported as it maps to database region rrrr that points to a remote file

MUPIP/Run Time Error: \$ZTRIGGER() or MUPIP TRIGGER attempted to add, delete or modify a trigger in global gggg mapped to database region rrrr, which is defined as a GT.CM remote region, but GT.CM does not support trigger update actions.

Action: If you have a need for triggers on that globals in that region, log on to the remote instance in order to perform trigger maintenance.

RENAMEFAIL

RENAMEFAIL, Rename of file xxxx to yyyy failed

MUPIP Warning: This indicates that MUPIP failed in its attempt to rename the existing file xxxx to yyyy, before creating the new xxxx file.

Action: Check the accompanying message(s) for additional information.

REORGCTRLY

REORGCTRLY, User interrupt encountered during database reorg -- halting

MUPIP Information: This indicates that a REORG was interrupted. The reorganization is incomplete but the database is intact with no loss of data.

Action: Initiate REORG with RESUME qualifier, if appropriate.

REORGINC

REORGINC, Reorg was incomplete. Not all globals were reorged.

MUPIP Warning: This indicates that MUPIP did not reorg all the globals because of some resource constraint errors.

Action: Review the accompanying message(s) for more information.

REORGUPCNFLCT

REORGUPCNFLCT, MUPIP AAAA encountered a conflict due to OOOO (PID:PPPP)

MUPIP Error: MUPIP action AAAA encountered a conflict due to a concurrent operation OOOO run as process ID PPPP.

Action: MUPIP operations REORG UPGRADE and ONLINE ROLLBACK cannot run concurrently due to conflicting database changes. REORG UPGRADE exits if an ONLINE ROLLBACK is in progress or if it detects that an ONLINE ROLLBACK has started. ONLINE ROLLBACK pauses while waiting for the REORG UPGRADE to exit. ONLINE ROLLBACK has priority over REORG UPGRADE.

REPL0BACKLOG

REPL0BACKLOG, Total backlog for the specified replicating instance(s) is 0

MUPIP Success: This message indicates a successful -ZEROBACKLOG -SHUTDOWN. It means that was no backlog for the specified replicating instance(s), no inflight updates, and all updates were successfully acknowledged by the Receiver Server.

Action: None.

REPL2OLD

REPL2OLD, Instance IIII uses a GT.M version that does not support connection with the current version on iiii.

MUPIP Error: Issued by a Source Server, Receiver Server or MUPIP JOURNAL -ROLLBACK - FETCHRESYNC on Instance iiii attempted to connect to instance IIII, but found IIII is running an earlier version that does not support the current replication protocol. This can indicate either that the older version is just too old for any connection with the newer version (in case the older version is less than V5.1-000) or that the older version doesn't have the logic required to support a Supplementary Instance (in case the older version is less than V5.5-000). Note that IIII may not be available if the older instance uses a version of GT.M less than V5.1-000.

Action: Upgrade the GT.M version on IIII to a version that can support communication with the current version or, if this is a Supplementary Instance, that can deal with a Supplementary Instance or choose another appropriate instance for the connection.

REPLACCSEM

REPLACCSEM, Error with replication access semaphore (id = xxxx) for instance file aaaa

MUPIP Error: This indicates problem with the semaphore xxxx associated with the instance designated by aaaa.

Action: Review the accompanying message(s) for details.

REPLAHEAD

REPLAHEAD, Replicating instance is ahead of the originating instance. aaaa

MUPIP Error: The message appears on the Source and Receiver Server log files when the Receiver Server is ahead due to a possible rollback on the Source Server side. aaaa contains additional information or action that the user may have to perform.

Action: Action: Acknowledge or perform the appropriate action suggested with aaaa.

REPLALERT

REPLALERT, Source Server could not connect to replicating instance [XXXX] for [NNNN] seconds

MUPIP Warning: The Source Server records this warning message when the Source Server fails to establish a replication connection with the secondary instance [XXXX] for [NNNN] seconds. The frequency of recording this warning message can be adjusted with the soft connection attempt period (the fourth -CONNECTPARAM).

Action: Use the REPLALERT message as a mechanism to alert operations about replication network issues. Specify 0 as the REPLALERT period parameter (the fourth -CONNECTPARAM) to disable logging this message. The REPLALERT messages are disabled by default (that is, without specifying -CONNECTPARAM).

REPLBACKLOG

REPLBACKLOG, Timeout occurred while there was a backlog

MUPIP Error: This error occurs when the -TIMEOUT specified with -SOURCE -ZEROBACKLOG -SHUTDOWN expires and there is either a backlog and/or there was a failure to receive an acknowledgment of the latest sequence number on the Source Server by the Receiver Server. If REPLNORESP also accompanies this error, it means that the Source Server did not receive a response from the Receiver Server for acknowledgement sequence number confirmation.

Action: This error means that the -ZEROBACKLOG checks did not pass. Restart the Source Server to clear any backlog. The presence of REPL0BACKLOG success message for -ZEROBACKLOG -SHUTDOWN confirms that there are no inflight updates and all updates are acknowledged by the Receiver Server.

REPLBRKNTRANS

REPLBRKNTRANS, Replication subsystem found transaction xxxx broken or missing in the journal files

MUPIP Error: This indicates that while attempting to read the transaction with journal sequence number xxxx from journal files, the source server could not find all (or any) journal records belonging to that transaction.

Action: Restore the journal generation links, and/or the journal files. Deactivate and activate the source server (or shutdown and restart the source server). If the journal files that are needed are no longer available, follow the procedure Restoring secondary from backup of Primary detailed in the **Replication** chapter of Administration and Operations Guide.

REPLCOMM

REPLCOMM, Replication subsystem communication failure

MUPIP Error: This is a generic error or message indicating that there has been a communication error between the two systems performing replication.

Action: Review the accompanying message(s) for more information about the cause of this error. When REPLCOMM has an error severity, it accompanies a shut down of the replicating server. When REPLCOMM has an information severity, it indicates a temporary pause in replication due to a situation described by accompanying messages.

REPLERR

REPLERR, XXXX

MUPIP Warning: This indicates that GT.M is performing tasks that may result in an error.

Action: Review accompanying messages for more information about why GT.M generated this message.

REPLEXITERR

REPLEXITERR, Replication process encountered an error while exiting

Run Time Error: This indicates that the source, receiver or update process encountered an error during exit processing.

Action: Review accompanying message(s) for more information.

REPLFILIOERR

REPLFILIOERR, Replication subsystem file I/O error xxxx

MUPIP Error: This indicates that the system was unable to perform an I/O operation on a file on the replication primary server. The accompanying message also tells whether there was a read error or a write error and names the file on which the error occurred.

Action: Review the accompanying message(s) for more information about the cause of this error.

REPLFILTER

REPLFILTER, Replication filter subsystem failure

MUPIP Error: This indicates that the replication filter subsystem failed to start the application filter.

Action: In order to restart the filter subsystem, it is necessary to shut down the replication server and restart. If this error continues to appear, report the entire incident context to your GT.M support channel.

REPLFTOKSEM

REPLFTOKSEM, Error with replication semaphores for instance file xxxx

MUPIP Error: This indicates that MUPIP could not create semaphore for replication instance file.

Action: Review the accompanying message(s) for more information.

REPLGBL2LONG

REPLGBL2LONG, Global names longer than 8 characters cannot be handled at the secondary

Source Server log Error: A journal record contains a global variable name longer than 8 characters and the version running at the secondary does not support global variables longer than 8 characters.

Action: Upgrade the secondary to V5.0-FT01 or later. If upgrade is not possible, avoid replicating regions that contain globals longer than 8 characters.

REPLINFO

REPLINFO, xxxx

Run Time Information: The information is contained in the message.

Action: -

REPLINSTACC

REPLINSTACC, Error accessing replication instance file xxxx

Run Time/MUPIP Error: This indicates that some errors were encountered while accessing the specified replication instance file defined by \$gtm_repl_instance or the relevant global directory.

Action: Refer to the accompanying message(s) for additional information.

REPLINSTCLOSE

REPLINSTCLOSE, Error closing replication instance file xxxx

Run Time Error: There was an error when GT.M or MUPIP tried to close the replication instance file. The error detail accompanies this message.

Action: Look at the accompanying error detail. Possible causes are file permissions, system quotas, etc. Fix the cause if possible. If not, report the entire incident context to your GT.M support channel for further analysis.

REPLINSTCREATE

REPLINSTCREATE, Error creating replication instance file xxxx

Run Time Error: There was an error when GT.M or MUPIP tried to create the replication instance file. The error detail accompanies this message.

Action: Look at the accompanying message that gives error details. Possible causes are file permissions, system quotas, and so on. If possible, correct the cause and retry creating the replication instance file. If the error persists, report to your GT.M support channel along with the error details.

REPLINSTDBMATCH

REPLINSTDBMATCH, Replication instance file xxxx has seqno xxxx while database has a different seqno yyyy

MUPIP Error: This error is issued by the first source server that is started on a replication instance or a mupip journal -rollback command if the journal sequence numbers stored in the instance file does not match that stored in the database file header. This is possible if the database was recreated or refreshed from a backup on another instance without correspondingly recreating the instance file.

Action: If this instance is not the root primary, this error can be handled by restoring both the database and the instance file from a previous backup (consistent backup of the instance file AND database files taken together at the same time) and restarting the instance. Subsequent to such a restore, all transactions since the last backup will be sent across from this instance's primary. Alternatively, this can be handled by shipping a copy of the database from any other instance (either the primary or any other secondary/tertiary), recreating the instance file and starting this instance as a secondary with the -updatesync qualifier. In either case, this procedure has to be repeated on all tertiary instances etc. that descend from this instance ensuring that for every primary-secondary instance pair, the secondary is not ahead of the primary in terms of journal sequence number. If this instance is the root primary, restoring from a prior backup may not be viable as it may mean loss of transactions that occurred after

the backup. The alternative way to handle this error is to recreate the instance file on the root primary, ship a copy of the database from the primary and recreate instance files on ALL secondaries (tertiaries etc.) and restart the secondaries with the `-updateresync` qualifier. In addition, report the entire incident context to your GT.M support channel.

REPLINSTDBSTRM

REPLINSTDBSTRM, Replication instance file rrrr has seqno xxxx for Stream nnnn while database has a different seqno XXXX

MUPIP Error: Issued by the first source server started on a supplementary instance if the journal stream sequence numbers (for any non-supplementary stream from 0 through 15) stored in the instance file do not match those stored in the database file headers. This is possible if a database was recreated or refreshed from a backup on another instance without correspondingly recreating the instance file.

Action: If the database file is known to be accurate, recreate the instance file. If not, reinitialize this instance from a backup of some other instance in the same LMS Group (see Action section of REPLINSTDBMATCH error for more details on this).

REPLINSTFMT

REPLINSTFMT, Format error encountered while reading replication instance file xxxx. Expected yyyy. Found zzzz.

Run Time/MUPIP Error: This error is issued by GT.M or MUPIP whenever it tries to open the replication instance file and finds that it was created with a format that the current version of GT.M cannot interpret. GT.M also produces this error when it encounters:

1. an instance file created on a different endian system or
2. Shutting down a replication server using a different GT.M version, indicating that the instance is not shutdown.

Action: Recreate the instance file using the `mupip replic -instance_create` command with the current version of GT.M.



The REPLINSTRORRV message that was displayed in V5.0-000 has now been replaced by REPLINSTFMT

Action: If the error is issued by GT.M review the accompanying message(s) in the operator log.

If a MUPIP SET `-JOURNAL=ON` command produces this message for the region in the operator log, it may indicate that one or more of the current generation journal files are damaged/missing and new journal files were created with no back pointers to the previous journal files. FIS recommends taking a database backup at the earliest convenience because a MUPIP RECOVER/ROLLBACK will not be able to

go back past xxxx. If this message is for a specified region(s), consider switching the journal files for all regions (with REGION "**") that the process has opened (all journaled/replicated regions in the instance if replication is in use) to ensure that the RECOVER/ROLLBACK for other regions remains unaffected.

No action is required if the MUPIP BACKUP -NEWJNLFILES=NOPREVLINK issues the error.

REPLINSTFREEZECOMMENT

REPLINSTFREEZECOMMENT, Freeze Comment: xxxx

Run Time Information: This message contains details about a freeze on a replication instance. The instance information is included in an associated REPLINSTFROZEN message. In the case of an automatic freeze, xxxx identifies an error that triggered the freeze. In the case of an administrative freeze, xxxx contains the text provided by MUPIP REPLICATE -SOURCE -FREEZE=ON -COMMENT="xxxx".

Action: Refer to REPLINSTFROZEN.

REPLINSTFROZEN

REPLINSTFROZEN, Instance xxxx is now Frozen

Run Time Error: This indicates that the replication instance xxxx is frozen due to a custom error or an out-of-space condition on a region with INST_FREEZE_ON_ERROR set, or by an administrator with the MUPIP REPLICATE -SOURCE -FREEZE=ON command. Updates to database files or shared memory for regions in the instance are blocked.

Action: Check the associated REPLINSTFREEZECOMMENT message for details on the cause of the freeze. For out-of-space conditions, make sufficient disk space available to remove the freeze. For custom errors or for administrative freezes, MUPIP REPLICATE -SOURCE -FREEZE=OFF or a system restart removes the freeze.

REPLINSTMISMATCH

REPLINSTMISMATCH, Process has replication instance file ffff (jnlpool shmid = ssss) open but database dddd is bound to instance file gggg (jnlpool shmid =tttt)

Run Time Error: The process attempted an update on the replicated database dddd associated with the replication instance file ffff and journal pool shared memory id ssss; however, the process has already associated the database with a different replication instance file gggg or journal pool shmid tttt.

Action: A replicated database can only accept updates by processes that have the same replication instance file (defined by the environment variable gtm_repl_instance or in the global directory) open for that database. Ensure the same replication instance file is used for all processes that update the same replicated database file. This error can also occur if the replication instance file was recreated (while processes were still accessing the replication instance). In this case, the name ffff and gggg would be the

same but the corresponding journal pool shared memory ids would be different. To recover from this situation, shut down all processes accessing the instance from before and after the instance file recreate. Run an argumentless MUPIP RUNDOWN to clean up the older journal pool tttt and restart the instance. The Source Server (which is the first process to start on a replicated instance) only binds replicated databases from its global directory to the journal pool that it creates. No other replicated database file can be bound with this journal pool.

REPLINSTNMLEN

REPLINSTNMLEN, Replication instance name xxxx should be 1 to 15 characters long

MUPIP Error: This error is issued by the mupip replic instance_create command if the instance name was specified either through the name qualifier or through the environment variable gtm_repl_instname and if name was longer than 15 characters or was the empty string.

Action: Specify a valid instance name that is 1 to 15 characters long.

REPLINSTNMSAME

REPLINSTNMSAME, Primary and Secondary instances have the same replication instance name xxxx

MUPIP Error: This error is issued by any source server command where the -instsecondary qualifier specifies a secondary instance name that matches the name of the primary instance the command is started from.

Action: Two instances should never have the same name. Recreate the instance file on the secondary with a different name and restart the receiver server with the updateresync qualifier.

REPLINSTNMUNDEF

REPLINSTNMUNDEF, Replication instance name not defined

MUPIP Error: This error is issued by the mupip replic -instance_create command if the -name qualifier was not specified and if the environment variable gtm_repl_instname is not defined either.

Action: Specify the instance name using the -name qualifier.

REPLINSTNOHIST

REPLINSTNOHIST, REPLINSTNOHIST History record for xxxx not found in replication instance file yyyy

MUPIP Error: The source server or receiver server issue this message as an error while mupip rollback issues this message as a warning when they scan the replication instance file looking for a history record corresponding to a journal sequence number that is lesser than the earliest sequence number or greater than the latest sequence number stored in the instance file. This means that the replication

instance files on the primary and secondary have differing level of history detail (possible if the instance file was later recreated in one instance) and that it is no longer possible to determine the sync point (resync seqno) between the two instances.

Action: If mupip rollback issues this error, it truncates the replication instance file history. This means that if this instance is a secondary, it should be brought up with the `-updateresync` qualifier. If the source or receiver server issue this error, this error needs to be handled by ensuring the primary and secondary databases are in sync (by shipping a copy of the database from the primary to the secondary if not already done), recreating the instance file on the secondary (if not already done) and start the receiver server on the secondary with the `-updateresync` qualifier.

REPLINSTNOSHM

REPLINSTNOSHM, Database dddd has no active connection to a replication journal pool

Run Time Error: The Source server was started with a replication instance that had this database file listed but later the source server and this particular database file were shut down while other database files in this instance file were still active.

Action: Restart the source server.

REPLINSTOPEN

REPLINSTOPEN, Error opening replication instance file xxxx

Run Time Error: There was an error when GT.M or MUPIP tried to open the replication instance file. The error detail accompanies this message.

Action: Look at the accompanying error detail. Possible causes are file permissions, system quotas, and so on. Fix the cause if possible. If not, report the entire incident context to your GT.M support channel for further analysis.

REPLINSTREAD

REPLINSTREAD, Error reading xxxx bytes at offset yyyy from replication instance file ffff

Run Time Error: There was an error when GT.M or MUPIP tried to read from the replication instance file. The error detail accompanies this message.

Action: Look at the accompanying error detail. Possible causes are file permissions, system quotas, etc. Fix the cause if possible. If not, report the entire incident context to your GT.M support channel for further analysis.

REPLINSTRECR

REPLINSTRECR, Error recreating replication instance file ffff

MUPIP Error: The replication instance file ffff has gone missing and GT.M has attempted to recover it from information in memory, but that attempt failed.

Action: See associated messages for additional context. While the error might be the result of some operational intent, it may mean that something in the replication instance file path has been inadvertently made inaccessible. If so, address the missing item or redirect the \$gtm_repl_instance environment variable to name an appropriate revised path.

REPLINSTSECLN

REPLINSTSECLN, REPLINSTSECLN Secondary replication instance name xxxx should be 1 to 15 characters long

MUPIP Error: This error is issued by any mupip replic -source command that specifies a secondary instance name. This error is issued if the secondary instance name was specified either through the -instsecondary qualifier or through the environment variable gtm_repl_instsecondary and if the name was longer than 15 characters or was the empty string.

Action: Specify a valid secondary instance name that is 1 to 15 characters long.

REPLINSTSECMTCH

REPLINSTSECMTCH, REPLINSTSECMTCH Secondary replication instance name xxxx sent by receiver does not match yyyy specified at source server startup

Source Server log/MUPIP Error: This error is issued by a source server that connects to a receiver server on the secondary and finds that the secondary instance name sent by the receiver does not match the secondary instance name specified (INSTSECONDARY qualifier) when the source server was started. The source server terminates after issuing this error.

Action: Restart the source server with the correct -instsecondary qualifier value. Also make sure the instance name in the -instsecondary qualifier and the host/port information in the secondary qualifier of the source server startup command correspond to each other.

REPLINSTSECNONE

REPLINSTSECNONE, No information found for secondary instance xxxx in instance file yyyy

MUPIP Error: This error is issued by any mupip replic source command that specifies a replicating (secondary) instance name (except for the one which specifies -start) if no information on this name can be found in the instance file. This is possible if no Source Server was ever started since the initialization of this instance file for such a replicating instance.

Action: Make sure the replicating instance name is correct. If it is, make sure a Source Server for that replicating instance has been started at least once in the life of the instance file even if it is currently not up and running.

REPLINSTSECUNDF

REPLINSTSECUNDF, REPLINSTSECUNDF Secondary replication instance name not defined

MUPIP Error: This error is issued by any mupip replic -source command that requires a secondary instance name to be specified. The source server commands that require this qualifier are those that have any of -activate, changelog, deactivate, needrestart, start, statslog or stopsourcefilter specified. The secondary name can be specified either through the INSTSECONDARY qualifier or through the environment variable gtm_repl_instsecondary. If neither of them is specified, this error is issued.

Action: Specify the secondary instance name using the INSTSECONDARY qualifier.

REPLINSTSEQORD

REPLINSTSEQORD, REPLINSTSEQORD ssss has seqno xxxx which is less than last record seqno yyyy in replication instance file zzzz

MUPIP Error: This error is issued in one of two scenarios. The instance file consists of a sequence of history records that should correspond to an increasing range of sequence numbers. They need to hence have their starting sequence number in increasing order. If an attempt is made to append a history record with a starting sequence number that is lesser than the last history record currently existing in the instance file, the source or receiver server issues this error. In this case ssss would be the string New history record. This error is also issued if at journal pool creation time, the source server notices that the instance file header has a value of the current seqno that is lesser than the starting seqno of the last history record in the instance file. In this case ssss would be the string Instance file header.

Action: If this instance is not the root primary, this error can be handled by restoring both the database and the instance file from a previous backup (consistent backup of the instance file AND database files taken together at the same time) and restarting the instance. Subsequent to such a restore, all transactions since the last backup will be sent across from this instance's primary. Alternatively, this can be handled by shipping a copy of the database from any other instance (either the primary or any other secondary/tertiary), recreating the instance file and starting this instance as a secondary with the UPDATERESYNC qualifier. In either case, this procedure has to be repeated on all tertiary instances etc. that descend from this instance ensuring that for every primary-secondary instance pair, the secondary is not ahead of the primary in terms of journal seqno. If this instance is the root primary, restoring from a prior backup may not be viable as it may mean loss of transactions that occurred after the backup. The alternative way to handle this error is to recreate the instance file on the root primary, ship a copy of the database from the primary and recreate instance files on ALL secondaries (tertiaries etc.) and restart the secondaries with the UPDATERESYNC qualifier. In addition, report the entire incident to your GT.M support channel.

REPLINSTSTNDALN

REPLINSTSTNDALN, REPLINSTSTNDALN Could not get exclusive access to replication instance file xxxx

MUPIP Error: This error is issued by MUPIP REPLIC INSTANCE_CREATE if it finds that the replication instance file it is attempting to create already exists and is being used (the journal pool for that instance exists) by GTM and/or MUPIP process(es).

Action: Shutdown all GTM and/or MUPIP processes that are using the replication instance file and reissue the command. If it fails even though you know for sure there is no other GT.M or MUPIP process accessing the replication instance file, delete the instance file and reissue the command.

REPLINSTUNDEF

REPLINSTUNDEF, Replication instance environment variable \$gtm_repl_instance is undefined

Run Time/MUPIP Error: This indicates that the replication instance environment variable \$gtm_repl_instance is undefined.

Action: Define the environment variable to the appropriate instance file.

REPLINSTUNFROZEN

REPLINSTUNFROZEN, Instance xxxx is now Unfrozen

Run Time Information: This indicates that a replication instance which had previously been frozen is no longer frozen and updates to regions in the instance will resume.

Action: None required.

REPLINSTWRITE

REPLINSTWRITE, REPLINSTWRITE Error writing xxxx bytes at offset yyyy from replication instance file ffff

Run Time Error: There was an error when GT.M or MUPIP tried to write to the replication instance file. The error detail accompanies this message.

Action: Look at the accompanying error detail. Possible causes are file permissions, system quotas, etc. Fix the cause if possible. If not, report the entire incident context to your GT.M support channel.

REPLJNLCLOSED

REPLJNLCLOSED, Replication in jeopardy as journaling got closed for database file dddd. Current region seqno is xxxx[XXXX] and system seqno is yyyy[YYYY]

Run Time Warning: This message indicates that GT.M turned OFF journaling and switched replication from ON to WAS_ON on the specified database. Other preceding messages identify the cause (for example, lack of disk space while writing to journal file, permissions issue while auto-switching to new journal files, and so on). The message also displays the region (xxxx decimal and XXXX hexadecimal)

and journal (yyyy/YYYY) sequence numbers. From this point, replicating updates on the primary to the secondary might, or might not, work depending on the backlog on the primary until replication/journaling gets turned back ON.

Action: First, correct the cause (lack of disk space, permission issues, and so on) that turned journaling OFF.

Execute the MUPIP SET REPLICATION=ON or MUPIP BACKUP REPLICATION=ON command to turn replication (and journaling) ON and switch to a new set of journal files. This command can work while processes are concurrently updating the database and causes GT.M to journal subsequent updates in both the journal file and journal pool (rather than only in the journal pool as it does when replication is in the WAS_ON state).

Execute the MUPIP REPLIC -SOURCE -SHOWBACKLOG command. Note down the value of "sequence number of last transaction written to journal pool".

Execute the above command at regular intervals and note down the value of "sequence number of last transaction sent by source server."

If the "sequence number of last transaction sent by source server" is greater than "sequence number of last transaction written to journal pool", it means that the source server successfully sent all journal records during the time interval when journaling was turned OFF. In this case, no further action is required.

On the other hand, if the "sequence number of last transaction sent by source server" is less than "sequence number of last transaction written to journal pool" and reports the same value across repeated SHOWBACKLOG commands, then check the source server log file for any error messages - most likely a NOPREVLINK error from the source server. This means the source server could not locate the corresponding journal records required from the journal files to replicate a particular sequence number and therefore, it failed to synchronize the primary and secondary. In this case, take an online backup of the primary, restore it on the secondary and start the secondary with the UPDATERESYNC qualifier to synchronize the secondary with the primary.

REPLJNLNFCFLCT

REPLJNLNFCFLCT, Journaling cannot be turned nnnn on database file ffff as the replication state is rrrr and must also be turned nnnn in the same command

MUPIP Warning: This message indicates that the requested journaling state (nnnn) and current replication state (rrrr) do not match and the command must explicitly specify an outcome such that they do match.

Action: Using DSE, dump the file header for each affected region. If the replication state is "WAS_ON" please consult the section on "Recovering from the replication WAS_ON state" from the Administration and Operations Guide. For all other cases, issue one or more commands that leave journaling and replication either both ON or both OFF.

REPLLOGOPN

REPLLOGOPN, Replication subsystem could not open log file LLLL : eeee. Logging done to OOOO

MUPIP Error: This indicates that MUPIP could not find, or did not have access permission to open, the log file LLLL, because of the error eeee. If there is another log file available (a previously opened file), MUPIP writes to the other log file OOOO. If there is no other log file available, MUPIP sends any remaining messages to /dev/null and terminates the replication server process.

Action: Check the log file permissions, and if permissions are correct, move the log file and specify that MUPIP should log to a log file which has appropriate access permissions.

REPLMULTINSTUPDATE

REPLMULTINSTUPDATE, Previous updates in the current transaction are to xxxx so updates to yyyy (in rrrr) not allowed

Run Time Error: Previous updates in the current TP transaction mapped to database files associated with replication instance file xxxx, so it cannot make updates to database file yyyy which is associated with replication instance file rrrr.

Action: Modify the application so all updates in a TP transaction to replicated regions are associated with a single replication instance.

REPLNOBEFORE

REPLNOBEFORE, NOBEFORE option cannot be used when the current replication state is ON for a database file xxxx

MUPIP Warning: This indicates that GT.M could not use NOBEFORE journal option because replication is already turned ON for the database file xxxx.

Action: Use BEFORE option for the database file xxxx. NOBEFORE image journaling is not currently supported for replication. If NOBEFORE is necessary, use -replication=OFF option.

REPLNOHASHTREC

REPLNOHASHTREC, Sequence number NNNN contains trigger definition updates. IIII side must be at least V6.2-000 for replication to continue

Receiver Server log/Source Server log Error: \$ZTRIGGER() or MUPIP TRIGGER updated a trigger definition in a replicated region, but the replicating instance is running a version that cannot process trigger definitions from this version. Prior to V6.2-000 trigger maintenance actions replicated as data, while V6.2-000 and later, trigger maintenance actions replicate as logical actions. V6.2-000 can reformat maintenance actions as data for older versions, but the current version cannot.

Action: Use V6.2-000 as a step on an upgrade path from earlier to later versions. Alternatively, if you need to perform trigger maintenance on replicating instances that are on either side of V6.2-000, you must perform them independently on the two systems when replication is off, recording and manipulating the sequence numbers such that you can resume replication.

REPLNOMULTILINETRG

REPLNOMULTILINETRG, Sequence number ssss contains a trigger definition too large for transmission to the current replicating instance, which does not support multi-line triggers - stopping replication.

Trigger/Source Server log/MUPIP Error: The source server logs this message whenever it detects replication to a V5.4-001 or V5.4-000A instance of a transaction that involves multi-line triggers spanning across multiple blocks in the database, which is possible if the multi-line trigger definition is large enough that it does not fit in a single database block.

Action: Upgrade the replicating instance to at least V5.4-002 or eliminate any usages of large multi-line triggers spanning across database blocks from the application logic.

REPLNORESP

REPLNORESP, No sequence number confirmation from the replicating instance xxxx after waiting for nnnn second(s)

MUPIP Warning: This message appears when the Source Server fails to receive a response from the Receiver Server during a -ZEROBACKLOG -SHUTDOWN. The presence of a REPLNORESP indicates that a -ZEROBACKLOG -SHUTDOWN check failed. This warning is accompanied by the REPLBACKLOG error message.

Action: This warning means that the -ZEROBACKLOG checks did not pass. Restart the Source Server to clear any backlog. The presence of REPL0BACKLOG success message for -ZEROBACKLOG -SHUTDOWN confirms that there are no inflight updates and all updates are acknowledged by the Receiver Server.

REPLNOTLS

REPLNOTLS, xxxx requested TLS/SSL communication but the yyyy was either not started with TLSID qualifier or does not support TLS/SSL protocol

MUPIP Error: This indicates that xxxx (Source Side or Receiver Side) requested TLS/SSL communication but the other side was not started with a TLSID qualifier or was pre-V6.1-000 version that does not support TLS/SSL protocol.

Action: If both sides are running with GT.M version >= V6.1-000, then make sure the TLSID qualifier is specified for both the Source and Receiver Server startup commands. If one of the instances involved in the replication is a pre V6.1-000 GT.M version, upgrade it to V6.1-000 to support TLS.

REPLNOTON

REPLNOTON, Replication is not on for journal file xxxx, rollback will not continue

MUPIP Error: This indicates that ROLLBACK cannot proceed because MUPIP encountered xxxx, a journal file for which replication is not turned ON.

Action: ROLLBACK cannot be used for a journal file if it does not have replication state ON, use MUPIP JOURNAL RECOVER instead.

REPLNOXENDIAN

REPLNOXENDIAN, SSSS side is running on a GT.M version that does not support cross-endian replication. Upgrade the SSSS side to at least V5.3-003 to support cross-endian replication. Cannot continue.

MUPIP Error: The originating or the replicating instance in a cross-endian replication environment issue this error when a replication startup detects that the other side is running on a GT.M version without needed cross-endian support.

Action: Upgrade the instance for which the error was reported to a version with support for cross-endian replication.

REPLOFFJNLON

REPLOFFJNLON, Replication state for database file <xxx> is OFF but journaling state is enabled.

MUPIP Error: In a replicated environment, this indicates that the database file <xxx> cannot have journaling ENABLED or ON when the replication state is OFF. This is an out of design situation due to implications on recovery as journal files can't be a mix of SET/KILL records that were created when replication was ON and those created when replication was OFF.

Action: In order to prevent this situation, enable replication state for the database file <xxx> (using MUPIP SET -REPLICATION=ON or MUPIP BACKUP -REPLICATION=ON) or disable journaling using MUPIP SET -JOURNAL=DISABLE whichever is desirable.

REPLPOOLINST

REPLPOOLINST, Error with replication pool xxxx for instance file yyyy

MUPIP Error: This indicates that MUPIP encountered an error for the replication shared memory of shared memory xxxx.

Action: Refer to the accompanied message(s) for detailed information.

REPLRECFMT

REPLRECFMT, Replication journal record format error encountered

Source Server log/MUPIP Fatal: This indicates that a formatting error has been encountered by the replication source server for a journal record.

Action: Report the entire incident context along with any GT.M logs, dump, and/or core files created within the same timeframe to your GT.M support channel.

REPLREQROLLBACK

REPLREQROLLBACK, Replication instance file xxxx indicates abnormal shutdown. Run MUPIP JOURNAL ROLLBACK first.

MUPIP Error: This error is issued by MUPIP REPLIC SOURCE %C3%A2%E2%82%AC%E2%80%9CSTART if it is about to create the journal pool and finds that the replication instance file header indicates the journal pool was not cleanly shutdown previously. This may cause the instance file not to correspond to the database and/or journals.

Action: Run MUPIP JOURNAL ROLLBACK to cleanup the instance file, database and journal files before starting a source server on this instance.

REPLREQRUNDOWN

REPLREQRUNDOWN, Error accessing replication instance xxxx. Must be rundown on cluster node yyyy.

Run Time/MUPIP Error: This indicates that GT.M could not open the specified replication instance file because it was not properly closed on the cluster node yyyy.

Action: Issue MUPIP RUNDOWN command on the cluster node. A GT.M process or, replication server on that node may have been terminated by a method other than MUPIP STOP. If MUPIP RUNDOWN with no parameters fails, try MUPIP RUNDOWN region * with an appropriate global directory.

REPLSRCEXITERR

REPLSRCEXITERR, Source server for secondary instance xxxx exited abnormally. See log file yyyy for details.

Operator log Warning: This indicates the the source server for instance xxxx exited abnormally.

Action: Check the end of the log file at yyyy for additional message(s).

REPLSTATE

REPLSTATE, Replication state for region/database file xxxx is now yyyy

MUPIP Information: This indicates that replication state for region/database file xxxx, is now yyyy.

Action: -

REPLSTATEERR

REPLSTATEERR, Replication state cannot be changed to the specified value for database file <xxx>.

MUPIP Error: This MUPIP BACKUP error indicates that the specified change in the replication state cannot be done due to the reason described in a following GTM-E-TEXT message.

Action: If the message indicates "Standalone access required", try to enable the replication in the standalone mode using MUPIP SET REPLICATION. If the message suggests switching journal file, specify the backup qualifier NEWJNL in the command line.

REPLSTATEOFF

REPLSTATEOFF, MUPIP JOURNAL -ROLLBACK -BACKWARD cannot proceed as database xxxx does not have replication ON

MUPIP Error: This indicates that a MUPIP JOURNAL -ROLLBACK -BACKWARD command cannot proceed because the specified database xxxx does not have replication state ON. In most situations, this error occurs when the journal file storage runs out of disk space.

Action: Ensure replication is turned ON for a database, before executing the MUPIP JOURNAL -ROLLBACK -BACKWARD command. If the database is in the WAS_ON state, refer to the "Recovering from the WAS_ON state" section in the Database Replication chapter of the Administration and Operations Guide. Alternatively, if replication was not in use on the database, use MUPIP JOURNAL -RECOVER.

REPLTRANS2BIG

REPLTRANS2BIG, Transaction xxxx of size yyyy too large to be accommodated in the zzzz pool

MUPIP Error: This indicates that the size of the incoming transaction is larger than the specified receive pool.

Action: The receiver server must be shut down and restarted with a larger receive pool size or, if possible, break the file transmission into smaller files.

REPLUPGRADEPRI

No longer in GT.M since: V5.4-002B

REPLUPGRADEPRI, Attempted operation requires primary instance xxxx to support multi-site replication

MUPIP Error: This error is issued if an attempt is made to start an active source server or activate a passive source server on a propagating primary instance while the receiver server on that instance is connected to a primary that has not yet been upgraded to the multi-site version of GT.M. This error is also issued when the receiver server on a propagating primary finds that the primary it connects to does not support multi-site replication and that there is at least one active source server running on the instance at that time.

Action: An active source server cannot be running on a secondary instance at the same time that the receiver server on this instance is connected to a primary that does not support multi-site functionality. Upgrade the primary instance identified in the message to the version of GT.M that supports multi-site replication functionality and then start active source servers.

REPLUPGRADESEC

No longer in GT.M since: V5.4-002B

REPLUPGRADESEC, Attempted operation requires secondary instance xxxx to support multi-site replication

MUPIP Error: This error is issued in three cases. 1) If a source server is currently connected to a dual-site secondary (i.e. a secondary running on a version of GT.M that does not support multi-site functionality), starting additional source servers will issue this error. 2) If a source server finds more than one source server (active or passive) running on the same instance at the time it connects to a dual-site secondary it will issue this error. 3) On a propagating primary instance, a source server that connects to a dual-site tertiary instance will issue a this error at connection time.

Action: Upgrade the secondary instance identified in the message to the version of GT.M that supports multi-site replication functionality and then start multiple source servers.

REPLWARN

REPLWARN, xxxx

MUPIP Warning: This indicates that GT.M is performing tasks that may result in an error.

Action: Review accompanying messages for more information about why GT.M generated this message. The Source Server exits with a REPLWARN message for the first five failed attempts to open journal files.

REPLXENDIANFAIL

REPLXENDIANFAIL, SSSS side encountered error while doing endian conversion at journal sequence number JJJJ

MUPIP Error: The originating or the replicating instance in a cross-endian replication environment report this error whenever they detect that the endian conversion failed.

Action: Restart replication - if the transmission caused the problem, it's probably intermittent. Perform a MUPIP JOURNAL -EXTRACT -DETAIL on the journal files and search for the sequence number JJJJ to look for anything different about that journal record. If the report is on the secondary, take a fresh backup on the originating instance requesting new journal files, refresh the replicating instance and restart replication.

REQ2RESUME

REQ2RESUME, Request to resume suspended processing received from process xxxx owned by userid yyyy

Run Time Information: The information is logged to the operator facility. This indicates that a suspended process received signal SIGCONT to resume processing. This happens when a process is suspended while holding a scarce resource in order to permit other processes to access the resource. On systems that do not support advanced signal information, xxxx and yyyy both are 0 (zero).

Action: -

REQDVIEWPARM

REQDVIEWPARM, Required View parameter is missing

Run Time Error: This indicates that the failed program attempted to use the VIEW function without specifying a keyword argument or with an invalid keyword argument.

Action: Programmer's should consult the Programmer's Guide for the correct syntax.

REQRECOV

REQRECOV, Error accessing database dddd. Must be recovered on cluster node ccccc.

Run Time Error: This indicates that GT.M could not open a previously journaled database file dddd due to a prior improper shutdown on cluster node ccccc. A GT.M process on cluster node ccccc may have failed to attach a database memory segment or it was terminated by a method other than MUPIP STOP.

Action: Perform a MUPIP JOURNAL RECOVER operation to address this issue.

REQRLNKCTLRNDWN

REQRLNKCTLRNDWN, Error accessing relinkctl file rrrr for \$ZROUTINES directory dddd. Must be rundown

Run Time Error: A process initiated an auto-relink action with ZLINK or ZRUPDATE, or an auto-relink check with DO, GOTO, ZBREAK, ZGOTO, ZPRINT or \$TEXT() which required adding information for the routine in question to the Relinkctl file rrrr for directory dddd, but the shared memory associated with that Relinkctl file had been removed, presumably by an operator using a ipcrm.

Action: Run MUPIP RUNDOWN -RELINKCTL dddd to clear the state of the Relinkctl file. Determine the cause for the improper close and take action to prevent additional occurrences.

REQROLLBACK

REQROLLBACK, Error accessing database dddd. Run MUPIP JOURNAL -ROLLBACK -NOONLINE on cluster node cccc.

Run Time Error: This indicates that GT.M could not open a previously replicated database file dddd due to a prior improper shutdown on cluster node cccc. A GT.M process on cluster node cccc may have failed to attach a database memory segment or it was terminated by a method other than MUPIP STOP.

Action: Perform MUPIP JOURNAL -ROLLBACK -NOONLINE to cleanup the instance file, database, and journal files before starting a source server on this instance.

REQRUNDOWN

REQRUNDOWN, Error accessing database dddd. Must be rundown on cluster node ccccc.

Run Time Error: This indicates that GT.M could not open database file dddd due to a prior improper shutdown on cluster node ccccc. A GT.M process on cluster node ccccc may have failed to attach a database memory segment or it was terminated by a method other than MUPIP STOP.

Action: Perform MUPIP RUNDOWN from cluster node ccccc. If MUPIP RUNDOWN with no parameters does not work, specify the region name or file-specification with -REGION or -FILE, respectively.

RESOLVESEQNO

RESOLVESEQNO, Resolving until sequence number dddd [0xxxxx]

MUPIP Information: This indicates MUPIP JOURNAL ROLLBACK expects to do backward processing until it reaches sequence number with hexadecimal value xxxx (decimal value dddd). This is usually the common sequence number agreed upon between the primary and secondary by a -FETCHRESYNC rollback or the sequence number specified in a -RESYNC rollback.

Action: No action required.

RESOLVESEQSTRM

RESOLVESEQSTRM, Resolving until stream sequence number Stream nnnn : Seqno dddd xxxx

MUPIP Information: This indicates MUPIP JOURNAL ROLLBACK expects to do backward processing until it reaches the stream sequence number whose hexadecimal value is xxxx (decimal value dddd). This is usually the common stream sequence number agreed upon between the primary and secondary by a -FETCHRESYNC rollback or the stream sequence number specified in a -RESYNC rollback where -RSYNC_STRM is also specified.

Action: No action required.

RESRCINTRLCKBYPAS

RESRCINTRLCKBYPAS, tttt with PID qqqq bypassing the ssss semaphore for region rrrr (ffff) currently held by PID pppp.

All GT.M Components Information: GT.M issues the RESRCINTRLCKBYPAS message to the system log as an indication it may not detect when the last process detaches from the shared resource and therefore may not rundown the database shared resources as it normally would. GT.M protects the actions of setting up and tearing down the shared resources associated with a database with a pair of semaphores. Because DSE, and LKE are tools for diagnosing issues, when they start and find they cannot acquire the semaphores after a reasonable number of tries, they proceed to open the database anyway because it is highly probable the database is already set up. When DSE and LKE bypass the semaphore acquisition, they leave the count of attached processes incorrect. When many processes terminate at the same time, typically because of a system shutdown, there can be significant contention for the semaphores that can cause their terminations to take an unusually long time. When this happens, and the count of remaining attached processes is significant, a process may skip the semaphore acquisition, again leaving the count of attached process incorrect. If either of these events occurs, GT.M issues the RESRCINTRLCKBYPAS message where tttt identifies the process type: "LKE", "DSE" or "GT.M"; qqqq is the bypassing process's PID; ssss identifies the semaphore type: "FTOK" or "access control"; rrrr is the region bypassed; ffff is the file corresponding to region rrrr; pppp is the PID of the process holding the semaphore.

Action: These messages when shutting down GT.M activity may indicate a need to complete the process by invoking a MUPIP JOURNAL -ROLLBACK -BACKWARD for replicated databases, a MUPIP JOURNAL -RECOVER -BACKWARD for unreplicated journaled databases and a MUPIP RUNDOWN for journal-free databases to get the database to a safe state; doing so as part of every shutdown is good practice.

RESRCWAIT

RESRCWAIT, Waiting briefly for the tttt semaphore for region rrrr (ffff) was held by PID pppp (Sem. ID: ssss)

Run Time Information: A process started a three (3) second wait for an FTOK or access control semaphore. If process with PID pppp does not release the semaphore before the timeout expires, the waiting process bypasses acquiring the semaphore. tttt identifies the semaphore type: "FTOK" or "access control"; rrrr is the region; ffff is the database file corresponding to region rrrr; ssss is the semaphore ID.

Action: None required.

RESTORESUCCESS

RESTORESUCCESS, Restore completed successfully

MUPIP Information: This message indicates MUPIP RESTORE successfully completed all specified with command actions.

Action: None required.

