Oracle® GoldenGate for Mainframe v10.0 Release Notes

Release Notes
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ORACLE

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License Keys

The ‘pw’ file is no longer needed to use GoldenGate TDM. Once you have upgraded, you can safely remove this file from the installation directory.

New Parameters

Specifying a IP Address for the Manager
The Manager was changed to allow the user the ability to assign a specific IP address.

A specific IP address to bind to may be given on the TcpipProcessName option as:
TcpipProcessName $ZTC1@<ipaddr>
TcpipProcessName $ZTC1@<DNSName>
Or alternately:
TcpipProcessName $ZTC1
IPInterface <ipaddr> | <DNS NAME>

Added AUTORESTART to Manager
Added the AUTORESTART option and made it consistent with the functionality on Open Systems.

AUTORESTART <process type> <group name> &
[, RETRIES <max retries>] &
[, WAITMINUTES <wait minutes>] &
[, RESETMINUTES <reset minutes>]

Added STATOPTIONS to Report Aged Off File Statistics
Added a new parameter for EXTRACT to deal with the reporting statistics for files that have been aged off (FILEAGE parameter).

New EXTRACT/REPLICAT parameter file option

STATOPTIONS [ZeroSuppress | NoZeroSuppress]
[ProgStats]

ZeroSuppress – Is the default setting and does not print zero counts for insert, update and delete buckets

NoZeroSuppress - Prints zero counts for insert, update and delete buckets

ProgStats – For REPLICAT it prints some timings on how much time REPLICAT spends in EndTransaction(), in FILE_CREATE_ and FILE_PURGE_. The default is OFF.

Added SUPPRESSMARKERMESSAGES
We added functionality to suppress the messages generated by Markers in the following areas:

1) Messages echoed when using inline GGSCI commands.
2) Informational messages written to the Report file.
3) Informational messages written to EMS.

These will be suppressed with a Global suppression parameter that would turn off all three of these message sources. This GLOBALS setting can be overridden by putting the parameter in the EXTRACT or REPLICAT parameter file

New parameter:

SUPPRESSMARKERMESSAGES <YES/NO>

New GGSCI Functionality

More Information Displayed for INFO DETAIL command
Changed the output of INFO DETAIL to display the target trail sequence and rba.

Enhanced Status Reporting with REVERSEWINDOWSECS
We added a message to the REPLICAT report file that informs the user that the process is waiting for the window seconds to expire so the customer knows why REPLICAT is not processing.

New Features

Hot Swapping of LOGGER
Functionality was added to allow LOGGER to be “hot swapped” during an upgrade. This functionality was intended to be used to move LOGGER from an OLD install to a NEW install.

The new installation environment must exist and the configuration and checkpoints from the old environment must be migrated to the new environment before the hotswap can be initiated.

When using the MIGRATE macro, if it detects that LOGGER from the old environment was running at the end of migration the user will be prompted with the following:

Logger was running during migrate

Do you want to HOTSWAP logger to the new ENV (Y/N)

An answer of Y starts GGSCI and sends the hotswap message.
An answer of N does not send the hotswap message.

Note: The Migrate macro has no way to detect that the old ENV is not v10 or higher so hotswap will fail if the old environment is older than v10. Both versions must be v10 or higher for this to work.

More Informative FILEOP Error Messages
We added the name of the target file and source file to all FILEOP error messages.

ALTER LOGGER Now Moves Logtrails to Another Disk
You can now use the ALTER LOGGER command to move Logtrails to another disk.

GGSCI generates an INFO message to the terminal when the logtrail location is moved. This message comes out inline and echoes the logparm text so it is also written to the GGS Eventlog. LOGGER will not use the new location until it rolls over to a new seqno (use GGSCI send logger rollover to force logger to a new seqno).

More Informative SQL/MP Recompile Messages
When REPLICAT gets an error back from SQL/MP that a statement has been invalidated, it writes this information to the REPLICAT report. We enhanced the REPLICAT error message to include the current timestamp so the customer knows the time of the recompile.