RESTRICTEDOP

RESTRICTEDOP, Attempt to perform a restricted operation: xxxx

All GT.M Components Error: The attempted operation, xxxx, was prevented based on the policy specified by the \$gtm_dist/restrict.txt file.

Action: Check the permissions and contents of the restrict.txt file against the permissions of the user performing the operation.

RESTRICTSYNTAX

RESTRICTSYNTAX, Syntax error in file ffff at line number nnnn. All facilities restricted for process.

All GT.M Components Error: The file ffff, or \$gtm_dist/restrict.txt, contains a syntax error at line nnnn. All facilities which may be specified in a restrict.txt file will be considered restricted, and restricted operations will result in RESTRICTEDOP errors or operations being ignored.

Action: Edit the restrict.txt file to remove the syntax error, and verify the permissions of the file reflect the desired access.

RESUMESTRMNUM

RESUMESTRMNUM, Error with stream number specified in RESUME qualifier

MUPIP Error: Issued by a Receiver Server as an accompanying message to a UPDSYNCINSTFILE error. The stream number nnnn can be any integer value from -1 through 15.

Action: No action required for this message. Action is required for the preceding UPDSYNCINSTFILE error.

RESYNCSEQLOW

RESYNCSEQLOW, MUPIP JOURNAL -ROLLBACK -FORWARD -RESYNC=NNNN [0XXXXX] requested is lower than LLLL which is the starting sequence number for the instance

MUPIP Error: The MUPIP JOURNAL -ROLLBACK -FORWARD command has a -RESYNC qualifier value (NNNN in decimal or XXXX in hexadecimal) lower than that (LLLL) of the instance to the target instance.

Action: Reissue the command after adjusting the resync value and/or adopting a different target instance.

REUSEINSTNAME

REUSEINSTNAME, Error with instance name specified in REUSE qualifier

MUPIP Error: Issued by a Receiver Server when started with the -REUSE qualifier in case of either inappropriate use of this qualifier or an inappropriate instance name specified as a value to this qualifier.

Action: An accompanying GTM-I-TEXT message describes the particular error situation. Take appropriate corrective action based on that.

RHMISSING

RHMISSING, Right-hand side of expression expected

Compile Time Error: This indicates that a binary operator did not specify a corresponding right-hand value.

Action: Look for missing or invalid expressions.

RLBKCONFIGBNDRY

No longer in GT.M since: V5.5-000

RLBKCONFIGBNDRY, Rollback encountered journal records indicating current source iiiii replaced old source oooo; cannot rollback past sequence number ssss

MUPIP Error: Issued by MUPIP JOURNAL -ROLLBACK indicating it found a change in the source configuration from instance oooo to iiiii for stream ssss within the range of its attempt to process. Since it cannot dynamically reconfigure the source connections to deal with this, it stops.

Action: Investigate whether a shorter rollback that won't encounter this configuration change would be useful. If not, refresh this instance from a backup or use the -RSYNC_STRM qualifier if appropriate.

RLBKJNLNOBIMG

RLBKJNLNOBIMG, Journal file jjjj has NOBEFORE_IMAGE journaling.

MUPIP Information: MUPIP JOURNAL ROLLBACK displays this informational message whenever it finds journal file jjjj with NOBEFORE_IMAGE journaling (DSE DUMP -FILE for the corresponding database reports "Journal Before imaging" as FALSE). As there are no before-image records in this journal file, MUPIP JOURNAL ROLLBACK does not roll back the database. Instead, it only generates a lost-transaction file.

Action: No user action required except to confirm that this type of rollback is appropriate and expected.

RLBKJNSEQ

RLBKJNSEQ, Journal seqno of the instance after rollback is xxxx[yyyy]

MUPIP Information: This indicates that the journal sequence number of the instance after MUPIP JOURNAL ROLLBACK command is xxxx.

Action: -

RLBKLOSTTNOONLY

RLBKLOSTTNOONLY, ROLLBACK will only create a lost transaction file (database and journal files will not be modified)

MUPIP Information: MUPIP JOURNAL -ROLLBACK displays this informational message at startup if it finds at least one database region with NOBEFORE_IMAGE journaling. In such a case, MUPIP JOURNAL -ROLLBACK can only create broken and lost transaction files (if appropriate) but otherwise not modify the database, journal files, or replication instance files.

Action: No user action required except to confirm that this type of rollback is appropriate and expected.

RLBKNOBIMG

RLBKNOBIMG, ROLLBACK cannot proceed as database dddd has NOBEFORE_IMAGE journaling

MUPIP Error: Rollback relies on BEFORE_IMAGE journaling and dddd did not have it turned on, so no rollback is currently possible.

Action: Restore the database from a backup and use forward recovery or a replication resynchronization to recover the database state. Use BEFORE_IMAGE journaling for databases you wish to be able to rollback.

RLBKSTRMSEQ

RLBKSTRMSEQ, Stream journal seqno of the instance after rollback is Stream nnnn : Seqno dddd xxxx

MUPIP Information: On a Supplementary Instance, MUPIP JOURNAL -ROLLBACK issues this message for each stream (from 0 through 15) that has at least one update. This message indicates how many updates in each stream this Supplementary Instance has processed.

Action: No action required.

RLNKCTLOPENDEL

RLNKCTLOPENDEL, The relinkctl file rrrr for \$ZROUTINES directory dddd has been deleted by another process, will try to reconnect. (retry = nnnn)

Run Time Warning: Indicates a process failed to connect to the relinkctl file *zzzz* for \$ZROUTINES directory *dddd* because it has been deleted by a competing processes.

Action: Ignore when sporadic. If it persists (large *nnnn*), consider a MUPIP STOP to the process issuing the message and the relinkctl file.

RLNKCTLRNDWNFL

RLNKCTLRNDWNFL, Relinkctl file for \$ZROUTINES directory *dddd* failed to rundown as it is open by *nnnn* process(es)

MUPIP Error: MUPIP RUNDOWN -RELINKCTL attempted to rundown the Relinkctl file for directory *dddd*, but did not because there were *nnnn* processes still using it.

Action: This may be expected, particularly if the command has no directory argument specified. Target MUPIP RUNDOWN -RELINKCTL to directories that are not currently in use, which under some circumstances can require stopping processes.

RLNKCTLRNDWNSUC

RLNKCTLRNDWNSUC, Relinkctl file for \$ZROUTINES directory *dddd* successfully rundown

MUPIP Information: MUPIP RUNDOWN -RELINKCTL successfully ensured the auto-relink Relinkctl file for directory *dddd* had a quiescent state.

Action: None required

RLNKINTEGINFO

RLNKINTEGINFO, Integrity check completed successfully: *xxxx* -- called from module *yyyy* at line *zzzz*

Run Time Information: Indicates relinkctl integrity check completed successfully by performing the action described by *xxxx*. GT.M issues this message after RLNKRECNFL, otherwise, it means the relinkctl integrity check failed. This message was called from the *yyyy* module at *zzzz* line, and it goes to the operator log.

Action: If the integrity check result succeeds, the process can continue, otherwise, GT.M generates a trappable error, right after this message. Contact your GT.M support channel to discuss what might have caused the issue.

RLNKRECLATCH

RLNKRECLATCH, Failed to get latch on relinkctl record for routine name *rrrr* in \$ZROUTINES directory *dddd*

Error: The process attempted to auto-relink or ZLINK routine rrrr from directory dddd but was unable to acquire the resource that ensures auto-relink state information for the routine is consistent.

Action: Report the entire incident context to your GT.M support channel.

RLNKRECFL

RLNKRECFL, Conflict on relinkctl file rrrr for \$ZROUTINES directory dddd, running an integrity check

Run Time Warning: Indicates a process encountered an issue attempting to attach to a routine object in dynamically linked library associated with directory dddd, and initiated an integrity check of the library control structures associated with relinkctl file rrrr. GT.M sends this message to the operator log.

Action: If the check finds no problem or can correct any abnormality it finds (look for the RLNKINTEGINFO message in the operator log, to have more information about the integrity check result), the process can continue, otherwise, GT.M generates a trappable error. Contact your GT.M support channel to discuss what might have caused the issue.

RLNKSHMLATCH

RLNKSHMLATCH, Failed to get latch on relinkctl shared memory for \$ZROUTINES directory dddd

Run Time Error: The process attempted to access auto-relink information for directory dddd but an interlocked operation failed in the shared memory segment corresponding to the relinkctl file for directory dddd.

Action: Report the entire incident context to your GT.M support channel.

RMBIGSHARE

RMBIGSHARE, File with BIGRECORD specified may only be SHARED if READONLY

Run Time Error: An OPEN command specified BIGRECORD and SHARED without also specifying READONLY. BIGRECORD files may only be shared if all uses are READONLY.

Action: If the file will only be read, add READONLY to the OPEN. If the file is to be written, remove the SHARED.

RMNOBIGRECORD

RMNOBIGRECORD, RMNOBIGRECORD File record size requires BIGRECORD parameter

Run Time Error: The RECORDSIZE specified is larger than 32767. The BIGRECORD parameter must be specified before a RECORDSIZE larger than 32767.

Action: Modify the OPEN to specify BIGRECORD before RECORDSIZE.

RMSRDONLY

No longer in GT.M since: V5.4-002A

RMSRDONLY, Cannot write to a read-only sequential file

Run Time Error: This indicates that a WRITE command attempted to access a read-only file.

Action: Look for a missing USE or improper deviceparameters on the OPEN.

RMWIDTHPOS

RMWIDTHPOS, File record size or width must be greater than zero

Run Time Error: This indicates that the WIDTH deviceparameter specified a negative argument.

Action: Modify the routine to ensure a positive WIDTH.

RMWIDTHTOOBIG

RMWIDTHTOOBIG, File record size too big

Run Time Error: The RECORDSIZE specified is too large. For disk files the maximum is one megabyte.

Action: Modify the OPEN to use a smaller RECORDSIZE.

RNDWNSEMFAIL

RNDWNSEMFAIL, Attempting to acquire gds_rundown semaphore when it is already owned

Run Time Error: This indicates a logic error in GT.M.

Action: Report the entire incident context to your GT.M support channel.

RNDWNSKIPCNT

No longer in GT.M since: V5.5-000

RNDWNSKIPCNT, A total of nnnn process(es) skipped database rundown due to a concurrent ONLINE ROLLBACK

Run Time Information: nnnn processes disconnected from a one or more databases while online rollback was running and therefore relied on online rollback or other remaining processes to complete any database shutdown.

Action: None required typically. If there's cleanup required, use MUPIP RUNDOWN.

RNDWNSTATSDBFAIL

RNDWNSTATSDBFAIL, Rundown of statistics database region RRRR (DB DDDD) failed at/in LLLL with following error: EEEE

All GT.M Components Error: This indicates that GT.M was unable to close out the shared resources associated with region RRRR (database file DDDD) because of the error EEEE, which it received at location LLLL

Action: Address the reason for the failure and retry.

ROLLBKINTERRUPT

ROLLBKINTERRUPT, Database file xxxx indicates interrupted ROLLBACK. Reissue the MUPIP JOURNAL ROLLBACK command.

MUPIP Error: This indicates that ROLLBACK has been interrupted on xxxx database file. Though MUPIP JOURNAL RECOVER command is issued instead of MUPIP JOURNAL ROLLBACK, but a previous MUPIP JOURNAL ROLLBACK command was terminated abnormally. Note that, when ROLLBACK is interrupted, only ROLLBACK can be used to fix the interrupted operation.

Action: Reissue the MUPIP JOURNAL ROLLBACK command.

ROUTINEUNKNOWN

ROUTINEUNKNOWN, Routine could not be found

Run Time Error: This indicates that a command (such as DO or JOB) or a \$TEXT function referred to a routine that is not in the running image.

Action: Look for unresolved reference warnings on the LINK that created the image. This error occurs on a JOB command when the routine is not in the image or available for ZLINKing, or when an auto-ZLINK finds that the routine reference has been damaged by an incomplete LINK.

RPAREN

RPAREN, List must end with right parenthesis or continue with comma

GDE Error: This indicates that a qualifier that accepts a list of arguments had an improper list format.

Action: Modify the command so that the list is enclosed in parentheses () and separated by commas (,).

RPARENMISSING

RPARENMISSING, Right parenthesis expected

Compile Time Error: This indicates that an expression, function, or subscripted variable contained a left parenthesis and no matching right parenthesis.

Action: Look for and correct any typographical errors.

RPARENREQD

RPARENREQD, xxxx Right parenthesis expected

MUPIP Error: This indicates that LOAD failed because it encountered xxxx in its input stream when it expected to find a right parenthesis.

Action: Refer to the topic MUPIP LOAD Errors in About This Manual section in this manual.

RSVDBYTE2HIGH

RSVDBYTE2HIGH, Record size ssss is greater than the maximum allowed for region rrrr with Block size bbbb and cccc reserved bytes dddd

Run Time Error: The attempted database update would result in a record size that is greater than what is allowed by the current database block size and index or data reserved byte setting.

Action: If the Reserved Bytes setting for the database region and block type identified is non-zero, try reducing it to allow this update, or modify the update to reduce the resulting record size. Otherwise, consider increasing the block size, but this can present operational challenges.

RSYNCSTRMSUPPLONLY

RSYNCSTRMSUPPLONLY, RSYNC_STRM qualifier only supported for Supplementary Instances

MUPIP Error: Issued by MUPIP JOURNAL -ROLLBACK indicating the -RSYNC_STRM qualifier only applies to Supplementary Instances - Business Continuity instances require comprehensive synchronization.

Action: Reissue the command without the -RSYNC_STRM qualifier.

RSYNCSTRMVAL

RSYNCSTRMVAL, RSYNC_STRM qualifier can only take on a value from 0 to 15

MUPIP Error: Issued by a MUPIP JOURNAL -ROLLBACK -RESYNC command which also specifies -RSYNC_STRM with a stream number outside of the range of 0 through 15.

Action: Specify a stream number within the allowed range.

RTNNAME

RTNNAME, Routine name expected here

Compile Time Error: This indicates that an entry reference specified a circumflex without a valid routine name.

Action: Look for a missing routine name in commands such as DO, GOTO, and JOB.

RTSLOC

RTSLOC, At M source location xxxx

Run Time Information: GT.M uses this message to display the line, offset, and routine where it encountered a run-time error.

Action: Review the accompanying message(s) for additional information.

RUNPARAMERR

RUNPARAMERR, Error accessing parameter for run command

Run Time Error: This indicates that a MUMPS -RUN command had a missing or invalid argument.

Action: Ensure that a MUMPS -RUN has an argument that specifies a valid entryref ([label]^routinename).

RWARG

RWARG, This is not a legal argument for a READ command

Compile Time Error: This indicates that a READ command specified an invalid argument.

Action: Look for a non-alphanumeric character in the READ argument.

RWFORMAT

RWFORMAT, A valid format expression (!!, #, or ?expr) expected here

Compile Time Error: This indicates that a READ or WRITE command specified a format with invalid trailing characters.

Action: Look for and correct any typographical errors.

SCNDDBNOUPD

SCNDDBNOUPD, Database updates not allowed on the secondary

Run Time Error: This indicates that updates on secondary are currently not allowed as they may lead to inconsistency between primary and secondary.

Action: If you need to do an implicit database update on the secondary, contact the group responsible for maintaining database integrity at your operation.

SDSEEKERR

SDSEEKERR, Sequential device seek error

Run Time Error: This indicates that a GT.M process encountered an error using the SEEK deviceparameter for an OPEN or USE on a sequential disk device. A supplementary TEXT message provides more details about the cause of the error.

Action: Analyze the accompanying message and appropriately adjust the SEEK deviceparameter or its value.

SECNODZTRIGINTP

SECNODZTRIGINTP, Sequence number ssss contains \$ZTRIGGER() updates made inside a transaction which the current replicator does not support. The replicator must be upgraded to at least V5.4-002 to support this type of transaction. Cannot continue

MUPIP Error: The originating instance encountered a \$ZTRIGGER() function within a transaction with sequence number ssss. However, the replicating instance is running a pre-V5.4-002 version which cannot handle \$ZTRIGGER() within a transaction.

Action: Upgrade the replicating instance to V5.4-002 or later. Alternatively adjust the application code to avoid using \$ZTRIGGER() within a transaction.

SECNOTSUPPLEMENTARY

SECNOTSUPPLEMENTARY, ssss is a Supplementary Instance and so cannot act as a source to non-Supplementary Instance iiiii

Source Server log/MUPIP Error: Issued by a Source Server on a Supplementary Instance ssss attempted to connect to a Replicating Instance iiiii, but found iiiii is not configured as a Supplementary Instance.

Action: Reconfigure the instances to a supported configuration.

SECONDAHEAD

SECONDAHEAD, Secondary ahead of Primary: Secondary db possibly updated by process other than Update process. Do rollback first.

Run Time Error: The update process issues this error on finding the Secondary database containing more updates than the Primary.

Action: If you allow database updates on Secondary, no action is needed. If not, investigate the cause. Make sure the database on secondary and primary are consistent.

SECSHRCHDIRFAILED

SECSHRCHDIRFAILED, gtmsecshr unable to chdir to its temporary directory (dddd)

Run Time Error: This error indicates that GTMSECSHR process failed to change the current working directory to dddd.

Action: Verify that the environment provides the desired dddd, that dddd exists, and that it is a directory

SECSHRCLEARENVFAILED

SECSHRCLEARENVFAILED, clearenv failed. gtmsecshr will not be started

Run Time Error: This error indicates that GTMSECSHR process failed to clear its environment of all name-value pairs.

Action: Verify that no other processes have corrupted the environment via non-standard means.

SECSHREXECLFAILED

SECSHREXECLFAILED, execl of ffff failed

Run Time Error: This error indicates that GTMSECSHR process failed to update its process image with file ffff.

Action: Ensure that GTMSECSHR executables and their parent directories have correct permissions.

SECSHRGTMDBGLVL2LONG

SECSHRGTMDBGLVL2LONG, gtmdbglvl env var too long. gtmsecshr will not be started

Run Time Error: This error indicates that the value of the gtmdbglvl environment variable is too long.

Action: Verify that gtmdbglvl contains a proper integer in the decimal or hexadecimal format.

SECSHRGTMDIST2LONG

SECSHRGTMDIST2LONG, gtm_dist env var too long. gtmsecshr will not be started

Run Time Error: This error indicates that the value of the gtm_dist environment variable is too long.

Action: Verify that gtm_dist contains a proper path to GT.M installation directory.

SECSHRGTMTMP2LONG

SECSHRGTMTMP2LONG, gtm_tmp env var too long. gtmsecshr will not be started

Run Time Error: This error indicates that the value of the gtm_tmp environment variable is too long.

Action: Verify that gtm_tmp contains a proper path to the directory for GT.M/GTMSECSHR socket communication.

SECSHRNOGTMDIST

SECSHRNOGTMDIST, gtm_dist env var does not exist. gtmsecshr will not be started

Run Time Error: This error indicates that the gtm_dist environment variable is not set.

Action: Ensure that gtm_dist is set and points to the GT.M installation directory.

SECSHRNOTOWNEDBYROOT

SECSHRNOTOWNEDBYROOT, dddd not owned by root. gtmsecshr will not be started

Run Time Error: This error indicates that dddd is not owned by root.

Action: Ensure that GTMSECSHR executables and their parent directories have correct ownership and permissions.

SECSHRNOTSETUID

SECSHRNOTSETUID, ffff not set-uid. gtmsecshr will not be started

Run Time Error: This error indicates that ffff does not have the set-uid bit set.

Action: Ensure that GTMSECSHR executables and their parent directories have correct permissions.

SECSHRPERMINCRCT

SECSHRPERMINCRCT, dddd permissions incorrect (pppp). gtmsecshr will not be started

Run Time Error: This error indicates that pppp, the current permissions of dddd, are incorrect.

Action: Ensure that GTMSECSHR executables and their parent directories have correct permissions.

SECSHRSETGTMDISTFAILED

SECSHRSETGTMDISTFAILED, setenv for gtm_dist failed. gtmsecshr will not be started

Run Time Error: This error indicates that the GTMSECSHR process failed to adjust gtm_dist environment variable.

Action: Ensure that the root user is configured with adequate space for environment variables.

SECSHRSETGTMTMPFAILED

SECSHRSETGTMTMPFAILED, setenv for gtm_tmp failed. gtmsecshr will not be started

Run Time Error: This error indicates that the GTMSECSHR process failed to adjust gtm_tmp environment variable.

Action: Ensure that the root user is configured with adequate space for environment variables.

SECSHRSETUIDFAILED

SECSHRSETUIDFAILED, setuid failed. gtmsecshr will not be started

Run Time Error: This error indicates that the GTMSECSHR process failed to set its effective user ID to root.

Action: Ensure that GTMSECSHR executables and their parent directories have correct permissions.

SECSHRSTATFAILED

SECSHRSTATFAILED, stat failed on dddd, errno xxxx. gtmsecshr will not be started

Run Time Error: This error indicates that the GTMSECSHR process failed to obtain file information on dddd, and that the error code is xxxx.

Action: Ensure that GTMSECSHR executables and their parent directories have correct permissions.

SECSHRWRITABLE

SECSHRWRITABLE, ffff writable. gtmsecshr will not be started

Run Time Error: This error indicates that ffff has 'write' permission.

Action: Ensure that GTMSECSHR executables and their parent directories have correct permissions.

SEFCTNEEDSFULLB

SEFCTNEEDSFULLB, Current side effect setting does not permit full Boolean to be turned off

Run Time Error: A VIEW "NOFULL_BOOLEAN" cannot enable GT.M short-circuit Boolean compilation for a process running with a gtm_side_effects setting of 1 or 2.

Action: Keeping in mind that gtm_boolean and gtm_side_effects affect compilation behavior, and that gtm_boolean must be 1 or 2 (Standard Boolean mode) for gtm_side_effects setting 1 or 2 (Standard side effects), choose appropriate compilation modes. Note that once you choose the modes for your application you would typically not change them except to get warnings and modify the application to be somewhat more efficient.

SEGIS

SEGIS, in xxxx segment yyyy

GDE/DSE Information: This message displays the name xxxx of the SEGMENT with which you are working.

Action: Review the accompanying message(s) for additional information.

SELECTFALSE

SELECTFALSE, No argument to \$SELECT was true

Run Time Error: This indicates that a \$SELECT function did not specify any truth value expressions that evaluated to true.

Action: Modify the \$SELECT(). The common technique is to end the selection list with -1:expr)-where expr is some default value and the integer constant 1 is always true.

SELECTSYNTAX

SELECTSYNTAX, Argument to xxxx clause is not valid

MUPIP Error: This indicates that EXTRACT encountered a qualifier with an invalid value and aborted.

Action: Review the proper syntax for EXTRACT with the qualifier SELECT. Refer to the Administration and Operations Guide or the online help for the MUPIP EXTRACT command.

SEMID

SEMID, Semaphore id nnnn

MUPIP Information: This message reports additional information for an associated error which had trouble with the semaphore with id nnnn.

Action: Check "ipcs -s" for the given id, and see the associated error.

SEMKEYINUSE

SEMKEYINUSE, Semaphore key xxxx is already in use (possibly by an older version)

Run Time/MUPIP Error: This indicates that GT.M failed to create a semaphore. One possible cause is that a semaphore of ID xxxx already exists in the system and the number of semaphores in that semaphore set is different than the semget has attempted to create. If a new GT.M version increases the number of semaphores in the semaphore set, collision with an older GT.M version can cause this error.

Action: Check accompanying message(s) for additional information. Use the semstat2 tool to find detailed information about the existing semaphores in the system.

SEMREMOVED

SEMREMOVED, Semaphore id xxxx removed from the system

MUPIP Information: This indicates that the orphaned semaphore with ID xxxx is removed; because it contained the signature of a GT.M semaphore, and no process was currently using it.

Action: -

SEMUNDOOVERFLOW

SEMUNDOOVERFLOW, The operating system per-process SEM_UNDO table is full and region rrrr cannot be opened

Run Time Error: The number of database files in use exceeds the per-process operating system limit for handling SEM_UNDO semaphore operations.

Action: Reduce the number of database regions processed at one time.

SEMWT2LONG

SEMWT2LONG, Process wwwwww waited ssss second(s) for the llll lock for region rrrr, lock held by pid pppp

Run Time Error: This indicates that the process pppp appears to be holding the llll control semaphore for region rrrr for longer than GT.M expects.

Action: Analyze the behavior of process pppp, and terminate it if appropriate. This error may indicate that the system is under-configured for the workload.

SEQNUMSEARCHTIMEOUT

SEQNUMSEARCHTIMEOUT, Timed out trying to find sequence number ssss in Journal File(s). See above messages for details. Source server exiting

Source Server log/MUPIP Error: The Source Server was unable to access a journal record corresponding to sequence number ssss as requested by the Replicating instance.

Action: Check to see that the journal chain is intact and all the file in the Source Server has authorization to all the files in the chain. Review the accompanying message for more information.

SERVERERR

SERVERERR, Severe error on server: xxxx

GT.CM Error: This indicates that the GT.CM Server encountered a fatal error and terminated.

Action: Review subsequent message(s) for more information. If necessary, report the entire incident context to your GT.M support channel.

SETECODE

SETECODE, Non-empty value assigned to \$ECODE (user-defined error trap)

Run Time Error: This indicates that an error trap occurred because \$ECODE got altered to a non-null string in an M routine.

Action: Make sure that either \$ETRAP or \$ZTRAP is set to the valid value, if the error needs to be handled by GT.M.

SETEXTRENV

SETEXTRENV, Database files are missing or Instance is frozen; supply the database files, wait for the freeze to lift or define gtm_extract_nocol to extract possibly incorrect collation

MUPIP Error: It indicates that gtm_extract_nocol environment variable needs to be defined to run MUPIP JOURNAL EXTRACT completion if Instance is Frozen or Database files are missing.

Action: If the you know there are no variables with alternate collation or if the EXTRACT is for analysis rather than a LOAD, define gtm_extract_nocol to a positive value and reissue the command. Otherwise correct the condition before reissuing the EXTRACT.

SETINSETTRIGONLY

SETINSETTRIGONLY, ISV iiii can only be modified in a 'SET' type trigger

Run Time Error: Code invoked for a trigger other than SET (such as KILL or ZTRIGGER) attempted to modify Intrinsic Special Variable iiii, which applies only to a SET trigger context.

Action: Review the trigger definition and correct the types or the code to avoid the issue.

SETINTRIGONLY

SETINTRIGONLY, ISV iiii cannot be modified outside of the trigger environment

Trigger/Run Time Error: The Intrinsic Special variable iiii can only be SET within the context of trigger logic (\$ZTLEVEL > 0)

Action: Examine the application logic to determine whether code intended for use in a trigger context falls in an execution path outside of trigger logic. For code intended to execute both inside and outside triggers, use a postcondition that limits the SET to within a trigger.

SETTIMERFAILED

SETTIMERFAILED, A setitimer() call returned an error status of ssss

Run Time Fatal: The above error is issued when GT.M fails to schedule or stop a system timer using the setitimer() system call.

Action: Verify the normal state of the OS kernel. Report the entire incident context to your GT.M support channel along with any GT.M operator log messages within the same time frame.

SETQUALPROB

SETQUALPROB, Error getting qqqq qualifier value

MUPIP Error: The utility was unable to parse the command input to successfully determine the value supplied for the qqqq qualifier

Action: Examine the command and correct the value

SETREG2RESYNC

SETREG2RESYNC, Setting resync sequence number xxxx to region sequence number yyyy for database zzzz

MUPIP Information: This displays that resync sequence number xxxx is being set to region sequence number yyyy for database zzzz, because the journal file had crash field set and update was disabled.

Action: -

SETSOCKOPTERR

SETSOCKOPTERR, Setting the socket attribute xxxx failed: (errno == aaaa) yyyy

Run Time Error: This indicates that an attempt to modify the xxxx socket attribute failed for the reason described by yyyy.

Action: Review the message(s) and take appropriate action.

SETZDIR

SETZDIR, Cannot change working directory to xxxx.

Run Time Error: This indicates that there is an invalid directory specified in the SET \$ZDIR=<xxxx> command. The accompanying message indicates the exact cause of the failure.

Action: Make sure the specified argument conforms to the syntax of a directory specification on the host operating system. Check for the existence of the directory and access control permissions associated with the directory.

SHMHUGETLB

SHMHUGETLB, Could not back shared memory with huge pages, using base pages instead

All GT.M Components Warning: When the `gtm_hugetlb_shm` environment variable is defined and evaluates to a non-zero integer or any case-independent string or leading substring of `"TRUE"` or `"YES"` in a process creating shared memory, GT.M attempts to back all such shared memory segments with huge pages, using the default huge pages size. If huge pages cannot be used, GT.M outputs the SHMHUGETLB warning and tries to back the shared memory with base pages instead. The warning message specifies the operation of the caller along with the relevant file path for the process requesting shared memory. The warning message also includes either an ENOMEM or an EPERM error, depending on why the request for huge pages failed.

Action: If the warning includes an ENOMEM error, consider allocating more huge pages. If the EPERM error is specified, make sure the caller is privileged (i.e. has the CAP_IPC_LOCK capability) and is a member of the `sysctl_hugetlb_shm_group` group.

SHMLOCK

SHMLOCK, Could not pin shared memory into physical memory

All GT.M Components Warning: When the `gtm_pinshm` environment variable is defined and evaluates to a non-zero integer or any case-independent string or leading substring of `"TRUE"` or `"YES"` in a process creating shared memory, GT.M attempts to pin such memory used for database global buffers, replication buffers, and routine buffers into physical memory. Huge pages are implicitly locked in physical memory, so GT.M does not attempt to pin shared memory buffers backed by huge pages. `gtm_pinshm` does not pin memory used by online INTEG (integchk snapshot). Pinning may not succeed due to insufficient physical memory and/or OS configuration.

Action: If the ENOMEM error is included in the warning message, consider increasing the `RLIMIT_MEMLOCK` soft resource limit. If the EPERM error is specified, make sure the calling process is privileged (i.e. has the CAP_IPC_LOCK capability).

SHMPLRECOV

SHMPLRECOV, Shared memory pool block recovery invoked for region xxxx

Run Time Information: GT.M carves out a portion of shared memory/global section allocated for each database region to use for ONLINE BACKUP - this portion is called "shared memory pool". This portion is also used by GT.M on OpenVMS while the region is being downgraded dynamically. In the unlikely event of corruption of shared memory pool, or if the blocks are "lost" due to stopped/killed or failed processes, GT.M detects the corruption or lost blocks and runs a recovery procedure to fix these errors. Such an occurrence is logged in the operator log (syslog on UNIX) with SHMPLRECOV message.

Action: Report the occurrence to your GT.M support channel. No user action required. GT.M will continue to operate normally.

SHMREMOVED

SHMREMOVED, Removed Shared Memory id mmmm corresponding to file ffff

MUPIP Information: MUPIP RUNDOWN removed shared memory segment mmmm, corresponding to the file ffff, which could be a database file or a replication instance file with a GT.M signature because the resource was not actively in use.

Action: No action required.

SHRMEMEXHAUSTED

SHRMEMEXHAUSTED, Attempt by process to use more shared memory than currently permitted by OpenVMS

Run Time Error: A OpenVMS out-of-memory error was encountered while trying to open a shared global section for a database file.

Action: Reduce the shared global section usage by reducing the number of global buffers, or database block size, or the number of database files that the process tries to open.

SHUT2QUICK

SHUT2QUICK, Shutdown timeout ssss shorter than the heartbeat period SSSS; cannot confirm the backlog at the replicating instance iiiii

MUPIP Warning: This warning appears when the -TIMEOUT=ssss specified with -ZEROBACKLOG is less than the heartbeat period SSSS (the fifth parameter of -CONNECTPARAMS). If -TIMEOUT is less than the heartbeat period, -ZEROBACKLOG cannot confirm that there is zero backlog as it cannot obtain the acknowledgement of the latest sequence number from the Receiver Server of instance iiiii in such a short time.

Action: Specify -TIMEOUT that is larger or equal to the heartbeat period.

SIDEEFFECTEVAL

SIDEEFFECTEVAL, Extrinsic (\$\$), External call (\$&) or \$INCREMENT() with potential side effects in actualist, function arguments, non-Boolean binary operands or subscripts

Compile Time Warning: A side effect expression appeared to the right of a global or local variable (glvn) in an order within an outer expression where the side effect might modify the glvn. Setting the gtm_side_effects environment variable in UNIX or logical name in OpenVMS to 2 (two) activates this check.

Action: Analyze the effect(s) of the side effect expressions, which are \$INCREMENT(), extrinsics (\$\$), external calls (\$& or \$ZCALL()) as to whether they modify a glvn earlier in the expression. If they

do, the setting of `gtm_side_effects` modifies the behavior and you either need to modify the code to eliminate the side effect interaction or be sure to select the behavior you desire.

SIGACCERR

SIGACCERR, Signal was caused by invalid permissions for mapped object

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGADRALN

SIGADRALN, Signal was caused by invalid address alignment

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGADRERR

SIGADRERR, Signal was caused by non-existent physical address

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGBADSTK

SIGBADSTK, Signal was caused by an internal stack error

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGCOPROC

SIGCOPROC, Signal was caused by a coprocessor error

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGFLTDIV

SIGFLTDIV, Signal was caused by a floating point divided by zero

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGFLTINV

SIGFLTINV, Signal was caused by an invalid floating point operation

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGFLTOVF

SIGFLTOVF, Signal was caused by a floating point overflow

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGFLTRES

SIGFLTRES, Signal was caused by a floating point inexact result

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGFLTUND

SIGFLTUND, Signal was caused by a floating point underflow

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGILLADR

SIGILLADR, Signal was caused by illegal addressing mode

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGILLOPC

SIGILLOPC, Signal was caused by an illegal opcode

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGILLOPN

SIGILLOPN, Signal was caused by an illegal operand

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGILLTRP

SIGILLTRP, Signal was caused by an illegal trap

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGINTDIV

SIGINTDIV, Signal was caused by an integer divided by zero

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGINTOVF

SIGINTOVF, Signal was caused by an integer overflow

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGMAPERR

SIGMAPERR, Signal was caused by an address not mapped to an object

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGOBJERR

SIGOBJERR, Signal was caused by an object specific hardware error

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGPRVOPC

SIGPRVOPC, Signal was caused by a privileged opcode

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIGPRVREG

SIGPRVREG, Signal was caused by a privileged register

Run Time Error: This message is an auxiliary message and is preceded with a primary KILLBYSIGxxx message.

Action: Refer to the accompanying message(s) and take appropriate action. Refer to the UNIX user documentation. If necessary, report the entire incident context to your GT.M support channel for further analysis.

SIZENOTVALID4

SIZENOTVALID4, Size (in bytes) must be either 1, 2, or 4

Run Time Error: The DSE CACHE command triggers this error when the size operand is not 1, 2, or 4.

Action: Specify 1, 2, or 4 as size (in bytes).

SIZENOTVALID8

SIZENOTVALID8, Size (in bytes) must be either 1, 2, 4, or 8

Run Time Error: Both the DSE CHANGE -FILEHEADER command and MUPIP REPLICATE -SOURCE -JNLPOOL -CHANGE command triggers this error when the SIZE qualifier is not set to 1, 2, 4, or 8.

Action: Specify 1, 2, 4, or 8 as size (in bytes).

SNAPSHOTNOV4

SNAPSHOTNOV4, Cannot downgrade (to V4) while snapshots are in progress. Currently ssss snapshots are in progress for region rrrr.

MUPIP Error: A request to downgrade a region to V4 occurred while a snapshot is in progress.

Action: Wait for a currently active process using snapshots to complete before running the downgrade. Since a downgrade to V4 would not normally be expected, check to verify that the downgrade invocation is appropriate.

SOCKACCEPT

SOCKACCEPT, Socket accept failed

Run Time Error: WRITE /ACCEPT encountered an I/O error while attempting to accept the sockets. No sockets were added to the socket pool.

Action: See the accompanying ENO or TEXT message for details.

SOCKACPT

SOCKACPT, Error accepting socket connection

Run Time Error: This indicates that the process of opening a socket resulted in a device error.

Action: Review the accompanying message(s) for additional information.

SOCKACTNA

SOCKACTNA, Action not appropriate for current socket

Compile Time Error: This indicates that the socket state does not support the attempted action.

Action: Review the code for compatible socket actions.

SOCKBFNOTEMPTY

SOCKBFNOTEMPTY, Socket buffer size cannot be set to xxxx due to aaaa bytes of buffered data. Read first.

Run Time Error: This indicates that a USE command attempted to adjust the size of the socket buffer while it contained data.

Action: Make sure the buffer is empty when adjusting the size.

SOCKBIND

SOCKBIND, Error in binding socket

Run Time Error: This message indicates a problem binding a socket to a port or file.

Action: Check the associated ENO message for more details.

SOCKBLOCKERR

SOCKBLOCKERR, WRITE /BLOCK error: dddd

Run Time Error: This indicates a format or usage error in a WRITE /BLOCK command. Specific details are provided by dddd.

Action: Correct the format or usage of the WRITE /BLOCK command.

SOCKCLOSE

SOCKCLOSE, Error closing socket: (errno = aaaa) xxxx

Operator log/All GT.M Components Error: aaaa contains the OS error code and xxx indicates information about the error that occurred while closing a socket connection for the process attempting to log a command to the audit logging facility.

Action: Review the message to determine whether the logger programs are running or whether a change is required in the configuration of your audit logging facility.

SOCKETEXIST

SOCKETEXIST, Socket xxxx already exists

Run Time Error: This error is issued:

- On OPEN: ATTACH=xxxx is used to name a newly created socket but the name already exists in the current Socket device's collection.
- On USE: DETACH=xxxx is used to move a socket to the socketpool but the socketpool already has a socket with the specified name. ATTACH=xxxx is used to move a socket from the socketpool but the current Socket device already has a socket with the specified name.

Action: Review the names of the sockets already present on that device and specify a unique name.

SOCKHANGUP

SOCKHANGUP, Socket has disconnected

Run Time Error: The process has a \$PRINCIPAL that is a SOCKET device and the process received a SIGHUP signal.

Action: Ensure the application error handling deals with this error by closing down the application gracefully without additional READ or WRITES to \$PRINCIPAL.

SOCKINIT

SOCKINIT, Error initializing socket: (errno == aaaa) xxxx

Run Time Error: This indicates that the process of opening a socket resulted in a device error. xxxx is the text description of the failure for the OS service.

Action: Review the accompanying message(s) for additional information.

SOCKLISTEN

SOCKLISTEN, Error listening on a socket

Run Time Error: This indicates that GT.M was unable to listen in the specified socket.

Action: Review accompanying messages for more information on the cause of the failure.

SOCKMAX

SOCKMAX, Attempt to exceed maximum sockets xxx for the SOCKET device

Run Time Error: Attempting to connect more than the maximum number of sockets defined for the process triggers this error. xxx is the maximum for the current process.

Action: Reduce the number of connections or use a process that has a higher maximum number of sockets defined by the gtm_max_sockets environment variable.

SOCKNOTFND

SOCKNOTFND, Socket xxxx not found

Run Time Error: This error is issued:

- On CLOSE when SOCKET=xxxx is used to specify which socket to close.
- On USE:
 - DETACH=xxxx when the specified socket is not in the current Socket device.
 - ATTACH=xxxx when the specified socket is not in the socketpool.
 - SOCKET=xxxx when the specified socket is not in the current Socket device.

Action: Make sure the socket is created before an I/O operation attempts using it.

SOCKNOTPASSED

SOCKNOTPASSED, Socket message contained no passed socket descriptors

Run Time Error: WRITE /ACCEPT received no sockets over the LOCAL connection.

Action: Verify the connection and make sure the WRITE /PASS on the sender is correct.

SOCKPARMREQ

No longer in GT.M since: V6.1-000

SOCKPARMREQ, Socket device parameter is required for TCP open

Run Time Error: This indicates that a socket deviceparameter was not defined to OPEN a TCP connection.

Action: Establish a TCP connection by specifying the SOCKET deviceparameter for the OPEN command. For a more complete description of this deviceparameter refer to the Input/Output Processing chapter of the Programmer's Guide.

SOCKPASS

SOCKPASS, Socket pass failed

Run Time Error: WRITE /PASS encountered an I/O error while attempting to pass the sockets. No sockets were closed.

Action: See the accompanying ENO or TEXT message for details.

SOCKPASSDATAMIX

SOCKPASSDATAMIX, Attempt to use a LOCAL socket for both READ/WRITE and PASS/ACCEPT

Run Time Error: The code attempted to use a LOCAL socket for both data communication, using READ and/or WRITE, and socket passing, using WRITE /PASS or WRITE /ACCEPT. Using both forms of communication on the same socket is not supported.

Action: Use separate sockets for data and socket passing.

SOCKWAIT

SOCKWAIT, Error waiting for socket connection

Run Time Error: This indicates that the process of waiting for an event on a socket resulted in a device error.

Action: Review the accompanying message(s) for additional information.

SOCKWAITARG

SOCKWAITARG, nnnn argument to WRITE /WAIT xxxx

Run Time Error: This indicates an error with argument number nnnn of a WRITE /WAIT as described by xxxx.

Action: Correct the specified argument.

SOCKWRITE

SOCKWRITE, Write to a socket failed

Run Time Error: This indicates that GT.M was unable to write to a socket.

Action: Review the accompanying messages for more information on the cause of the failure.

SPFCBUFDELAY

SPFCBUFDELAY, Request for block bbbb in database file dddd delayed by PID iiiii

Run Time Warning: Indicates a process with PID iiiii has control of block bbbb in database file dddd blocking other processes from appropriate access to that block.

Action: Investigate the state and activity of process iiiii to determine why the process is not releasing the block, for instance check whether there is evidence of a deadlock cycle that GT.M was not successful in resolving. If process iiiii is ""stuck"" consider the implications of terminating it, including with a triple MUIP STOP. Report the results of your investigation to those responsible for ensuring database integrity.

SPCLZMSG

SPCLZMSG, The following error message cannot be driven through ZMESSAGE

Run Time Error: The specified error code is not allowed to be driven through **ZMESSAGE**

Action: Make sure ZMESSAGE is not driving any prohibited error message.

SPOREOL

SPOREOL, Either a space or an end-of-line was expected but not found

Compile Time Error: This indicates that a command that required an argument did not specify one or an ELSE attempted to specify an argument.

Action: Look for and correct any typographical errors.

SRCBACKLOGSTATUS

SRCBACKLOGSTATUS, Instance RRRR SSSS NNNN transaction(s)

MUPIP Information: This message appears with the output of MUPIP REPLICATE -SOURCE -SHOWBACKLOG. RRRR specifies the name of the replicating instance. SSSS denotes three possible stages of the replicating instance in relation to the originating instance - "is behind by", "has not acknowledged" and "is ahead by". A replicating instance is behind by the originating instance when there is a backlog of unacknowledged transactions. A replicating instance is ahead by the originating instance when the Receiver Server is performing an online rollback. An instance has not yet acknowledged transaction when the originating instance has not received a response from the replicating instance. NNNN is the number of transactions. There are no in-flight updates when SRCBACKLOGSTATUS reports that the replicating instance is behind by 0 transactions and the LASTTRANS messages for "posted", "sent", and "acknowledged" have the same number of transaction count.

Action: Use this message as an operational aid to determine the status of the replicating instance in relation to the originating instance.