Support for Primary Key Updates
NSK does not support primary key updates but when you are feeding operations from a Open Systems database, it can happen. We changed the behavior of REPLICAT when it encounters a primary key update, it now turns the update into a Delete and an Insert.

Creating TACLs with a Highpin
The define =GGS_TACL_PROGRAM can be entered in GLOBALS if the user wants that to be the same for all EXTRACT,REPLICAT, and GGSCI processes. Or they can set the define in the EXTRACT or REPLICAT parameter files to make it group specific.

The define allows using an alternate TACL object if and only if the intercept library PCREATE is also used. A case is open with HP to change the C runtime to allow the system() API to create a HighPin process.

Installation and Upgrade Procedure

NOTE: If you are currently running any of the X24 products (D24, E24, N24, M24, T24) you need to also download and install their latest version due to a compatibility issue between GoldenGate for NSK v10 and the prior X24 versions.

The installation file downloaded from Oracle is not compressed using gzip, instead it is a standard .zip file. To uncompress the download, please use the zlib ZIP utilities.

You can download the utility here: http://ftp.bsi2.com/pub/oss/ZIP.tar.Z

Additional information on this utility can be found here:
http://ftp.bsi2.com/pub/oss/ZIP.README

The upgrade process for Oracle GoldenGate for HP Nonstop remains the same.

Known Issues

None identified at this time.

Changes In Current Behavior

HOMETERMESSGE Parameter Default Change
We changed the default behavior of the HOMETERMMESSAGE parameter. It is now set to NO by default. This was done due to performance issues especially when the target system is taken down for servicing.

EXACTKEY Parameter Default Change
When a customer accepts the requirements for using ENTRYSEQUPDATES (target file can't be updated by other apps, can't be audited, etc.), they still need to specify EXACTKEY. We changed the system to default EXACTKEY when ENTRYSEQUPDATES is used.

LOGFILEOPENS Parameter Default Change
Currently the default setting for LOGFILEOPENS is 1. We have many customers report either excessive message queuing on their Loggers, or timeouts to their Logger processes, and we always recommend LOGFILEOPENS 8 as one of the strategies for remedying these issues. We decided to stop having these issues and change the default to 8 as we suggest as a best practice setting to our customers. Maximum opens was also increased to 16.

EXITPARAM Length was Increased and Default Changed

The default size was increased to 256 bytes. The EXITPARAM text is null terminated and no longer space filled to 50 bytes.

The parameter file must have the EXITPARAM value as a quoted string with the "&" continuation character for each line.

This requires a recompile of all customer user exits. Customer user exits ***should always*** be recompiled when moving to a different GGS version to avoid problems with changes to the user exit interfaces.

SUPPRESSALTERMESSAGES Behavior Change
By default, when Extract encounters an ALTER in the TMF trail, it reports this to the Extract report. If the ALTER is performed on multiple partitions of the same table, this message would be displayed for every partition, resulting in many ALTER messages for the same table. The SUPPRESSALTERMESSAGES parameter was implemented at the request of a customer who only wanted the first ALTER message for a table to be displayed. When SUPPRESSALTERMESSAGES is specified in the Extract, we will display the first alter message per table, and all other alters for that table will be suppressed in the report display.

There is also a SUPPRESSALLALTERMESSAGES that would suppress even the first message.

Change in EMS Message Handling by the GGS_EMSMESSAGE procedure
The EMS event message suppression logic has been removed which suppressed duplicate messages generated by GoldenGate in a 30 second window. It now will send all messages to EMS.

Improved Installation Procedures
ConfProc is a user replaceable TAL function which allows a customer to change the default location for the AUDCFG and, by association, the GGSCPxx segments.

BUILDMAC and NLDLIB now ask if you want to change the default location for AUDCFG. If the user answers yes, they must enter the $VOL.SUBVOL where they want AUDCFG to be. The new CONFMAKE macro will then edit CONFPROC, save it as CONFCSTM and compile it in both TNS and Native mode.