SRCFILERR

SRCFILERR, Error with source file I/O on file xxxx

Compile Time Error: This indicates that a ZCOMPILE, ZLINK, or auto-ZLINK encountered an error when it attempted to access source file xxxx. An M command may also report this error at compile-time.

Action: Use host operating system commands to list the file and review accompanying messages for additional information.

SRCLIN

SRCLIN, xxxx

Compile Time Information: This message displays the source code line where an error occurred.

Action: -

SRCLNNTDSP

SRCLNNTDSP, Source lines exceeding www character width are not displayed

Compile Time Error: Displayed instead of the source line when source line exceeds 1023 characters.

Action: Refer to the source code. the line number and column number in the associated messages identify the position of the problem .Consider shortening the line, at least until the error is found and corrected.

SRCLOC

SRCLOC, At column xxxx, line yyyy, source module zzzz

Compile Time Error: GT.M uses this message to display the line, offset, and routine where it encountered a compile-time error. xxxx is the column. yyyy is the line number. zzzz is the routine name.

Action: Review the accompanying message(s) for additional information.

SRCLOCUNKNOWN

SRCLOCUNKNOWN, M source location unknown

Run Time Warning: This indicates that GT.M could not locate the source line associated with the error.

Action: Find out if source code is available to you, if not this message is expected. Otherwise, check ZROUTINES and file permissions.

SRCNAM

SRCNAM, in source module xxxx

Compile Time Information: This message identifies the module xxxx, which contains some other error.

Action: Review the accompanying message(s) for additional information.

SRCSRVEXISTS

SRCSRVEXISTS, Source server for secondary instance xxxx is already running with pid yyyy

Source Server log/MUPIP Error: This error is issued by a Source Server startup command if there is already a Source Server up and running for the secondary instance name specified in the command.

Action: Do not start multiple source servers for the same secondary instance.

SRCSRVNOTEXIST

SRCSRVNOTEXIST, Source server for secondary instance xxxx is not alive

Source Server log/MUPIP Error: This error is issued by a mupip replic -source command that specifies any one of activate, changelog, checkhealth, deactivate, shutdown, showbacklog, statslog, stopsourcefilter if it finds no Source Server up and running for the replicating (secondary) instance name specified in the command.

Action: Make sure the Source Server for the specified replicating instance name is up and running to provide working replication.

SRCSRVTOOMANY

SRCSRVTOOMANY, Cannot start more than xxxx source servers in primary instance file yyyy

MUPIP Error: A maximum of 16 active and/or passive source servers are allowed at any point in time per instance. If 16 source servers are already running and another source server startup is attempted, it will issue this error.

Action: Shutdown any active or passive source server to allow the new source server to start up.

SRVLCKWT2LNG

SRVLCKWT2LNG, PID pppp is holding the source server lock. Waited for ssss seconds(s). Now exiting

MUPIP Error: Issued by MUPIP ROLLBACK -ONLINE when it finds process pppp has not released the journal pool resource for ssss seconds.

Action: Investigate the state of process pppp and whether it should be stopped by operator action.

SSATTACHSHM

SSATTACHSHM, Error while attaching to shared memory identifier iiii

Run Time Error: A GT.M process encountered error while trying to attach to shared memory created to manage a snapshot and reports the above error in the operator log.

Action: Examine the accompanying system error message and take appropriate action.

SSFILCLNUPFAIL

SSFILCLNUPFAIL, Error while unlinking snapshot file -- xxxx

MUPIP Error: An attempt to terminate snapshot file maintenance by GT.M updater processes encountered a problem.

Action: Try a MUPIP RUNDOWN. If that has a similar problem, it may be prudent to shut down all access to the database in question in order to stop the burden of maintaining the snapshot file and to ensure it doesn't unnecessarily consume more space.

SSFILOPERR

SSFILOPERR, Error while doing oooo operation on file ffff

MUPIP Error: This operator log message indicates operation oooo on snapshot file ffff failed. Note in certain timing situations this action might be reported to the operator log after the snapshot consuming process (say MUPIP INTEG) has finished with the snapshot file, in which case it's harmless. If the consuming process issues a REGSSFAIL error, then it was definitely prevented from completing its task because of the SSFILOPERR.

Action: Analyze the operation and the file characteristics and take appropriate action to clear the problem.

SSPREMATEOF

SSPREMATEOF, Premature end of file while reading block nnnn of size: bbbb bytes at offset: oooo from zzzz

MUPIP Error: The action attempted access to a block beyond the end of the snapshot file. This means either the process was confused or the file is damaged

Action: Retry the action. If the problem persists, contact FIS with information on how to recreate the problem.

SSSHMCLNUPFAIL

SSSHMCLNUPFAIL, Error while doing snapshot shared memory cleanup. Operation -- ssss. Identifier -- dddd

MUPIP Error: There was an error while doing a snapshot cleanup. The operation ssss indicates what system call failed. The identifier dddd indicates the shared memory identifier that is being cleaned up.

Action: Analyze the failure details and take corrective measures. If appropriate carefully clear abandoned resources using the system ipcrm utility.

SSTMPCREATE

SSTMPCREATE, Cannot create the temporary file in directory dddd for the requested snapshot

MUPIP Error: An action requiring a snapshot file was unable to create it.

Action: Verify the directory has appropriate access permissions for the user performing the action.

SSTMPDIRSTAT

SSTMPDIRSTAT, Cannot access temporary directory dddd

MUPIP Error: An action requiring a snapshot file was unable to access the temporary directory.

Action: Verify the directory exists and has appropriate access permissions for the user performing the action.

SSTMPFIOPEN

No longer in GT.M since: V5.4-002A

SSTMPFIOPEN, Failed to open shadow snapshot file ffff

MUPIP Error: An action requiring a snapshot file was unable to open it.

Action: Verify the file exists and has appropriate access permissions for the user performing the action.

SSV4NOALLOW

SSV4NOALLOW, Database snapshots are supported only on fully upgraded V5 databases. nnnn has V4 format blocks.

MUPIP Error: An action requiring a snapshot was attempted on a database the contains V4 format blocks.

Action: Upgrade the database to V5 and re-run the action.

STACKCRIT

STACKCRIT, Stack space critical

Run Time Error: This indicates that the process has consumed almost all of the available stack space.

Action: Look for infinite recursion. If you do not take immediate action to reduce your stack, GT.M is likely to produce a STACKOFLOW error, which terminates the process. Examine the stack with ZSHOW. Trim the stack using QUIT, ZGOTO, HALT or ZHALT. Note that if a single application call generates a stack frame larger than the stack space between the STACKCRIT and STACKOFLOW boundaries, the process puts a STACKCRIT message in the operator log, but processes the STACKOFLOW and terminates, so the application gets no chance to intervene and handle the error. Look into the gtm_mstack_crit_threshold and gtm_mstack_size environment variables.

STACKOFLOW

STACKOFLOW, Stack overflow

Run Time Fatal: This indicates that the process required more stack space than was available in memory.

Action: Reduce the stack when you get a STACKCRIT error. This error terminates the process. Note that if a single application call generates a stack frame larger than the stack space between the STACKCRIT and STACKOFLOW boundaries, the process puts a STACKCRIT message in the operator log, but processes the STACKOFLOW and terminates, so the application gets no chance to intervene

and handle the error. Look into the `gtm_mstack_crit_threshold` and `gtm_mstack_size` environment variables.

STACKUNDERFLO

STACKUNDERFLO, Stack underflow

Run Time Error: This indicates that the process stack was corrupt.

Action: Review the accompanying messages for additional information. If necessary, report the entire incident context to your GT.M support channel for further analysis.

STARFILE

STARFILE, Star(*) argument cannot be specified with xxxx

MUPIP Error: This indicates that the qualifier xxxx, specified with the MUPIP JOURNAL command does not allow star (*) as an argument.

Action: Specify the journal file names explicitly.

STATCNT

STATCNT, xxxx: Key cnt: yyyy max subsc len: zzzz max data len: wwwww

MUPIP Information: LOAD uses this message to display status. xxxx is the name of the global being updated. yyyy is the number of nodes handled. zzzz is the largest subscript encountered. wwwww is the size of the largest node.

Action: -

STATSDBERR

STATSDBERR, Error in/at LLLL attempting to use a statistics database: SSSS

Run Time Error: Indicates an error occurred while attempting to open a statistics database. This error is followed by one or more additional error messages describing the actual condition that occurred. The LLLL is an entryref or module name where the error occurred.

Action: Address the condition(s) causing the error and retry.

STATSDBFNERR

STATSDBFNERR, This database has no accessible statistics database due to the following error: EEEE

Run Time Error: This indicates there was an error EEEE opening the statistics database. This error usually shows up as a subordinate message to STATSDBERR.

Action: Address the condition causing the error and retry.

STATSDBINUSE

STATSDBINUSE, Statistics database SSSS is in use with database DDDD so cannot also be used with database OOOO

Run Time Error: The statistics database SSSS is currently associated with database DDDD and therefore cannot be associated with database OOOO.

Action: Determine why two separate base databases would be trying to both use the same statistics database (often this is because statistics database names are soft linked to each other), fix the condition, and retry.

STATSDBMEMERR

STATSDBMEMERR, Process attempted to create stats block in statistics database SSSS and received SIGBUS--invalid physical address. Check file system space.

Run Time Error: A process attempted to enable shared statistics collection for the region associated with SSSS, but was unable to find room to add its records, so it cannot contribute to sharing. This message goes to the operator log facility rather than the process as an error, but the process continues without shared statistics.

Action: Adjust the environment so that SSSS can expand, and then, if possible, have the process again attempt to enable sharing.

STATSDBNOTSUPP

STATSDBNOTSUPP, Attempted operation is not supported on statistics database file SSSS

All GT.M Components Error: An attempt was made to use a statistics database in a manner that is not supported. Statistics databases have very restricted capabilities, for example: they only accept updates from GT.M itself.

Action: Identify and remove the inappropriate action(s).

STDNULLCOLLREQ

STDNULLCOLLREQ, Region rrrr needs Standard Null Collation enabled because global gggg spans through it

GDE Information: This indicates that the global gggg spans through region rrrr but the region has GT.M Null collation enabled.

Action: All regions containing parts of spanning globals need to have Standard Null Collation enabled. Fix region rrrr to have Standard Null Collation enabled.

STOPTIMEOUT

STOPTIMEOUT, Waited too long for stopped process to release. Region: xxxx.

Run Time Error: This indicates that GT.M is ignoring and bypassing a locked process and a recovery mechanism has taken control of the listed region.

Action: Terminate the misbehaving process.

STPCRIT

STPCRIT, String pool space critical

Run Time Error: This indicates that the process has exceeded the heap (string pool) limit specified in the \$ZSTRPLIM ISV. If you do not take prompt action to reduce the process memory requirements, at the next heap expansion, GTM produces an STPOFLOW error, which terminates the process.

Action: Investigate whether the process memory usage is appropriate, and if so, increase or remove the limit. Otherwise correct the cause(s) of the excessive memory consumption. Please see the documentation for \$ZSTRPLIM for additional information.

STPEXPFAIL

STPEXPFAIL, Stringpool expansion failed. It could not expand to xxxx bytes

Run Time Error: The stringpool, an internally expanding data structure maintained by GT.M to store primarily M-local variable content, needs more memory than is available in the process virtual memory.

Action: Increase process memory quotas to increase available process virtual memory. Change application to reduce memory requirements of the stringpool by using lesser M-local variables.

STPOFLOW

STPOFLOW, String pool space overflow

Run Time Fatal: This indicates that the process has previously exceeded the heap (string pool) limit specified in the \$ZSTRPLIM ISV and still needs more memory, so GTM terminates the process.

Action: Investigate whether the process memory usage is appropriate, and if so, increase or remove the limit. Otherwise correct the cause(s) of the excessive memory consumption. Please see the documentation for \$ZSTRPLIM for additional information.

STRINGOFLOW

STRINGOFLOW, String pool overflow

Compile Time Error: This indicates that some action attempted to use the string pool when it was full.

Action: Look for very large string constants in a very large program; reduce one or both.

STRMISSQUOTE

STRMISSQUOTE, Missing double-quote at end of string specification ssss

GDE Error: This indicates that a subscripted name was specified with string subscripts parts of which were enclosed inside double-quotes but the closing double-quote is missing.

Action: Specify the subscripted name with the appropriate double quote(s).

STRMNUMIS

STRMNUMIS, Stream # is ssss

MUPIP Information: Issued by a Receiver Server to designate a stream associated with the the immediately preceding message.

Action: Refer to the associated prior message.

STRMNUMMISMATCH1

STRMNUMMISMATCH1, Stream nnnn exists on the receiver instance file but is unknown on the source instance

MUPIP Error: Issued by a Source Server on a Supplementary Instance when it detects a non-Supplementary stream number nnnn (which can be any value from 1 through 15) exists on the receiving instance but not on the source instance. This indicates the two instances are not in sync at least with respect to stream nnnn, so replication cannot proceed.

Action: Reinitialize the receiving instance from a backup of the source instance and restart replication between the two instances.

STRMNUMMISMATCH2

STRMNUMMISMATCH2, Stream nnnn exists on the source instance file but is unknown on the receiver instance

MUPIP Error: Issued by a Source Server on a supplementary instance when it detects a non-Supplementary stream number nnnn (which can be any value from 1 through 15) exists on the source instance but not on the receiving instance. This indicates the two instances are not in sync at least with respect to stream nnnn and so replication cannot proceed.

Action: Reinitialize the receiving instance from a backup of the source instance and restart replication between the two instances.

STRMSEQMISMATCH

STRMSEQMISMATCH, Unable to play update on Stream nnnn with seqno xxxx as receiving instance has a different stream seqno XXXX

Update Process log/MUPIP Error: Issued by the Update Process on a supplementary instance started with -UPDNOTOK (that is, local updates are disabled) when it finds the source and receiving instances have different values of stream sequence number for the non-Supplementary stream nnnn (can be any value from 1 through 15). This indicates the two instances are not in sync at least with respect to stream nnnn and so replication cannot proceed.

Action: Reinitialize the receiving instance from a backup of the source instance and restart replication between the two instances.

STRNOTVALID

STRNOTVALID, Error: cannot convert xxxx value to valid yyyy value.

DSE Error: This error shows in DSE when there is a string input that cannot be converted to a number. For example, attempting "change -fileheader -location=0x123rt456" would apply to this error.

Action: Review and correct typographical errors.

STRUNXEOR

STRUNXEOR, xxxx unexpected end of record in string subscript

MUPIP Error: This indicates that LOAD aborted because it encountered an end of file while processing string subscript xxxx.

Action: Refer to the topic MUPIP LOAD Errors in About This Manual section in this manual.

STUCKACT

STUCKACT, Process stuck script invoked: rrrr : pppp

Run Time Information: This message shows the success or failure status return rrrr of the operation of invoking the script pppp pointed to by the environment variable \$gtm_procstuckexec

Action: If the result is success analyze the output of the script. If the result is failure, check the script and any output it produced up to the point of failure and rework the script or adjust the environment appropriately.

SUB2LONG

SUB2LONG, Subscript invalid, too long

MUPIP Error: This indicates that INTEG encountered a subscript that is too long for its display mechanism.

Action: Examine the subscript with DSE DUMP, and take action to eliminate the subscript if it is invalid.

SUPRCVRNEEDSSUPSRC

SUPRCVRNEEDSSUPSRC, Instance iiiii is not configured to perform local updates, so it cannot act as a receiver for non-Supplementary Instance ssss

MUPIP Error: Issued by a Receiver Server or a MUPIP JOURNAL -ROLLBACK -FETCHRESYNC on a Supplementary Instance ssss started with -UPDNOTOK attempted to connect to non-Supplementary Instance iiiii. A Supplementary Instance that does not permit local updates can only replicate from another Supplementary Instance.

Action: Reconfigure the instances to a supported configuration.

SUSPENDING

SUSPENDING, Suspending processing on user request or attempt to do terminal I/O while running in the background

Run Time Information: The message signifies that a GT.M process is suspended on user initiated ^Z (or key stroke that is set to shell "susp"). It is also displayed if the process attempts to do terminal I/O while running in the background. Before suspending itself, the process logs the SUSPENDING message to the operator facility. Suspended processes may be automatically released from that state if they hold a shared resource that blocks other processes.

Action: Because GT.M uses shared resources, suspending a GT.M process can lock those resources and prevent other processes from working. Disable process suspension from <CTRL-Z> by appropriately configuring the shell. If you find a GTM-I-SUSPENDING in the syslog, match it with a GTM-I-REQ2RESUME to ensure that the process went back to work and released any resources it had. Identify the cause of the suspension and take action to prevent a recurrence. If there no resume, check the process listing to confirm that there is a shell associated with the process and request the user to unsuspend the process. If there is no shell associated with process, it is likely that the process was backgrounded before the shell was terminated. Kill this process with MUPIP STOP.

SVNEXPECTED

SVNEXPECTED, Special variable expected in this context

Compile Time/Run Time Error: This indicates that GT.M encountered a dollar sign in a NEW command that was not followed by a valid special variable name.

Action: Look for misspelled special variable names or a missing \$ in an extrinsic.

SVNONEW

SVNONEW, Cannot NEW this special variable

Compile Time/Run Time Error: This indicates that a NEW command tried to new an intrinsic special variable that is not a valid argument for a NEW.

Action: Look for inappropriate \$ prefixes. \$ZTRAP, \$ETRAP, \$ESTACK, \$ZYERROR, \$ZGBLDIR are the only intrinsic special variables that can be NEWed.

SVNOSET

SVNOSET, Cannot SET this special variable

Compile Time Error: This indicates that a SET command specified an assignment that attempted to modify a read-only special variable.

Action: Look for inappropriate \$ prefixes and attempts to modify read-only special variables. \$DEVICE, \$ECODE, \$ETRAP, \$DEVICE, \$KEY, \$X, and \$Y are the only ANSI standard variables that can be SET.

SYSCALL

SYSCALL, Error received from system call xxxx -- called from module yyyy at line zzzz

Run Time Error: This indicates that system call failed due to some unusual error condition.

Action: Report to system administrator and if necessary report the entire incident context to your GT.M support channel for further analysis.

SYSUTILCONF

SYSUTILCONF, Error determining the path for system utility. tttt

Run Time Error: tttt represents text describing details of an issue finding a POSIX function that it needed.

Action: Check for aliases or environment variables related to paths that might be interfering with GT.M's ability to invoke functions.

TCGETATTR

TCGETATTR, Error while getting terminal attributes on file descriptor xxxx

Run Time Error: This indicates that the terminal attributes are inaccessible where xxxx is the file descriptor for the device.

Action: Review and correct the OS configuration of the device.

TCOMMITDISALLOW

TCOMMITDISALLOW, TROLLBACK required after an unhandled error in trigger context

Run Time Error: This transaction did an update that invoked a trigger which in turn encountered an error that was not handled by the application error trap inside the trigger context. Because of this, the exit from trigger context was abnormal. GT.M does not commit such transactions since they would not preserve the atomicity of trigger updates (triggering update + triggered updates).

Action: Such transactions can only be rolled back. If this is a nested TSTART (subtransaction), it can optionally be rolled back incrementally, that is, only the nested TSTART needs to be rolled back while the parent TSTART can still be committed.

TCSETATTR

TCSETATTR, Error while setting terminal attributes on file descriptor xxxx

Run Time Error: This indicates that the terminal attributes are inaccessible where xxxx is the file descriptor for the device.

Action: Review and correct the OS configuration of the device.

TERMASTQUOTA

TERMASTQUOTA, Process AST quota exceeded, cannot open terminal

Run Time Error: This indicates that an OPEN command failed because it required an AST that would violate the OpenVMS process quota.

Action: Reduce the number of terminals in use by a single process or ask your system administrator about changing your AST quota.

TERMHANGUP

TERMHANGUP, Terminal has disconnected

Run Time Error: This indicates that the terminal serving as the PRINCIPAL device has disconnected. By default, GT.M ignores terminal "hang-ups," which can allow the terminal to reconnect at a later time to a process that does not need the terminal to continue work. You can enable recognition of Principal device disconnects with USE \$PRINCIPAL:HUPENABLE or by starting the process with the gtm_hupenable set to 1, TRUE or YES, or disable them with USE \$PRINCIPAL:NOHUPENABLE.

Action: When a process receives this error it must avoid any further READs from, or WRITEs to, \$PRINCIPAL, typically by shutting down in a wholesome fashion. Failure to do so causes GT.M to terminate the process with a NOPRINCIO message to the operator log.

TERMWRITE

TERMWRITE, Error writing to terminal, status:

Run Time Error: This indicates that a WRITE to a terminal failed. Such failures may be detected and reported asynchronously to the actual WRITE command.

Action: Review the accompanying message(s) for additional information.

TEXT

TEXT, xxxx

Run Time Information: GT.M uses this message with various accompanying text, xxxx, to expand on other errors.

Action: Examine the text and review any accompanying message(s).

TEXTARG

TEXTARG, Invalid argument to \$TEXT function

Compile Time Error: This indicates that a \$TEXT function specified an invalid argument.

Action: Modify the \$TEXT() argument so it is in the format of an entryref.

TIMERHANDLER

TIMERHANDLER, Incorrect SIGALRM handler xxxx found by yyyy

Run Time Information: This indicates that an external user-supplied routine (C or other language) called from GT.M, incorrectly manipulated the system timer handler. The xxxx is the hexadecimal address of the handler installed by the external routine and yyyy is the routine within GT.M, which discovered the problem.

Action: Use the GT.M provided timer facility described in the Programmer's Guide .

TIMEROVFL

TIMEROVFL, Timer overflow; interval probably too large

Run Time Error: This indicates that a timeout or timers calculation exceeded the maximum allowable interval.

Action: Check the system maximum interval and set the interval accordingly.

TIMRBADVAL

TIMRBADVAL, Bad value specified. Timer not changed.

DSE Error: This indicates that a CHANGE command with the FILEHEADER qualifier specified a time value that was improperly formatted or inappropriate.

Action: Modify the time value.

TLSCONNINFO

TLSCONNINFO, Failed to obtain information on the TLS/SSL connection

MUPIP Warning: This indicates that an attempt to establish TLS/SSL connection failed.

Action: Review the following TEXT message from the plug-in for additional diagnostic information and adjust the environment accordingly.

TLSCONVSOCK

TLSCONVSOCK, Failed to convert UNIX TCP/IP socket to TLS/SSL aware socket>/error

Run Time/MUPIP Error: This indicates that an attempt to establish TLS/SSL connection failed.

Action: Review the following TEXT message from the plug-in for additional diagnostic information, review your keys and related certificates, and adjust the environment accordingly.

TLSDLLNOOPEN

TLSDLLNOOPEN, Failed to load GT.M TLS/SSL library for secure communication

MUPIP Error: This indicates that the attempt to load the GT.M dynamically linked library for TLS/SSL operation failed.

Action: Review the following TEXT message from the plug-in for additional diagnostic information, check the path and authorizations for the library, and adjust the environment accordingly.

TLSHANDSHAKE

TLSHANDSHAKE, Connection to remote side using TLS/SSL protocol failed

Run Time/MUPIP Error: This indicates that an attempt to establish SSL/TLS connection failed.

Action: Review the following TEXT message from the plug-in for additional diagnostic information, and adjust the environment accordingly.

TLSINIT

TLSINIT, Failed to initialize GT.M TLS/SSL library for secure communication

Run Time/MUPIP Error: This indicates that the attempt to initialize a secure context for TLS/SSL operation failed.

Action: Review the following TEXT message from the plug-in for additional diagnostic information, check your certificates, and adjust the environment accordingly.

TLSIOERROR

TLSIOERROR, Error during TLS/SSL oooo operation

Run Time/MUPIP Error: This indicates that while attempting oooo operation (receive or send), the TLS/SSL library encountered an error.

Action: Review the following TEXT message from the plug-in for additional diagnostic information, and adjust the environment accordingly.

TLSPARAM

TLSPARAM, TLS parameter pppp eeee

Run Time Error: This indicates a problem with a parameter on a WRITE /TLS command. pppp identifies the parameter and eeee describes the problem.

Action: Address the reported problem described by eeee.

TLSRENEGOTIATE

TLSRENEGOTIATE, Failed to XXXX TLS/SSL connection

Run Time/MUPIP Error: The XXXX indicates that an attempt to renegotiate or update the keys for the SSL/TLS connection failed.

Action: Review the following TEXT message from the plug-in for additional diagnostic information, and adjust the environment accordingly.

TLVLZERO

TLVLZERO, Transaction is not in progress

Compile Time/Run Time Error: This indicates that a TCOMMIT, TROLLBACK, or TRESTART command attempted to change the state of the current transaction; however, a transaction was not in progress.

Action: Look for missing TSTARTs, extra TCOMMITs or TROLLBACKs, or an unanticipated flow of control; conditionalize the command on \$TLEVEL, if appropriate.

TMPFILENOCRE

TMPFILENOCRE, Error in MUPIP BACKUP while trying to create temporary file xxxx

MUPIP Error: This indicates that MUPIP BACKUP was not able to create the temporary file xxxx needed in the course of its processing, possibly due to earlier incomplete backups.

Action: Make sure the temporary files are removed from the backup directory, and re-issue the BACKUP.

TMPSTOREMAX

TMPSTOREMAX, Maximum space for temporary values exceeded

Compile Time Error: GT.M uses 1024 temporary registers to hold intermediate results of expression evaluation. Because of the line-oriented nature of the M language, these temporary registers get reused for each line. This error indicates that there is a single calculation on a line that requires more than 1024 temporary registers.

Action: Look for excessive function nesting on a very long line of code. Reduce the amount of nesting by assigning intermediate results to a variable. Alternatively, if compiling the routine with the -DYNAMIC_LITERALS qualifier, try compiling with -NODYNAMIC_LITERALS.

TNTOOLARGE

TNTOOLARGE, Database file xxx has reached the transaction number limit (0xaaa). Renew database with MUPIP INTEG TN_RESET

Run Time Information: This indicates that GT.M detected that the transaction numbers in the named database have reached the maximum number. There are 0xFFFFFFFF ([2**32 - 1] or 4,294,967,295 decimal) possible transaction numbers for V4 or 0xFFFFFFFFFFFFFFFF ([2**64 - 1] or 18,446,744,073,709,551,615 decimal) possible transaction numbers for V5 version databases. Note that the actual maximum TN is less than this theoretical limit. DSE DUMP FILEHEADER shows what the limit is. The actual limit reflects some overhead used, for example, during a TN_RESET operation.

Action: Use MUPIP INTEG with the qualifier TN_RESET to reset the transaction numbers in the database. If the database is in the V4 format, consider converting it to the V5 format. The database cannot otherwise be used until the condition is removed by either a TN_RESET or, if a V4 database, changing the output mode to V5 with MUPIP SET VERSION.

TNWARN

TNWARN, Database file xxx has 0xaaa more transactions to go before reaching the transaction number limit (0xaaa). Renew database with MUPIP INTEG TN_RESET

Run Time Information: This indicates that GT.M detected that the transaction numbers in the named database are approaching the maximum number. There are 0xFFFFFFFF ([2**32 - 1] or 4,294,967,295 decimal) possible transaction numbers for V4 or 0xFFFFFFFFFFFFFFFF ([2**64 - 1] or 18,446,744,073,709,551,615 decimal) possible transaction numbers for V5 version databases. This message is sent to the operator log periodically at decreasing intervals as the transaction number approaches the maximum. Note that the actual maximum TN is less than this theoretical limit. DSE DUMP FILEHEADER shows what the limit is. The actual limit reflects some overhead used, for example, during a TN_RESET operation.

Action: Use MUPIP INTEG with the qualifier TN_RESET to reset the transaction numbers in the database. If the database is in the V4 format, consider converting it to the V5 format.

TOOMANYCLIENTS

TOOMANYCLIENTS, GT.M is serving the maximum number of clients. Try again later.

Run Time Error: This indicates that the process failed in accessing a region served via GT.CM server, which currently cannot accept another connection. This is unlikely to happen unless many of the servers clients have abruptly disconnected and the server has been running for a long time.

Action: Try again later. Stop and restart the server to resolve the problem. If the problem persists, contact the group responsible for database operations on your network.

TOTALBLKMAX

TOTALBLKMAX, Extension exceeds maximum total blocks, not extending

Run Time Error: This indicates that the database file extension specified implicitly or explicitly (using MUPIP EXTEND) would cause the GDS file to exceed its maximum size. The following table summarizes the maximum database size for all GT.M versions starting from V5.-000. To upgrade your GT.M to the latest version, refer to the "Upgrading to GT.M <LatestVersion>" section of the release notes to select an appropriate upgrade path for your environment.

GT.M Versions	Format	Max blocks in a DB file (MiB)	Max DB Size* (GiB)
V6.0-000 (or above)	V6	992	7936
V5.4-000 through V5.5-000	V5	224	1792
V5.0-000 through V5.3-003	V5	128	1024

* for a database file with block size of 8192 bytes.

Action: Modify the extension to use a smaller size. This may indicate that you should move some contents of the database file to another file.

TPFAIL

TPFAIL, Transaction COMMIT failed.

Run Time Error: This indicates that GT.M attempted to process this transaction four times, but encountered an error every time. Additional accompanying messages indicate details of the failure.

Action: Report this database error to the group responsible for database integrity at your operation.

TPLOCK

TPLOCK, Cannot release lock(s) held prior to current TSTART

Run Time Error: This indicates that a LOCK or ZDEALLOCATE command attempted to release named resources that were LOCKed or ZALLOCATED prior to the initial TSTART of the current transaction.

Action: Do not release the named resource until after the TCOMMIT, or LOCK/ZALLOCATE has reserved the resource after the TSTART has begun.

TPLOCKRESTMAX

No longer in GT.M since: V5.5-000

TPLOCKRESTMAX, Transaction restarts due to unavailability of locks not allowed in a final TP retry more than nnnn times

Run Time Error: This indicated a timed LOCK within a transaction was consistently unavailable. In order to prevent the process from waiting for the LOCK while holding a database resource (critical section) the transaction has restarted nnnn times without success. This error limits the possibilities for this issue cascading into a live-lock (consuming resources trying to do something that is "not happening").

Action: Analyze the locking protocol for issues of dead lock or unexpected LOCK durations and rework appropriately. Note that FIS recommends against using LOCKs within transactions, as GT.M protects the transaction integrity independent of LOCK protocols. If you wish to impose a conventional locking strategy for a transaction, place the LOCK and unlock around (outside) the transaction. While it is possible to use a LOCK within a transaction for signaling, that technique is typically problematic as it violates transactional Isolation and should likely be restricted to testing.

TPMIXUP

TPMIXUP, xxxx transaction cannot be started within yyyy transaction

Run Time Error: This indicates that the software, function, or routine may use incompatible transaction fencing.

Action: Transaction fences and ZT transaction fences cannot be used in combination. Review the code for incompatible use of T and ZT transaction fences.

TPNOSTATSHARE

TPNOSTATSHARE, VIEW "[NO]STATSHARE" is not allowed inside a TP transaction

Run Time Error: Because statistics sharing is a non-ACID (due to not being Isolated) action GT.M does that permit changing it within a TP transaction.

Action: Move any switching of statistics outside of any TP transaction.

TPNOSUPPORT

TPNOSUPPORT, Operation cannot be performed while inside of a TP transaction

Run Time Error: This indicates that a `$$set^%GBLDEF` or `$$kill^%GBLDEF` was attempted while inside of a TP transaction (TSTART/TCOMMIT fence).

Action: `^%GBLDEF` only supports TP from the `$$get` entry point; it does not support inclusion of `$$set` or `$$kill` entry points within a TP transaction.

TPNOTACID

TPNOTACID, tttt at xxxx in a final TP retry violates ACID properties of a TRANSACTION and could exceed ssss milliseconds and rrrr RESTARTs have occurred

Run Time Error: GT.M issues this message as a warning to the syslog if it is executing a TP TRANSACTION in the final retry and control gets transferred out of GT.M due to any one of the following conditions:

- a ZEDIT or ZSYSTEM command
- Entering direct mode (e.g. due to a BREAK command)
- An external call
- a long running command (those which accept timeout specifications) encountered potentially indefinite restarts.

The xxxx indicates the \$ZPOSITION where the transfer of control occurred and the condition that caused this is identified in tttt.

GT.M issues this message as an error when it reaches the default limit of 16 or the limit setable by the `gtm_tpnotacidtries` environment variable

Action: Review your code to determine whether the non-Isolated commands can be moved outside of transaction encapsulation. Alternatively, ensure that they are minimally disruptive by using `$ZMAXTPTIME` to prevent transactions from running unreasonably long times and setting

gtm_tpnocidtime to specify the wait period for long running commands before GT.M logs a TPNOTACID message.

TPQUIT

TPQUIT, Cannot QUIT out of a routine with an active transaction

Run Time Error: This indicates that an implicit or explicit QUIT attempted to leave an invocation level where a transaction or subtransaction was TSTARTed but not matched by either a TCOMMIT or TROLLBACK.

Action: Modify the routine to TCOMMIT or TROLLBACK the transaction before QUITting, or move the TSTART to a prior invocation level.

TPRESTART

TPRESTART, Database mmmm; code: xxxx; blk: yyyy in gbl: zzzz; pvtmods: aaaa, blkmods: bbbb, blklvl: cccc, type: dddd, readset: eeee, writeset: ffff, local_tn: gggg, zpos: hhhh

Run Time Information: The UNIX environment variables GTM_TPRESTART_LOG_FIRST and GTM_TPRESTART_LOG_DELTA control the logging of TPRESTART messages. GTM_TPRESTART_LOG_FIRST indicates the number of TP restarts to log from a GT.M invocation. Once that many have been logged, every GTM_TPRESTART_LOG_DELTA TP restarts, GT.M logs a restart message. If GTM_TPRESTART_LOG_DELTA is undefined, GT.M performs no operator logging. The default value for GTM_TPRESTART_LOG_FIRST is 0 (zero), which leaves the control completely with GTM_TPRESTART_LOG_DELTA. The facility that produces this message can serve as a diagnostic tool in developmental environments for investigating contention due to global updates. A zzzz of "*BITMAP" indicates contention in block allocation which might involve multiple globals. hhhh is the \$ZPOSITION of the line of M code that caused the restart of the transaction; utilities leave this field blank.

Action: Disable, or adjust the frequency of, these messages with the mechanism described above. To reduce the number of restarts, consider changes to the global structure, or varying the time when work is scheduled. Consider whether the business and program logic permits the use of NOISOLATION.

TPRESTNESTERR

TPRESTNESTERR, TP restart signaled while handing error - treated as nested error - Use TROLLBACK in error handler to avoid this

Run Time Error: GT.M does not allow a TP restart to occur either explicitly or implicitly while doing error processing (\$ECODE is not NULL). Note that if a \$ZINTERRUPT interrupts an error handler, this restriction then extends to the \$ZInterrupt code even though \$ECODE is temporarily nullified for the duration of the \$ZInterrupt.

Action: Doing a TROLLBACK in the error handler before attempting to set any globals avoids this error.

TPSTACKCRIT

No longer in GT.M since: V5.3-004A

TPSTACKCRIT, TP Stack space critical

Run Time Error: This indicates that a transaction has consumed almost all of the available stack space.

Action: Look for missing TCOMMIT commands. Modify the code to reduce the total change content of the transaction; pay special attention to recursion and variable usage.

TPSTACKOFLOW

No longer in GT.M since: V5.3-004A

TPSTACKOFLOW, TP Stack overflow

Run Time Error: This indicates that a transaction has consumed all of the available stack space. This error terminates the image.

Action: Modify the error handling for TPSTACKCRIT to prevent a subsequent TPSTACKOFLOW.

TPTIMEOUT

TPTIMEOUT, Transaction timeout

Run Time Error: This indicates that the transaction took too long to process successfully. Timeouts prevent runaway processes, damage from software bugs, and transactions so large as to be hostile to other users.

Action: Review the message(s) for any information about the cause of the transaction timeout, and/or research what the process was doing at the time of the warning or error. If the transaction uses custom programs, routines, or functions, they may need to be debugged.

TPTOODEEP

TPTOODEEP, \$TLEVEL cannot exceed 127

Run Time Error: This indicates that a TSTART attempted to initiate more concurrent subtransactions than GT.M permits.

Action: Determine whether the transaction is implemented as designed. Modify the routine to reduce the levels of subtransaction nesting.

TRACEON

TRACEON, Missing global name (with optional subscripts) to dump M-tracing information into

Compile Time Error: This indicates that no global variable was supplied on a VIEW "TRACE":1:"^gvn".

Action: Supply the global variable.

TRACINGON

TRACINGON, Tracing already turned on

Run Time Information: This indicates that M profiling is already turned on when a command was issued to turn tracing on.

Action: -

TRANS2BIG

TRANS2BIG, Transaction exceeded available buffer space for region rrrr

Run Time Error: This indicates that a transaction updated more blocks than the global buffers could hold (half - 2) for a particular region rrrr or accessed more than the single transaction limit of 64Ki blocks.

Action: Look for missing TCOMMIT commands; modify the code to reduce the total content or change content of the transaction. If the transaction is as intended and the issue is the number of updates, increase the GLOBAL_BUFFERS for the region using MUIP SET, or modify the Global Directory to redistribute the relevant globals to more regions. If this occurs on a replicating instance it may indicate either a difference in configuration between the originating and replicating instances, which probably should be addressed, or a transaction that was borderline on the originating instance, but failed on the replicating instance because of difference in the database layout. In the later case, consider examining the application code to see if it's possible to reduce the size of the transaction, or alternatively increase the global buffers on both the instances.

TRANSMINUS

TRANSMINUS, Negative numbers not allowed with ZTCOMMIT

Run Time Error: This indicates that a ZTCOMMIT must have a zero (0) or positive integer argument.

Action: Modify the ZTCOMMIT argument.

TRANSNEST

TRANSNEST, Maximum transaction nesting levels exceeded

Run Time Error: This indicates that a ZTSTART failed an attempt to establish another level of nested subtransactions.

Action: Rework the application so that it requires no more than 255 levels of journal transaction nesting.

TRANSNOSTART

TRANSNOSTART, ZTCOMMIT(s) issued without corresponding ZTSTART(s)

Run Time Error: This indicates that a ZTCOMMIT specified an explicit number of ZTSTARTs to close that exceeded the number of ZSTARTs that were currently open.

Action: Use ZTCOMMIT with an argument of 0 to close all open transactions, or modify the ZTCOMMIT to use a positive integer argument that does not exceed the number of open ZTSTARTs.

TRESTLOC

TRESTLOC, Transaction start: xxxx, Transaction failure: yyyy

Run Time Error: This indicates that GT.M detected a resource conflict that attempted to RESTART a transaction that did not enable RESTART. This message follows TRESTNOT error message, xxxx is the starting location for the transaction and yyyy is the point of failure.

Action: Enable RESTART with the initial TSTART command argument, or add external LOCKs to serialize the transaction.

TRESTMAX

TRESTMAX, TRESTART not allowed in a final TP retry more than once

Run Time Error: The code contained one or more explicit TRESTART command(s) which called for a RESTART after more than once after \$TRESTART reached 3. Once \$TRESTART reaches 3, GT.M switches from an optimistic to a conventional locking strategy so such restarts are expensive and potentially disruptive. Therefore GT.M limits the ability of the application code to repeatedly demand such RESTARTs.

Action: Investigate the cause and reason(s) for the explicit restart. When combined with a subsequent TROLLBACK, explicit TRESTARTs may provide a way to manipulate the variable context and flow of control in useful ways, but other uses are unusual. If explicit TRESTARTs are appropriate, consider whether they should be conditional on the value of \$TRESTART.

TRESTNOT

TRESTNOT, Cannot TRESTART, transaction is not restartable

Run Time Error: This indicates that a TRESTART command attempted to RESTART a transaction that did not enable RESTART; the error occurs at the point of the initial TSTART, so all global updates within the transaction are rolled back and any local variables specified have their values as of the TSTART.

Action: Enable RESTART with the initial TSTART command argument, add external LOCKs to serialize the transaction, or eliminate the TRESTART command.

TRIG2NOTRIG

TRIG2NOTRIG, Sending transaction sequence number xxxx which used triggers to a replicator that does not support triggers

MUPIP Warning: The source server encountered a transaction that includes triggers, but its replicating node does not support triggers. Unless you are using application level filters to handle this case, your originating instance and replicating instance are no longer consistent.

Action: If this case it not handled by your application level filters, you should either enhance your filters or upgrade the replicating instance to a version of GT.M that supports triggers and load the the appropriate trigger definitions with MUPIP TRIGGER (or \$ZTRIGGER()), and then take appropriate action (such as recreating the replicating instance from a backup of the originating instance) to restore consistency.

TRIGCOMPFAIL

TRIGCOMPFAIL, Compilation of database trigger named tttt failed

Trigger/Run Time Error: The -Xecute code of a trigger specification has syntax errors. Because triggers are precompiled when you define them, this error may indicate that either:

- A database upgrade was performed but the trigger code was not updated to eliminate obsolete syntax
- The portion of the database holding the trigger definitions may be corrupted

Action: Validate the definitions by a SELECT option with MUPIP TRIGGER or \$ZTRIGGER(), correct the trigger code syntax and apply a trigger update.

TRIGDATAIGNORE

TRIGDATAIGNORE, Ignoring trigger data tttt. Use MUPIP TRIGGER to load trigger definitions

MUPIP Information: MUPIP LOAD displays this warning when it encounters trigger metadata during extract file processing (GO/ZWR extracts).

Action: Identify and remove trigger metadata information from GO/ZWR extract files and, if appropriate, process it with MUPIP TRIGGER or \$ZTRIGGER().

TRIGDEFBAD

TRIGDEFBAD, Trigger initialization failed for global ^gggg. Error while processing ^#t("xxxx",yyyy[,zzzz])

Trigger/MUPIP Error: Missing or corrupted trigger metadata causes this error.

Action: Delete and replace defective triggers. If possible analyze the cause of the trigger damage and report the incident to your GT.M support channel.

TRIGDEFNOSYNC

TRIGDEFNOSYNC, Global ^gggg has triggers defined on the [originating/replicating] instance but none on the [replicating/originating] instance. Current journal sequence number is 0xjjjj

Update Process log/Trigger Warning: The Update Process detected that there is a mismatch in trigger definitions for global gggg between originating and replicating instances and sent this warning to the operator log.

Action: Differences in triggers between originating and replicating instances typically mean the replicating instance is not in a position to stand in as a system of record by becoming an originating instance. Unless the difference is intended because of a special use of the replicating instance, shutdown and resynchronize the replicating instance.

TRIGINVCHSET

TRIGINVCHSET, Trigger tttt for global gggg was created with CHSET=cccc which is different from the current \$ZCHSET of this process

Trigger/Run Time Error: TRIGINVCHSET occurs when a process invokes a trigger on a global using a \$ZCHSET that is different from the \$ZCHSET used at the time of loading the first trigger on that global. GT.M implicitly uses the \$ZCHSET of the first trigger on a global to invoke all triggers on that global. Note that tttt is the name of the first trigger on the global gggg-not necessarily the name of the trigger being invoked. cccc is the \$ZCHSET of the process at the time of loading tttt on global gggg.

Action: Ensure that the process invoking a trigger on a global uses the same \$ZCHSET that was used to load the first trigger on that global. If your application requires triggers in both M and UTF-8 modes, use different globals to load M mode and UTF-8 mode triggers.

TRIGIS

TRIGIS, Trigger name: tttt

Trigger/Run Time Information: This message identifies a trigger name

Action: Refer to the accompanying message(s) for more information.

TRIGLOADFAIL

TRIGLOADFAIL, MUPIP TRIGGER or \$ZTRIGGER operation failed. Failure code: xxxx

Trigger/Run Time Error: This indicates that a trigger install (using \$ZTRIGGER() or MUPIP TRIGGER) encountered a database problem when it attempted to update a global variable. xxxx contains the failure codes for the four attempts as documented in section R2 of the Maintaining Database Integrity chapter in the Administration and Operations Guide. It is very likely that the database may have integrity errors or that the process-private data structures are corrupted.

Action: Report this database error to the group responsible for database integrity at your operation

TRIGMODINTP

TRIGMODINTP, Triggers for a given global cannot be both used and modified or removed in the same transaction

Run Time Error: Once a transaction has used any trigger on any node associated with a given global name (the part of the variable designation between the up-arrow (^) and the left-parenthesis "(" (or end if there's no subscript), you cannot use that same transaction to modify definitions for any trigger associated with that global name.

Action: Rework the transaction and \$ZTRIGGER() relationship to avoid this issue.

TRIGMODREGNOTRW

TRIGMODREGNOTRW, Trigger(s) cannot be added/changed/deleted because region rrrr is read-only

Run Time Error: This error occurs when \$ZTRIGGER() or MUPIP TRIGGER attempts to write to read-only region rrrr.

Action: Check for appropriate global directory mapping and appropriate permissions on the database file mapped to region rrrr.

TRIGNAMBAD

TRIGNAMBAD, Trigger initialization failed. Error while processing ^#t(tttt,cccc)

Run Time/MUPIP Error: A trigger operation encountered a trigger definition for trigger with an apparent internal inconsistency while looking for characteristic cccc of type tttt.

Action: Delete and redefine the trigger in question. Consult with the group responsible for database integrity at your operation to discuss what actions might have led to this error.

TRIGNAMENF

TRIGNAMENF, Trigger name nnnn not found with the current default global directory

Run Time/MUPIP Error: This message indicates a trigger lookup by name failed. GT.M has a name cross reference in the default region of the current global directory. If you use multiple global directories with different default regions, trigger lookups by name, such as \$ZTRIGGER(), ZBREAK and ZPRINT, only work when they use the same default region as the one in use at the time of the trigger definition.

Action: Consider using a SET \$ZGBLDIR to change to an appropriate global directory when using name lookup. Also consider restructuring your global directories so they share a common default region.

TRIGNAMEUNIQ

TRIGNAMEUNIQ, Unable to make trigger name tttt unique beyond vvvv versions already loaded

Trigger/Run Time Error: GT.M encountered more than vvvv different instances of the same trigger name across database regions used by the same process.

Action: Revise trigger names to prevent such a high degree of overlap.

TRIGNOSPANGBL

TRIGNOSPANGBL, Triggers cannot be installed/deleted for global name gggg as it spans multiple regions in current global directory

Run Time Error: This indicates that the global gggg spans multiple regions and therefore cannot have triggers installed or deleted in its name.

Action: Triggers are not currently supported for globals that span multiple regions.

TRIGREPLSTATE

TRIGREPLSTATE, Trigger cannot update replicated database file dddd since triggering update was not replicated

Run Time Error: A process performed an update on a global in a database region which is not currently replicated, and that update invoked a trigger that, in turn, attempted an update on a global in a database region that is replicated. This would produce a journal state with insufficient information to properly recover the replicated region.

Action: Investigate whether the global directories, journaling characteristics or trigger logic need revision.

TRIGSUBSRANGE

TRIGSUBSRANGE, Trigger definition for global ^gggg has one or more invalid subscript range(s) : ssss

Error: GT.M/MUPIP error: This error indicates one or more subscript range(s) of of order given the current collation subscript ordering - for global gggg in tthe trigger definition files.

Action: Verify the validity of subscript ranges in trigger definition file for the particular global, taking its collation into account, and redefine the trigger with correct subscript ranges for the collation of the global in question.

TRIGTCOMMIT

TRIGTCOMMIT, TCOMMIT at \$ZTLEVEL=LLLL not allowed as corresponding TSTART was done at lower \$ZTLEVEL=BBBB

Trigger/Run Time Error: A TCOMMIT in trigger logic attempted to complete the active transaction that was started outside of the current trigger. Because trigger actions are atomic with the update initiating

them, committing a transaction started prior to or by the triggering update cannot be committed inside the trigger.

Action: Within the trigger context, review the TCOMMIT logic to ensure that it commits only those transactions that are started within the trigger. Ensure that TCOMMIT does not attempt to commit any transaction started prior to or by the triggering update.

TRIGTLVLCHNG

TRIGTLVLCHNG, Detected a net transaction level (\$TLEVEL) change during trigger tttt. Transaction level must be the same at exit as when the trigger started

Trigger/Run Time Error: While the trigger logic can use balanced sub-transactions, it cannot cause a net change in \$TLEVEL.

Action: Review the transaction management (TSTART, TCOMMIT and TROLLBACK) within trigger logic to ensure that it commits or rolls back any transactions it starts and does not attempt to commit any transaction started prior to, or by, the trigger update. You can use TROLLBACK within trigger logic to block the current transaction, possibly to write error context information. Nonetheless if you use such a TROLLBACK, GT.M subsequently signals this error when you leave the trigger context in order to notify the process that the original triggering update has been discarded.

TRIGUPBADLABEL

TRIGUPBADLABEL, Trigger upgrade cannot upgrade label NNNN to CCCC on ^GGGG in region RRRR

MUPIP Error: MUPIP TRIGGER UPGRADE cannot upgrade trigger version number NNNN to the current version number CCCC for the global GGGG in region RRRR.

Action: Reload the triggers in region RRRR.

TRIGZBREAKREM

TRIGZBREAKREM, ZBREAK in trigger tttt removed due to trigger being reloaded

Run Time Warning: This indicates your process had a ZBREAK defined within the XECUTE code for trigger tttt, but some action replaced the definition for trigger tttt so GT.M removed the ZBREAK.

Action: If appropriate examine the trigger with ZPRINT and reestablish the ZBREAK. The message is tied to BREAKMSG mask 16 (See VIEW BREAKMSG). The default message mask is 31, which includes masks 1, 2, 4, 8, and 16. Using the VIEW command to set the BREAKMSG mask to 7 or any other pattern that excludes 16, disables this message.

TRNLOGFAIL

TRNLOGFAIL, Translation of [OpenVMS] logical name or [UNIX] environmental variable xxxx failed

Compile Time Error: This indicates that translation of the indicated environment variable (UNIX)/logical name (OpenVMS) failed. The message is accompanied with another message describing the failure type and the reason behind it. Most probable cause of the failure could be resource limitation.

Action: Report to your system administrator.

TROLLBK2DEEP

TROLLBK2DEEP, Intended rollback (xxxx) deeper than the current \$tlevel (yyyy)

Run Time Error: This indicates that an attempt to TROLLBACK more levels (as indicated by \$TLEVEL) of transaction nesting than are currently active.

Action: Review the logic and code path that led to the error and modify the code appropriately.

TRUNCATE

No longer in GT.M since: V4.3-001F

TRUNCATE, Error while truncating jnl-file xxxx to length aaaa

Run Time Error: This message is issued by Recovery/Rollback process when it is unable to truncate the journal file at the end of recovery. The journal file remains in the same state as it was before the processing and may contain incomplete data, in case of a GT.M crash.

Action: Look into the secondary error message and if necessary report the entire incident context to your GT.M support channel for further analysis.

TRUNCATEFAIL

TRUNCATEFAIL, Truncating xxxx from aaaa OpenVMS blocks to bbbb blocks failed

MUPIP Error: This indicates that a MUPIP BACKUP copied a database that extended during the copy and the attempt to return it to the proper size failed.

Action: Examine the subsequent message for more information. It maybe possible to make the copy usable by performing a MUPIP EXTEND to the actual (current) size take the GDS blocks from the extension size in the file header, and verify the same against the reported RMS blocks. You will need to rename the file since the file in this state will have a temporary file name rather than the expected name from the BACKUP.

TSTRTPARM

TSTRTPARM, Error parsing TSTART qualifier

Compile Time Error: This indicates that the TSTART specified an improperly formatted argument.

Action: Modify the TSTART argument.

TTINVFILTER

TTINVFILTER, Invalid FILTER argument

Run Time Information: This indicates that the FILTER= deviceparameter appeared in a device command for a terminal with an argument that evaluated to something other than "[NO]CHARACTERS" or "ESCAPE", which are the only valid arguments.

Action: Remove or rework the FILTER=.

TTLENGHTOOBIG

TTLENGHTOOBIG, Terminal LENGTH exceeds the maximum allowed limit

Run Time Error: The LENGTH specified is too large for a terminal device. The maximum page length is 255.

Action: Modify the USE to specify a smaller LENGTH.

TTWIDTHTOOBIG

TTWIDTHTOOBIG, Terminal WIDTH exceeds the maximum allowed limit

Run Time Error: The WIDTH specified is too large for a terminal device. The maximum page width is 511.

Action: Modify the USE to specify a smaller WIDTH.

TXTNEGLIN

TXTNEGLIN, A line prior to line number zero was referenced in \$TEXT

Run Time Error: This indicates that a \$TEXT function argument referenced a line that preceded program source line zero.

Action: Verify that \$TEXT() arguments evaluate to zero (0) or to a line subsequent to the beginning of the routine.

TXTSRCFMT

TXTSRCFMT, \$TEXT encountered an invalid source program file format

Run Time Error: This indicates that a \$TEXT function encountered an improperly formatted source file. This error only occurs when the source file has been corrupted.

Action: Use a host system command to examine the source file. Determine whether the source file was properly maintained.

TXTSRCMAT

TXTSRCMAT, M object module and source file do not match

Run Time Error: This indicates that a \$TEXT function referenced a routine whose source file does not correspond to the current object file. ZPRINT may deliver this message as a warning.

Action: ZLINK the source file or use host shell commands to rearrange the current source file to match the object file.

UIDMSG

UIDMSG, Unidentified message received

Run Time Error: This indicates that the process was performing a JOB command and received an unanticipated message while attempting to communicate with the JOBbed process.

Action: Look for indiscriminate mailbox use by other processes.

UIDSND

UIDSND, Unidentified sender PID

Run Time Error: This indicates that the process was performing a JOB command and received a message from an unidentified source while attempting to communicate with the JOBbed process.

Action: Look for indiscriminate mailbox use by other processes.

UNDEF

UNDEF, Undefined local variable: xxxx

Run Time Error: This indicates that an expression referenced a local variable xxxx, that was not defined.

Action: Ensure that all variables are assigned values before they are referenced; use \$GET(), or change the image or process to NOUNDEF mode.

UNIMPLOP

UNIMPLOP, Unimplemented construct encountered

Run Time Error: This indicates that GT.M encountered an unsupported data type while passing arguments between typed C and type-less M.

Action: Review the call-in table and ensure that the parameter types match the following table:

Directions	Allowed Parameter types
I	gtm_long_t, gtm_ulong_t, gtm_float_t, gtm_double_t, gtm_long_t*, gtm_ulong_t*, gtm_float_t*, gtm_double_t*, gtm_char_t*, gtm_string_t*
O/IO	gtm_long_t*, gtm_ulong_t*, gtm_float_t*, gtm_double_t*, gtm_char_t*, gtm_string_t*

UNIQNAME

UNIQNAME, Cannot provide same file name (nnnn) for ffff and FFFF

MUPIP Error: The command species the same name, nnnn for both output ffff and output FFFF.

Action: Revise the command to use unique names for different outputs.

UNKNOWNFOREX

UNKNOWNFOREX, Process halted by a forced exit from a source other than MUPIP

Run Time Warning: This indicates that a process has been terminated by a source (usually a user program) other than MUPIP.

Action: Investigate why an operator or program is stopping GT.M processes without using MUPIP STOP.

UNSDCLASS

UNSDCLASS, Unsupported descriptor class

Run Time Error: This indicates that an external call or \$ZCALL function encountered an unsupported argument-passing mechanism in the external call table.

Action: Make sure the argument-passing mechanism is spelled correctly in the external call table.

UNSDDTYPE

UNSDDTYPE, Unsupported descriptor data type

Run Time Error: This indicates that an external call or \$ZCALL function encountered an unsupported data type in the external call table.

Action: Review the external call table for invalid data types.

UNSOLCNTERR

UNSOLCNTERR, An unsolicited error message has been received from the network

Run Time Error: This indicates that a GT.CM component received a network message from an unknown source.

Action: Ensure that no agents outside the GT.CM environment are improperly sending messages to GT.CM.

UNUM64ERR

UNUM64ERR, Error: cannot convert VVVV value to 64 bit unsigned decimal or hexadecimal number

All GT.M Components Error: The entered value does not correspond to a valid unsigned decimal number or hexadecimal number representable in no more than 64 binary digits.

Action: Enter an appropriate decimal value or hexadecimal value starting with 0X, and using decimal integers 0-9 and ASCII letters A-F.

UPDATEFILEOPEN

UPDATEFILEOPEN, Update file open error

Run Time Error: This indicates that file permissions were either set incorrectly or replication was turned off.

Action: Review accompanying message(s) for addition information. Correcting accompanying messages should correct this message.

UPDPROC

UPDPROC, Update Process error

MUPIP Error: GT.M replication was not able to start the update process.

Action: Ensure that the gtm_dist environment variable points to a valid GT.M distribution that is executable by the user.

UPDREPLSTATEOFF

UPDREPLSTATEOFF, Error replicating global gggg as it maps to database xxxx which has replication turned OFF.

MUPIP Error: This indicates that the update process encountered an update record in the replication pipe that is destined for a non-replicated database file. GT.M does not allow such updates because they make the journal sequence numbers go out of sync between the replication primary and secondary.

After issuing the message, the update process shuts down immediately. No more updates are processed on the secondary until replication is turned ON in the mentioned database file.

Action: Shut down the secondary instance including the receiver server, passive source server and any other helper processes accessing this instance. Turn replication ON in the mentioned database. Restart the secondary instance. The update process should now be able to process the update successfully.

UPDSYNC2MTINS

UPDSYNC2MTINS, Can only UPDATERESYNC with an empty instance file

MUPIP Error: Issued by a Receiver Server started with the -UPDATERESYNC qualifier on a non-supplementary instance or on a Supplementary Instance started specifying the -UPDNOTOK qualifier, when the replication instance file on the Receiver side contains at least one history record. The purpose of -UPDATERESYNC is to unconditionally declare the instance state as a valid state in the set of current and prior states of the originating instance disregarding any history. Note that the receiver server on a Supplementary Instance started with -UPDOK does not issue this error.

Action: Verify that -UPDATERESYNC is appropriate and if so, recreate the instance file to discard the history then reissue the command. If the replication state is not a valid match to some available current or prior state of the originating instance, either do a normal resync or refresh the replicating instance to an appropriate state.

UPDSYNCINSTFILE

UPDSYNCINSTFILE, Error with instance file name specified in UPDATERESYNC qualifier

Receiver Server log/MUPIP Error: Issued by a Receiver Server when started with the -UPDATERESYNC qualifier in case of any error while processing the instance file specified as a value to this qualifier.

Action: An accompanying message, usually a GTM-I-TEXT message, describes the particular error situation. Take appropriate corrective action based on that.

USRIOINIT

USRIOINIT, User-defined device driver not successfully initialized

Run Time Error: This indicates that a user-implemented mnemonicspace driver image did not call the initialization entry in GT.M.

Action: Modify the user-supplied image to adhere to the mnemonicspace image-calling convention.

UTF16ENDIAN

UTF16ENDIAN, The device previously set UTF-16 endianness to cccc and cannot change to eeee

Run Time Error: GT.M does not permit changing endian ordering on an OPEN device.

Action: Check for a logic error and for appropriate device set up on the OPEN command. If the input has changed its characteristic, CLOSE and re-OPEN the device.

VALTOOBIG

VALTOOBIG, xxxx is larger than the maximum of yyyy for a zzzz

GDE Error: This indicates that GDE has encountered a qualifier value that exceeds the maximum allowed. xxxx is the value that is too big. yyyy is the maximum value accepted. zzzz is the qualifier.

Action: Specify a qualifier value that is less than the maximum allowed.

VALTOOLONG

VALTOOLONG, xxxx exceeds the maximum length of yyyy for a zzzz

GDE Error: This indicates that GDE encountered a value that exceeds the maximum length allowed for an object name or qualifier. xxxx is the value that is too long. yyyy is the maximum length. zzzz is the object-name or qualifier.

Action: Specify an object-name or qualifier that is shorter than the maximum length.

VALTOOSMALL

VALTOOSMALL, xxxx is less than the minimum of yyyy for a zzzz

GDE Error: This indicates that GDE encountered a value that is less than the minimum allowed for a qualifier. xxxx is the value that is too small. yyyy is the minimum limit. zzzz is the object-name or qualifier.

Action: Specify a value that is larger than the minimum requirement for the object-name or qualifier.

VALUEBAD

VALUEBAD, xxxx is not a valid yyyy

GDE Error: This indicates that GDE encountered something other than the valid syntax element it was expecting. xxxx is the invalid element. yyyy is the valid element type.

Action: Specify a valid element. This error occurs if GDE is expecting an element (such as a file-specification, qualifier, or number) but receives a value that does not evaluate to the expected element type.

VALUEREQD

VALUEREQD, Qualifier xxxx requires a value

GDE Error: This indicates that GDE encountered a qualifier with a missing value. xxxx is the qualifier with a missing value.

Action: Supply a value for the qualifier.

VAREXPECTED

VAREXPECTED, Variable expected in this context

Compile Time Error: This indicates that GT.M expected a variable but encountered an invalid one.

Action: Look for proper variable names. This error is reported by commands and functions that require a variable argument such as SET and KILL and \$DATA() and \$QUERY().

VARRECBLKSZ

VARRECBLKSZ, Blocksize must be at least record size + 4 bytes

Run Time Error: This indicates that an OPEN command attempted to initialize a variable-length magnetic tape or sequential disk file with a RECORDSIZE of less than 5 bytes.

Action: Modify the routine to use a larger record size or use FIXED length records. The minimum variable RECORDSIZE reflects a single byte of data and 4 bytes of overhead in every variable-length record.

VERIFY

VERIFY, Verification xxxx

GDE Information: This indicates that an EXIT or VERIFY command caused GDE to verify the GDE mappings. xxxx is "OK" if the verification was successful or "BAD" if the verification failed.

Action: If the mappings are valid, GDE displays a confirmation message. GDE terminates the GDE session if the verification is OK on an EXIT command. If the mappings are not valid, review the accompanying message(s) for additional information.

VERMISMATCH

VERMISMATCH, Attempt to access xxxx with version yyyy, while already using zzzz

Run Time Error: The database file xxxx is currently marked as in use by version (\$ZVERSION) zzzz, but the process attempted to access the database file with version yyyy. GT.M prevents this as different versions typically have some incompatibility in their use of the database file. This error may also occur when you make a copy of the database without performing a RUNDOWN and attempt to access it with a newer GT.M version.

Action: If you encounter this error while upgrading a database file, perform the appropriate MUPIP action using the prior GT.M version to ensure that there are no processes/semaphores attached to the database file.

VERSION

VERSION, Version mismatch - This program must be recompiled

Run Time Error: This indicates that the process attempted to activate a routine that was compiled with an incompatible version of GT.M.

Action: Recompile the routine or use a compatible version of GT.M.

VIEWAMBIG

VIEWAMBIG, View parameter xxxx is ambiguous

Run Time Error: This indicates that the argument xxxx for a VIEW command or \$VIEW function is ambiguous due to insufficient characters.

Action: Add enough characters to make the argument unambiguous.

VIEWARGCNT

VIEWARGCNT, View parameter xxxx has inappropriate number of subparameters

Run Time Error: The argument xxxx for a VIEW command or a \$VIEW function has too many or too few sub-arguments.

Action: Modify the argument so it has the proper number of sub-arguments.

VIEWARGTOOLONG

VIEWARGTOOLONG, The argument length LLLL to VIEW command vvvv exceeds the maximum mmmm

Run Time Error: An argument to the VIEW command vvvv has a length LLLL bytes that exceeds the maximum supported length of mmmm.

Action: Reduce the length of the VIEW command argument to no more than mmmm bytes.

VIEWCMD

VIEWCMD, View parameter pppp is not valid with the VIEW command

Run Time Error: This indicates that the VIEW command has an argument pppp that is only valid with the \$VIEW() function.

Action: Modify the argument.

VIEWFN

VIEWFN, View parameter pppp is not valid with the VIEW command

Run Time Error: This indicates that the \$VIEW() function has an argument pppp that is only valid with the VIEW command.

Action: Modify the argument.

VIEWGVN

VIEWGVN, Invalid global key name used with VIEW/\$VIEW(): xxxx

Run Time Error: This indicates that \$VIEW("REGION":gvn) failed because of an invalid global variable name xxxx in a sub-argument.

Action: Modify the sub-argument to be a valid M global variable name.

VIEWLVN

VIEWLVN, Invalid local variable name used with VIEW or \$VIEW(): vvvv

Run Time Error: This indicates the argument for a VIEW command or \$VIEW() function required a local variable name, but it (vvvv) was either missing or invalid.

Action: Correct the code in or investigate the logic to determine why the local variable in question is not in the expected state.

VIEWNOTFOUND

VIEWNOTFOUND, View parameter xxxx not valid

Run Time Error: This indicates that the VIEW command or \$VIEW() function has an invalid argument xxxx.

Action: Modify the argument.

VIEWREGLIST

VIEWREGLIST, \$VIEW() only handles the first region subparameter

Run Time Warning: \$VIEW() with a region subparameter only operates on a single region. This differs from the VIEW command which has similar arguments and accepts region-lists for regions. This error is a warning and the function attempts to act on the first region.

Action: If the requirement is for multiple regions, use multiple \$VIEW() invocations, perhaps in a loop.

VMSMEMORY

VMSMEMORY, Central memory exhausted - check page file quota and page file size

Run Time Error: This indicates that programs are requesting more memory than the system can provide with the current PAGEFILE settings.

Action: Adjusting the pagefile size and quota can increase memory efficiency. Refer to the Guide to VAX/OpenVMS Performance Management to determine appropriate pagefile settings.

VMSMEMORY2

VMSMEMORY2, Central storage exhausted during allocation of dynamic file descriptor with !UL bytes - check page file quota and page file size

Run Time Error: In OpenVMS, dynamic file descriptors used in external routine processing have their space allocated differently from other VMS memory. If one of these special allocations fails, this new version of the VMSMEMORY error is reported.

Action: Adjusting the pagefile size and quota can increase memory efficiency. Refer to the Guide to VAX/OpenVMS Performance Management to determine appropriate pagefile settings.

WAITDSKSPACE

WAITDSKSPACE, Process xxxx will wait aaaa seconds for necessary disk space to become available for yyyy

Run Time Error: This indicates that the database yyyy is full and cannot extend due to lack of space. All updates are suspended. Failure to address this message in the specified seconds will result in an OUTOFSPACE error.

Action: Immediately make enough space for the database to extend, and if the space is still not sufficient, stop all processes until more space is available. Examine your space management procedures and take actions to prevent any reoccurrence of this error.

WCBLOCKED

WCBLOCKED, Field xxxx is set by process yyyy at transaction number aaaa for database file zzzz

MUPIP Warning: This indicates that the current state of the global buffer cache necessitates the need for cache recovery. The next process to attempt obtaining the critical lock on the database will perform the recovery.

Action: Refer to the accompanying message(s).

WCERRNOTCHG

WCERRNOTCHG, Not all specified databases were changed

MUPIP Error: This indicates that SET could not modify database characteristics for at least one database.

Action: Review the accompanying message(s) for additional information.

WCFAIL

WCFAIL, The database cache is corrupt

Run Time Error: This indicates that a database operation failed because the cache was damaged.

Action: Report this database cache error to the group responsible for database integrity at your operation.

WCSFLUFAIL

WCSFLUFAIL, Error flushing buffers -- called from module MMMM at line LLLL

All GT.M Components Error: This indicates that an attempt to flush a buffer to disk failed.

Action: If the error persists, report this database error to the group responsible for database integrity at your operation.

WCWRNNOTCHG

WCWRNNOTCHG, Not all specified databases were changed

MUPIP Warning: This indicates that a SET command could not modify database characteristics for a particular database.

Action: Review the accompanying message(s) for additional information.

WEIRDSYSTIME

WEIRDSYSTIME, Time reported by the system clock is outside the acceptable range. Please check and correct the system clock.

Run Time Error: Time reported by the system clock is outside the acceptable range. Please check and correct the system clock

Action: GT.M requires the system time be set between January 1, 1970 00:00:00 UTC (the UNIX epoch) and September 27, 33658 01:46:40 UTC

WIDTHTOOSMALL

WIDTHTOOSMALL, WIDTH should be at least 2 when device ICHSET or OCHSET is UTF-8 or UTF-16.

Run Time Error: This error is issued whenever the ICHSET or OCHSET of the current terminal or file device is UTF-8 or UTF-16 and the WIDTH specified is 1. The minimum width allowed is 2 for such devices.

Action: Specify a width that is 2 or greater.

WILDCARD

WILDCARD, Wild cards are prohibited: xxxx

Run Time Error: This indicates that a \$ZROUTINES function that does not allow wild cards encountered one in xxxx.

Action: Replace the wild card with a specific directory name.

WRITEERROR

WRITEERROR, Cannot exit because of write failure. Reason for failure: xxxx.

GDE Error: This indicates that GDE was unable to write a new or revised global directory. xxxx text describes the failure.

Action: Review the text for additional information. If the failure is due to file permissions, it may be possible to correct it from the shell, accessed by means of the SPAWN command or another session. If the reason is not tractable, QUIT from GDE and re-invoke it after correcting the problem.

WRITERSTUCK

WRITERSTUCK, Buffer flush stuck waiting for concurrent writer PID pppp (mmmm of xxxx) to finish writing to database file dddd

Run Time Error: This indicates that GT.M timed out after waiting nearly a minute for process pppp to complete flushing modified global buffers to the disk in database file dddd. This message repeats for each mmmm of xxxx writers.

Action: This is usually symptomatic of a stressed I/O subsystem, where disk writes take a long time. System Administration might be warranted to improve the performance.

WRITEWAITPID

WRITEWAITPID, PID wwww waited mmmm minute(s) for PID hhhh to finish writing block bbbb in database file ffff

Run Time Warning: This operator log message indicates process `www` needed access to block `bbb` in database file `fff`, but had waited `mmm` minutes for process `hhh` to finish with that block. `mmm` exceeds the expected design criteria for the processing by `hhh`.

Action: Investigate the state and activities of process `hhh` (possibly using the `gtm_procstuckexec` facility); try to identify any coincident operating system, file system or storage sub-system issues that might contribute to this unexpected behavior.

XCRETNULLREF

XCRETNULLREF, Returned null reference from external call `LLL`

Call out Error: The code invoked as `externroutinename LLL` returned a NULL pointer. While GT.M accepts returns of a zero (0) value or an empty string, it does not support the return of a NULL pointer.

Action: Revise the external call code to return a pointer to an appropriate value.

XCVOIDRET

XCVOIDRET, Attempt to return a value from function `xxxx`, which is declared void in external call table `yyy`

Run Time Error: This indicates that the specified function was typed as void in call table `yyy`, but when the function was executed it attempted to return a value.

Action: Modify either the function to make it void, or the table to declare the proper type for the function.

XKILLCNTEXC

XKILLCNTEXC, Maximum number of arguments (`xxxx`) to exclusive kill exceeded

Compile Time Error: This indicates that a KILL command specified a list of exclusive arguments that require more temporary storage than is available. `xxxx` is the number of KILL arguments.

Action: Modify the routine to use an inclusive KILL or reduce the number of "protected" variables.

XTRNRETSTR

XTRNRETSTR, Return string from extended reference translation algorithm is NULL.

Run Time Error: This indicates that NULL was returned instead of a string from the user specified global variable name environment translation routine.

Action: Correct the user environment translation algorithm to return a string (which can be empty). Restart GT.M for the changes to become effective.

XTRNRETVAL

XTRNRETVAL, Length of return value from extended reference translation algorithm is out of bound

Run Time Error: This indicates that the return string from the user specified global variable name environment translation routine is of an invalid length (i.e. greater than 32767).

Action: Correct the user environment translation algorithm to return a string of valid length (in the 0-32767 range). Restart GT.M for the changes to become effective.

XTRNTRANSDLL

XTRNTRANSDLL, Error during extended reference environment translation. Please check the above message.

Run Time Error: This indicates that the external object (dynamically linked library in UNIX /sharable image in OpenVMS), which holds the global variable name environment translation routine, or the entry point `gtm_env_translate` in this object, is not accessible.

Action: Check if the value of the `gtm_env_translate` (UNIX: environment variable, OpenVMS: logical name) points to a valid object (UNIX: dll or OpenVMS: sharable image), which has the entry point `gtm_env_translate`.

XTRNTRANSERR

XTRNTRANSERR, Error attempting to generate an environment using an external algorithm.

Run Time Error: This indicates that the external environment translation routine returned an error.

Action: Check the external routine and the conditions it errors on. A supplementary TEXT message is printed if more information is provided by the external environment translation routine.

ZATRANSCOL

ZATRANSCOL, The collation requested has no implementation for the requested operation

Run Time Error: The `$ZATTRANSFORM()` function requested a next or previous collation character, but the collation transform module involved does not implement that functionality.

Action: Enhance the collation transform plug-in in question to support the desired functionality

ZATRANSERR

ZATRANSERR, The input string is too long to convert

Run Time Error: The first (expression) argument to a `$ZATTRANSFORM()` produces a result that exceeds the maximum key length.

Action: Analyze the logic to determine if the argument is correct. If you need to produce translations that exceed the maximum key length, you must use \$ZCOLLATE() or break them into chunks to avoid this error, Note that some transforms may use context such that selecting the chunks requires an understanding of the transform.

ZATTACHERR

ZATTACHERR, Error attaching to xxxx

Run Time Error: This indicates that a ZATTACH command failed because the argument specified a process xxxx that did not exist or was otherwise ineligible for attachment.

Action: Verify that the process exists within the job. Verify the spelling of the process name.

ZBREAKFAIL

ZBREAKFAIL, Could not set breakpoint at xxxx due to insufficient memory

Run Time Information: This indicates that a ZBREAK command failed to set a breakpoint at the entry reference xxxx due to lack of memory. No breakpoint will be effective when control reaches the given entry reference.

Action: Check for very large local variables. The memory requirement for ZBREAK is proportional to the size of the routine containing the entry reference. If the routine is large, divide the routine into smaller routines thereby reducing the memory requirement for ZBREAK. If appropriate, increase the memory quota for the user.

ZCALLTABLE

ZCALLTABLE, External call: Table format error

Run Time Error: This indicates that an external call or \$ZCALL() function encountered an error in the external call table.

Action: Modify the external call table. This message is usually displayed with another message.

ZCARGMSMTCH

ZCARGMSMTCH, External call: Actual argument count, xxxx is greater than formal argument count, yyyy

Run Time Error: This indicates that an external call or \$ZCALL() function specified xxxx arguments, which is more than the number yyyy, which is defined by the corresponding external call table entry.

Action: Ensure that the number of arguments in the external call matches the number of arguments in the external call table.

ZCCLNUPRTNMISNG

ZCCLNUPRTNMISNG, External call: Cleanup routine name missing. Cannot continue

Run Time Error: This error occurs when there is no value assigned to the GTMSLIBEXIT (shared library exit handler keyword) in the external call table.

Action: Either remove the line that contains GTMSLIBEXIT= or provide a suitable function name in the external call table.

ZCCOLON

ZCCOLON, Colon expected but not found

Run Time Error: This indicates that there is a syntax error in the table designated by the accompanying message.

Action: Refer to the accompanying message(s) and correct the syntax error.

ZCCONMSMTCH

ZCCONMSMTCH, External call: Too many input arguments

Run Time Error: This indicates that an external call or \$ZCALL() function specifies more input arguments than the matching entry in the external call table.

Action: Ensure that the number of input arguments in the external call matches the number of input arguments in the external call table.

ZCCONVERT

ZCCONVERT, External call: error converting output argument

Run Time Error: This indicates that an external call or \$ZCALL() function failed because an output argument supplied by the external routine did not match the corresponding output description in the external call table.

Action: Change the external call table or the called routine so that they correspond.

ZCCSQRBR

ZCCSQRBR, Closing Square bracket expected

Compile Time Error: Brackets specify the beginnings and ends of pre-allocations. This error indicates that a pre-allocation was begun with a bracket, but was not closed.

Action: Correct the syntax by placing a closing square bracket at the end of the pre-allocation.

ZCCTENV

ZCCTENV, Environmental variable for external package xxxx not set

Compile Time Error: This indicates that the program made an external call, but could not find the external call table as specified in the UNIX environmental variable GTMXC.

Action: If this calls the default external call table, locate the external call table and specify the correct path in the UNIX environmental variable GTMXC. Otherwise, you can point to the package table in the environmental variable or specify the package name in the program GTMXC_[PACKAGE_NAME].

ZCCTNULLF

ZCCTNULLF, External call table contains no records: xxxx

Compile Time Error: This indicates that the program found the requested call table, but could not find external call data.

Action: Verify that the program calls the correct call table. If the table name is correct, add external call data.

ZCCTOPN

ZCCTOPN, Unable to open external call table: xxxx

Compile Time Error: This indicates that the program found the external call table but did not have permission to open it.

Action: Verify that the external call table and the user have appropriate permissions.

ZCENTNAME

ZCENTNAME, No entry found in external call table

Run Time Error: This indicates that the entry point, which the program is trying to access cannot be found.

Action: Create a corresponding entry point and match that link with the interface found in the C library.

ZCINPUTREQ

ZCINPUTREQ, External call: Required input argument missing

Run Time Error: This indicates that an external call or \$ZCALL function did not specify an input argument that is defined in the external call table as required.

Action: Change the external call table or the called routine so that they correspond.

ZCINVALIDKEYWORD

ZCINVALIDKEYWORD, External call: Invalid keyword found. Cannot continue. Invalid keyword encountered in the ext call config file.

Run Time Error: This error occurs when the keyword for the shared library exit handler configuration is wrongly spelled. The correct keyword is "GTMSHLIBEXIT".

Action: Make sure that GTMSHLIBEXIT is correctly spelled in the external call table.

ZCMAXPARAM

ZCMAXPARAM, Exceeded maximum number of external call parameters

Run Time Error: GT.M allows a maximum of 31 parameters for a single external call. This error message indicates that the external call has exceeded this number.

Action: Break up the external call into two or more external calls or rewrite the program to pass a valid number of parameters.

ZCMLTSTATUS

ZCMLTSTATUS, Multiple entries of xc_status in a single entry in external call table

Run Time Error: This indicates that a call definition contains more than one XC_STATUS.

Action: Check parameters for multiple occurrences of TYPE XC_STATUS.

ZCNOPREALLOUTPAR

ZCNOPREALLOUTPAR, Parameter xxxx in external call yyyy.zzzz is an output only parameter requiring pre-allocation.

Run Time Error: This indicates that a pre-allocation value was not specified for the output only parameter xxxx in package yyyy, external call zzzz.

Action: Specify a pre-allocation value for the output only parameter xxxx. A package designation of "<DEFAULT>" indicates the default package rather than an actual package name.

ZCOPT0

ZCOPT0, External call: Qualifier OPTIONAL_0 can be used only with mechanisms REFERENCE or DESCRIPTOR

Run Time Error: This indicates that an external call or \$ZCALL function encountered an external call table input line that contained an OPTIONAL_0 QUALIFIER with a MECHANISM other than REFERENCE or DESCRIPTOR.

Action: Verify the type and spelling of the specified argument-passing mechanism in the external call table entry.

ZCPOSOVR

ZCPOSOVR, External call: Invalid overlapping of arguments in table position xxxxx

Compile Time/Run Time Error: This indicates that an external call or \$ZCALL function encountered input and output descriptions for the same position, but one or both descriptions had invalid mechanisms or types.

Action: Modify the mechanism type and/or position it to remove the conflict.

ZCPREALLNUMEX

ZCPREALLNUMEX, Pre-allocation value should be a decimal number

Compile Time Error: This indicates that GT.M can only accept pre-allocation values between zero (0) to nine (9).

Action: Specify a pre-allocation value between zero and nine.

ZCPREALLVALINV

ZCPREALLVALINV, The pre-allocation value exceeded the maximum string length

Run Time Error: Pre-allocation value of an output parameter in the external call table is greater than the maximum allowed limit (i.e. maximum string size plus one byte for terminating NULL).

Action: In the external call table, modify the pre-allocation value to less than or equal to 1,048,577.

ZCPREALLVALPAR

ZCPREALLVALPAR, Pre-allocation allowed only for variables passed by reference

Compile Time Error: This indicates that the program specified a pre-allocation for a scalar variable passed by value.

Action: Determine if the program should use a pre-allocation or should be passed by value. If it uses a pre-allocation, the variable must be passed by reference. If the variable must be passed by value, the program cannot use a pre-allocation for that variable.

ZCRCALLNAME

ZCRCALLNAME, Routine name expected but not found

Run Time Error: This indicates that the compiler encountered an open parenthesis (indicating that parameters are listed, but found no function, which the parameters could modify.

Action: Check that the function name has been specified correctly. The function may not have been created, or the program uses an incorrect function name, or the function name may be missing.

ZCRPARAMNAME

ZCRPARAMNAME, Parameter name expected but not found

Run Time Error: This indicates that the program specified a direction and included a colon indicating that parameters would follow, but no parameters were found.

Action: The compiler indicates where the error occurred. Review the code to determine if parameters are needed or the colon should be removed.

ZCRTENOTF

ZCRTENOTF, External call routine xxxx not found

Compile Time/Run Time Error: This indicates that GT.M could not locate routine xxxx.

Action: Action In OpenVMS, relink your image to include the missing routine. In UNIX, relink your external call descriptor image to include the missing routine.

ZCRTNTYP

ZCRTNTYP, Unknown return type

Compile Time Error: This indicates that the program specified an unrecognized return type. The compiler indicates where the invalid return type was found.

Action: Review the external calls table documentation for valid return types.

ZCSTATUS

ZCSTATUS, External call: Unsuccessful return status

Run Time Error: This indicates that an external call or \$ZCALL() function failed because the status returned by the external routine indicates that the routine did not execute successfully.

Action: Review the external routine and the arguments passed to it. Ensure that the routine is following the OpenVMS calling standard in returning the status.

ZCSTATUSRET

ZCSTATUSRET, External call returned error status

Run Time Error: This indicates that the called program may contain a logic error.

Action: Review accompanying messages for more information about the cause of this error.

ZCUNAVAIL

ZCUNAVAIL, Package, xxxx unavailable

Run Time Error: This indicates that the shared library may not be specified in the external call table or the path may be specified incorrectly.

Action: Verify that the external call table and the program point to the correct shared library and path.

ZCUNKMECH

ZCUNKMECH, External call: Unknown parameter-passing mechanism

Run Time Error: This indicates that an external call or \$ZCALL() function encountered an unsupported argument-passing MECHANISM in the external call table.

Action: Verify the spelling of the argument-passing MECHANISM values in the external call table.

ZCUNKQUAL

ZCUNKQUAL, External call: Unknown input qualifier

Run Time Error: This indicates that an external call or \$ZCALL() function encountered an unsupported input QUALIFIER in the external call table.

Action: Verify the spelling of the input QUALIFIER value in the external call table.

ZCUNKTYPE

ZCUNKTYPE, External call: Unknown argument type

Run Time Error: This indicates that an external call or \$ZCALL() function encountered an unsupported argument TYPE in the external call table.

Action: Verify the spelling of the argument TYPE in the external call table.

ZCUNTYPE

ZCUNTYPE, Unknown type entered

Run Time Error: This indicates that the program used an invalid external call parameter.

Action: Refer to the Programmer's Guide for valid external call parameters.

ZCUSRRTN

ZCUSRRTN, External call: Run-time error in user routine

Run Time Error: This indicates that an external call or \$ZCALL() function failed because the external routine produced an OpenVMS error condition and terminated abnormally.

Action: Review and debug the external routine.

ZCVECTORINDX

ZCVECTORINDX, Invalid Vector Index xxxx

Run Time Error: This indicates that GT.M can only accept positive values for vector index.

Action: Specify a valid vector index.

ZCWRONGDESC

ZCWRONGDESC, A string longer than 65535 is passed via 32-bit descriptor

Run Time Error: A string size greater than 65,535 byte was passed while the input mechanism is descriptor.

Action: Modify the external call table's input mechanism to be descriptor64 instead of descriptor and modify the called routine to handle the new descriptor type.

ZDATEBADDATE

ZDATEBADDATE, \$ZDATE() date argument dddd is less than -365 (the \$HOROLOG value for 01-JAN-1840) or greater than 364570088 (the \$HOROLOG value for 31-DEC-999999)

Run Time Error: The value of the date portion of the argument dddd to \$ZDATE() is outside the range of values the function handles.

Action: Examine the code that created the value of dddd for errors or revise the design to create dates within the range supported by \$ZDATE().

ZDATEBADTIME

ZDATEBADTIME, \$ZDATE() time argument tttt is less than 0 or greater than 86399 (the \$HOROLOG value for a second before midnight)

Run Time Error: The value of the time portion of the argument tttt to \$ZDATE() is outside the range of values the function handles.

Action: Examine the code that created the value of tttt for errors or revise the design to create times within the range supported by \$ZDATE().

ZDATEFMT

ZDATEFMT, \$ZDATE format string contains invalid character

Run Time Error: This indicates that a \$ZDATE() function specified a second argument that contains one or more invalid format characters.

Action: Verify the \$ZDATE() format.

ZDIROUTOFSYNC

ZDIROUTOFSYNC, \$ZDIRECTORY xxxx is not the same as its cached value yyyy

Run Time Warning: For performance purposes, GT.M caches the value of \$ZDIRECTORY when it is modified using SET command. This cached value is passed to external environment translation routine. GT.M issues ZDIROUTOFSYNC error when \$ZDIRECTORY is referenced and its cached value differs from the current working directory. This might happen if an external routine called from GT.M modifies the current working directory and the application does not modify \$ZDIRECTORY to the modified directory.



Note

ZSHOW of intrinsic special variables appends ->%GTM-W-ZDIROUTOFSYNC error to the text corresponding to the \$ZDIRECTORY if the out of sync condition is detected.

Action: Avoid changing the current working directory except with SET \$ZDIRECTORY, or ensure that SET \$ZDIRECTORY is used along with the other mechanisms.

ZEDFILSPEC

ZEDFILSPEC, Illegal ZEDIT file specification: xxxx

Run Time Error: This indicates that a ZEDIT command argument contains a file-specification that could not be parsed or is not a valid type for ZEDIT.

Action: Look for an attempt to edit a ./OBJ file.

ZFF2MANY

ZFF2MANY, Number of characters specified for ZFF deviceparameter (xxxx) is more than the allowed (yyyy)

Run Time Error: This indicates that the number of characters specified for ZFF deviceparameter for the socked device being OPEND (or USEd) exceeds the maximum allowed.