Definition Required for Enscribe Targets When Replicating Compressed Updates
A TARGETDEF is required on the MAP statement, using a SOURCEDEFS file or DICTIONARY parameter when the data source is either Open Systems (Oracle, SQL Server, DB2, Sybase, etc.) or SQL/MP, or SQL/MX with compressed updates that are being replicated to Enscribe and the target MAP statement does not explicitly use a COLMAP.

Corrected Problems

For questions on specific bugs or ticket numbers, please consult Oracle Customer Support.

Resolved Tickets

For questions on specific bugs or ticket numbers, please contact Oracle Customer Support. For reference purposes, TS# 123 is the Technical Services Ticket number, DT# 123 is the Development Ticket number, NSK-123 is the Jira ticket number, and SF# 123 is the SalesForce.com ticket.

Release 10.0.0.2 – 23 September 2009

REM-176, REM-150
Updated copyright images and notices, and product name with the new Oracle GoldenGate branding.

Release 10.0.0.1 – 3 September 2009

License Keys
The 'pw' file is no longer needed to use GoldenGate TDM. Once you have upgraded, you can safely remove this file from the installation directory.

Release 10.0.0.0 – 17 July 2009

GENERAL

NSK-4562, SF# 2329
The default behavior of the HOMETERMMESSAGES parameter was changed. It is now set to NO by default.

NSK-4553, SF# 2563
There was a regression that generated an invalid error when trying to execute the INFO MARKER command with a COUNT parameter.

NSK-4613
The EXITPARAM text is null terminated and no longer space filled to 50 bytes..

NSK-4620, SF# 9864
The EMS event message burst suppression logic has been removed which suppressed duplicate messages generated by GoldenGate in a 30 second window. It now will send all messages to EMS.

NSK-4582, NSK-4625, SF# 7651
BASELIB was changed to stop keying off the open on $RECEIVE to trigger safeguard exit notification. Any open or a CHGNOTE notification will trigger BASELIB to do the safeguard exit notification.

NSK-4619, SF# 9285
If the user has multiple non-TMF configurations each with different default locations for AUDCFG then multiple modified copies of BASELIB/GGSLIB will be needed if the user chooses to not use the =GGS_AUDCFG define.

BUILDMAC and NLDLIB now ask if you want to change the default location for AUDCFG. If the user answers yes, they must enter the $VOL.SUBVOL where they want AUDCFG to be. The new CONFMAKE macro will then edit CONFPROC, save it as CONFCSTM and compile it in both TNS and Native mode.

NSK-4684
Provided the ability to create TACL processes with Highpin, if the process is using the PCREATE user library.

NSK-4616, SF# 7718
We added functionality to suppress the messages generated by Markers in the following areas:

1) Messages echoed when using inline GGSCI commands.
2) Informational messages written to the Report file.
3) Informational messages written to EMS.

These will be suppressed with a Global suppression parameter that would turn off all three of these message sources. This is an all or nothing behavior.

New parameter

SUPPRESSMARKERMESSAGES

AUDSERV

NSK-4600, SF# 8549
There was an issue with AUDSERV calculating a boundary check on the number of bytes in the reply buffer and caused a buffer to overflow and made the program hang.

NSK-4600, SF# 3389
There was an issue with AUDSERV calculating a boundary check on the number of bytes in the reply buffer and caused a buffer to overflow and made the program hang.

NSK-4636, SF# 10497

From now on, when SUPPRESSALTERMESSAGES is specified in the Extract, we will display the first alter message per table, and all other alters for that table will subsequently be suppressed in the report display.

NSK-4662, SF# 10951
AUDSERV in certain situations was using more and more memory until it abended with memory allocation failure.

EXTRACT

NSK-4593
EXTRACT does not position its starting point correctly when a TMF extract is started at an historic point in time in the MAT and Auxiliary Trails are present and one or more of the Auxiliary Trails have been rolled off to disk or dumped to tape.

NSK-4736, SF# 13526
There was a problem with intial load from SQL/MP to Windows BCP files using FORMATASCII.

NSK-4606, TSI-564, SF# 8557
Made modifications to support the new trail formats being sent by GoldenGate's Open Systems products.