Action: Modify the string specified for ZFF to have a length of at most the maximum allowed.

ZFILEMTOOLONG

ZFILEMTOOLONG, xxxx is longer than 255 characters

Run Time Error: This indicates that a \$ZFILE() function argument exceeded 255 characters. xxxx is the length of the file-specification supplied.

Action: Modify the file-specification argument.

ZFILKEYBAD

ZFILKEYBAD, xxxx is not a legal keyword for \$ZFILE()

Run Time Error: This indicates that a \$ZFILE() function specified the invalid keyword xxxx.

Action: Review the routine for correct spelling and the validity of keywords.

ZFILNMBAD

ZFILNMBAD, xxxx is not a legal file name

Run Time Error: This indicates that a \$ZFILE() function argument supplied an invalid file-specification xxxx.

Action: Look for invalid characters or improper punctuation within the file-specification.

ZGBLDIRACC

ZGBLDIRACC, Cannot access global directory xxxx. Continuing with yyyy.

Run Time Error: This indicates that a SET of a \$ZGBLDIR or external global reference specified a Global Directory (xxxx) that does not exist or cannot be accessed due to permissions. GT.M retains the previous Global Directory (yyyy).

Action: Ensure that you specified the intended Global Directory. Use a host shell command to verify that the specified directory exists and has the protections required for the desired access.

ZGOCALLOUTIN

ZGOCALLOUTIN, ZGOTO level 0 with entry ref not valid when using call-ins

Call in/Run Time Error: Code invoked by a call-in contained a ZGOTO 0:entryref. The purpose of a ZGOTO 0:entryref is to "refresh" the GT.M routine context, but that action would invalidate the interface with the calling (in) code.

Action: Refactor the code invoked by the call-in to avoid or appropriately conditionalize the ZGOTO 0:entryref.

ZGOTOINVLVL

ZGOTOINVLVL, ZGOTO in a trigger running in mmmm cannot ZGOTO level LLLL

MUPIP Error: A ZGOTO command in trigger logic attempted to specify an inappropriate destination. Currently that is a ZGOTO in a trigger context with a target level of one (1) and an entryref. GT.M does not support such ZGOTO arguments in MUPIP because there is no context outside that of the trigger.

Action: Revise the trigger logic to only use ZGOTO with an entryref within the trigger context of trigger logic. Note that you can ZGOTO out of a trigger, but doing so in MUPIP terminates the MUPIP process. FIS recommends limiting the use of ZGOTO to debugging, error handling and testing. Use of ZGOTO in production code, even for error processing, should always be thoroughly tested.

ZGOTOINVLVL2

ZGOTOINVLVL2, ZGOTO 0:entryref is not valid on VMS (UNLINK is a UNIX only feature)

Run Time Error: Because the GT.M OpenVMS environment includes links performed by the OpenVMS Linker, GT.M does not support this construct on OpenVMS.

Action: Refactor the code to avoid or appropriately conditionalize the ZGOTO 0:entryref.

ZGOTOLTZERO

ZGOTOLTZERO, Cannot ZGOTO a level less than zero

Run Time Error: This indicates that a ZGOTO specified a negative level in its argument.

Action: Ensure that the ZGOTO level is between zero (0) and the current \$ZLEVEL.

ZGOTOTOOBIG

ZGOTOTOOBIG, Cannot ZGOTO a level greater than present level

Run Time Error: This indicates that ZGOTO command specified a level greater than the current stack depth.

Action: Check the source of the level. The level argument of a ZGOTO indicates the depth the stack is to be after the ZGOTO, which cannot be greater than the current stack depth. The only way to increase stack depth is by performing DOs or XECUTEs.

ZINTDIRECT

ZINTDIRECT, Attempt to enter direct mode from \$ZINTERRUPT

Run Time Error: A \$ZINTERRUPT routine cannot break to direct mode if the current IO device is the same as \$PRINCIPAL.

Action: Modify the \$ZINTERRUPT routine to not break to direct mode.

ZINTRECURSEIO

ZINTRECURSEIO, Attempt to do IO to the active device in \$ZINTERRUPT

Run Time Error: A \$ZINTERRUPT routine cannot perform I/O to the current IO device if it was active when the interrupt was recognized and the device is a terminal, socket device, FIFO, or PIPE.

Action: Modify the \$ZINTERRUPT routine to not perform I/O to the active device.

ZLINKFILE

ZLINKFILE, Error while ZLINKing "xxxx"

Run Time Error: This indicates that ZLINK command failed while trying to include routine xxxx in the image.

Action: Use host shell commands to ensure that the file to be ZLINKed is in the proper directory and has the appropriate protection. Review the accompanying message(s) for additional information.

ZLKIDBADARG

ZLKIDBADARG, The tvexpr must be FALSE if last ZLKID not found

Run Time Error: This indicates that a \$ZLKID() function specified an argument that was TRUE when no active OpenVMS lock scan was in progress.

Action: Ensure that \$ZLKID() is initialized with a FALSE truth-valued expression. \$ZLKID() cannot be invoked with a TRUE truth-valued expression unless the last \$ZLKID() returned a lock. If the function has not been previously invoked, it must be first invoked with a FALSE truth-valued expression.

ZLMODULE

ZLMODULE, Object file name does not match module name: xxxx

Run Time Error: This indicates that GT.M did not perform a ZLINK or an auto-ZLINK because the name of the object file specified with the ZLINK xxxx is not the same as the name of the source file.

Action: Look for and correct any typographical errors in the object file specified for the ZLINK, or assign the same name to the source and object.

ZLNOBJECT

ZLNOBJECT, No object module was produced

Run Time Error: This indicates that a run-time compile specified a NOOBJECT qualifier. This can be accomplished with a ZLINK qualifier or by setting \$ZCOMPILE to a qualifier string that GT.M uses for auto-ZLINKs or ZLINKs with no qualifiers.

Action: Remove the NOOBJECT qualifier.

ZPARSETYPE

ZPARSETYPE, Illegal TYPE argument to \$ZPARSE(): xxxx

Run Time Error: This indicates that a \$ZPARSE() function specified a type argument xxxx that was not a null string, SYNTAX_ONLY, or NO_CONCEAL.

Action: Verify the spelling of the keyword.

ZPARSFLDBAD

ZPARSFLDBAD, Illegal \$ZPARSE() field parameter: xxxx

Run Time Error: This indicates that a \$ZPARSE() function specified a field argument xxxx that was not NODE, DEVICE, DIRECTORY, NAME, TYPE, or VERSION.

Action: Verify that the keyword is spelled correctly.

ZPEEKNOJNLINFO

ZPEEKNOJNLINFO, \$ZPEEK() unable to access requested journal structure - region rrrr is not currently journaled

Run Time Error: A \$ZPEEK() invocation requested journal related information on region rrrr, but that region does not currently have journaling enabled and on. Note that if the process has not updated the database region, or used a VIEW or \$VIEW() referencing the region, some fields may have a value of zero (0).

Action: Use \$VIEW("JNLACTIVE",region) to determine that journaling is enabled and on for a region before attempting to access its journal-related information.

ZPEEKORPLINFO

ZPEEKORPLINFO, \$ZPEEK() unable to access requested replication structure

Run Time Error: The replication structure specified in the mnemonic is not available to this process because either replication is not running or, in the case of receive pool type requests, is not running on a non-primary where such control blocks are available.

Action: Only fetch replication values when replication is active and if accessing gtmrecv.* fields, do not run on a primary.

ZPIDBADARG

ZPIDBADARG, The tvexpr must be FALSE if last \$ZPID() not found

Run Time Error: This indicates that a \$ZPID() function specified an argument that was TRUE when no active PID scan was in progress.

Action: Review the routine to ensure that \$ZPID() is first initialized with a FALSE truth-valued expression. \$ZPID() cannot be invoked with a TRUE truth-valued expression unless the last \$ZPID() returned a PID. If it has not been previously invoked, it must be first invoked with a FALSE truth-valued expression.

ZPRIVARGBAD

ZPRIVARGBAD, xxxx is not a legal privilege for \$ZPRIV()

Run Time Error: This indicates that a \$ZPRIV() function specified an argument xxxx that contains a keyword that is not a valid OpenVMS privilege.

Action: Review for spelling errors or invalid privileges.

ZPRIVSYNTAXERR

ZPRIVSYNTAXERR, Privilege string cannot end with a comma

Run Time Error: This indicates that a \$ZPRIV() function specified a list of privileges that ended with a comma.

Action: Look for a missing keyword or an extra comma. The form for a \$ZPRIV() argument is a string of OpenVMS privilege keywords separated by commas. The list must begin and end with a keyword.

ZPRTLBNOTFND

ZPRTLBNOTFND, Label not found in routine

Run Time Error: This indicates that a ZPRINT command specified a label that could not be found in the routine.

Action: Verify the spelling of the label. Ensure that the current version of the program has the label by ZPRINTing the entire routine.

ZROSYNTAX

ZROSYNTAX, \$ZROUTINES syntax error: xxxx

Syntax/Run Time Error: This indicates that a \$ZROUTINES related action encountered syntax error xxxx.

Action: Modify the UNIX environment variable gtmroutines/OpenVMS logical name GTM\$ROUTINES or the expression being SET into \$ZROUTINES.

ZSETPRVARGBAD

ZSETPRVARGBAD, xxxx is not a legal privilege for \$ZSETPRIV()

Run Time Error: This indicates that a \$ZSETPRIV() function specified an argument xxxx that contains a keyword that is not a valid OpenVMS privilege.

Action: Look for spelling errors or invalid privileges.

ZSETPRVSYNTAX

ZSETPRVSYNTAX, \$ZSETPRIV() privileges string cannot end with a comma

Run Time Error: This indicates that \$ZSETPRIV() function specified a list of privileges that ended with a comma.

Action: Look for a missing keyword or an extra comma. The form for a \$ZSETPRIV() argument is a string of OpenVMS privilege keywords separated by commas. The list must begin and end with a keyword.

ZSHOWBADFUNC

ZSHOWBADFUNC, An illegal function was specified for ZSHOW

Run Time Error: This indicates that ZSHOW argument code specified an invalid action.

Action: Modify the argument to use a valid code.

ZSHOWGLOSMALL

ZSHOWGLOSMALL, Global output variable is too small for ZSHOW output

Run Time Error: This indicates that SHOW could not place data in a target global variable because the record size for the database file that holds the region containing the variable was too small to accommodate the ZSHOW output.

Action: Use a global output variable in a less restrictive region, or reorganize the database and increase the value of the qualifier RECORD_SIZE= in the Global Directory.

ZSOCKETATTR

ZSOCKETATTR, Attribute "xxxx" invalid for \$ZSOCKET function msg name

Run Time Error: This indicates the named attribute is not recognized for the \$ZSOCKET function.

Action: Check for spelling, review the documented list of available attributes and adjust the attribute argument.

ZSOCKETNOTSOCK

ZSOCKETNOTSOCK, \$ZSOCKET function called but device is not a socket

Run Time Error: The code invoked the \$ZSOCKET() function with a device which is not a Socket Device.

Action: Review device usage and revise as appropriate.

ZSRCHSTRMCT

ZSRCHSTRMCT, Search stream identifier out of range

Run Time Error: This indicates that \$ZSEARCH() function specified a stream less than 1 or greater than 255.

Action: Change the stream value to be within the range of 1-255.

ZSTEPARG

ZSTEPARG, ZSTEP argument expected

Compile Time Error: This indicates that ZSTEP command did not specify an argument or a <SP> to hold the place of the missing argument.

Action: Modify the ZSTEP command so it has an argument or a trailing double space.

ZTIMEOUT

ZTIMEOUT, ZTIMEOUT Time expired

Run Time Warning: This warning message appears when \$ZTIMEOUT expires and there were no vectors defined. If no error handlers are defined, GT.M invokes the default trap which puts the control to Direct Mode .

Action: Check the message(s) for more information on where the timer expired in the current process. If needed, set an appropriate error handler to specify an action associated with \$ZTIMEOUT expiry or define a \$ZTIMEOUT with a vector.

ZTRIGINVACT

ZTRIGINVACT, Missing or invalid subcode (first) parameter given to \$ZTRIGGER()

Trigger/Run Time Error: The first argument to \$ZTRIGGER() is required to specify its mode of action.

Action: for the first argument of \$ZTRIGGER() use an expression that evaluates to "FILE", "ITEM" or "SELECT".

ZTRIGNOTP

No longer in GT.M since: V5.4-001

ZTRIGNOTP, \$ZTRIGGER() cannot use update subcodes FILE or ITEM when a TP transaction is in progress (\$TLEVEL greater than zero)

Trigger/Run Time Error: A FILE or ITEM operation of \$ZTRIGGER() failed because it attempted to apply a trigger definition inside an ongoing transaction. Both FILE and ITEM operations of \$ZTRIGGER initiate an implicit transaction to achieve trigger update atomicity, therefore, GT.M does not allow nesting them inside another transaction that potentially might use the very triggers \$ZTRIGGER() is attempting to update.

Action: Move all FILE or ITEM operations of \$ZTRIGGER() outside the scope of any open transaction.

ZTRIGNOTRW

ZTRIGNOTRW, ZTRIGGER cannot operate on read-only region rrrr

Run Time Error: This error occurs when ZTRIGGER attempts to write to read-only region rrrr.

Action: Check for appropriate global directory mapping and appropriate permissions on the database file mapped to region rrrr.

ZTWORMHOLE2BIG

ZTWORMHOLE2BIG, String length of LLLL bytes exceeds maximum length of mmmm bytes for \$ZTWORMHOLE

Trigger/Run Time Error: GT.M limits \$ZTWORMHOLE length to mmmm bytes and the application attempted to use LLLL bytes.

Action: Restrict the size of the string stored in \$ZTWORMHOLE to mmmm bytes. Ensure that \$ZTWORMHOLE only holds the information that the application needs during trigger execution. If

necessary, reorganize the logic to reduce the amount of local context needed during trigger execution, possibly by using global variables.

ZWRSPONE

ZWRSPONE, Subscript patterns in ZWRITE are atomic; Invalid delimiter

Compile Time Error: This indicates that ZWRITE specification contained a pattern match that held or terminated with a punctuation character that was not within a string literal.

Action: Look for missing quotes or typographical errors and make any corrections that are necessary.

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Appendix A. Error Message Quick Reference

Standard Error Codes

<i>Standard Code</i>	<i>GT.M Message(s)</i>
M1 , Naked indicator undefined	<ul style="list-style-type: none"> GVNAKED, Illegal naked global reference
M2 , Invalid combination with P _fncodatom_	None
M3 , \$RANDOM seed less than 1	<ul style="list-style-type: none"> RANDARGNEG, Random number generator argument must be greater than or equal to one
M4 , No true condition in \$SELECT	<ul style="list-style-type: none"> SELECTFALSE, No argument to \$SELECT was true
M5 , _lineref_ less than zero	<ul style="list-style-type: none"> TEXTARG, Invalid argument to \$TEXT function
M6 , Undefined _lvn_	<ul style="list-style-type: none"> UNDEF, Undefined local variable: xxxx
M7 , Undefined _gvn_	<ul style="list-style-type: none"> GVUNDEF, Global variable undefined: xxxx
M8 , Undefined _svn_	<ul style="list-style-type: none"> INVSVN, Invalid special variable name
M9 , Divide by zero	<ul style="list-style-type: none"> DIVZERO, Attempt to divide by zero
M10 , Invalid pattern match range	<ul style="list-style-type: none"> PATCODE, Illegal syntax for pattern PATUPPERLIM, Pattern code upper limit is less than lower limit
M11 , No parameters passed	<ul style="list-style-type: none"> FALLINTOFLST, Fall-through to a label with formallist is not allowed
M12 , Invalid _lineref_ (negative offset)	<ul style="list-style-type: none"> GVNAKED, Illegal naked global reference
M13 , Invalid _lineref_ (label not found)	<ul style="list-style-type: none"> JOBLABOFF, Label and offset not found in created process LABELMISSING, Label referenced but not defined : xxxx LABELNOTFND, GOTO referenced a label that does not exist LABELUNKNOWN, Label referenced but not defined OFFSETINV, Entry point xxxx+yyyy not valid ZPRTLABNOTFND, Label not found in routine
M14 , _line_ level not 1	None

<i>Standard Code</i>	<i>GT.M Message(s)</i>
M15 , Undefined index variable	None
M16 , Argumented QUIT not allowed	<ul style="list-style-type: none"> • NOTEXTRINSIC, Quit does not return to an extrinsic function, argument not allowed • QUITARGLST, Quit cannot take a list of arguments • QUITARGUSE, Quit cannot take an argument in this context
M17 , Argumented QUIT required	<ul style="list-style-type: none"> • QUITARGREQD, Quit from an extrinsic must have an argument
M18 , Fixed length READ not greater than zero	<ul style="list-style-type: none"> • RDLFTOOSHORT, Length specified for fixed length read less than or equal to zero
M19 , Cannot copy a tree or subtree into itself	<ul style="list-style-type: none"> • MERGEDESC, Merge operation not possible. xxxx is descendent of yyyy.
M20 , <code>_line_</code> must have <code>_formallist_</code>	None
M21 , Formal parameter occurs multiple times (original text: Algorithm specification invalid)	None
M22 , SET or KILL to <code>^\$GLOBAL</code> when data in global	None
M23 , SET or KILL to <code>^\$JOB</code> for non-existent job number	None
M24 , Change to collation algorithm while subscripted local variables defined	None
M25 , Attempt to modify currently executing routine	None
M26 , Non-existent <code>_environment_</code>	None
M27 , Attempt to rollback a transaction that is not restartable	None
M28 , Mathematical function, parameter out of range	None
M29 , SET or KILL on <code>_ssvn_</code> not allowed by implementation	None
M30 , Reference to <code>_glvn_</code> with different collating sequence within a collating algorithm	None
M31 , <code>_controlmnemonic_</code> used for device without a <code>_mnemonicspace_</code> selected	None
M32 , <code>_controlmnemonic_</code> used in user-defined <code>_mnemonicspace_</code> which has no associated line	<ul style="list-style-type: none"> • RANDARGNEG, Random number generator argument must be greater than or equal to one

<i>Standard Code</i>	<i>GT.M Message(s)</i>
M33 , SET or KILL to ^\$ROUTINE when _routine_ exists	None
M34 , --- currently unassigned ---	None
M35 , Device does not support _mnemonicspace_	<ul style="list-style-type: none"> • INVMNEMCSPC, Unsupported mnemonicspace xxxx
M36 , Incompatible _mnemonicspace_s	None
M37 , READ from device identified by the empty string	None
M38 , Invalid _ssvn_ subscript	None
M39 , Name of variable expected (original text: Invalid \$NAME argument)	<ul style="list-style-type: none"> • VAREXPECTED, Variable expected in this context
M40 , Call-by-reference in JOB _actual_	<ul style="list-style-type: none"> • JOBACTREF, Actual parameter in job command passed by reference
M41 , Invalid LOCK argument within a TRANSACTION	<ul style="list-style-type: none"> • TPLOCK, Cannot release lock(s) held prior to current TSTART
M42 , Invalid QUIT within a TRANSACTION	<ul style="list-style-type: none"> • SELECTFALSE, No argument to \$SELECT was true
M43 , Invalid range (\$X, \$Y)	None
M44 , Invalid _command_ outside of a TRANSACTION	<ul style="list-style-type: none"> • TLVLZERO, Transaction is not in progress • TRANSNOSTART, ZTCOMMIT(s) issued without corresponding ZTSTART(s)
M45 , Invalid GOTO reference	None
M46 , Invalid attribute name	None
M47 , Invalid attribute value (original text: Invalid attribute name)	None
M48 , Nonexistent window, element or choice	None
M49 , Invalid attempt to set focus	None
M50 , Attempt to reference a non M-Term window in an OPEN command	None
M51 , Attempt to destroy M-Term window prior to CLOSE	None
M52 , Required attribute missing	<ul style="list-style-type: none"> • TEXTARG, Invalid argument to \$TEXT function
M53 , Invalid argument for font function	None

<i>Standard Code</i>	<i>GT.M Message(s)</i>
M54 , Attempt to create non-modal child of a modal parent	None
M55 , Invalid nested TSTART command	None
M56 , Name length exceeds implementation's limit	None
M57 , More than one defining occurrence of label in routine	<ul style="list-style-type: none"> • MULTLAB, This label has been previously defined
M58 , Too few formal parameters	<ul style="list-style-type: none"> • ACTLSTTOOLONG, More actual parameters than formal parameters: xxxx • ZCARGMSMTCH, External call: Actual argument count, xxxx is greater than formal argument count, yyyy • ZCCONMSMTCH, External call: Too many input arguments
M59 , Environment reference not permitted for this <code>_ssvn_</code>	None
M60 , Undefined <code>_ssvn_</code>	None
M61 , Attempt to OPEN file with conflicting ACCESS parameters	None
M62 , Illegal value for ACCESS parameter while attempting to OPEN file	<ul style="list-style-type: none"> • UNDEF, Undefined local variable: xxxx
M63 , Illegal value for DISPOSITION parameter while attempting to CLOSE file	None
M64 , Illegal value for RENAME parameter while attempting to CLOSE file	None
M65 , Illegal value for VOLUME label	None
M66 , Illegal value for DENSITY parameter	None
M67 , Illegal value for ACCESS parameter	None
M68 , Illegal value for MOUNT parameter	None
M69 , Attempted tape I/O while no tape mounted	None
M70 , Illegal value for BLOCKSIZE parameter	None
M71 , Attempt to read data block larger than buffer size	None
M72 , Illegal value for recordsize parameter	<ul style="list-style-type: none"> • GVUNDEF, Global variable undefined: xxxx
M73 , Invalid usage of <code>_devicekeyword_NEWFILE</code>	None

<i>Standard Code</i>	<i>GT.M Message(s)</i>
M74 , Illegal value for TRANSLATION parameter	None
M75 , String length exceeds implementation's limit	<ul style="list-style-type: none"> • MAXSTRLEN, Maximum string length exceeded • REC2BIG, Record size (xxxx) is greater than maximum (yyyy) for region: zzzz • ZFILENMTOOLONG, xxxx is longer than 255 characters
M76 , TCP socket state incorrect for CONNECT or LISTEN	<ul style="list-style-type: none"> • LISTENPASSBND, Control mnemonic LISTEN can be applied to PASSIVE socket which is in the state BOUND ONLY
M77 , TCP _deviceattribute_ missing	None
M78 , TCP _devicekeyword_ missing	None
M79 , TCP socket allocated to another device	<ul style="list-style-type: none"> • SOCKETEXIST, Socket xxxx already exists
M80 , Network error not otherwise specified	<ul style="list-style-type: none"> • SOCKCLOSE, Error closing socket: (errno = aaaa) xxxx • SOCKINIT, Error initializing socket: (errno == aaaa) xxxx • SOCKMAX, Attempt to exceed maximum sockets xxx for the SOCKET device • SOCKWAIT, Error waiting for socket connection
M81 , Unable to establish network connection	<ul style="list-style-type: none"> • OPENCONN, Error opening socket connection • SOCKACPT, Error accepting socket connection
M82 , Network connection suspended: wait to resume	<ul style="list-style-type: none"> • INVSVN, Invalid special variable name
M83 , Network connection lost	None
M84 , Network protocol error: invalid client message	None
M85 , Network protocol error: invalid server message	None
M86 , Cannot relinquish device with I/O pending	None
M87 , Network buffer overflow	None
M88 , Non-existent _routine_	<ul style="list-style-type: none"> • ROUTINEUNKNOWN, Routine could not be found
M89 , Specified pattern is not a _subpattern_	None
M90 , Invalid _namevalue_	<ul style="list-style-type: none"> • NOCANONICNAME, Value is not a canonic name (xxxx).
M91 , Routine source is not available	None

<i>Standard Code</i>	<i>GT.M Message(s)</i>
M92 , Mathematical overflow	• DIVZERO, Attempt to divide by zero
M93 , Mathematical underflow	None
M94 , Attempt to compute zero to the zero-eth power	None
M95 , Exponentiation returns complex number with non-zero imaginary part	• NEGFRACTPWR, Invalid operation: fractional power of negative number
M96 , Attempt to assign value to already valued write-once <code>_ssvn_</code>	None
M97 , Routine associated with user-defined <code>_ssvn_</code> does not exist	None
M98 , Resource unavailable	None
M99 , Invalid operation for context	None
M100 , Output time-out expired	None
M101 , Attempt to assign incorrect value to <code>\$ECODE</code>	• INVECODEVAL, Invalid value for <code>\$ECODE</code> (xxxx).
M102 , Simultaneous synchronous and asynchronous event class	• PATCODE, Illegal syntax for pattern • PATUPPERLIM, Pattern code upper limit is less than lower limit
M103 , Invalid event identifier	None
M104 , IPC event identifier is not a valid job-number	None
M105 , Object not currently accessible	None
M106 , Object does not support requested method or property	None
M107 , Object has no default value	None
M108 , Value if not of data type OREF	None
M109 , Undefined <code>_devicekeyword_</code>	None
M110 , Event identifier not available	None
M111 , Invalid number of days for date	None
M112 , Invalid number of seconds for time	• FALLINTOFLST, Fall-through to a label with formallist is not allowed

ZMESSAGE Codes

The following table lists ZMESSAGE numbers of all messages documented in this manual.

ZM #	GT.M Message, Description
150377402	ABNCOMPTINC, Deviceparameter xxxx and deviceparameter yyyy are not compatible in the zzzz command
150377762	ACOMPTBINC, Deviceparameter xxxx is compatible with only yyyy in the command zzzz
150383194	ACTCOLLMISMTCH, Global ^gggg inherits alternative collation sequence #nnnn from global directory but database file dddd contains different collation sequence #mmmm for this global
150379234	ACTIVATEFAIL, Cannot activate passive source server on instance iiiii while a receiver server and/or update process is running
150374474	ACTLSTTOOLONG, More actual parameters than formal parameters: xxxx
150374482	ACTOFFSET, Actuallist not allowed with offset
150374290	ACTRANGE, Alternate Collating Type xxxx is out of range
150377010	ADDRTOOLONG, Socket address xxxx of length aaaa is longer than the maximum permissible length bbbb
150383434	AIMGBLKFAIL, AIMGBLKFAIL, After image build for block bbbb in region rrrr failed in DSE or MUPIP
150384002	AIOBUFSTUCK, AIOBUFSTUCK, Waited mmmm minutes for PID: pppp to finish AIO disk write of block: bbbb
150383906	AIOCANCELTIMEOUT, Pid pppp timed out waiting for a pending asynchronous IO operation to complete/cancel in database file ffff
150384530	AIOQUEUESTUCK, Waited mmmm minutes for AIO work queue to complete (cr = rrrr)
150381370	ALIASEXPECTED, Alias or alias container variable expected in this context
150375034	AMBISYIPARAM, Parameter xxxx is ambiguous to \$ZGETSYI()
150377394	ANCOMPTINC, Deviceparameter xxxx is not compatible with any other deviceparameters in the yyyy command
150384498	APDCONNFAIL, Audit Principal Device failed to connect to audit logger
150384490	APDINITFAIL, Audit Principal Device failed to initialize audit information
150384506	APDLOGFAIL, Audit Principal Device failed to log activity
150383720	ARCTLMAXHIGH, The environment variable XXXX = YYYY is too high. Assuming the maximum acceptable value of ZZZZ
150383728	ARCTLMAXLOW, The environment variable XXXX = YYYY is too low. Assuming the minimum acceptable value of ZZZZ
150384768	ARGTRUNC, UUUU argument number CCCC truncated. Keep the size of total command line within NNNN bytes
150381803	ARROWNTDSP, Unable to display ^----- due to length of source line

ZM #	GT.M Message, Description
150374524	ASSERT, Assert failed xxxx line yyyy
150383930	ASYNCIONOMM, Database file ffffssss cannot cccc
150384738	AUDCONNFAIL, Audit XXXX facility failed to connect to audit logger
150384730	AUDINITFAIL, Audit XXXX facility failed to initialize audit information
150384746	AUDLOGFAIL, Audit XXXX facility failed to log activity
150384034	AUTODBCREFAIL, Automatic creation of database file DDDD associated with region RRRR failed; see associated messages for details
150375339	BACKUPCTRL, Control Y or control C encountered during backup, aborting backup
150372955	BACKUPDBFILE, DB file dddd backed up in file bbbb
150373874	BACKUPFAIL, MUPIP cannot start backup with the above errors
150381344	BACKUPKILLIP, Kill in progress indicator is set for file ffff, backup database could have incorrectly marked busy integrity errors
150375059	BACKUPREPL, Replication Instance file iiii backed up in file rrrr
150375067	BACKUPSEQNO, Journal Seqnos up to 0xhhhh are backed up
150373419	BACKUPSUCCESS, Backup completed successfully
150375259	BACKUPTN, Transactions from 0xbbbb to 0xeeee are backed up
150372379	BADACCMTHD, Invalid access method was specified, file not created
150381058	BADCASECODE, xxxx is not a valid case conversion code.
150381066	BADCHAR, XXX is not a valid character in the YYY encoding form.
150381050	BADCHSET, xxxx is not a valid character mapping in this context.
150384610	BADCONNECTPARAM, Error parsing or invalid parameter. [XXXX]
150375098	BADDBVER, Incorrect database version: xxxx
150377650	BADGBLSECVER, Global section xxxx does not match the current database version
150375218	BADGTMNETMSG, Invalid message sent to GT.CM server, type: xxxx
150372386	BADJPIPARAM, xxxx is not a legal parameter for \$ZGETJPI()
150372690	BADLKIPARAM, xxxx is not a legal parameter for \$ZGETLKI()
150375490	BADLOCKNEST, Unsupported nesting of LOCK commands
150384618	BADPARAMCOUNT, -CONNECTPARAMS accepts one to six parameter values
150374618	BADQUAL, Unrecognized qualifier: xxxx
150382138	BADREGION, Region is not BG, MM, or CM

ZM #	GT.M Message, Description
150375210	BADSRVRNETMSG, Invalid message received from GT.CM server
150372394	BADSYIPARAM, xxxx is not a legal parameter to \$ZGETSYI()
150381498	BADTAG, BADTAG Unable to use file ffff (CCSID tttt) with CCSID uuuu
150375274	BADTRNPARAM, xxxx is not a legal parameter to \$ZTRNLNM
150383034	BADZPEEKARG, Missing, invalid or surplus xxxx parameter for \$ZPEEK()
150383050	BADZPEEKFMT, \$ZPEEK() value length inappropriate for selected format
150383042	BADZPEEKRANGE, Access exception raised in memory range given to \$ZPEEK()
150377154	BCKUPBUFLUSH, Unable to flush buffer for online backup
150375627	BEGINST, Beginning LOAD at record number: xxxx
150380522	BEGSEQGTENDSEQ, Journal file xxxx has beginning sequence number aaaa greater than end sequence number bbbb
150375786	BFRQUALREQ, The [NO]BEFORE qualifier is required for this command
150376714	BIGNOACL, Existing file found when BIGRECORD specified with UDF format but no GT.M ACE, perhaps lost during COPY
150375603	BINHDR, gggg Date: dddd TIME: tttt Extract Region Characteristics rrrr Blk Size: xxxx Rec Size: yyyy Key Size: kkkk
150372402	BITMAPSBAD, Database bit maps are incorrect
150384722	BKUPFILEPERM, Backup file dddd does not have write permission
150384715	BKUPPROGRESS, Transfer : cccc / tttt (pppp%) ; Speed : zzzz MiB/sec ; Transactions : nnnn ; Estimated left : tt minutes
150384707	BKUPRETRY, Retrying MUPIP BACKUP for region: rrrr (database file: dddd). Attempt: #nnnn of mmmm
150382890	BKUPRUNNING, Process dddd is currently backing up region xxxx. Cannot start another backup.
418816282	BKUPTMPFILOPEN, Open of backup temporary file aaaa failed
418816290	BKUPTMPFILWRITE, Write to backup temporary file aaaa failed
150379435	BLKCNTEDITFAIL, MUPIP recover or rollback failed to correct the block count field in the file header for file xxxx
150383418	BLKINVALID, BLKINVALID, bbbb is not a valid block as database file ffff has nnnn total blocks
150376899	BLKSIZ512, Block size xxxx rounds to yyyy
150375584	BLKTOODEEP, Block level too deep

ZM #	GT.M Message, Description
150381130	BOMMISMATCH, XXX Byte Order Marker found when YYY character set specified.
150381928	BOOLSIDEFFECT, Extrinsic (\$\$), External call (\$&) or \$INCREMENT() with potential side effects in Boolean expression
150380514	BOVTMGTEOVTM, Journal file xxxx has beginning timestamp aaaa greater than end timestamp bbbb
150380506	BOVTNGTEOVTN, Journal file xxxx has beginning transaction yyyy which is greater than end transaction zzzz
150372411	BREAK, Break instruction encountered
150372419	BREAKDEA, Break instruction encountered during Device error action
150372427	BREAKZBA, Break instruction encountered during ZBREAK action
150372371	BREAKZST, Break instruction encountered during ZSTEP action
150379314	BSIZTOOLARGE, xxxx Block larger than specified maximum size
150372442	BTFAIL, The database block table is corrupt; error type xxxx
150377666	BUFFLUFAILED, Errors flushing buffers from uuuu for database file dddd
150383848	BUFFSIZETOOSMALL, TCP xxxx buffer size passed to yyyy too small, setting to minimum size of zzzz.
150379226	BUFOWNERSTUCK, PID xxxx waiting for PID yyyy to finish disk read of block zzzz. Been waiting for aaaa minutes.
150376882	BUFRDTIMEOUT, Pid xxxx timed out waiting for buffered read by process yyyy to complete in database file zzzz
150503803	BUFSIZIS, Journal Buffer size is xxxx
150384520	BUFSPCDELAY, Request for bbbb blocks in region rrrr delayed
150503811	BUFTOOSMALL, But block size xxxx requires buffer size yyyy
150377099	CALLERID, Routine xxxx called from yyyy
150381530	CALLINAFTERXIT, After a gtm_exit, a process can never create a valid GT.M context
150383426	CANTBITMAP, CANTBITMAP, Can't perform this operation on a bit map (block at a 200 hexadecimal boundary)
150376258	CEBIGSKIP, Compiler escape user routine skip count is too large
150376274	CENOINDIR, Indirection type information not available for compiler escape feature
150376266	CETOOOLONG, Compiler escape substitution exceeds maximum line size
150376242	CETOOMANY, Too many compiler escape substitutions in a single statement
150376250	CEUSRERROR, Compiler escape user routine returned error code xxxx

ZM #	GT.M Message, Description
150384019	CHANGELOGININTERVAL, ssss Server is now logging to ffff every IIII transactions
150380795	CHNGTPRSLVTM, Mupip will change tp_resolve_time from xxxx to yyyy because expected EPOCH or EOF record was not found in Journal File zzzz.
150383402	CHSETALREADY, CHSETALREADY, Socket device already contains sockets with iCHSET=xxxx, oCHSET=xxxx
150379642	CIDIRECTIVE, Invalid directive parameter passing. Expected I, O or IO.
150379610	CIENTNAME, No label reference found for this entry in call-in table
150380266	CIMAXLEVELS, Too many nested Call-ins. Nested resources exhausted at level !UL.>/error/fao=1!/ansi=0
150380250	CIMAXPARAM, Exceeded maximum number of parameters in the call-in table entry. An M routine cannot accept more than 32 parameters.
150379666	CINOENTRY, No entry specified for xxxx in the call-in table
150379650	CIPARTYPE, Invalid type specification for O/IO directive - expected pointer type
150379626	CIRCALLNAME, Call-in routine name expected but not found
150379634	CIRPARAMNAME, Invalid parameter specification for call-in table
150379618	CIRTNTYP, Invalid return type
150379594	CITABENV, Environment variable for call-in table xxxx not set
150379602	CITABOPN, Unable to open call-in table: xxxx
150380258	CITPNESTED, Call-ins can not be used inside a TP transaction
150379658	CIUNTYPE, Unknown parameter type encountered
150379882	CLIERR, xxxx
150384194	CLISTRTOOLONG, SSSS specified is BBBB bytes long which is greater than the allowed maximum of MMMM bytes
150381410	CLOSEFAIL, Error while closing file descriptor dddd
150375130	CLSTCONFLICT, Cluster conflict opening database file xxxx; could not secure access. Already open on node yyyy.
150372458	CMD, Command expected but not found
150373410	CMDERR, Error running command : cccc
150569002	CMEXCDASTLM, Exceeded AST limit. Cannot open database.
150568988	CMINTQUE, Interlock failure accessing GT.CM server queue
150569010	CMSYSSRV, Error doing system service, status:

ZM #	GT.M Message, Description
150374978	CNOTONSYS, command is not supported by this operating system
150375746	COLLARGLONG, Collation sequence nnn does not contain routines for long strings
150376282	COLLATIONUNDEF, Collation type xxxx is not defined
150373626	COLLDATAEXISTS, Collation type cannot be changed while xxxx data exists
150375802	COLLFNMISSING, Routine xxx is not found for collation sequence nnn
150375930	COLLTYPVERSION, Collation type xxxx, version yyyy mismatch
150372466	COLON, Colon (:) expected in this context
150383314	COLTRANSSTR2LONG, COLTRANSSTR2LONG, Output string after collation transformation is too long
150372474	COMMA, comma expected in this context
150372482	COMMAORRPAREXP, Comma or right parenthesis expected but not found
150372491	COMMENT, Comment line. Placed zbreak at next executable line.
150384346	COMMFILTERERR, Error executing the command filter for FFFF DDDD
150381290	COMMITWAITPID, Pid wwwwww waited tttt minute(s) for pid pppp to finish commits in database file dddd
150381282	COMMITWAITSTUCK, Pid wwwwww waited tttt minute(s) for nnnn concurrent GT.M process(es) to finish commits in database file dddd
150374642	COMPILEQUALS, Error in compiler qualifiers: xxxx
150378922	CONNSOCKREQ, CONNSOCKREQ, Socket not connected
150382074	COREINPROGRESS, Previous core attempt failed; core generation bypassed.
150372890	CORRUPT, Corrupt input in Blk #xxxx, Key #yyyy; resuming with next global block
150373018	CORRUPTNODE, Corrupt input in Record # rrrr, Key #yyyy; resuming with next global node
150377026	CPBEYALLOC, Attempt to copy beyond the allocated buffer
150379570	CREDNOTPASSED, CREDNOTPASSED, Socket message contained no passed credentials
150374562	CRITRESET, The critical section crash count for region xxxx has been incremented
150375914	CRITSEMFAIL, Error with semaphores for region xxxx
418818394	CRYPTBADCONFIG, Could not retrieve data from encrypted file ffff due to bad encryption configuration. eeee
150383498	CRYPTBADWRTPPOS, CRYPTBADWRTPPOS, Encrypted WRITE disallowed from a position different than where the last WRITE completed
150381434	CRYPTDLNOOPEN, Failed to load encryption library while opening encrypted file ffff. eeee

ZM #	GT.M Message, Description
150382930	CRYPTDLNOOPEN2, Failed to load encryption library dddd. Eeee
150381482	CRYPTHASHGENFAILED, Failed to generate cryptographic hash for symmetric key corresponding to file ffff. eeee
150381418	CRYPTINIT, Failed to initialize encryption library while opening encrypted file ffff. eeee
150382922	CRYPTINIT2, Failed to initialize encryption library during GT.M startup. eeee
150376362	CRYPTJNLMISMATCH, Encryption settings mismatch between journal file jjjj and corresponding database file dddd
418816922	CRYPTKEYFETCHFAILED, Failed to retrieve encryption key corresponding to file ffff. eeee
150381474	CRYPTKEYFETCHFAILEDNF, Cannot obtain encryption key. xxxx
418819290	CRYPTKEYRELEASEFAILED, Could not safely release encryption key corresponding to file ffff. eeee
150383490	CRYPTKEYTOOBIG, CRYPTKEYTOOBIG, Specified key has length xxxx, which is greater than the maximum allowed key length yyyy
150383450	CRYPTNOAPPEND, CRYPTNOAPPEND, APPEND disallowed on the encrypted file xxxx
150381490	CRYPTNOKEY, No encryption key specified
150383474	CRYPTNOKEYSPEC, Key name needs to be specified with KEY, IKEY, or OKEY device parameter for encrypted I/O
150381450	CRYPTNOMM, ffff is an encrypted database. Cannot support MM access method.
150383482	CRYPTNOOVERRIDE, Cannot override IVEC and/or key without compromising integrity
150383458	CRYPTNOSEEK, SEEK disallowed on the encrypted file ffff
150383466	CRYPTNOTRUNC, Not positioned at file start or EOF. TRUNCATE disallowed on the encrypted file ffff
150381426	CRYPTOPFAILED, Encrypt/Decrypt operation failed for file ffff. eeee
150375890	CTLMNEMAXLEN, The maximum length of a control mnemonic has been exceeded
150375898	CTLMNEXPECTED, Control mnemonic is expected in this context
150372498	CTRAP, Character trap \$(xxxx) encountered
150372507	CTRLC, CTRL_C encountered
150372515	CTRLY, User interrupt encountered
150377426	CURR SOCKOFR, Current socket of index xxxx is out of range. There are only yyyy sockets.
150382714	CUSTERRNOTFND, Error mnemonic eeee specified in custom errors file is not valid for this version of GT.M
150382722	CUSTERRSYNTAX, Syntax error in file ffff at line number nnnn

ZM #	GT.M Message, Description
150382706	CUSTOMFILOPERR, Error while doing oooo operation on file ffff
150380531	DBADDRALIGN, Database file xxxx, element location aaaa: blk = bbbb: [yyyy] control cccc was unaligned relative to base dddd and element size eeee
150376547	DBADDRANGE, Database file rrrr element location aaaa: control vvvv was outside qqqq range bbbb to tttt
150378739	DBADDRANGE8, Database file rrrr element location aaaa: control vvvv was outside qqqq range bbbb to tttt
150379024	DBBADFREEBLKCTR, Database xxxx free blocks counter in file header: oooo appears incorrect; should be nnnn. Auto-corrected.
150378146	DBBADKYNM, xxxx is an invalid key name
150378138	DBBADNSUB, xxxx Bad numeric subscript
150378154	DBBADPNTR, xxxx Bad pointer value in directory
150381936	DBBADUPGRDSTATE, Correcting conflicting values for fields describing database version upgrade state in the file header for region rrrr (ffff) - make fresh backups with new journal files immediately.
150378186	DBBDBALLOC, xxxx Block doubly allocated
150378178	DBBFSTAT, xxxx Block busy/free status unknown (local bitmap corrupted)
150374675	DBBLEVMN, xxxx Block level less than zero
150374667	DBBLEVMX, xxxx Block level higher than maximum
150383922	DBBLKSIZEALIGN, Database file ffff has AIO=ON and block_size=bbbb which is not a multiple of filesystem block size ssss
150376467	DBBMBARE, xxxx Bit map does not protect itself
150376475	DBBMINV, xxxx Bit map contains an invalid pattern
150379730	DBBMLCORRUPT, Database xxxx: Bitmap blk yyyy is corrupt (Size = aaaa, lev1 = bbbb, tn = cccc: Dbtn = dddd): Database integrity errors likely
150376483	DBBMMSTR, xxxx Bit map does not match master map
150376459	DBBMSIZE, xxxx Bit map has incorrect size
150378162	DBBNPNTR, Bit map block number as pointer
150378250	DBBPLMGT2K, Blocks per local map is greater than 2k
150378242	DBBPLMLT512, Blocks per local map is less than 512
150378266	DBBPLNOT512, Blocks per local map is not 512
150374682	DBBSIZMN, xxxx Block too small

ZM #	GT.M Message, Description
150374690	DBBSIZMX, xxxx Block larger than file block size
150378210	DBBSIZZRO, Block size equals zero
150380587	DBBTUFIXED, The blocks-to-upgrade file-header field has been changed to the correct value
150380576	DBBTUWRNG, The blocks-to-upgrade file-header field is incorrect. Expected xxxx, found yyyy
150372522	DBCERR, Interlock instruction failure in critical mechanism for region xxxx
150377451	DBCLNUPINFO, Database file xxxx / yyyy
150374760	DBCMPBAD, xxxx yyyy Compression count not maximal
150374739	DBCMPMX, xxxx yyyy Record compression count is too large
150374714	DBCMPNZRO, xxxx yyyy First record of block has nonzero compression count
150376611	DBCNTLERR, Database file xxxx: control error suspected but not found
150382944	DBCOLLREQ, JOURNAL EXTRACT proceeding without collation information for globals in database. eeee ffff .
150375779	DBCOMMITCLNUP, Pid dddd [hhhh] handled error (code = eeee) during commit of xxxx transaction in database file yyyy
150378554	DBCOMPTOOLRG, xxxx Record has too large compression count
150378338	DBCREINCOMP, xxxx Header indicates database file creation was interrupted before completion
150376563	DBCRRERR, Database file xxxx, cr location yyyy blk = zzzz error: aaaa was bbbb, expecting cccc -- called from module xxx at line yyy
150378723	DBCRRERR8, Database file xxxx, or location yyyy blk = zzzz error: aaaa was bbbb, expecting cccc -- called from module yyy at line xxx
150378976	DBDANGER, Process pppp killed while committing update for database file xxxx. Possibility of damage to block yyyy.
150382754	DBDATAMX, xxxx Record too large
150376515	DBDIRTSUBSC, <xxxx Directory tree block contains non name-level entries>
150378307	DBDSRDFMTCHNG, Database file xxx, Desired DB Format set to yyy by zzz with pid ppp [0xppp] at transaction number [0xttt]
150384010	DBDUPNULCOL, Discarding kkkk=vvvv key due to duplicate null collation record
150381042	DBENDIAN, Database file xxxx is aaaa endian on a gggg endian system
150378312	DBFGTBC, xxxx File size larger than block count would indicate
150376539	DBFHEDERR4, DBFHEDERR4:Database file ffff: control problem: aaaa was xxxx expecting yyyy

ZM #	GT.M Message, Description
150381315	DBFHEADERR8, DBFHEADERR8: Database file ffff: control problem: aaaa was xxxx expecting yyyy
150382643	DBFHEADERRANY, Database file ffff: control problem: aaaa was xxxx expecting yyyy
150383891	DBFHEADLRU, Database file ffff LRU pointer: pppp is outside of range: bbbb to tttt or misaligned
150384115	DBFILECREATED, Database file DDDD created
150375954	DBFILERDONLY, The database file ffff was opened as read-only (perms pppp)
150372546	DBFILERR, Error with database file. xxxx.
150377491	DBFILEEXT, Database file xxxx extended from yyyy blocks to zzzz blocks at transaction aaaa
150384600	DBFILNOFULLWRT, Disabling fullblock writes. iiiii tttt: bbbb
150375378	DBFILOPERR, Error doing database I/O to region xxxx
150378346	DBFLCORRP, xxxx Header indicates database file is corrupt
150384267	DBFREEZEOFF, Region rrrr (dddd) is UNFROZEN ([NO]OVERRIDE [NO]AUTOREL)
150384259	DBFREEZEON, Region rrrr (dddd) is FROZEN ([NO]OVERRIDE [NO]ONLINE [NO]AUTOREL)
150380474	DBFRZRESETFL, Freeze release failed on database file xxxx
150379835	DBFRZRESETSUC, Unfreeze successfully done on database file xxxx.
150378322	DBFSTBC, xxxx File size smaller than block count would indicate
150378330	DBFSTHEAD, xxxx File smaller than database header
150378082	DBFSYNCERR, Error synchronizing database file xxxx to disk
150378386	DBGTDBMAX, xxxx Key larger than database maximum
150378354	DBHEADINV, xxxx Header size not valid for database
150379346	DBIDMISMATCH, Database file xxxx ID (region yyyy) does not match file ID in shared memory (ID=zzzz). Ensure region is properly rundown.
150378170	DBINCLVL, xxxx Block at incorrect level
150378362	DBINCRVER, xxxx Incorrect version of GT.M database
150378370	DBINVGBL, xxxx Invalid mixing of global names
150382762	DBIOERR, Error while doing write operation on region rrrr (ffff)
150372538	DBJNLNOTMATCH, Database xxxx points to journal file name yyyy but the journal file points to database file zzzz
150378378	DBKEYGTIND, xxxx Key greater than index key

ZM #	GT.M Message, Description
150374754	DBKEYMN, xxxx Key too short
150374746	DBKEYMX, xxxx Key too long
150374770	DBKEYORD, xxxx Keys out of order
150378394	DBKGTALLW, xxxx Key larger than maximum allowed length
150378424	DBLOCMBINC, xxxx Local bit map incorrect
150378410	DBLRCINVSZ, xxxx Last record of block has invalid size
150378402	DBLTSIBL, xxxx Keys less than sibling's index key
150378432	DBLVLINC, xxxx Local bitmap block level incorrect
150378522	DBMAXKEYEXC, xxxx Maximum key size for database exceeds design maximum
150377995	DBMAXNRSUBS, XXXX Maximum number of subscripts exceeded.
150380594	DBMAXREC2BIG, Maximum record size (xxx) is too large for this block size (yyy) - Maximum is zzz
150378464	DBMBMINCFRE, xxxx Master bit map incorrectly asserts this local map has free space
150383056	DBMBMINCFREFIXED, Master bitmap incorrectly marks local bitmap 0xAAAA as free. Auto-corrected
150378496	DBMBPFLDIS, xxxx Master bit map shows this map full, in disagreement with both disk and INTEG results
150378480	DBMBPFLDLBM, xxxx Master bit map shows this map full, agreeing with disk local map
150378488	DBMBPFLINT, xxxx Master bit map shows this map full, agreeing with MUPIP INTEG
150378504	DBMBPFRDLBM, xxxx Master bit map shows this map has space, agreeing with disk local map
150378512	DBMBPFRINT, xxxx Master bit map shows this map has space, agreeing with MUPIP INTEG
150378472	DBMBPINCFL, xxxx Master bit map incorrectly marks this local map full
150378450	DBMBSIZMN, xxxx Map block too small
150378440	DBMBSIZMX, xxxx Map block too large
150378459	DBMBTNSIZMX, xxxx Map block transaction number too large
150380634	DBMINRESBYTES, Minimum RESERVED BYTES value required for certification/upgrade is xxx - Currently is yyy
150381098	DBMISALIGN, Database file xxxx has yyyy blocks which does not match alignment rules. Reconstruct the database from a backup or extend it by at least zzzz blocks.
150378200	DBMRKBUSY, xxxx Block incorrectly marked busy

ZM #	GT.M Message, Description
150378194	DBMRKFREE, xxxx Block incorrectly marked free
150379338	DBNAMEMISMATCH, Database file xxxx (region (yyyy) referenced by shared memory (ID=zzzz) is not accessible. Ensure region is properly rundown
150375762	DBNOCRE, Not all specified databases, or their associated journal files were created
150384026	DBNONUMSUBS, XXXX Key contains a numeric form of subscript in a global defined to collate all subscripts as strings
418814106	DBNOREGION, None of the database regions accessible
150378626	DBNOTDB, xxxx File does not have a valid GDS file header
150372554	DBNOTGDS, xxxx - Unrecognized database file format
150378226	DBNOTMLTP, xxxx Block size not a multiple of 512 bytes
150383946	DBNULCOL, XXXX NULL collation representation differs from the database file header setting
418808018	DBOPNERR, Error opening database file xxxx
150377778	DBPREMATEOF, Premature end of file with database file xxxx
418809050	DBPRIVERR, No privilege for attempted update operation for file: xxxx
150374795	DBPTRMAP, xxxx Block pointer is a bit map block number
150374786	DBPTRMX, xxxx Block pointer larger than file maximum
150374778	DBPTRNOTPOS, xxxx Block pointer negative
150376555	DBQUELINK, Database file xxxx, element location yyyy: blk = zzzz: control aaaa queue problem: was bbbb, expecting cccc
150378578	DBRBNLBMN, xxxx Root block number is a local bit map number
150378586	DBRBNNEG, xxxx Root block number negative
150378570	DBRBNTOOLRG, xxxx Root block number greater than the last block number in file
418808026	DBRDERR, Cannot read database file xxxx after opening
418812490	DBRDONLY, Database file xxxx read only
150378546	DBREADBM, xxxx Read error on bitmap
150376418	DBREMOTE, Database region xxxx is remote; perform maintenance on the server node
150378602	DBRLEVLONE, xxxx Root level less than one
150378594	DBRLEVTOOHI, xxxx Root level higher than maximum
150378946	DBRNDWN, Error during global database rundown for region xxxx. Please notify those responsible for proper database operation.

ZM #	GT.M Message, Description
150379240	DBRNDWNWRN, Global database xxxx not rundown successfully by PID yyyy [zzzz]. Global section was not removed.
150382418	DBROLLEDBACK, Concurrent ONLINE ROLLBACK detected on one or more regions. The current operation is no longer valid
150376491	DBROOTBURN, xxxx Root block has data level
150374698	DBRSIZMN, xxxx Physical record too small
150374706	DBRSIZMX, xxxx Physical record too large
150382026	DBSHMNAMEDIFF, Database file ffff points to shared memory mmmm which points to a different database file
150382746	DBSPANCHUNKORD, xxxx Chunk of yyyy blocks is out of order
150382738	DBSPANGLOINCM, xxxx Spanning node is missing. Block no yyyy of spanning node is missing
150374731	DBSTARCMP, DBSTARCMP xxxx Star record has nonzero compression count
150374723	DBSTARSIZ, xxxx Star record has wrong size
150378610	DBSVBNMIN, xxxx Start VBN smaller than possible
150378218	DBSZGT64K, xxxx Block size is greater than 64k
150378643	DBTN, Block TN is xxxx
150378666	DBTNLTCTN, Transaction numbers greater than the current transaction were found
150378291	DBTNNEQ, xxxx Current tn and early tn are not equal
150378674	DBTNRESET, Cannot reset transaction number for this region
150378656	DBTNRESETINC, WARNING: tn_reset for database is incomplete due to integrity errors
150378235	DBTNTOOLG, xxxx Block transaction number too large
150378634	DBTOTBLK, File header indicates total blocks is tttt but file size indicates total blocks would be eeee
150378618	DBTTLBLK0, xxxx Total blocks equal zero
150378283	DBUNDACCMT, xxxx Cannot determine access method; trying with BG
150381570	DBUPGRDREQ, Database file DDDD is not fully upgraded (format FFFF) and cannot be used by this version of GT.M. Please upgrade the database.
150380547	DBWCVERIFYEND, Database file xxxx, write cache verification finished by pid pppp [aaaa] at transaction number yyyy
150380539	DBWCVERIFYSTART, Database file xxxx, write cache verification started by pid pppp [aaaa] at transaction number bbbb

ZM #	GT.M Message, Description
150376978	DELIMSIZNA, Delimiter size is not appropriate
150379722	DELIMWIDTH, Delimiter length xxxx exceeds device width yyyy
150380034	DEVICEOPTION, Option xxxx on yyyy command: zzzz
150373618	DEVICEREADONLY, Cannot write to a read-only device
150382042	DEVICEWRITEONLY, Cannot read from a write-only device
150384458	DEVNAMERESERVED, Cannot use NNNN as device name. Reserved for GTM internal usage.
150376402	DEVNOTIMP, XXXX device not implemented on in this environment
150379354	DEVOPENFAIL, Error opening xxxx
150372586	DEVPARINAP, Device parameter inappropriate to this command
150372658	DEVPARMNEG, Deviceparameter must be a positive value
150383170	DEVPARMTOOSMALL, Deviceparameter must be greater than zero (0)
150372610	DEVPARPROT, The protection specification is invalid
150372634	DEVPARTOOBIG, String deviceparameter exceeds 255 character limit
150372642	DEVPARUNK, Deviceparameter unknown
150372650	DEVPARVALREQ, A value is required for this device parameter
150375074	DIRACCESS, Do not have full access to directory for temporary files: pppp
150374594	DIRONLY, Directories only are allowed in file specs: xxxx
150377682	DISTPATHMAX, \$gtm_dist path is greater than maximum (xxxx)
150373210	DIVZERO, Attempt to divide by zero
150379738	DLCKAVOIDANCE, Possible deadlock detected: Database pppp: Dbtn qqqq: t_tries rrrr: dollar_trestart ssss: now_crit tttt: TP transaction restarted
150381114	DLLCHSETM, Routine XXX in library YYY was compiled with CHSET=M which is different from \$ZCHSET. Recompile with CHSET=UTF-8 and re-link.
150381122	DLLCHSETUTF8, Routine XXX in library YYY was compiled with CHSET=UTF-8 which is different from \$ZCHSET. Recompile with CHSET=M and re-link.
150379266	DLLNOCLOSE, Failed to unload external dynamic library
150379250	DLLNOOPEN, Failed to load external dynamic library xxxx
150379258	DLLNORTN, Failed to look up the location of the symbol xxxx
150380210	DLLVERSION, Routine aaaa in library bbbb was compiled with an incompatible version of GT.M. Recompile with the current version and re-link.
150381074	DLRCILLEGAL, Illegal \$CHAR() value xxxx

ZM #	GT.M Message, Description
150375834	DLRCTOOBIG, xxxx value cannot be greater than 255
150375826	DLRCUNXEOR, xxxx unexpected end of record in \$CHAR()/\$ZCHAR() subscript
150373344	DONOBLOCK, Argumentless DO not followed by a block
150372666	DSEBLKRDFAIL, Failed attempt to read block
150372674	DSEFAIL, DSE failed. Failure code: xxxx.
150377138	DSEINVALBLKID, Trying to edit DB with 64-bit block IDs using pre-V7 DSE
150375288	DSEINVLCLUSFN, Specified function is invalid for clustered databases
150383410	DSEMAXBLKSAV, DSE cannot SAVE another block as it already has the maximum of mmmm
150379194	DSENOFINISH, DSE unable to finish all requested actions
150383378	DSENOTOPEN, DSE could not open region rrrr - see DSE startup error message for cause
150375280	DSEONLYBGMM, xxxx is supported only for BG/MM access methods
150374147	DSEWCINITCON, No action taken, enter YES at CONFIRMATION prompt to initialize global buffers
150382427	DSEWCREINIT, Database cache reinitialized by DSE for region rrrr
150382675	DSKNOSPCAVAIL, Attempted write to file FFFF failed due to lack of disk space. Retrying indefinitely.
150382682	DSKNOSPCBLOCKED, Retry of write to file FFFF suspended due to new instance freeze. Waiting for instance to be unfrozen.
150377531	DSKSPACEFLOW, Disk space for file xxxx nearing maximum size. YYYY blocks available.
150382691	DSKSPCAVAILABLE, Write to file FFFF succeeded after out-of-space condition cleared.
150384082	DSKSPCCHK, Error while checking for available disk space to create file DDDD
150377040	DUPTN, Duplicate transaction found [TN = xxxx] at offset aaaa in journal file yyyy
150372530	DUPTOKEN, Token xxxx is duplicate in the journal file yyyy for database zzzz
150372706	DVIKEYBAD, \$ZGETDVI("xxxx","yyyy") contains an illegal keyword
150380698	DYNUPGRDFAIL, Unable to dynamically upgrade block 0xaaa in database yyy due to lack of free space in block
150381914	DZTRIGINTRIG, \$ZTRIGGER() is not allowed inside trigger context. Trigger name: nnnn
150381394	DZWRNOALIAS, \$ZWRTAC cannot be aliased.
150381386	DZWRNOPAREN, \$ZWRTACxxx is not allowed inside a parenthesized SET target

ZM #	GT.M Message, Description
150379696	ECLOSTMID, \$ECODE overflow, the first and last ecodes are retained, but some intervening ecodes have been lost
150380624	ENCODING, M or W-1252 code designation for character set encoding, might return unexpected results when ""UTF-8"=\$ZCHSET
150383858	ENCRYPTCONFLT, MUPIP REORG -ENCRYPT and MUPIP EXTRACT -FORMAT=BIN cannot run concurrently - skipping oooo on region: rrrr, file: ffff
150373296	ENCRYPTCONFLT2, Message: A concurrent MUPIP REORG -ENCRYPT changed the encryption key for RRRR before the process could initialize it
150381035	ENDIANCVT, Converted database file xxxx from yyyy endian to zzzz endian on a wwwwww endian system
150382699	ENOSPCQIODEFER, Write to file FFFF deferred due to lack of disk space
150372914	EORNOTFND, xxxx End of record not found
150380786	EPOCHTNHI, At the EPOCH record at offset xxxx of yyyy transaction number [0xaaaa] is higher than database transaction number [0xbbbb]
150372722	EQUAL, Equal sign expected but not found
150376722	ERRCALL, Error called from xxxx line yyyy
150372730	ERRORSUMMARY, Errors occurred during compilation
150379578	ERRWETRAP, Error while processing \$ETRAP
150372738	ERRWEXC, Error while processing exception string
150372746	ERRWIOEXC, Error while processing I/O exception string
150372754	ERRWZBRK, Error while processing ZBREAK action string
150379874	ERRWZINTR, Error while processing \$ZINTERRUPT
150384418	ERRWZTIMEOUT, Error while processing \$ZTIMEOUT
150372762	ERRWZTRAP, Error while processing \$ZTRAP
150377346	EVENTLOGERR, Error in event logging subsystem
150384402	EXCEEDSPREALLOC, Preallocated size ssss for M external call label LLLL exceeded by string of length SSSS
150377592	EXCLUDEREORG, Global: xxxx is present in the EXCLUDE option. REORG will skip the global.
150503443	EXECOM, Executing command file xxxx
150383226	EXITSTATUS, Unexpected process exit (xxxx), exit status aaaa -- called from module yyyy at line zzzz
150372778	EXPR, Expression expected but not found

ZM #	GT.M Message, Description
150384396	EXTCALLBOUNDS, Wrote outside bounds of external call buffer. M label: LLLL
150374138	EXTGBLDEL, Invalid delimiter for extended global syntax
150375163	EXTRACTCTRLY, User interrupt encountered during extract, halting
150374866	EXTRACTFILERR, Error with extract file xxxx
150378914	EXTRCLOSEERR, Error closing extract file xxxx
150374890	EXTRFAIL, Extract failed for the global gggg. MUPIP INTEG should be run.
150382242	EXTRFILEXISTS, Error opening output file: ffff -- File exists
150377090	EXTRFMT, Extract error: invalid record format - no records found.
150383826	EXTRINTEGRITY, Database ffff potentially contains spanning nodes or data encrypted with two different keys
150378906	EXTRIOERR, Error writing extract file xxxx
150376699	EXTSRCLIN, xxxx yyyy
150376707	EXTSRCLOC, At column xxxx, line yyyy, source module zzzz
150384330	FAILEDRECCOUNT, LOAD unable to process MMMM records
150374442	FALLINTOFLST, Fall-through to a label with formallist is not allowed
150372802	FCHARMAXARGS, Argument count of \$CHAR() function exceeded the maximum of 255
150372810	FCNSVNEXPECTED, Function or special variable expected in this context
150383090	FDSIZELMT, Too many nnnn descriptors needed by GT.CM server
150375715	FILECREATE, AAAA file xxxx created
150384098	FILECREERR, Error OOOO for file DDDD during DB creation
150375555	FILEDEL, File xxxx successfully deleted
150380320	FILEDELFAIL, Deletion of file xxxx failed
150379914	FILEEXISTS, File xxxx already exists
150377634	FILEIDGBLSEC, File ID in global section does not match with the database file
150376690	FILEIDMATCH, Saved File ID does not match the current ID - the file appears to have been moved
150379978	FILENAMETOOLONG, File name too long
150375723	FILENOTCREATE, AAAA file xxxx not created
150374338	FILENOTFND, File xxxx not found
418813146	FILEOPENFAIL, Failed to open file ffff.

ZM #	GT.M Message, Description
150374602	FILEPARSE, Error parsing file specification: xxxx
150376186	FILEPATHTOOLONG, Filename including the path cannot be longer than 255 characters
150378835	FILERENAME, File xxxx is renamed to yyyy
150379290	FILTERBADCONV, Bad conversion of transaction xxxx by filter
150379282	FILTERCOMM, Error communicating transaction xxxx with the filter
150379274	FILTERNOTALIVE, Replication server detected that the filter is not alive while attempting to send transaction xxxx
150383242	FILTERTIMEDOUT, Replication server timed out attempting to read seqno ssss from external filter
150374466	FMLLSTMISSING, The formal list is absent from a label called with an actual list: xxxx
150372818	FNARGINC, Format specifiers to \$FNUMBER are incompatible: "xxxx"
150376002	FNNAMENEG, Depth argument to \$NAME cannot be negative
150375026	FNOTONSYS, Function or special variable is not supported by this operating system
150384066	FNTRANSERROR, Filename including path exceeded 255 chars while trying to resolve filename FFFF
150372842	FNUMARG, \$FNUMBER format specifier xxxx contains an illegal character: yyyy
150374364	FORCEDHALT, Image HALTed by MUPIP STOP
150377132	FORCEDHALT2, Receipt of 3 MUPIP STOP signals within xxxx seconds, process: yyyy shutting down with no exit handling like a kill -9
150372850	FOROFLOW, FOR commands nested too deeply
150376960	FREEBLKSLow, Only bbbb free blocks left out of tttt total blocks for ffff
150379050	FREEMEMORY, Error occurred freeing memory
150374875	FREEZE, Region: xxxx is already frozen
150376307	FREEZECTRL, Control Y or control C encountered during attempt to freeze the database. Aborting freeze.
150381402	FREEZEERR, Error while trying to ffff region rrrr
150374578	FSEXP, File specification expected but not found
150379418	FTOKERR, Error getting ftok of the file xxxx
150382995	FTOKKEY, FTOK key 0xnxxx
150381882	GBLEXPECTED, Global variable reference expected in this context
150377306	GBLMODFAIL, Global variable Conflict Test failed. Failure code: xxxx.

ZM #	GT.M Message, Description
150504082	GBLNAMCOLLRANGE, Collation sequence #nnnn is out of range (0 thru 255)
150504050	GBLNAMCOLLUNDEF, Error opening shared library of collation sequence #nnnn for GBLNAME gggg
150504098	GBLNAMCOLLVER, Global directory indicates GBLNAME gggg has collation sequence #nnnn with a version #vvvv but shared library reports different version #llll
150372874	GBLNAME, Either an identifier or a left parenthesis is expected after a ^ in this context
150503907	GBLNAMEIS, in gblname gggg
150379779	GBLNOEXIST, Global xxxx no longer exists
150383202	GBLNOMAPTOREG, Global gggg does not map to region rrrr in current global directory
150372882	GBLOFLOW, Database file FFFF is full
150377642	GBLSECNOTGDS, Global section xxxx is not a GT.M global section
150503459	GDCREATE, Creating global directory File xxxx
150504106	GDEASYNCTIONOMM, ssss segment has ASYNCIO turned on. Cannot support MM access method
150503467	GDECHECK, Internal GDE consistency check
150503874	GDECRYPTNOMM, ssss segment has encryption turned on. Cannot support MM access method
150504122	GDELOGFAIL, GDE failed to log command. Check operator log for more information
150374514	GDINVALID, Unrecognized Global Directory file format: ffff, expected label: eeee, found: bbbb
150503843	GDNOTSET, Global Directory not changed because the current GD cannot be written
150503835	GDREADERR, Error reading Global Directory: xxxx
150503475	GDUNKNFMT, xxxx is not formatted as a global directory
150503483	GDUPDATE, Updating Global Directory File xxxx
150503491	GDUSEDEFS, Using defaults for Global Directory xxxx
150383114	GETADDRINFO, Error in getting address info
150383122	GETNAMEINFO, Error in getting name info
150380234	GETSOCKNAMERR, Getting the socket name failed from getsockname(): (errno==aaaa) xxxx
150379178	GETSOCKOPTERR, Getting the socket attribute xxxx failed: (errno == yyyy) zzzz
150375611	GOQPREC, Numeric precision in key error: Blk #xxxx, Key #yyyy. Record not loaded.
150376532	GTMASSERT, xxxx - assert failed yyyy line zzzz

ZM #	GT.M Message, Description
150382164	GTMASSERT2, GT.M eeee - Assert failed LLLL for expression (eeee)
150372900	GTMCHECK, Internal GT.M error. Report to GT.M Support.
150373442	GTMCURUNSUPP, The requested operation is unsupported in this version of GT.M
150377714	GTMDISTUNDEF, Environmental variable \$gtm_dist is not defined
150383442	GTMDISTUNVERIF, Environment variable \$gtm_dist (dddd) could not be verified against the executables path (pppp)
150382866	GTMEISDIR, dddd : Is a directory
150381258	GTMERREXIT, GTM image has exited with errors
150376938	GTMSECshr, xxxx Error during GTMSECshr operation
150382796	GTMSECshrbaddir, gtmsecshr is not running from \$gtm_dist/gtmsecshrdir or \$gtm_dist cannot be determined
150381986	GTMSECshrchdirf, gtmsecshr unable to chdir to its temporary directory (dddd). GTMSECshr process error: GTMSECshr is not able to change directory to its temporary directory, dddd.
150373907	GTMSECshrdmstarted, [client pid pppp] File (ffff) removed
150378076	GTMSECshrforkf, GTMSECshr server unable to fork off a child process
150377016	GTMSECshrgetsemfail, error getting semaphore errno = xxxx
150382788	GTMSECshrisnot, GTMSECshrisnot gtmsecshr is not running as gtmsecshr but xxxxx - must be gtmsecshr
150382780	GTMSECshrnarg0, GTMSECshrnarg0 gtmsecshr cannot identify its origin - argv[0] is null
150378044	GTMSECshropcmp, GTMSECshr operation may be compromised
150377706	GTMSECshrperm, The gtmsecshr module in \$gtm_dist (DDDD) does not have the correct permission and uid (permission: PPPP, and UID: UUUU)
150378018	GTMSECshrrecvf, GTMSECshr receive on server socket failed
150375699	GTMSECshrremfile, [client pid pppp] File (ffff) removed
150374499	GTMSECshrremsem, [client pid pppp] Semaphore (ssss) removed
150374456	GTMSECshrremsemfail, error removing semaphore errno = xxxx
150375691	GTMSECshrremshm, [client pid pppp] Shared memory segment (ssss) removed, natch = nnnn
150378002	GTMSECshrscksel, GTMSECshr select on socket failed
150373892	GTMSECshrsemget, semget error errno = xxxx

ZM #	GT.M Message, Description
150378026	GTMSECSHRSEND, GTMSECshr send on server socket failed
150378056	GTMSECshrSGID, GTMSECshr server setGID to root failed
150375648	GTMSECshrSHMCONCPROC, More than one process attached to Shared memory segment (ssss) not removed (nnnn)
150378755	GTMSECshrSHUTDOWN, GTMSECshr process has received a shutdown request. Shutting down.
150374818	GTMSECshrSOCKET, xxxx - yyyy; Error initializing GTMSECshr socket
150376298	GTMSECshrSRVF, Client - yyyy; Attempt to service request failed (retry = zzzz)
150376944	GTMSECshrSRVFID, xxxx: yyyy - Attempt to service request failed. Client ID: zzzz, mesg ID: aaaa, mesg code: bbbb
150376952	GTMSECshrSRVFI, xxxx: yyyy; Attempt to service request failed. Client ID: zzzz, mesg type: aaaa, file: bbbb
150378064	GTMSECshrSSID, GTMSECshr server setSID failed
150377618	GTMSECshrSTART, xxxx - yyyy; GTMSECshr failed to startup
150378048	GTMSECshrUID, GTMSECshr server setUID to root failed
150378011	GTMSECshrTMOUT, GTMSECshr exiting due to idle timeout
150381251	GTMSECshrTMPPATH, gtmsecshr path is pppp
150375875	GTMSECshrUPDDBHDR, [client pid pppp] database fileheader (dddd) updated iiii
150372906	GVDATAFAIL, Global variable \$DATA function failed. Failure code: xxxx
150381714	GVDATAGETFAIL, Global variable DATAGET sub-operation (in KILL function) failed. Failure code: cccc.
150379818	GVFAILCORE, A core file is being generated for later analysis if necessary
150372922	GVGETFAIL, Global variable retrieval failed. Failure code: xxxx.
150377538	GVINCRFAIL, <Global variable \$INCR failed. Failure code: xxxx>
150377586	GVINCRISOLATION, <\$INCREMENT cannot be performed on global xxxx as it has NOISOLATION turned ON>
150372626	GVINVALID, xxxx Invalid global name
150372931	GVIS, Global variable: xxxx
150372938	GVKILLFAIL, Global variable kill failed. Failure code: xxxx.
150372946	GVNAKED, Illegal naked global reference
150374130	GVNAKEDEXTNM, Cannot reference different Global Directory in a naked reference

ZM #	GT.M Message, Description
150372962	GVORDERFAIL, Global variable \$ORDER or \$NEXT function failed. Failure code: xxxx.
150372970	GVPUTFAIL, Global variable put failed. Failure code: xxxx.
150375178	GVQUERYFAIL, Global variable \$QUERY function failed. Failure code: xxxx.
150379306	GVQUERYGETFAIL, Global variable QUERY and GET failed. Failure code: xxxx.
150375946	GVREPLERR, Error replicating global in region xxxx
150374314	GVRUNDOWN, Error during global database rundown
150372986	GVSUBOFLOW, The combined length of subscripts (xxxx) is greater than maximum allowed limit (yyyy) for region: zzzz
150372994	GVUNDEF, Global variable undefined: xxxx
150374410	GVZPREVFAIL, Global variable \$ZPREVIOUS function failed. Failure code: xxxx
150381890	GVZTRIGFAIL, ZTRIGGER of a global variable failed. Failure code: cccc.
150373402	HEX64ERR, Error: cannot convert VVVV value to 64 bit hexadecimal number
150373394	HEXERR, Error: cannot convert VVVV value to hexadecimal number
150383546	HLPPROC, Helper Process error
150383106	HOSTCONFLICT, Host hhhh could not open database file dddd because it is marked as already open on node nnnn
150376442	HTOFLOW, Hash table overflow, local or region name space exceeded
150380560	HTSHRINKFAIL, Hash table compaction failed to allocate new smaller table due to lack of memory
150382050	ICUERROR, ICU returned status ssss which is either unrecognized or inconsistent with the operating context
150377504	ICUNOTENABLED, ICU libraries not loaded
150381514	ICUSYMNOTFOUND, Symbol xxxxx not found in ICU libraries. ICU needs to be built with symbol-renaming disabled or gtm_icu_version environment variable needs to be specified
150381506	ICUVERT36, Type 1 - \$gtm_icu_version is aaa.bbb. ICU version greater than or equal to 3.6 should be used. Type 2 - libicuio has version aaa.bbb. ICU version greater than or equal to 3.6 should be used.
150374802	IFBADPARM, External Interface Bad Parameter
150374810	IFNOTINIT, External Interface must first call GTM\$INIT or M routine
150382459	IGNBMPMRKFREE, Ignoring bitmap free-up operation for region rrrr (dddd) due to concurrent ONLINE ROLLBACK
150503498	ILLCHAR, xxxx is not a legal character in this context

ZM #	GT.M Message, Description
150379154	ILLESOCKBFSIZE, The specified socket buffer size is xxxx, which is either 0 or too big
150377698	IMAGENAME, The executing module name should be xxxx instead of yyyy
150373010	INDEXTRACHARS, Indirection string contains extra trailing characters
150381770	INDRCOMPFAIL, Compilation of indirection failed
150373026	INDRMAXLEN, Maximum length xxxxx of an indirection argument was exceeded
150382770	INITORRESUME, UPDATERESYNC on a Supplementary Instance must additionally specify INITIALIZE or RESUME
150503508	INPINTEG, Input integrity error -- aborting load
150373034	INSFFBCNT, Insufficient byte count quota left for requested operation
150382186	INSNOTJOINED, Replicating Instance RRRR is not a member of the same Group as Instance III
150382194	INSROLECHANGE, Supplementary Instance SSSS and non-Supplementary Instance III belong to the same Group
150383139	INSTFRZDEFER, Instance Freeze initiated by eeee error on region rrrrr deferred due to critical resource conflict.
150382202	INSUNKNOWN, Supplementary Instance SSSS has no instance definition for non-Supplementary Instance III
150373042	INTEGERRS, Database integrity errors
150376642	INVACCMETHOD, Invalid access method
150376346	INVADDRSPEC, Invalid IP address specification
150504130	INVALIDAUTODELDB, Autodelete DB must be specified as non-journaled autodb
150376890	INVALIDRIP, Invalid read-in-progress field in Cache Record. Resetting and continuing. Region: xxxx.
150376154	INVBITLEN, Invalid size of the bit string
150376170	INVBITPOS, Invalid position in the bit string
150376162	INVBITSTR, Invalid bit string
150373048	INVCMD, Invalid command keyword encountered
150376986	INVCTLMNE, Invalid control mnemonics
150381090	INVDLRCVAL, Invalid \$CHAR() value.
150379498	INVECODEVAL, Invalid value for \$ECODE (xxxx).
150380354	INVEORLIM, Invalid ERROR_LIMIT qualifier value. Must be at least zero

ZM #	GT.M Message, Description
150373058	INVFCN, Invalid function name
150503851	INVGBLDIR, Invalid Global Directory spec: xxxx. Continuing with yyyy.
150375738	INVGLOBALQUAL, Error in GLOBAL qualifier : Parse error at offset xxxx in yyyy
150380242	INVGTMEEXIT, Inappropriate invocation of gtm_exit. gtm_exit cannot be invoked from external calls.
150384538	INVGVPATQUAL, Invalid Global Value Pattern file qualifier value
150380362	INVIDQUAL, Invalid ID qualifier value xxxx
150568994	INVINTMSG, Invalid interrupt message received
150383522	INVLINKTMPDIR, Value for \$gtm_linktmpdir is either not found or not a directory: dddd
150383802	INVLOCALE, Attempt to reset locale to supplied value of \$gtm_locale xxxx failed
150381264	INVMEMRESRV, Could not allocate GT.M memory reserve (xxxx)
150379794	INVMNEMCSPC, Unsupported mnemonicspace xxxx
150375636	INVMVXSZ, Invalid block size for GOQ load format
150375194	INVNETFILNM, Invalid file name following node designation in global directory
150373066	INVOBJ, Cannot ZLINK object file due to unexpected format
150380986	INVOBJFILE, Cannot ZLINK object file ffff due to unexpected format
150376338	INVPORTSPEC, Invalid port specification
150568970	INVPROT, Invalid protocol specified by remote partner
150380330	INVQUALTIME, Invalid time qualifier value. Specify as xxxx=delta_or_absolute_time.
150380346	INVREDIRQUAL, Invalid REDIRECT qualifier value. xxxx
150377746	INVROLLBKLVL, Rollback level (xxxx) not less than the current \$tlevel (yyyy). Cannot rollback.
150384314	INVSEQNOQUAL, Invalid SEQNO qualifier value xxxx
150384666	INVSHUTDOWN, Shutdown timeout should be from 0 to 3600 seconds
150374058	INVSPECREC, Invalid global modifier record
150379514	INVSTACODE, Invalid value for second parameter of \$STACK (xxxx).
150384146	INVSTATSDB, Database file SSSS associated with statistics database region RRRR is not a valid statistics database
150375522	INVSTRLEN, Invalid string length xxxx: max yyyy
150373074	INVSVN, Invalid special variable name

ZM #	GT.M Message, Description
150383714	INVTMPDIR, Value for \$gtm_tmpdir is either not found or not a directory: dddd - Reverting to default value
150382114	INVTRCGRP, Invalid trace group specified in \$gtm_trace_groups: gggg
150380370	INVTRNSQUAL, Invalid TRANSACTION qualifier. Specify only one of TRANSACTION=[NO]SET or TRANSACTION=[NO]KILL.
150383706	INVZBREAK, Cannot set ZBREAK in direct mode routine (GTM\$DMOD)
150379762	INVZDIRFORM, Illegal value (xxxx) specified for ZDIR_FORM
150380218	INVZROENT, xxxx is neither a directory nor an object library(DLL)
150375506	INVZSTEP, Invalid ZSTEP qualifier
150373082	IOEOF, Attempt to read past an end-of-file
150381546	IOERROR, Error occurred while doing aaaa in oooo operation -- called from module mmmm at line LLLL
150373090	IONOTOPEN, Attempt to USE an I/O device which has not been opened
150374330	IORUNDOWN, Error during image rundown
150379010	IOWRITERR, IO write by PID xxxx to block yyyy of database zzzz failed. PID aaaa retrying the IO.
150379363	IPCNOTDEL, xxxx : yyyy did not delete IPC resources for region zzzz
150377546	ISOLATIONSTSCHN, Error changing NOISOLATION status for global xxxx within a TP transaction from aaaa to bbbb
150383210	ISSPANGBL, Operation cannot be performed on global ^gggg as it spans multiple regions in current global directory
150373106	IVTIME, Invalid time specification: xxxx
150382154	JIUNHNDINT, An error during \$ZINTERRUPT processing was not handled: eeee;
150373818	JNI, xxxx
418808282	JNLACCESS, Error accessing journal file jjjj
150375808	JNLACTINCMPLT, Mupip journal action might be incomplete
150379803	JNLALIGNSZCHG, Journal ALIGNSIZE is rounded up to xxxx blocks (closest next higher power of two)
150380392	JNLALIGNTOOSM, Alignsize xxxx (bytes) is smaller than block size yyyy (bytes) for aaaa bbbb. Using alignsize of cccc (bytes) instead.
150382107	JNLALLOCGROW, Increased Journal ALLOCATION from [ssss blocks] to [aaaa blocks] to match AUTOSWITCHLIMIT for ffff nnnn
150375562	JNLBADLABEL, Specified File xxxx fdoes not have a GT.M Journal File Label

ZM #	GT.M Message, Description
150377362	JNLBADRECFMT, Journal Record Format Error encountered for file jjjj at disk address yyyy
150382808	JNLBUFFDBUPD, Journal file buffer size for database file dddd has been adjusted from xxxx to yyyy
150384235	JNLBUFFPHS2SALVAGE, Salvaged journal records from process PPPP for database file DDDD at transaction number NNNN and journal-sequence-number/unique-token JJJJ with journal file starting offset OOOO and length LLLL
150382800	JNLBUFFREGUPD, Journal file buffer size for region rrrr has been adjusted from xxxx to yyyy
150378843	JNLBUFINFO, Pid aaaa dsk bbbb free cccc bytcnt dddd io_in_prog eeee fsync_in_prog ffff dskaddr gggg freeaddr hhhh qiocnt iiii now_writer xxxx fsync_pid yyyy filesize zzzz cycle oooo errcnt pppp wrtsize qqqq fsync_dskaddr rrrr
150373466	JNLCLOSE, Error closing journal file: xxxx
150381210	JNLCLOSED, Journaling closed for database file dddd at transaction number xxx
150376866	JNLCNTRL, Journal control unsynchronized for ffff.
150379939	JNLCREATE, Journal file xxxx created for <database/region> yyyy with aaaa
150380192	JNLCRESTATUS, xxxx at line aaaa for journal file yyyy, database file zzzz encountered error
150380482	JNLCYCLE, Journal file jjjj causes cycle in the journal file generations of database file dddd
150383786	JNLDBSEQNOMATCH, Journal file ffff has beginning region sequence number jjjj but database dddd has region sequence number ssss
150374210	JNLDBTNNOMATCH, Journal file xxxx has beginning transaction number aaaa but database yyyy has current transaction number bbbb
150379904	JNLDISABLE, Specified journal option(s) cannot take effect as journaling is DISABLED on database file dddd
150381690	JNLENDIANBIG, Journal file jjjj is BIG endian on a LITTLE endian system
150381682	JNLENDIANLITTLE, Journal file jjjj is LITTLE endian on a BIG endian system
150372794	JNLEXTEND, Journal file extension error for file jjjj.
150384306	JNLEXTRCTSEQNO, Journal Extracts based on sequence numbers are restricted to a single region when replication is OFF
150380410	JNLFILECLOSERR, Error closing journal file xxxx
150381594	JNLFILEDUP, Journal files xxxx and yyyy are the same
150380402	JNLFILEOPNERR, Error opening journal file xxxx
150379842	JNLFILEXTERR, Error during extension of journal file xxxx
150377338	JNLFILNOTCHG, Journal file not changed

ZM #	GT.M Message, Description
150373306	JNLFILOPN, Error opening journal file jjjj for database file dddd
150382978	JNLFILRDOPN, Error opening journal file xxxx for read for database file yyyy
150376315	JNLFLUSH, Error flushing journal buffers to journal file xxxx
150379120	JNLFLUSHNOPROG, No progress while attempting to flush journal file jjjj
150379955	JNLFNF, Journal file xxxx not found
150377498	JNLFSYNCERR, Error synchronizing journal file xxxx to disk
150379712	JNLFSYNCLSTCK, JNLFSYNCLSTCK, Journaling fsync lock is stuck in journal file jjjj
150373322	JNLINVALID, jjjj is not a valid journal file Region: rrrr
150375656	JNLINVALLOC, Journal file allocation xxxx is not within the valid range of yyyy to zzzz. Journal file not created.
150375664	JNLINVEXT, Journal file extension xxxx is greater than the maximum allowed size of yyyy. Journal file not created.
150379674	JNLINVSITCHLMT, Specified AUTOSWITCHLIMIT xxxx falls outside of allowed limits aaaa and bbbb
150377176	JNLMINALIGN, Journal Record Alignment xxxx is less than the minimum value of yyyy
150377082	JNLMOVED, Journal file appears to have been moved. Journaling activity will not be done.
150378882	JNLNEWREC, Target system cannot recognize journal record of type xxxx. Last recognized type is yyyy.
150377258	JNLNMBKNOTPRCD, Journal file xxxx does not match the current journal file yyyy of database file zzzz
150380378	JNLNOBIJBACK, MUPIP JOURNAL BACKWARD cannot continue as journal file xxxx does not have before image journaling
150379946	JNLNOCREATE, Journal file jjjj not created
150382090	JNLNOREPL, Replication not enabled for journal file jjjj (database file dddd)
150383896	JNLNOTALLOWED, Did not enable journaling on xxxx region yyyy
150376650	JNLOPNERR, Error opening journal file xxxx for region yyyy
418817450	JNLORDBFLU, Error flushing database blocks to dddd. See related messages in the operator log
150381016	JNLPOOLBADSLLOT, Source server slot for secondary instance xxxx is in an inconsistent state. Pid = pppp, State = ssss, SlotIndex = iiii
150384243	JNLPOOLPHS2SALVAGE, Salvaged journal records from process PPPP for replication instance file iiii at journal sequence number JJJJ with journal pool starting offset OOOO and length LLLL

ZM #	GT.M Message, Description
150383866	JNLPOOLRECOVERY, The size of the data written to the journal pool (xxxx) does not match the size of the data in the journal record (yyyy) for the replication instance file zzzz. The journal pool has been recovered.
150377194	JNLPOOLSETUP, Journal Pool setup error
150380490	JNLPREVRECOV, Journal file has nonzero value in prev_recov_end_of_data field
150375728	JNLPROCSTUCK, Journal file writes blocked by process xxxx
150378795	JNLPVTINFO, Pid aaaa cycle mmmm fd_mismatch nnnn channel rrrr sync_io ssss pini_addr xxxx qio_active yyyy
150383011	JNLQIOSALVAGE, Journal IO lock salvaged
418808682	JNLRDERR, Error reading journal file xxxx: unable to initialize.
418812842	JNLRDONLY, Journal file xxxx read only
150377170	JNLREAD, Error reading from journal file xxxx at offset yyyy
150372698	JNLREADBOF, Beginning of journal file encountered for xxxx
150375570	JNLREADEOF, End of journal file encountered for jjjj
150375578	JNLRECFMT, Journal file record format error encountered
150382098	JNLRECINCMPL, Incomplete journal record at disk address aaaa for file jjjj while attempting to read seqno ssss
150376658	JNLRECTYPE, Journal record type does not match expected type
150380043	JNLSENDOPER, pid = aaaa : status = bbbb : jpc_status = cccc : jpc_status2 = dddd : iosb.cond = eeee
150378874	JNLSETDATA2LONG, SET journal record has data of length xxxx. Target system cannot handle more than yyyy bytes.
150375771	JNLSPACELOW, Journal file jjjj nearing maximum size, nnnn blocks to go
150379923	JNLSTATE, Journaling state for <database/region> xxxx is now yyyy
150377202	JNLSTATEOFF, ROLLBACK or RECOVER BACKWARD cannot proceed as database file xxxx does not have journaling ENABLED and ON
150372865	JNLSUCCESS, xxxx successful
150384186	JNL SWITCHFAIL, Failed to switch journal file xxxx for database file yyyy
150384179	JNL SWITCHRETRY, Retrying previously abandoned switch of journal file jjjj for database dddd
150380011	JNL SWITCHSZCHG, Journal AUTOSWITCHLIMIT [aaaa blocks] is rounded down to [bbbb blocks] to equal the sum of journal ALLOCATION [cccc blocks] and a multiple of journal EXTENSION [dddd blocks]

ZM #	GT.M Message, Description
150380002	JNLSWITCHTOOSM, Journal AUTOSWITCHLIMIT [aaaa blocks] is less than journal ALLOCATION [bbbb blocks] for database file dddd
150374354	JNLTMQUAL1, Time qualifier BEFORE_TIME=xxxx is less than SINCE_TIME=yyyy
150374506	JNLTMQUAL2, Time qualifier LOOKBACK_TIME=xxxx is later than SINCE_TIME=yyyy
150373426	JNLTMQUAL3, Time qualifier BEFORE_TIME=xxxx is less than the journal file(s) minimum timestamp=yyyy
150375682	JNLTMQUAL4, Time qualifier BEFORE_TIME="xxxx is less than AFTER_TIME="yyyy"
150374282	JNLTNOUTOFSEQ, End transaction aaaa of journal xxxx different from Begin transaction bbbb of next generation journal yyyy
150380304	JNLTPNEST, Mupip journal command found nested TP transactions for journal file jjjj at offset oooo at transaction number nnnn
150379994	JNLTRANS2BIG, Transaction needs an estimated [aaaa blocks] in journal file xxxx which exceeds the AUTOSWITCHLIMIT of bbbb
150376666	JNLTRANSCTR, Transaction number in journal is greater than in database
150376674	JNLTRANSLSS, Transaction number in journal is less than in database
150380802	JNLUNXPCTERR, Unexpected error encountered for Journal aaaa at disk address 0xbbbb
150376914	JNLVSIZE, Journal File xxxx has incorrect virtual_filesize aaaa Allocation is bbbb extension is cccc filesize is dddd file_system_block_size is eeee
150376682	JNLWRERR, Error writing journal file xxxx. Unable to update header Region: yyyy
150373691	JNLWRTDEFER, Journal write start deferred
150379690	JOBACTREF, Actual parameter in job command passed by reference
150379851	JOBEXAMDONE, GT.M process aaaa completed job examine to xxxx
150379858	JOBEXAMFAIL, GT.M process aaaa executing \$ZJOBEXAM function failed with the preceding error message
150373114	JOBFAIL, JOB command failure
150373122	JOBLABOFF, Label and offset not found in created process
150383642	JOBLVN2LONG, The zwrite representation of a local variable transferred to a JOB'd process is too long. The zwrite representation cannot exceed MMMM. Encountered size: LLLL
150373130	JOBPARNOVAL, This job parameter cannot take a value
150373138	JOBPARNUM, The value of this job parameter must be an integer
150373146	JOBPARSTR, The value of this job parameter must be a string
150375978	JOBPARTOOLONG, JOBPARTOOLONG Total parameter length is too long for job command

ZM #	GT.M Message, Description
150373154	JOBPARUNK, Job parameter unknown
150373162	JOBPARVALREQ, A value is required for this job parameter
150378714	JOBSETUP, Error receiving aaaa from parent process
150377186	JOBSTARTCMDFAIL, JOB command STARTUP script invocation failed.
150382610	JRTNULLFAIL, Applying NULL journal record failed. Failure code: xxxx.
150373170	JUSTFRACT, Fraction specifier to \$JUSTIFY cannot be negative
150373178	KEY2BIG, Key size (xxxx) is greater than maximum (yyyy) for region zzzz
150503891	KEYFORBLK, But block size bbbb and reserved bytes rrrr limit key size to kkkk.
150503523	KEYSIZIS, Key size is xxxx
150503515	KEYTOOBIG, But record size xxxx can only support key size yyyy
150503530	KEYWRDAMB, xxxx is ambiguous for yyyy
150503538	KEYWRDBAD, xxxx is not a valid yyyy in this context
150381336	KILLABANDONED, Abandoned kills counter is greater than zero for file ffff, tttt
150377788	KILLBYSIG, Process xxxx has been killed by a signal yyyy
150377804	KILLBYSIGSINFO1, iiii process xxxx has been killed by a signal yyyy at address aaaa (vaddr bbbb)
150377812	KILLBYSIGSINFO2, iiii process xxxx has been killed by a signal yyyy at address aaaa
150381244	KILLBYSIGSINFO3, iiii process xxxx has been killed by a signal yyyy accessing vaddress aaaa
150377796	KILLBYSIGUINFO, Process xxxx has been killed by a signal yyyy from process zzzz with userid number aaaa
150377108	KRNLKILL, Process was terminated by SIGDANGER signal from the system --System swap space is too low --Report to System Administrator
150373186	LABELEXPECTED, Label expected in this context
150373194	LABELMISSING, Label referenced but not defined : xxxx
150383506	LABELNOTFND, GOTO referenced a label that does not exist
150374394	LABELONLY, Routine xxxx was compiled for label-only entry.
150373202	LABELUNKNOWN, Label referenced but not defined
150374155	LASTFILCMPLD, The file currently being compiled is xxxx
150384691	LASTTRANS, Last transaction sequence number SSSS : NNNN
150383672	LASTWRITERBYPAS, The last writer for database file xxxx bypassed the rundown

ZM #	GT.M Message, Description
150375145	LCKGONE, Lock removed: xxxx
150375186	LCKSCANCELLED, Error on remote node holding locks or zallocates. All locks and zallocates cancelled.
150375361	LCKSGONE, Locks selected for deletion removed
150375880	LCKSTIMOUT, DAL timed lock request expired
150374898	LDBINFMT, Unrecognized header for load file
150375618	LDGOQFMT, Corrupt GOQ format header information
150382834	LDSPANGLOINCOMP, Incomplete spanning node found during load!/_!_ at File offset : oooo
150384762	LINETOOLONG, UUUU prompt input exceeds NNNN bytes
150375108	LINKVERSION, This image must be relinked with the current version of GT.M
150377442	LISTENPASSBND, Control mnemonic LISTEN can be applied to PASSIVE socket which is in the state BOUND ONLY
150381304	LITNONGRAPH, standard requires graphics in string literals; found non-printable: \$ZCHAR(cccc)
150379202	LKENOFINISH, LKE unable to finish all requested actions
150373218	LKNAMEEXPECTED, An identifier is expected after a ^ in this context
150374322	LKRUNDOWN, Error during lock database rundown
150375018	LOADABORT, Aborting load at record xxxx
150374826	LOADBGSZ, Load error: BEGIN too small. No records loaded.
150375123	LOADCTRLY, Control Y encountered during load. Load halting.
150374386	LOADEDDBG, Load error: END smaller than BEGIN. No records loaded.
150374538	LOADEDSSZ, Load error: END too small. No records loaded.
150374370	LOADEOF, Load error: EOF reached prior to BEGIN record xxxx No records loaded
150374842	LOADFILERR, Error with load file xxxx
150374834	LOADFMT, Load error: bad format type. Must be GO, BINARY, or GOQ.
150503547	LOADGD, Loading Global Directory xxxx
150381106	LOADINVCHSET, Extract file CHSET xxx is incompatible with gtm_chset.
150384339	LOADRECCNT, Last EXTRACT record processed by LOAD: RRRR
150373234	LOADRUNNING, Cannot ZLINK an active routine xxxx
150378858	LOCALSOCKREQ, LOCAL socket required

ZM #	GT.M Message, Description
150384371	LOCKCRITOWNER, LOCK crit is held by: PPPP
150382818	LOCKINCR2HIGH, Attempt to increment a LOCK more than LLLL times
150382827	LOCKIS, Resource name: RRRR
150381538	LOCKSPACEFULL, No more room for LOCK slots on database file ffff
150382603	LOCKSPACEINFO, Region: rrrr: processes on queue: pppp/qqqq; LOCK slots in use: llll/kkkk; SUBSCRIPT slot bytes in use: ssss/tttt
150382147	LOCKSPACEUSE, Estimated free lock space: xxx% of pppp pages.
150382618	LOCKSUB2LONG, Following subscript is xxxx bytes long which exceeds 255 byte limit.
150383872	LOCKTIMINGINTP, A LOCK at pppp within a TP transaction is waiting in a final TP retry, which may lead to a general response gap
150503555	LOGOFF, No longer logging to file xxxx
150503563	LOGON, Logging to file xxxx
150381354	LOGTOOLONG, Environment variable eeee is too long. Maximum length allowed is llll bytes.
150378768	LOWSPACECRE, Disk space for database file xxxx is not enough for yyyy future extension. aaaa blocks are needed, only bbbb available.
150384323	LOWSPC, WARNING: Database DDDD has less than PPPP% of the total block space remaining. Blocks Used: UUUU Total Blocks Available: AAAA
150373242	LPARENMISSING, Left parenthesis expected
150373554	LPARENREQD, xxxx Left parenthesis expected
150373250	LSEXPECTED, A line separator is expected here
150381920	LSINSERTED, Line YYYY, source module XXXX exceeds maximum source line length; line separator inserted, terminating scope of any prior IF, ELSE, or FOR
150375938	LVNULLSUBS, LVNULLSUBS Null subscripts not allowed in local variables
150373258	LVORDERARG, Argument to local variable \$NEXT must be subscripted
150503570	LVSTARALON, The * name cannot be deleted or renamed
150383096	MALLOCCRIT, Memory allocation critical due to request for bbbb bytes from aaaa
150503579	MAPBAD, xxxx for yyyy does not exist
150503587	MAPDUP, xxxx and yyyy both map to zzzz
150374490	MAXACTARG, Maximum number of actual arguments exceeded
150373882	MAXARGCNT, Maximum number of arguments xxxx exceeded

ZM #	GT.M Message, Description
150379786	MAXBTLEVEL, Global ^gggg in region rrrr reached maximum level
150373266	MAXFORARGS, Maximum number of arguments to a single FOR command exceeded
150377730	MAXGTMPATH, The executing module path is greater than the maximum xxxx
150373282	MAXNRSUBSCRIPTS, Maximum number of subscripts exceeded
150382082	MAXSEMGETRETRY, Failed to get ftok semaphore after tttt tries because it is being continually deleted
150381554	MAXSSREACHED, Maximum snapshots - mmmm - for region rrrr reached. Please wait for the existing snapshots to complete before starting a new one.
150373290	MAXSTRLEN, Maximum string length exceeded
150381650	MAXTRIGNEST, Maximum trigger nesting level LLLL exceeded
418808770	MBXRONLY, Mailbox is read only, cannot write to it
418808786	MBXWRONLY, Mailbox is write only, cannot read from it
150373340	MEMORY, Central memory exhausted during request for xxxx bytes
150377116	MEMORYRECURSIVE, Memory Subsystem called recursively
150379322	MERGEDESC, Merge operation not possible. xxxx is descendent of yyyy.
150379328	MERGEINCOMPL, Error encountered during MERGE; operation may be incomplete
150503946	MISSINGDELIM, Delimiter dddd expected before qqqq vvvv
150384443	MLKCLEANED, LOCK garbage collection freed aaaa lock slots for region rrrr
150384427	MLKHASHRESIZE, LOCK hash table for region rrrr (dddd) increased in size from aaaa to bbbb and placed in shared memory (id = mmmm)
150384432	MLKHASHRESIZEFAIL, Failed to increase LOCK hash table for region rrrr (dddd) size from aaaa to bbbb. Will retry with larger size.
150384362	MLKHASHTABERR, A LOCK control structure is damaged and could not be corrected. Lock entry for LLLL is invalid.
150384378	MLKHASHWRONG, A LOCK control structure has an invalid state; LOCK table failed integrity check. TTTT
150384555	MLKREHASH, LOCK hash table rebuilt for region rrrr (dddd) (seed = ssss)
150381320	MMBEFOREJNL, BEFORE image journaling cannot be set with MM access method in database file ffff
150383026	MMFILETOOLARGE, Size of rrrr region (ffff) is larger than maximum size supported for memory mapped I/O on this platform.
150503819	MMNOBEFORIMG, MM segments do not support before image journaling

ZM #	GT.M Message, Description
150381328	MMNOBFORRPL, Replication cannot be used in database file ffff which uses MM access method and NOBEFORE image journaling
150383082	MMREGNOACCESS, Region rrrr (ffff) is no longer accessible. See prior error messages in the operator and application error logs
150383602	MPROFRUNDOWN, Error during M-profiling rundown
150381202	MRTMAXEXCEEDED, Maximum value of xxxx for SOCKET deviceparameter MOREREADTIME exceeded.
150376290	MSTACKCRIT, User-specified M stack size critical threshold of xxxx not appropriate; must be between mmmm and nnnn; reverting to kkkk
150384299	MSTACKSZNA, User-specified M stack size of SSSS KiB not appropriate; must be between LLLL KiB and MMMM KiB; reverting to VVVV KiB
150376234	MTNOSKIP, SKIP operation not supported on this device
150376138	MUBCKNODIR, MUPIP backup aborted due to error in output directory
418819682	MUCREFILERR, Error in/at EEEE creating database DDDD (region RRRR)
150380738	MUDWNGRDNOTPOS, Start VBN value is [xxx] while downgraded GT.M version can support only [yyy]. Downgrade not possible
150374346	MUFILRNDWNFL, File: xxxx rundown failed
150382842	MUFILRNDWNFL2, Database section (id = dddd) belonging to database file ffff rundown failed
150374531	MUFILRNDWNSUC, File successfully rundown
150378275	MUINFOSTR, xxxx : aaaa
150378107	MUINFOUINT4, xxxx : aaaa [0xbbbb]
150382123	MUINFOUINT6, <tttt : vvvv [0x!hhhh] ; \$H=dddddd,ttttt
150378259	MUINFOUINT8, xxxx : aaaa [0xbbbb]
150382851	MUINSTFROZEN, tttt : Instance iiiii is frozen. Waiting for instance to be unfrozen before proceeding with writes to database file ffff
150382859	MUINSTUNFROZEN, tttt : Instance iiiii is now unfrozen. Continuing with writes to database file ffff
150380427	MUJNLPREVGEN, Previous generation journal file xxxx included for database file yyyy
150380299	MUJNLSTAT, xxxx at yyyy
150379090	MUJPOOLRNDWNFL, Jnlpool section (id = xxxx) belonging to the replication instance yyyy rundown failed

ZM #	GT.M Message, Description
150379075	MUJPOOLRNDWNSUC, Jnlpool section (id = xxxx) belonging to the replication instance yyyy successfully rundown
150384570	MUKEEPNODEC, Expected decimal integer input for keep
150384578	MUKEEPNOTRUNC, Keep issued without -truncate
150384562	MUKEEPPERCENT, Keep threshold percentage should be from 0 to 99
150377376	MUKILLIP, Kill in progress indicator is set for file xxxx, incorrectly marked busy errors should follow
150379218	MULOGNAMEDEF, logical name xxxx, needed to start replication server is already defined for this job. Check for an existing or improperly terminated server.
150374418	MULTFORMPARM, This formal parameter is multiply defined
150383794	MULTIPROCLATCH, Failed to get multi-process latch at xxxx
150373434	MULTLAB, This label has been previously defined
150376578	MUNOACTION, MUPIP unable to perform requested action
150375706	MUNODBNAME, A database name or the region qualifier must be specified
150377458	MUNODWNGRD, MUPIP downgrade did not occur because of preceding errors
150377482	MUNOFINISH, MUPIP unable to finish all requested actions
150380776	MUNOSTRMBKUP, Database xxxx has a block size larger than yyyy and thus cannot use stream (incremental) backup
150382880	MUNOTALLINTEG, At least one region skipped. See the earlier messages
150374088	MUNOTALLSEC, WARNING: not all global sections accessed were successfully rundown
150376018	MUNOUPGRD, MUPIP upgrade did not occur because of preceding errors
150375674	MUPCLIERR, Action not taken due to CLI errors
150378297	MUPGRDSUCC, Database file xxx successfully yyy to zzz
150373099	MUPIPINFO, xxxx
150378128	MUPIPSET2BIG, vvvv too large, maximum tttt allowed is mmmm
150378536	MUPIPSET2SML, vvvv too small, minimum tttt allowed is mmmm
150380555	MUPIPSIG, STOP (signal xxxx) issued from process yyyy to process zzzz
150380434	MUPJNLINTERRUPT, Database file xxxx indicates interrupted MUPIP JOURNAL command. Restore from backup for forward recover/rollback.
150372450	MUPRECFLCK, Database file xxxx is locked by MUPIP RECOVER. Could not secure access.
150376130	MUPRESTERR, MUPIP RESTORE aborted due to preceding errors

ZM #	GT.M Message, Description
150377674	MUQUALINCOMP, Incompatible qualifiers - FILE and REGION
150379378	MURAIMGFAIL, MUPIP RECOVER failed while processing after-image journal record. Failure code: xxxx.
150376355	MUREENCRYPTEND, Database ffff : MUPIP REORG ENCRYPT finished by pid pppp at transaction number 0xtttt
150383843	MUREENCRYPTSTART, Database ffff : MUPIP REORG ENCRYPT started by pid pppp at transaction number 0xtttt
150374402	MUREORGFAIL, MUPIP REORG failed. Failure code: xxxx.
150379107	MUREPLPOOL, Error with replpool section xxxx
150379059	MUREPLSECDEL, Replication section xxxx deleted
150379067	MUREPLSECNOTDEL, Replication section xxxx not deleted
150378419	MUREUPDWNGRDEND, Region xxxx : MUPIP REORG UPGRADE/DOWNGRADE finished by pid aaaa [0xbbbb] at transaction number [0xcccc]
150384251	MURNDWNARGLESS, Argumentless MUPIP RUNDOWN started with process id PPPP by userid UUUU from directory DDDD
150382435	MURNDWNOVRD, OVERRIDE qualifier used with MUPIP RUNDOWN on database file dddd
150379098	MURPOOLRNDWNFL, Recvpool section (id = xxxx) belonging to the replication instance yyyy rundown failed
150379083	MURPOOLRNDWNSUC, Recvpool section (id = xxxx) belonging to the replication instance yyyy successfully rundown
150374099	MUSECDEL, Section xxxx deleted
150374107	MUSECNOTDEL, Section xxxx not deleted
150378970	MUSELFBKUP, Database file xxxx can not be backed upon itself
150382906	MUSIZEFAIL, MUPIP SIZE : failed. Failure code: xxxx.
150382898	MUSIZEINVARG, MUPIP SIZE : Invalid parameter value for: xxxx
150376571	MUSTANDALONE, Could not get exclusive access to xxxx
150376906	MUTEXERR, Mutual Exclusion subsystem failure
150376928	MUTEXFRCDTERM, Mutual Exclusion subsystem detected forced termination of process pppp. Crit salvaged from database file dddd.
150376920	MUTEXLCKALERT, Mutual Exclusion subsystem ALERT - Lock attempt threshold crossed for region rrrr. Process pppp is in crit cycle cccc.
150380186	MUTEXRELEASED, Process xxxx [aaaa] has released the critical section for database yyyy to avoid deadlock. \$TLEVEL: pppp t_tries: qqqq

ZM #	GT.M Message, Description
150378683	MUTEXRSRCCLNUP, Mutex subsystem leftover resource xxxx removed.
150375864	MUTNWARN, Database file xxxx has 0xaaa more transactions to go before reaching the transaction number limit (0xbbbb). Renew database with MUPIP INTEG TN_RESET.
150382483	MUTRUNC1ATIME, Process with PID iiiii already performing truncate in region rrrr
150382491	MUTRUNCBACKINPROG, Truncate detected concurrent backup in progress for region rrrr
150382498	MUTRUNCERROR, Truncate of region rrrr encountered service error eeee
150382506	MUTRUNCFAIL, Truncate failed after reorg
150382515	MUTRUNCNOSPACE, Region rrrr has insufficient space to meet truncate target percentage of yyyy
150384587	MUTRUNCNOSPKEEP, Region rrrr has insufficient space to meet truncate target percentage of pppp with keep at bbbb blocks
150382522	MUTRUNCNOTBG, Region rrrr does not have access method BG
150382538	MUTRUNCPERCENT, Truncate threshold percentage should be from 0 to 99
150382547	MUTRUNCSSINPROG, Truncate detected concurrent snapshot in progress for region rrrr
150382555	MUTRUNCSUCCESS, Database file dddd truncated from oooo blocks to nnnn at transaction tttt
150380746	MUUPGRDNRDY, Database xxx has not been certified as being ready to upgrade to yyy format
150382250	MUUSERECOV, Abnormal shutdown of journaled database dddd detected
150381898	MUUSERLBK, Abnormal shutdown of replication-enabled database dddd detected
150374434	NAMEEXPECTED, A local variable name is expected in this context
150503594	NAMENDBAD, Subscripted name ssss must end with right parenthesis
150504074	NAMGVSUBOFLOW, Subscripted name hhhh...tttt is too long to be represented in the database using collation value #nnnn
150504002	NAMGVSUBSMAX, Subscripted Name specification nnnn has more than the maximum # of subscripts (mmmm)
150503970	NAMLARENNOTBEG, Subscripted Name specification nnnn needs to have a left parenthesis at the beginning of subscripts
150504010	NAMNOTSTRSUBS, Subscript #nnnn with value vvvv in name specification is not a properly formatted string subscript
150503930	NAMNUMSUBSOFLOW, Subscript #nnnn with value vvvv in name specification has a numeric overflow

ZM #	GT.M Message, Description
150503986	NAMONECOLON, Subscripted Name specification nnnn must have at most one colon (range) specification
150503954	NAMRANGELASTSUB, Ranges in name specification nnnn are allowed only in the last subscript
150504058	NAMRANGEORDER, Range in name specification nnnn specifies out-of-order subscripts using collation sequence #cccc
150504066	NAMRANGEOVERLAP, Range in name specifications mmmm and nnnn overlap using collation sequence #cccc
150503978	NAMRPARENNOTEND, Subscripted Name specification nnnn cannot have anything following the right parenthesis at the end of subscripts
150503962	NAMSTARSUBSMIX, Name specification nnnn cannot contain * and subscripts at the same time
150504042	NAMSTRSUBSCHARG, Subscript #nnnn with value vvvv in name specification specifies a \$C/\$ZCH with number cccc that is invalid in the current \$zchset
150504034	NAMSTRSUBSCHINT, Subscript #nnnn with value vvvv in name specification does not have a positive integer inside \$C/\$CHAR/\$ZCH/\$ZCHAR
150504018	NAMSTRSUBSFUN, Subscript #nnnn with value vvvv in name specification uses function other than \$C/\$CHAR/\$ZCH/\$ZCHAR
150503922	NAMSUBSBAD, Subscript #nnnn with value vvvv in name specification is an invalid number or string
150503914	NAMSUBSEMPY, Subscript #nnnn is empty in name specification
150375818	NCTCOLLDIFF, Source and destination for MERGE cannot have different numerical collation type
150383186	NCTCOLLSPGBL, Database region rrrr contains portion of spanning global ^gggg and so cannot support non-zero numeric collation type
150383570	NEEDTRIGUPGRD, Cannot do trigger operation on database file ffff until it is upgraded; Run MUPIP TRIGGER -UPGRADE first
150376226	NEGFRACPWR, Invalid operation: fractional power of negative number
150375594	NESTFORMP, Formal parameter list cannot be combined with nested line
150375202	NETDBOPNERR, Error while attempting to open database across net
150375234	NETFAIL, Failure of Net operation
150375242	NETLCKFAIL, Lock operation across Net failed
150377523	NEWJNLFILECREAT, Journal file xxxx nearing maximum size. New journal file created.
150378114	NLMISMATCHCALC, Location of xxxx expected at yyyy, but found at zzzz

ZM #	GT.M Message, Description
150383648	NLRESTORE, DB file header field FFFF: VVVV does not match the value used in original mapping - restoring to: OOOO
150503603	NOACTION, Not updating Global Directory xxxx
150381362	NOALIASLIST, Parenthetical lists of multiple arguments cannot have a preceding alias introducer or include alias (*) forms
150379530	NOCANONICNAME, Value is not a canonic name (xxxx).
150375346	NOCCPPID, Cannot find CCP process ID
150379212	NOCHLEFT, Unhandled condition exception (all handlers exhausted) process terminating
150384090	NOCREMMBIJ, MM access method not compatible with BEFORE image journaling; Database file DDDD not created
150384074	NOCRENETFILE, Database file DDDD not created; cannot create across network
150383664	NODFRALLOCSUPP, The NODEFER_ALLOCATE qualifier is not allowed on this operating system. Not changing the defer allocation flag
150383530	NOEDITOR, Can't find an executable editor: eeee
150381026	NOENDIANCVT, Unable to convert the endian format of file dddd due to eeee
150377579	NOEXCLUDE, None of the excluded variables exist
150374163	NOEXCNOZTRAP, Neither an exception nor a Ztrap is specified
150503619	NOEXIT, Cannot exit because of verification failure
150384354	NOFILTERNEST, Filter nesting not allowed
150377160	NOFORKCORE, Unable to fork off process to create core. Core creation postponed.
150383362	NOGTCMDB, ffff does not support operation on GT.CM database region: rrrr
150503827	NOJNL, ssss segments do not support journaling.
150379402	NOJNLPOOL, No journal pool info found in the replication instance of xxxx
150375498	NOLBRSRC, Object libraries cannot have SRC paths associated
150382131	NOLOCKMATCH, No matching locks were found in rrrr
150503627	NOLOG, Logging is currently disabled. Log file is xxxx.
150383811	NOMORESEMCNT, SSSS counter semaphore has reached its maximum and stopped counting for database DDDD. Run MUPIP JOURNAL -ROLLBACK -BACKWARD, MUPIP JOURNAL -RECOVER -BACKWARD or MUPIP RUNDOWN to restore the database files and shared resources to a clean state
150503866	NONASCII, ssss is illegal for a oooo as it contains non-ASCII characters
150503642	NONEGATE, Qualifier xxxx cannot be negated

ZM #	GT.M Message, Description
150383739	NONTPRESTART, Database dddd; code: cccc; blk: bbbb in glbl: ^gggg; blklvl: llll, type: tttt, zpos: pppp
150381082	NONUTF8LOCALE, Locale has character encoding (cccc) which is not compatible with UTF-8 character set
150504114	NOPERCENTY, ^%Y* is a reserved global name in GT.M
150375754	NOPINI, PINI journal record expected but not found in journal file xxxx at offset yyyy
150373458	NOPLACE, Line specified in a ZBREAK cannot be found
150374906	NOPREVLINK, Journal file xxxx has a null previous link
150376332	NOPRINCIO, Unable to dddd principal device: DDDD at LLLL due to: SSSS
150379410	NORECVPOOL, No receiver pool info found in the replication instance of xxxx
150374850	NOREGION, REGION not found: xxxx
150377224	NOREPLCTDREG, Replication subsystem found no region replicated for dddd ffff
150382210	NORESINCSUPPLONLY, NORESYNC only supported for Supplementary Instances
150382218	NORESINCUPTATERONLY, NORESYNC qualifier only allowed on a Supplementary Instance which allows local updates
150377330	NORTN, Routine name missing
150374880	NOSELECT, None of the selected variables exist, halting
150379162	NOSOCKETINDEV, There is no socket in the current socket device
150383338	NOSOCKHANDLE, No socket handle specified in WRITE /PASS
150378762	NOSPACECRE, Not enough space to create database file xxxx. aaaa blocks are needed, only bbbb available.
150378802	NOSPACEEXT, Not enough disk space for file xxxx to extend. aaaa blocks needed. bbbb blocks available.
150380290	NOSTARFILE, Only star(*) argument can be specified with xxxx
150379538	NOSUBSCRIPT, No such subscript found (xxxx)
150379187	NOSUCHPROC, Process xxxx does not exist no need to yyyy it
150382226	NOSUPPLSUPPL, Instance ssss is configured to perform local updates, so it cannot receive from Supplementary Instance iiii
150378964	NOTALLDBOPN, Not all required database files were opened
150382962	NOTALLDBRNDWN, Not all regions were successfully rundown
150375480	NOTALLJNLEN, Journaling disabled/off for dddd regions

ZM #	GT.M Message, Description
150372680	NOTALLREPLON, Replication off for dddd regions
150376627	NOTERMENTRY, TERM = "xxxx" has no "terminfo" entry. Possible terminal handling problems.
150376619	NOTERMENV, Environment variable TERM not set. Assuming "unknown."
150376635	NOTERMINFODB, No "terminfo" database. Possible terminal handling problems.
150374450	NOTEXTRINSIC, Quit does not return to an extrinsic function, argument not allowed
150372602	NOTGBL, Expected a global variable name starting with an up-arrow (^): xxxx
150384450	NOTMNAME, XXXX is not a valid M name
150380338	NOTPOSITIVE, xxxx qualifier must be given a value greater than zero
150373472	NOTPRINCIO, Output currently directed to device xxxx
150377768	NOTREPLICATED, Transaction number xxxx generated by the yyyy process (PID = zzzz) is not replicated to the secondary
150380018	NOTRNDMACC, Only random access files are supported as backup files for non-incremental backup
150373482	NOTTOEOFONPUT, Not positioned to EOF on write (sequential organization only)
150383370	NOUSERDB, ffff does not support operation on non-GDS format region: rrrr
150503634	NOVALUE, Qualifier xxxx does not take a value
150373491	NOZBRK, No zbreak at that location
150381666	NOZTRAPINTRIG, Use of \$ZTRAP in a database trigger environment (\$ZTLEVEL greater than 0) is not supported.
150377370	NULLCOLLDIFF, Null collation order cannot be different for all regions
150383066	NULLENTYREF, JOB command did not specify entryref
150384544	NULLPATTERN, Empty line found in the Pattern file
150373498	NULSUBSC, XXXX Null subscripts are not allowed for current region: FFFF
150373378	NUM64ERR, Error: cannot convert VVVV value to 64 bit decimal or hexadecimal number
150373370	NUMERR, Error: cannot convert VVVV value to 64 bit decimal or hexadecimal number
150373506	NUMOFLOW, Numeric overflow
150378728	NUMPROCESSORS, Could not determine number of processors
150372770	NUMUNXEOR, xxxx unexpected end of record in numeric subscript
150503650	OBJDUP, xxxx yyyy already exists
150376210	OBJFILERR, Error with object file I/O on file xxxx

ZM #	GT.M Message, Description
150503658	OBJNOTADD, Not adding xxxx
150503666	OBJNOTCHG, OBJNOTCHG Not changing xxxx
150503674	OBJNOTFND, xxxx does not exist
150503682	OBJREQD, xxxx required
150375970	OFFSETINV, Entry point xxxx+yyyy not valid
150383960	OFRZACTIVE, Region aaaa has an Online Freeze
150383968	OFRZAUTOREL, Online Freeze automatically released for region aaaa
150383976	OFRZCRITREL, Proceeding with a write to region aaaa after Online Freeze while holding crit
150383984	OFRZCRITSTUCK, Unable to proceed with a write to region !AD with Online Freeze while holding crit. Region stuck until freeze is removed.
150383992	OFRZNOTHELD, Online Freeze had been automatically released for at least one region
150377752	OLDBINEXTRACT, Loading an older version (xxxx) of binary extract
150380811	OMISERVHANG, GTCM OMI server is hung
150381275	OPCOMMISSED, n errors and m MBFULLs sending prior operator messages
150376394	OPENCONN, Error opening socket connection
150375003	OPRCCPSTOP, The Cluster Control Program has been halted by an operator stop request
150376010	ORDER2, Invalid second argument to \$ORDER. Must be -1 or 1
150382379	ORLBKCMPLT, ONLINE ROLLBACK completed successfully on instance iiiii corresponding to dddd
150382410	ORLBKDBUPGRDREQ, Region RRR (DDDD) is not fully upgraded. ONLINE ROLLBACK cannot continue
150382403	ORLBKFRZOVER, tttt : FREEZE on region rrrr (ddd) cleared
150382395	ORLBKFRZPROG, tttt : waiting for FREEZE on region rrrr (dddd) to clear
150382731	ORLBKINPROG, Online ROLLBACK in progress by PID pppp in region rrrr
150382387	ORLBKNOSTP, ONLINE ROLLBACK proceeding with database updates. MUPIP STOP will no longer be allowed
150384467	ORLBKREL, ONLINE ROLLBACK releasing all locking resources to allow a freeze OFF to proceed
150384475	ORLBKRESTART, ONLINE ROLLBACK restarted on instance iiiii corresponding to rrrr
150378984	ORLBKROLLED, ORLBKROLLED, ONLINE ROLLBACK took the database for instance iiiii region rrrr corresponding to dddd to a prior state

ZM #	GT.M Message, Description
150382363	ORLBKSTART, ONLINE ROLLBACK started on instance iiiii corresponding to dddd
150382370	ORLBKTERMNTD, ONLINE ROLLBACK terminated on instance iiiii corresponding to dddd with the above errors
150378788	OUTOFSPACE, Database file xxxx ran out of disk space. Detected by process aaaa. Exit without clearing shared memory due to the disk space constraints. Make space and then perform mupip rundown to ensure database integrity.
150381154	PADCHARINVALID, PAD deviceparameter cannot be greater than 127.
150373514	PARFILSPC, Parameter: xxxx file specification: yyyy
150376177	PARNORMAL, Parse successful
150376410	PATALTER2LARGE, Pattern match alternation exceeded the LLLL repetition limit on prospective matches
150373522	PATCLASS, Illegal character class for pattern code
150373530	PATCODE, Illegal syntax for pattern
150373538	PATLIT, Illegal character or unbalanced quotes for pattern literal
150374858	PATLOAD, Error loading pattern file xxxx
150373546	PATMAXLEN, Pattern code exceeds maximum length
150379754	PATNOTFOUND, Current pattern table has no characters with pattern code xxxx
150376202	PATTABNOTFND, Pattern table xxxx not found
150372978	PATTABSNTAX, Error in xxxx at line yyyy
150373562	PATUPPERLIM, Pattern code upper limit is less than lower limit
150383770	PBNINVALID, ssss does not have a field named ffff
150383778	PBNNOFIELD, %ZPEEKBYNAME() requires a field.item as its first parameter
150383754	PBNNOPARM, First parameter pppp does not support a second parameter
150383746	PBNPARAMREQ, A first parameter value pppp requires a second parameter specified containing rrrr
150383762	PBNUNSUPSTRUCT, \$ZPEEK() does not support structure ssss
150383882	PBNUNSUPTYPE, \$ZPEEK() does not support type tttt
150373570	PCONDEXPECTED, Post-conditional expression expected but not found
150384122	PCTYRESERVED, Attempted operation not supported on ^%Y* namespace
150382274	PEERPIDMISMATCH, Local socket peer with PID=pppp does not match specified PID=qqqq

ZM #	GT.M Message, Description
150382475	PERMGENDIAG, Permissions: Proc(uid:uuuu,gid:gggg), DB File(uid:vvvv,gid:hhhh,perm:pppp), Lib File(gid:iiii,perm:qqqq), Group Mem(opener:jjjj,owner:kkkk)
418817922	PERMGENFAIL, Failed to determine access permissions to use for creation of xxxx for file yyyy
150382528	PIDMISMATCH, Global variable with PID=pppp does not match specified PID=qqqq
150378560	PIDRESET, Region RRRR had PID PPP doing MMMM but PID did not exist, reset to zero
150377146	PINENTRYERR, Custom pinentry program failure
150373578	PRCNAMLEN, Process name xxxx length is greater than yyyy
150383658	PREALLOCATEFAIL, Disk space reservation for SSSS segment has failed
150503690	PREFIXBAD, xxxx must start with an alphabetic character to be a yyyy
150372618	PREMATEOF, Premature end of file detected
150379963	PREVJNLLINKCUT, Previous journal file name link set to NULL in new journal file xxxx created for database file yyyy
150379971	PREVJNLLINKSET, Previous generation journal file name is changed from xxxx to yyyy
150375042	PREVJNLNOEOF, A previous generation journal file xxxx does not have valid EOF
150379298	PRIMARYISROOT, Attempted operation not valid on root primary instance xxxx
150380466	PRIMARYNOTROOT, Attempted operation not valid on non-root primary instance xxxx
150381784	PROCTERM, uuuu process termination due to cccc from eeee
150376970	PROTNOTSUP, Protocol xxxx not supported
150503698	QUALBAD, xxxx is not a valid qualifier
150503706	QUALDUP, xxxx qualifier appears more than once in the list
150374610	QUALEXP, Qualifier expected but not found
150503714	QUALREQD, xxxx required
150374626	QUALVAL, Qualifier value required but not found
150381778	QUITALSINV, QUIT * return when the extrinsic was not invoked with SET *
150374546	QUITARGLST, Quit cannot take a list of arguments
150374554	QUITARGREQD, Quit from an extrinsic must have an argument
150374426	QUITARGUSE, Quit cannot take an argument in this context
150373586	RANDARGNEG, Random number generator argument must be greater than or equal to one
150384106	RAWDEVUNSUP, RAW device for region RRRR is not supported

ZM #	GT.M Message, Description
150382314	RCVRMANYSRMS, Receiver server now connecting to source stream NNNN but had previously connected to a different stream nnnn
150377474	RDFLTOOLONG, Length specified for fixed length read exceeds the maximum string size
150375298	RDFLTOOSHORT, Length specified for fixed length read less than or equal to zero
150381458	READONLYNOBG, Read-only cannot be enabled on non-MM databases
150373602	REC2BIG, Record size (xxxx) is greater than maximum (yyyy) for region: zzzz
150375531	RECCNT, Last LOAD record number: xxxx
150377410	RELOAD, Error loading record number: nnnn
150372595	RECORDSTAT, gggg: Key cnt: kkkk max subsc len: ssss max rec len: dddd max node len: rrrr
150377658	RECSIZENOTEVEN, RECORDSIZE [xxxx] needs to be a multiple of 2 if ICHSET or OCHSET is UTF-16, UTF-16LE or UTF-16BE
150503731	RECSIZIS, Record size is xxxx
150503723	RECTOOBIG, Block size xxxx and yyyy reserved bytes limit record size to zzzz
150377210	RECVPOOLSETUP, Receive Pool setup error
418819587	REGFILENOTFOUND, Database file DDDD corresponding to region RRRR cannot be found
150503739	REGIS, in region xxxx
150568978	REGNTFND, Region referenced not initialized
150383154	REGOPENFAIL, Failed to open region rrrr (dddd) due to conflicting database shutdown activity
150381618	REGSSFAL, Process pppp encountered error contributing to the snapshot for region rrrr - the snapshot is no longer valid.
150383514	RELINKCTLERR, Error with relink control structure for \$ZROUTINES directory dddd
150378122	RELINKCTLFULL, Relinkctl file for directory dddd is full (maximum entries mmmm)
150383178	REMOTEDBNOSPGBL, Database region rrrr contains portion of a spanning global and so cannot point to a remote file
150383562	REMOTEDBNOTRIG, Trigger operations on global gggg not supported as it maps to database region rrrr that points to a remote file
150378824	RENAMEFAIL, Rename of file xxxx to yyyy failed
150376027	REORGCTRLY, User interrupt encountered during database reorg -- halting
150377600	REORGINC, Reorg was incomplete. Not all globals were reorged.
150380730	REORGUPCNFLCT, MUPIP AAAA encountered a conflict due to OOOO (PID:PPPP)

ZM #	GT.M Message, Description
150384649	REPL0BACKLOG, Total backlog for the specified replicating instance(s) is 0
150382234	REPL2OLD, Instance IIII uses a GT.M version that does not support connection with the current version on iiiii.
150379114	REPLACCSEM, Error with replication access semaphore (id = xxxx) for instance file aaaa
150378530	REPLAHEAD, Replicating instance is ahead of the originating instance. aaaa
150384624	REPLALERT, Source Server could not connect to replicating instance [XXXX] for [NNNN] seconds
150384658	REPLBACKLOG, Timeout occurred while there was a backlog
150377274	REPLBRKNTRANS, Replication subsystem found transaction xxxx broken or missing in the journal files
150377218	REPLCOMM, Replication subsystem communication failure
150377250	REPLERR, XXXX
150378930	REPLEXITERR, Replication process encountered an error while exiting
150377266	REPLFILIOERR, Replication subsystem file I/O error xxxx
150377298	REPLFILTER, Replication filter subsystem failure
150378890	REPLFTOKSEM, Error with replication semaphores for instance file xxxx
150377554	REPLGBL2LONG, Global names longer than 8 characters cannot be handled at the secondary
150377235	REPLINFO, xxxx
150379394	REPLINSTACC, Error accessing replication instance file xxxx
150378706	REPLINSTCLOSE, Error closing replication instance file xxxx
150379130	REPLINSTCREATE, Error creating replication instance file xxxx
150380882	REPLINSTDBMATCH, Replication instance file xxxx has seqno xxxx while database has a different seqno yyyy
150382346	REPLINSTDBSTRM, Replication instance file rrrr has seqno xxxx for Stream nnnn while database has a different seqno XXXX
150379450	REPLINSTFMT, Format error encountered while reading replication instance file xxxx. Expected yyyy. Found zzzz.
150382659	REPLINSTFREEZECOMMENT, Freeze Comment: xxxx
150382650	REPLINSTFROZEN, Instance xxxx is now Frozen
150380866	REPLINSTMISMTCH, Process has replication instance file ffff (jnlpool shmids = ssss) open but database dddd is bound to instance file gggg (jnlpool shmids = tttt)
150380906	REPLINSTNMLEN, Replication instance name xxxx should be 1 to 15 characters long

ZM #	GT.M Message, Description
150380890	REPLINSTNMSAME, Primary and Secondary instances have the same replication instance name xxxx
150380898	REPLINSTNMUNDEF, Replication instance name not defined
150380914	REPLINSTNOHIST, REPLINSTNOHIST History record for xxxx not found in replication instance file yyyy
150383162	REPLINSTNOSHMM, Database dddd has no active connection to a replication journal pool
418814154	REPLINSTOPEN, Error opening replication instance file xxxx
418816330	REPLINSTREAD, Error reading xxxx bytes at offset yyyy from replication instance file ffff
150380610	REPLINSTRECR, Error recreating replication instance file ffff
150380922	REPLINSTSECLN, REPLINSTSECLN Secondary replication instance name xxxx should be 1 to 15 characters long
150380930	REPLINSTSECMTCH, REPLINSTSECMTCH Secondary replication instance name xxxx sent by receiver does not match yyyy specified at source server startup
150380938	REPLINSTSECNONE, No information found for secondary instance xxxx in instance file yyyy
150380946	REPLINSTSECUNDF, REPLINSTSECUNDF Secondary replication instance name not defined
150380954	REPLINSTSEQORD, REPLINSTSEQORD ssss has seqno xxxx which is less than last record seqno yyyy in replication instance file zzzz
150380962	REPLINSTSTNDALN, REPLINSTSTNDALN Could not get exclusive access to replication instance file xxxx
150379386	REPLINSTUNDEF, Replication instance environment variable \$gtm_repl_instance is undefined
150382667	REPLINSTUNFROZEN, Instance xxxx is now Unfrozen
418814474	REPLINSTWRITE, REPLINSTWRITE Error writing xxxx bytes at offset yyyy from replication instance file ffff
150378818	REPLJNLCLOSED, Replication in jeopardy as journaling got closed for database file dddd. Current region seqno is xxxx[XXXX] and system seqno is yyyy[YYYY]
150379896	REPLJNLCNFLCT, Journaling cannot be turned nnnn on database file ffff as the replication state is rrrr and must also be turned nnnn in the same command
418812746	REPLLOGOPN, Replication subsystem could not open log file LLLL : eeee. Logging done to OOOO
150382018	REPLMULTINSTUPDATE, Previous updates in the current transaction are to xxxx so updates to yyyy (in rrrr) not allowed
150379888	REPLNOBEFORE, NOBEFORE option cannot be used when the current replication state is ON for a database file xxxx

ZM #	GT.M Message, Description
150383554	REPLNOHASHSTREC, Sequence number NNNN contains trigger definition updates. IIII side must be at least V6.2-000 for replication to continue
150384640	REPLNORESP, No sequence number confirmation from the replicating instance xxxx after waiting for nnnn second(s)
150383306	REPLNOTLS, xxxx requested TLS/SSL communication but the yyyy was either not started with TLSID qualifier or does not support TLS/SSL protocol
150377074	REPLNOTON, Replication is not on for journal file xxxx, rollback will not continue
150381962	REPLNOXENDIAN, SSSS side is running on a GT.M version that does not support cross-endian replication. Upgrade the SSSS side to at least V5.3-003 to support cross-endian replication. Cannot continue.
150380314	REPLOFFJNLON, Replication state for database file <xxx> is OFF but journaling state is enabled.
150377058	REPLPOOLINST, Error with replication pool xxxx for instance file yyyy
150380460	REPLRECFMT, Replication journal record format error encountered
150380970	REPLREQROLLBACK, Replication instance file xxxx indicates abnormal shutdown. Run MUPIP JOURNAL ROLLBACK first.
150379426	REPLREQRUNDOWN, Error accessing replication instance xxxx. Must be rundown on cluster node yyyy.
150383696	REPLSRCEXITERR, Source server for secondary instance xxxx exited abnormally. See log file yyyy for details.
150379931	REPLSTATE, Replication state for region/database file xxxx is now yyyy
150376498	REPLSTATEERR, Replication state cannot be changed to the specified value for database file <xxx>.
150380418	REPLSTATEOFF, MUPIP JOURNAL -ROLLBACK -BACKWARD cannot proceed as database xxxx does not have replication ON
150377466	REPLTRANS2BIG, Transaction xxxx of size yyyy too large to be accommodated in the zzzz pool
150377240	REPLWARN, xxxx
150381970	REPLXENDIANFAIL, SSSS side encountered error while doing endian conversion at journal sequence number JJJJ
150379035	REQ2RESUME, Request to resume suspended processing received from process xxxx owned by userid yyyy
150375794	REQDVIEWPARM, Required View parameter is missing
150379986	REQRECOV, Error accessing database dddd. Must be recovered on cluster node ccccc.

ZM #	GT.M Message, Description
150383578	REQRLNKCTLRNDWN, Error accessing relinkctl file rrrr for \$ZROUTINES directory dddd. Must be rundown
150380978	REQROLLBACK, Error accessing database dddd. Run MUPIP JOURNAL -ROLLBACK -NOONLINE on cluster node cccc.
150374954	REQRUNDOWN, Error accessing database dddd. Must be rundown on cluster node ccccc.
150380499	RESOLVESEQNO, Resolving until sequence number dddd [0xxxxx]
150382339	RESOLVESEQSTRM, Resolving until stream sequence number Stream nnnn : Seqno dddd xxxx
150382635	RESRCINTRLCKBYPAS, tttt with PID qqqq bypassing the ssss semaphore for region rrrr (ffff) currently held by PID pppp.
150382627	RESRCWAIT, Waiting briefly for the tttt semaphore for region rrrr (ffff) was held by PID pppp (Sem. ID: ssss)
150377003	RESTORESUCCESS, Restore completed successfully
418819666	RESTRICTEDOP, Attempt to perform a restricted operation: xxxx
150384218	RESTRICTSYNTAX, Syntax error in file ffff at line number nnnn. All facilities restricted for process.
150382354	RESUMESTRMNUM, Error with stream number specified in RESUME qualifier
150383938	RESYNCSEQLOW, MUPIP JOURNAL -ROLLBACK -FORWARD -RESYNC=NNNN [0xXXXXX] requested is lower than LLLL which is the starting sequence number for the instance
150382306	REUSEINSTNAME, Error with instance name specified in REUSE qualifier
150373610	RHMISSING, Right-hand side of expression expected
150381227	RLBKJNLNOBIMG, Journal file jjjj has NOBEFORE_IMAGE journaling.
150380451	RLBKJNSEQ, Journal seqno of the instance after rollback is xxxx[yyyy]
150381235	RLBKLOSTTNONLY, ROLLBACK will only create a lost transaction file (database and journal files will not be modified)
150381218	RLBKNOBIMG, ROLLBACK cannot proceed as database dddd has NOBEFORE_IMAGE journaling
150382331	RLBKSTRMSEQ, Stream journal seqno of the instance after rollback is Stream nnnn : Seqno dddd xxxx
150379824	RLNKCTLOPENDEL, The relinkctl file rrrr for \$ZROUTINES directory dddd has been deleted by another process, will try to reconnect. (retry = nnnn)
150383594	RLNKCTLRNDWNFL, Relinkctl file for \$ZROUTINES directory dddd failed to rundown as it is open by nnnn process(es)
150383587	RLNKCTLRNDWNSUC, Relinkctl file for \$ZROUTINES directory dddd successfully rundown

ZM #	GT.M Message, Description
150375987	RLNKINTEGINFO, Integrity check completed successfully: xxxx -- called from module yyyy at line zzzz
150383626	RLNKRECLATCH, Failed to get latch on relinkctl record for routine name rrrr in \$ZROUTINES directory dddd
150373728	RLNKRECNFL, Conflict on relinkctl file rrrr for \$ZROUTINES directory dddd, running an integrity check
150383634	RLNKSHMLATCH, Failed to get latch on relinkctl shared memory for \$ZROUTINES directory dddd
150376586	RMBIGSHARE, File with BIGRECORD specified may only be SHARED if READONLY
150376450	RMNOBIGRECORD, RMNOBIGRECORD File record size requires BIGRECORD parameter
150375962	RMWIDTHPOS, File record size or width must be greater than zero
150376194	RMWIDTHTOOBIG, File record size too big
150378747	RNDWNSEMFAIL, Attempting to acquire gds_rundown semaphore when it is already owned
150384042	RNDWNSTATSDBFAIL, Rundown of statistics database region RRRR (DB DDDD) failed at/ in LLLL with following error: EEEE
150380442	ROLLBKINTERRUPT, Database file xxxx indicates interrupted ROLLBACK. Reissue the MUPIP JOURNAL ROLLBACK command.
150373634	ROUTINEUNKNOWN, Routine could not be found
150503610	RPAREN, List must end with right parenthesis or continue with comma
150373642	RPARENMISSING, Right parenthesis expected
150374114	RPARENREQD, xxxx Right parenthesis expected
150380818	RSVDBYTE2HIGH, Record size ssss is greater than the maximum allowed for region rrrr with Block size bbbb and cccc reserved bytes dddd
150382562	RSYNCSTRMSUPPONLY, RSYNC_STRM qualifier only supported for Supplementary Instances
150382322	RSYNCSTRMVAL, RSYNC_STRM qualifier can only take on a value from 0 to 15
150373650	RTNNAME, Routine name expected here
150373667	RTSLOC, At M source location xxxx
150375994	RUNPARAMERR, Error accessing parameter for run command
150373674	RWARG, This is not a legal argument for a READ command
150373682	RWFORMAT, A valid format expression (!!, #, or ?expr) expected here
150378098	SCNDDDBNOUPD, Database updates not allowed on the secondary

ZM #	GT.M Message, Description
150378850	SDSEEKERR, Sequential device seek error
150382258	SECNOTSUPPLEMENTARY, ssss is a Supplementary Instance and so cannot act as a source to non-Supplementary Instance iiiii
150379810	SEFCTNEEDSFULLB, Current side effect setting does not permit full Boolean to be turned off
150503747	SEGIS, in xxxx segment yyyy
150373698	SELECTFALSE, No argument to \$SELECT was true
150375012	SELECTSYNTAX, Argument to xxxx clause is not valid
150383003	SEMID, Semaphore id nnnn
150379458	SEMKEYINUSE, Semaphore key xxxx is already in use (possibly by an older version)
150379443	SEMREMOVED, Semaphore id xxxx removed from the system
418816074	SEMUNDOOVERFLOW, The operating system per-process SEM_UNDO table is full and region rrrr cannot be opened
150378690	SEMWT2LONG, Process wwwwww waited ssss second(s) for the llll lock for region rrrr, lock held by pid pppp
418818442	SEQNUMSEARCHTIMEOUT, Timed out trying to find sequence number ssss in Journal File(s). See above messages for details. Source server exiting
150375226	SERVERERR, Severe error on server: xxxx
150379506	SETECODE, Non-empty value assigned to \$ECODE (user-defined error trap)
150382954	SETEXTRENV, Database files are missing or Instance is frozen; supply the database files, wait for the freeze to lift or define gtm_extract_nocol to extract possibly incorrect collation
150381906	SETINSETTRIGONLY, ISV iiiii can only be modified in a 'SET' type trigger
150381642	SETINTRIGONLY, ISV iiiii cannot be modified outside of the trigger environment
150382284	SETITIMERFAILED, A setitimer() call returned an error status of ssss
150383818	SETQUALPROB, Error getting qqqq qualifier value
150380387	SETREG2RESYNC, Setting resync sequence number xxxx to region sequence number yyyy for database zzzz
150379170	SETSOCKOPTERR, Setting the socket attribute xxxx failed: (errno == aaaa) yyyy
418815138	SETZDIR, Cannot change working directory to xxxx.
150380840	SHMHUGETLB, Could not back shared memory with huge pages, using base pages instead
150380848	SHMLOCK, Could not pin shared memory into physical memory
150380771	SHMPLRECOV, Shared memory pool block recovery invoked for region xxxx

ZM #	GT.M Message, Description
150382035	SHMREMOVED, Removed Shared Memory id mmmm corresponding to file ffff
150384632	SHUT2QUICK, Shutdown timeout ssss shorter than the heartbeat period SSSS; cannot confirm the backlog at the replicating instance iiiii
150382912	SIDEEFFECTEVAL, Extrinsic (\$\$), External call (\$&) or \$INCREMENT() with potential side effects in actualist, function arguments, non-Boolean binary operands or subscripts
418813428	SIGACCERR, Signal was caused by invalid permissions for mapped object
150377884	SIGADRALN, Signal was caused by invalid address alignment
150377892	SIGADRERR, Signal was caused by non-existent physical address
150377876	SIGBADSTK, Signal was caused by an internal stack error
150377868	SIGCOPROC, Signal was caused by a coprocessor error
150377924	SIGFLTDIV, Signal was caused by a floating point divided by zero
150377956	SIGFLTINV, Signal was caused by an invalid floating point operation
150377932	SIGFLTQVF, Signal was caused by a floating point overflow
150377948	SIGFLTRES, Signal was caused by a floating point inexact result
150377940	SIGFLTUND, Signal was caused by a floating point underflow
150377836	SIGILLADR, Signal was caused by illegal addressing mode
150377820	SIGILLOPC, Signal was caused by an illegal opcode
150377828	SIGILLOPN, Signal was caused by an illegal operand
150377844	SIGILLTRP, Signal was caused by an illegal trap
150377908	SIGINTDIV, Signal was caused by an integer divided by zero
150377916	SIGINTQVF, Signal was caused by an integer overflow
150377964	SIGMAPERR, Signal was caused by an address not mapped to an object
150377900	SIGOBJERR, Signal was caused by an object specific hardware error
150377852	SIGPRVOPC, Signal was caused by a privileged opcode
150377860	SIGPRVREG, Signal was caused by a privileged register
150379554	SIZENOTVALID4, Size (in bytes) must be either 1, 2, or 4
150378034	SIZENOTVALID8, Size (in bytes) must be either 1, 2, 4, or 8
150383330	SOCKACCEPT, Socket accept failed
150376378	SOCKACPT, Error accepting socket connection

ZM #	GT.M Message, Description
150379146	SOCKBFNOTEMPTY, Socket buffer size cannot be set to xxxx due to aaaa bytes of buffered data. Read first.
150383130	SOCKBIND, Error in binding socket
150384674	SOCKBLOCKERR, WRITE /BLOCK error: dddd
150384754	SOCKCLOSE, Error closing socket: (errno = aaaa) xxxx
150377434	SOCKETEXIST, Socket xxxx already exists
150380602	SOCKHANGUP, Socket has disconnected
150376386	SOCKINIT, Error initializing socket: (errno == aaaa) xxxx
150376994	SOCKLISTEN, Error listening on a socket
150381146	SOCKMAX, Attempt to exceed maximum sockets xxx for the SOCKET device
150377418	SOCKNOTFND, Socket xxxx not found
150378898	SOCKNOTPASSED, Socket message contained no passed socket descriptors
150383322	SOCKPASS, Socket pass failed
150383354	SOCKPASSDATAMIX, Attempt to use a LOCAL socket for both READ/WRITE and PASS/ACCEPT
150376370	SOCKWAIT, Error waiting for socket connection
150384682	SOCKWAITARG, nnnn argument to WRITE /WAIT xxxx
150376602	SOCKWRITE, Write to a socket failed
150380856	SPFCBUBDELAY, Request for block bbbb in database file dddd delayed by PID iiiii
150382874	SPCLZMSG, The following error message cannot be driven through ZMESSAGE
150373706	SPOREOL, Either a space or an end-of-line was expected but not found
150384699	SRCBACKLOGSTATUS, Instance RRRR SSSS NNNN transaction(s)
418811674	SRCFILERR, Error with source file I/O on file xxxx
150373715	SRCLIN, xxxx
150381795	SRCLNNTDSP, Source lines exceeding www character width are not displayed
150373723	SRCLOC, At column xxxx, line yyyy, source module zzzz
150375139	SRCNAM, in source module xxxx
150380994	SRCSRVEXISTS, Source server for secondary instance xxxx is already running with pid yyyy
150381002	SRCSRVNOTEXIST, Source server for secondary instance xxxx is not alive

ZM #	GT.M Message, Description
150381010	SRCSRVTOOMANY, Cannot start more than xxxx source servers in primary instance file yyyy
150382450	SRVLCKWT2LNG, PID pppp is holding the source server lock. Waited for ssss seconds(s). Now exiting
150381850	SSATTACHSHM, Error while attaching to shared memory identifier iiiii
150381634	SSFILCLNUPFAIL, Error while unlinking snapshot file -- xxxx
150381610	SSFILOPERR, Error while doing oooo operation on file ffff
150381602	SSPREMATEOF, Premature end of file while reading block nnnn of size: bbbb bytes at offset: oooo from zzzz
150381626	SSSHMCLNUPFAIL, Error while doing snapshot shared memory cleanup. Operation -- ssss. Identifier -- dddd
418817042	SSTMPCREATE, Cannot create the temporary file in directory dddd for the requested snapshot
418817034	SSTMPDIRSTAT, Cannot access temporary directory dddd
150373738	STACKCRIT, Stack space critical
150373748	STACKOFLOW, Stack overflow
150373754	STACKUNDERFLO, Stack underflow
150380282	STARFILE, Star(*) argument cannot be specified with xxxx
150372435	STATCNT, xxxx: Key cnt: yyyy max subsc len: zzzz max data len: wwwww
150384154	STATSDBERR, Error in/at LLLL attempting to use a statistics database: SSSS
150384170	STATSDBFNERR, This database has no accessible statistics database due to the following error: EEEE
150384162	STATSDBINUSE, Statistics database SSSS is in use with database DDDD so cannot also be used with database OOOO
150384514	STATSDBMEMERR, Process attempted to create stats block in statistics database SSSS and received SIGBUS--invalid physical address. Check file system space.
150384050	STATSDBNOTSUPP, Attempted operation is not supported on statistics database file SSSS
150504091	STDNULLCOLLREQ, Region rrrr needs Standard Null Collation enabled because global gggg spans through it
150384274	STPCRIT, String pool space critical
150380570	STPEXPFAIL, Stringpool expansion failed. It could not expand to xxxx bytes
150384284	STPOFLOW, String pool space overflow
150373762	STRINGOFLOW, String pool overflow

ZM #	GT.M Message, Description
150503898	STRMISSQUOTE, Missing double-quote at end of string specification ssss
150382571	STRMNUMIS, Stream # is ssss
150382578	STRMNUMMISMTCH1, Stream nnnn exists on the receiver instance file but is unknown on the source instance
150382586	STRMNUMMISMTCH2, Stream nnnn exists on the source instance file but is unknown on the receiver instance
150382594	STRMSEQMISMTCH, Unable to play update on Stream nnnn with seqno xxxx as receiving instance has a different stream seqno XXXX
150379562	STRNOTVALID, Error: cannot convert xxxx value to valid yyyy value.
150372786	STRUNXEOR, xxxx unexpected end of record in string subscript
150381523	STUCKACT, Process stuck script invoked: rrrr : pppp
150375154	SUB2LONG, Subscript invalid, too long
150382266	SUPRCVRNEEDSSUPSRC, Instance iiiii is not configured to perform local updates, so it cannot act as a receiver for non-Supplementary Instance ssss
150379139	SUSPENDING, Suspending processing on user request or attempt to do terminal I/O while running in the background
150381170	SVNEXPECTED, Special variable expected in this context
150381178	SVNONEW, Cannot NEW this special variable
150373770	SVNOSET, Cannot SET this special variable
150377722	SYSCALL, Error received from system call xxxx -- called from module yyyy at line zzzz
150384290	SYSUTILCONF, Error determining the path for system utility. tttt
150378994	TCGETATTR, Error while getting terminal attributes on file descriptor xxxx
150381842	TCOMMITDISALLOW, TROLLBACK required after an unhandled error in trigger context
150379002	TCSETATTR, Error while setting terminal attributes on file descriptor xxxx
150373786	TERMASTQUOTA, Process AST quota exceeded, cannot open terminal
150384594	TERMHANGUP, Terminal has disconnected
150375922	TERMWRITE, Error writing to terminal, status:
150375539	TEXT, xxxx
150373794	TEXTARG, Invalid argument to \$TEXT function
150379040	TIMERHANDLER, Incorrect SIGALRM handler xxxx found by yyyy
150376522	TIMEROVFL, Timer overflow; interval probably too large

ZM #	GT.M Message, Description
150375307	TIMRBADVAL, Bad value specified. Timer not changed.
150383280	TLSCONNINFO, Failed to obtain information on the TLS/SSL connection
150383266	TLSCONVSOCK, Failed to convert UNIX TCP/IP socket to TLS/SSL aware socket>/error
150383250	TLSDLLNOOPEN, Failed to load GT.M TLS/SSL library for secure communication
150383274	TLSHANDSHAKE, Connection to remote side using TLS/SSL protocol failed
150383258	TLSINIT, Failed to initialize GT.M TLS/SSL library for secure communication
150383290	TLSIOERROR, Error during TLS/SSL oooo operation
150383618	TLSPARAM, TLS parameter pppp eeee
150383298	TLSRENEGOTIATE, Failed to XXXX TLS/SSL connection
150376058	TLVLZERO, Transaction is not in progress
150380026	TMPFILENOCRE, Error in MUPIP BACKUP while trying to create temporary file xxxx
150373802	TMPSTOREMAX, Maximum space for temporary values exceeded
150380762	TNTOOLARGE, Database file xxx has reached the transaction number limit (0xaaa). Renew database with MUPIP INTEG TN_RESET
150380752	TNWARN, Database file xxx has 0xaaa more transactions to go before reaching the transaction number limit (0xaaa). Renew database with MUPIP INTEG TN_RESET
150377570	TOOMANYCLIENTS, GT.M is serving the maximum number of clients. Try again later.
150375114	TOTALBLKMAX, Extension exceeds maximum total blocks, not extending
150376090	TPFAIL, Transaction COMMIT failed.
150376074	TPLOCK, Cannot release lock(s) held prior to current TSTART
150376434	TPMIXUP, xxxx transaction cannot be started within yyyy transaction
150384058	TPNOSTATSHARE, VIEW "[NO]STATSHARE" is not allowed inside a TP transaction
150383218	TPNOSUPPORT, Operation cannot be performed while inside of a TP transaction
150378864	TPNOTACID, tttt at xxxx in a final TP retry violates ACID properties of a TRANSACTION and could exceed ssss milliseconds and rrrr RESTARTs have occurred
150376082	TPQUIT, Cannot QUIT out of a routine with an active transaction
150376595	TPRESTART, Database mmmm; code: xxxx; blk: yyyy in glbl: zzzz; pvtmods: aaaa, blkmods: bbbb, blklvl: cccc, type: dddd, readset: eeee, writeset: ffff, local_tn: gggg, zpos: hhhh
150382970	TPRESTNESTERR, TP restart signaled while handing error - treated as nested error - Use TROLLBACK in error handler to avoid this
150377322	TPTIMEOUT, Transaction timeout

ZM #	GT.M Message, Description
150376106	TPTOODEEP, \$TLEVEL cannot exceed 127
150377562	TRACEON, Missing global name (with optional subscripts) to dump M-tracing information into
150379587	TRACINGON, Tracing already turned on
150376146	TRANS2BIG, Transaction exceeded available buffer space for region rrrr
150373274	TRANSMINUS, Negative numbers not allowed with ZTCOMMIT
150373002	TRANSNEST, Maximum transaction nesting levels exceeded
150372834	TRANSNOSTART, ZTCOMMIT(s) issued without corresponding ZTSTART(s)
150377050	TRESTLOC, Transaction start: xxxx, Transaction failure: yyyy
150381866	TRESTMAX, TRESTART not allowed in a final TP retry more than once
150376066	TRESTNOT, Cannot TRESTART, transaction is not restartable
150381720	TRIG2NOTRIG, Sending transaction sequence number xxxx which used triggers to a replicator that does not support triggers
150381658	TRIGCOMPFAIL, Compilation of database trigger named tttt failed
150381827	TRIGDATAIGNORE, Ignoring trigger data tttt. Use MUPIP TRIGGER to load trigger definitions
150381810	TRIGDEFBAD, Trigger initialization failed for global ^gggg. Error while processing ^#t("xxxx",yyyy[,zzzz])
150381856	TRIGDEFNOSYNC, Global ^gggg has triggers defined on the [originating/replicating] instance but none on the [replicating/originating] instance. Current journal sequence number is 0xjjjj
150381698	TRIGINVCHSET, Trigger tttt for global gggg was created with CHSET=cccc which is different from the current \$ZCHSET of this process
150381835	TRIGIS, Trigger name: tttt
150383346	TRIGLOADFAIL, MUPIP TRIGGER or \$ZTRIGGER operation failed. Failure code: xxxx
418817634	TRIGMODREGNOTRW, Trigger(s) cannot be added/changed/deleted because region rrrr is read-only
150376874	TRIGNAMBAD, Trigger initialization failed. Error while processing ^#t(tttt,cccc)
150376042	TRIGNAMENF, Trigger name nnnn not found with the current default global directory
150381754	TRIGNAMEUNIQ, Unable to make trigger name tttt unique beyond vvvv versions already loaded
150381706	TRIGREPLSTATE, Trigger cannot update replicated database file dddd since triggering update was not replicated

ZM #	GT.M Message, Description
150381818	TRIGSUBSCRANGE, Trigger definition for global ^gggg has one or more invalid subscript range(s) : ssss
150381738	TRIGTCOMMIT, TCOMMIT at \$ZTLEVEL=LLLL not allowed as corresponding TSTART was done at lower \$ZTLEVEL=BBBB
150381746	TRIGTLVLCHNG, Detected a net transaction level (\$TLEVEL) change during trigger tttt. Transaction level must be the same at exit as when the trigger started
150383682	TRIGUPBADLABEL, Trigger upgrade cannot upgrade label NNNN to CCCC on ^GGGG in region RRRR
150376048	TRIGZBREAKREM, ZBREAK in trigger tttt removed due to trigger being reloaded
150377978	TRNLOGFAIL, Translation of [OpenVMS] logical name or [UNIX] environmental variable xxxx failed
150377738	TROLLBK2DEEP, Intended rollback (xxxx) deeper than the current \$level (yyyy)
150376034	TSTRTPARM, Error parsing TSTART qualifier
150375251	TTINVFILTER, Invalid FILTER argument
150377314	TTLENGHTHOOBIG, Terminal LENGTH exceeds the maximum allowed limit
150377282	TTWIDTHHOOBIG, Terminal WIDTH exceeds the maximum allowed limit
150373826	TXTSRCFMT, \$TEXT encountered an invalid source program file format
150375082	TXTSRCMAT, M object module and source file do not match
150373834	UIDMSG, Unidentified message received
150373842	UIDSND, Unidentified sender PID
150373850	UNDEF, Undefined local variable: xxxx
150373858	UNIMPLOP, Unimplemented construct encountered
150384482	UNIQNAME, Cannot provide same file name (nnnn) for ffff and FFFF
150374572	UNKNOWNFOREX, Process halted by a forced exit from a source other than MUPIP
150374170	UNSDCLASS, Unsupported descriptor class
150374178	UNSDDTYPE, Unsupported descriptor data type
150375330	UNSOLCNTERR, An unsolicited error message has been received from the network
150373386	UNUM64ERR, Error: cannot convert VVVV value to 64 bit unsigned decimal or hexadecimal number
418812810	UPDATEFILEOPEN, Update file open error
150383538	UPDPROC, Update Process error

ZM #	GT.M Message, Description
150381298	UPDREPLSTATEOFF, Error replicating global gggg as it maps to database xxxx which has replication turned OFF.
150382290	UPDSYNC2MTINS, Can only UPDATERESYNC with an empty instance file
150382298	UPDSYNCINSTFILE, Error with instance file name specified in UPDATERESYNC qualifier
150375906	USRIOINIT, User-defined device driver not successfully initialized
150383954	UTF16ENDIAN, The device previously set UTF-16 endianness to cccc and cannot change to eeee
150503755	VALTOOBIG, xxxx is larger than the maximum of yyyy for a zzzz
150503762	VALTOOLONG, xxxx exceeds the maximum length of yyyy for a zzzz
150503771	VALTOOSMALL, xxxx is less than the minimum of yyyy for a zzzz
150503778	VALUEBAD, xxxx is not a valid yyyy
150503786	VALUEREQD, Qualifier xxxx requires a value
150373866	VAREXPECTED, Variable expected in this context
150503795	VERIFY, Verification xxxx
150376858	VERMISMATCH, Attempt to access xxxx with version yyyy, while already using zzzz
150374082	VERSION, Version mismatch - This program must be recompiled
150374034	VIEWAMBIG, View parameter xxxx is ambiguous
150373898	VIEWARGCNT, View parameter xxxx has inappropriate number of subparameters
150383146	VIEWARGTOOLONG, The argument length LLLL to VIEW command vvvv exceeds the maximum mmmm
150373810	VIEWCMD, View parameter pppp is not valid with the VIEW command
150373778	VIEWFN, View parameter pppp is not valid with the VIEW command
150373658	VIEWGVN, Invalid global key name used with VIEW/\$VIEW(): xxxx
150381378	VIEWLVN, Invalid local variable name used with VIEW or \$VIEW(): vvvv
150374042	VIEWNOTFOUND, View parameter xxxx not valid
150373360	VIEWREGLIST, \$VIEW() only handles the first region subparameter
150376508	VMSMEMORY, Central memory exhausted - check page file quota and page file size
150378779	WAITDSKSPACE, Process xxxx will wait aaaa seconds for necessary disk space to become available for yyyy
150378808	WCBLOCKED, Field xxxx is set by process yyyy at transaction number aaaa for database file zzzz

ZM #	GT.M Message, Description
150375842	WCERRNOTCHG, Not all specified databases were changed
150375266	WCSFLUFAIL, Error flushing buffers -- called from module MMMM at line LLLL
150375848	WCWRNNOTCHG, Not all specified databases were changed
150383690	WEIRDSYSTIME, Time reported by the system clock is outside the acceptable range. Please check and correct the system clock.
150381138	WIDTHTOOSMALL, WIDTH should be at least 2 when device ICHSET or OCHSET is UTF-8 or UTF-16.
150374586	WILDCARD, Wild cards are prohibited: xxxx
150503859	WRITEERROR, Cannot exit because of write failure. Reason for failure: xxxx.
150379746	WRITERSTUCK, Buffer flush stuck waiting for concurrent writer PID pppp (mmmm of xxxx) to finish writing to database file dddd
150381946	WRITEWAITPID, PID wwwwww waited mmmm minute(s) for PID hhhh to finish writing block bbbb in database file ffff
150384386	XCRETNULLREF, Returned null reference from external call LLLL
150379370	XCVOIDRET, Attempt to return a value from function xxxx, which is declared void in external call table yyyy
150379490	XTRNRETSTR, Return string from extended reference translation algorithm is NULL.
150379482	XTRNRETVAL, Length of return value from extended reference translation algorithm is out of bound
150379474	XTRNTRANSDDL, Error during extended reference environment translation. Please check the above message.
150379466	XTRNTRANSERR, Error attempting to generate an environment using an external algorithm.
150373354	ZATRANSCOL, The collation requested has no implementation for the requested operation
150383234	ZATRANSERR, The input string is too long to convert
150373914	ZATTACHERR, Error attaching to xxxx
150380203	ZBREAKFAIL, Could not set breakpoint at xxxx due to insufficient memory
150374218	ZCALLTABLE, External call: Table format error
150374226	ZCARGMSMTCH, External call: Actual argument count, xxxx is greater than formal argument count, yyyy
150382002	ZCCLNUPRTNMISNG, External call: Cleanup routine name missing. Cannot continue
150376770	ZCCOLON, Colon expected but not found
150374234	ZCCONMSMTCH, External call: Too many input arguments

ZM #	GT.M Message, Description
150374298	ZCCONVERT, External call: error converting output argument
150376834	ZCCSQRBR, Closing Square bracket expected
150376730	ZCCTENV, Environmental variable for external package xxxx not set
150376746	ZCCTNULLF, External call table contains no records: xxxx
418812194	ZCCTOPN, Unable to open external call table: xxxx
150376762	ZCENTNAME, No entry found in external call table
150374274	ZCINPUTREQ, External call: Required input argument missing
150382010	ZCINVALIDKEYWORD, External call: Invalid keyword found. Cannot continue. Invalid keyword encountered in the ext call config file.
150376826	ZCMAXPARAM, Exceeded maximum number of external call parameters
150376810	ZCMLTSTATUS, Multiple entries of xc_status in a single entry in external call table
150381162	ZCNOPREALLOUTPAR, Parameter xxxx in external call yyyy.zzzz is an output only parameter requiring pre-allocation.
150374242	ZCOPT0, External call: Qualifier OPTIONAL_0 can be used only with mechanisms REFERENCE or DESCRIPTOR
150374266	ZCPOSOVR, External call: Invalid overlapping of arguments in table position xxxx
150376842	ZCPREALNUMEX, Pre-allocation value should be a decimal number
150377514	ZCPREALVALINV, The pre-allocation value exceeded the maximum string length
150376850	ZCPREALVALPAR, Pre-allocation allowed only for variables passed by reference
150376786	ZCRCALLNAME, Routine name expected but not found
150376794	ZCRPARAMNAME, Parameter name expected but not found
150374306	ZCRTENOTF, External call routine xxxx not found
150376778	ZCRTNTYP, Unknown return type
150374250	ZCSTATUS, External call: Unsuccessful return status
150376818	ZCSTATUSRET, External call returned error status
150376754	ZCUNAVAIL, Package, xxxx unavailable
150374194	ZCUNKMECH, External call: Unknown parameter-passing mechanism
150374202	ZCUNKQUAL, External call: Unknown input qualifier
150374186	ZCUNKTYPE, External call: Unknown argument type
150376802	ZCUNTYPE, Unknown type entered

ZM #	GT.M Message, Description
150374258	ZCUSRRTN, External call: Run-time error in user routine
150377064	ZCVECTORINDX, Invalid Vector Index xxxx
150375858	ZCWRONGDESC, A string longer than 65535 is passed via 32-bit descriptor
150382058	ZDATEBADDATE, \$ZDATE() date argument dddd is less than -365 (the \$HOROLOG value for 01-JAN-1840) or greater than 364570088 (the \$HOROLOG value for 31-DEC-999999)
150382066	ZDATEBADTIME, \$ZDATE() time argument tttt is less than 0 or greater than 86399 (the \$HOROLOG value for a second before midnight)
150373922	ZDATEFMT, \$ZDATE format string contains invalid character
150379768	ZDIROUTOFSYNC, \$ZDIRECTORY xxxx is not the same as its cached value yyyy
150373930	ZEDFILSPEC, Illegal ZEDIT file specification: xxxx
150379706	ZFF2MANY, Number of characters specified for ZFF deviceparameter (xxxx) is more than the allowed (yyyy)
150373938	ZFILENMTOOLONG, xxxx is longer than 255 characters
150373946	ZFILKEYBAD, xxxx is not a legal keyword for \$ZFILE()
150373954	ZFILNMBAD, xxxx is not a legal file name
418809578	ZGBLDIRACC, Cannot access global directory xxxx. Continuing with yyyy.
150381954	ZGOCALLOUTIN, ZGOTO level 0 with entry ref not valid when using call-ins
150381730	ZGOTOINVLVL, ZGOTO in a trigger running in mmmm cannot ZGOTO level LLLL
150381978	ZGOTOINVLVL2, ZGOTO 0:entryref is not valid on VMS (UNLINK is a UNIX only feature)
150373962	ZGOTOLTZERO, Cannot ZGOTO a level less than zero
150373970	ZGOTOTOOBIG, Cannot ZGOTO a level greater than present level
150381186	ZINTDIRECT, Attempt to enter direct mode from \$ZINTERRUPT
150381194	ZINTRECURSEIO, Attempt to do IO to the active device in \$ZINTERRUPT
150373978	ZLINKFILE, Error while ZLINKing "xxxx"
150375370	ZLKIDBADARG, The tvexpr must be FALSE if last ZLKID not found
150374658	ZLMODULE, Object file name does not match module name: xxxx
150374650	ZLNOOBJECT, No object module was produced
150373986	ZPARSETYPE, Illegal TYPE argument to \$ZPARSE(): xxxx
150373994	ZPARSFLDBAD, Illegal \$ZPARSE() field parameter: xxxx
150383610	ZPEEKNOJNLINFO, \$ZPEEK() unable to access requested journal structure - region rrrr is not currently journaled

ZM #	GT.M Message, Description
150383074	ZPEEKORPLINFO, \$ZPEEK() unable to access requested replication structure
150374002	ZPIDBADARG, The tvexpr must be FALSE if last \$ZPID() not found
150374010	ZPRIVARGBAD, xxxx is not a legal privilege for \$ZPRIV()
150374018	ZPRIVSYNTAXERR, Privilege string cannot end with a comma
150374026	ZPRTLBNOTFND, Label not found in routine
150374634	ZROSYNTAX, \$ZROUTINES syntax error: xxxx
150374050	ZSETPRVARGBAD, xxxx is not a legal privilege for \$ZSETPRIV()
150374066	ZSETPRVSYNTAX, \$ZSETPRIV() privileges string cannot end with a comma
150375474	ZSHOWBADFUNC, An illegal function was specified for ZSHOW
150383386	ZSOCKETATTR, Attribute "xxxx" invalid for \$ZSOCKET function msg name
150383394	ZSOCKETNOTSOCK, \$ZSOCKET function called but device is not a socket
150374074	ZSRCHSTRMCT, Search stream identifier out of range
150375514	ZSTEPARG, ZSTEP argument expected
150384408	ZTIMEOUT, ZTIMEOUT Time expired
150381762	ZTRIGINVACT, Missing or invalid subcode (first) parameter given to \$ZTRIGGER()
418817626	ZTRIGNOTRW, ZTRIGGER cannot operate on read-only region rrrr
150381674	ZTWORMHOLE2BIG, String length of LLLL bytes exceeds maximum length of mmmm bytes for \$ZTWORMHOLE
150375546	ZWRSPONE, Subscript patterns in ZWRITE are atomic; Invalid delimiter

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Appendix B. Reference Implementation Error messages

The error messages listed in this appendix are generated by the reference plug-in. If you change the plug-in, the messages will be those generated by your plug-in. Note that the messages from the plug-in (incorrectly) use the term "DB keys file" for the master key file.

Cannot find DB keys file <path>

Plugin error: The plugin cannot find the master key file.

Action: Set the \$gtm_dbkeys environment variable to point to the correct master key file.

Cannot find MUMPS executable in <path>

Plugin error: The plugin cannot find the MUMPS executable.

Action: Set the \$gtm_dist environment variable to the directory containing MUMPS executable. Verify proper permissions for directory path and file.

Cannot open DB keys file - <path>

Plugin error: The plugin cannot open the master key file.

Action: Verify the master key file exists and there are appropriate authorizations on the directory path and master key file.

DB keys file of unknown file type : <path>

Plugin error: The plugin reports that the master key file is not the proper type file.

Action: Point the gtm_dbkeys environment variable to an appropriately formatted master key file.

Database file <path> missing in DB keys file or does not exist

Plugin error: The plugin reports that the master key file does not contain a valid entry pointing to the database file.

Action: Create an entry in the master key file for the specified database file, verify that the database file exists and appropriate authorizations exist on the directory and database file name.

Database file <path> not found

Plugin error: The plugin is unable to find the specified database file.

Action: Verify that the database file exists, the corresponding entry in the master key file points to the database file, and appropriate authorizations exist in the directory path and the database file.

Encryption handle corrupted

Plugin error: The plugin detected an internal error.

Action: This error indicates that there is a communication error between GT.M and the gtmcrypt plugin. Replace the process with undamaged one. Report the entire incident context to your GT.M support channel.

Encryption key file <path> not found

Plugin error: The plugin was not able to find the key file on the specified path.

Action: Verify that the master key file entry for this key file points to the correct path. Verify that the key file itself exists. Verify proper authorizations on directory path and file.

Encryption library has not been initialized

Plugin error: A gtmcrypt function was called before gtmcrypt_init().

Action: Call gtmcrypt_init() before calling any other encryption functions.

Environment variable <environment_variable> not set

Plugin error: An environment variable needed by the plugin was not set.

Action: Set the environment variable <environment_variable> to an appropriate value.

Environment variable gtm_dbkeys set to empty string

Plugin error: The \$gtm_dbkeys environment variable was set to the empty string.

Recovery Action: Set \$gtm_dbkeys to point to the master key file.

Environment variable gtm_dbkeys undefined. Cannot find <path>/.gtm_dbkeys

Plugin error: The plugin was unable to locate the master key file.

Action: Place the master key file in the users home directory or point the gtm_dbkeys environment variable to the master key file.

Environment variable gtm_passwd set to empty string. Password prompting not allowed for utilities

Plugin error: The plugin detected that it needed the obfuscated password but the \$gtm_passwd environment variable was set to the empty string.

Action: Use maskpass to set \$gtm_passwd to the obfuscated password prior to invoking MUPIP or DSE, or wrap the utility invocation with a MUMPS process which will prompt for the password and set the obfuscated password.

Error initializing GpgME: <reason_for_error>/<specific_Gpg_ME_error>

Plugin error: libgpgme reported an error to the plugin.

Action: Consult GpgME documentation for the specific error message.

Error parsing database key file. At line <line_number>: No matching 'dat' entry found in <contents_of_line>

Plugin error: The plugin was unable to find a matching "dat" entry for a "key" entry in the master key file.

Action: Verify that each "key" entry has a corresponding "dat" entry.

Error parsing database key file. At line <line_number>: <line_contents> does not start with 'dat' / 'key'

Plugin error: The plugin detected that the master key file was not properly formatted.

Action: Verify entries in the master key file start with "dat" or "key".

Error parsing database key file. At line <line_number>: No matching 'key' entry found in <contents_of_line>

Plugin error: The plugin was not able to find a "key" entry for a "dat" entry.

Action: Verify the database file exists, that the corresponding entry in the master key file points to the database file, that appropriate authorizations exist on the directory path and the database file, and that each "dat" entry has a corresponding "key" entry.

Incorrect password

Plugin error: The plugin detected that the correct private key password was not supplied.

Action: Provide the correct password.

libcrypt version mismatch. Expected <expected_version>, found <found_version>

Plugin error: The plugin could not locate an appropriate libcrypt library version.

Action: Verify the <expected_version> is installed and in the library search path.

Matching encryption key <hash> not found in database key file

Plugin error: The plugin was not able to find a needed database file key.

Action: Add an entry for this encryption key. If needed, use DSE DUMP -FILE -ALL on all of the database files to find the database file that matches the <hash>. With extracts and backups, multiple database files may have contributed encrypted records.

No entries found in DB keys file

Plugin error: The plugin was unable to find any entries in the master key file.

Action: Add entries to the master key file.

Symmetric key <path> found to be empty

Plugin error: The plugin was unable to find a valid encrypted key in the specified file.

Action: Create a valid key file.