NSK-4598
Added a new parameter for EXTRACT to deal with the reporting statistics for files that have been aged off (FILEAGE parameter).

NSK-4607, SF# 9008
When running a "SOURCEISFILE" EXTRACT in TNS mode, a signed 32-bit integer used to count the number of rows used to overflow when extracting from a file/table that has more than 2,147,483,647 records/rows.

NSK-4571, SF# 3464
When running a "SOURCEISFILE" EXTRACT in TNS mode, a signed 32-bit integer used to count the number of rows used to overflow when extracting from a file/table that has more than 2,147,483,647 records/rows.

NSK-4653, SF# 8999
Fixed an issue with a Direct Read Extract did not capture data from the second partition using the FASTREADS parameter.

NSK-4633, SF# 10333
If the MRKRHST is purged and then a marker is added, a race condition on creation of the MRKRHST file is not handled which resulted in an error 10. The system was changed to allow create error 10 on MRKRHST and retry the open.

NSK-4399, TS# 17301
A warning message was added when a particular column is not included in the map so that the user can resolve the data type issues of column redefines.

NSK-4677, SF# 10869
When Extract wrote multiple trails out and the same file was going to both, if one was fully qualified and the other was a wildcard, only the fully qualified one would get the FUPOP record written.

GGSCI

NSK-4609, SF# 9126
GGSCI was not validating the program types when password file had multiple license keys for the same system.

NSK-4588, SF# 8091
GGSCI was not finding GGSCIHST (command history) file when an alias has a different default volume than the underlying userid.

NSK-4575, SF# 3680
GGSCI was changed to list valid and invalid/corrupted objects with the INFO PROGRAMS command.

NSK-4400
Changed the output of INFO DETAIL to display the target trail sequence and rba.

NSK-4638, SF# 10726
GGSCI was receiving a buffer overflow when you tried to encrypt a password of more than 100 bytes. We changed the system to display an error that passwords cannot be over 100 bytes.

LOGDUMP

NSK-4604, SF# 8910
There was a regression with LOGDUMP that caused it to abend when performing a COUNT with the FILE option.

NSK-4544, SF# 2596
A regression was found that prevented data from being written to a Savefile when reading from TMF. LOGDUMP displayed that records were written to the Savefile but none were actually written.

LOGGER

NSK-3129, FP# 7595
Functionality was added to allow LOGGER to be “hot swapped” during an upgrade. This functionality was intended to be used to move LOGGER from an OLD install to a NEW install.

NSK-3500, DT# 9421
Added the ability to alter the volume of log trail so they can be moved to another disk.

NSK-4509
We changed the default setting of LOGFILEOPENS from 1 to 8. This should alleviate either excessive message queuing on Loggers, or timeouts to Logger processes. Maximum opens was also increased to 16.

MANAGER

NSK-4737
Manager was not purging trails in certain situations.

NSK-4746
Manager was prematurely purging trails when remote checkpoints are used.

NSK-4356
Added the AUTORESTART option and made it consistent with the functionality on Open Systems.

NSK-4512
HP is investigating why multiple sockets are assigned the same local port. The method used to obtain a unique local port was changed.

NSK-4576, TS# 15900
We fixed the LAGREPORT, DOWNREPORT and UPREPORT options to work independently of CHECKMINUTES.

NSK-4292, TS# 13749
Manager was not purging un-needed files from the GGS ALTLOC.

Note: Need to state that TMF disk dumps should be used instead of the GGS ALTLOC (ATCONFIG).

NLDEXIT

NSK-4538, SF# 2424

Changed the code to check for the existence of the files LIBCOBY and LIBCTXT on both H06 and G06 operating systems. If they do not exist, use our inline defaults.

REPLICAT

NSK-4332, DT #17468
Replicat had problems decompressing compressed records from Open Systems.

NSK-4518
Made modifications to support the new trail formats being sent by GoldenGate's Open Systems products.

NSK-4598
Added a new parameter for EXTRACT to deal with the reporting statistics for files that have been aged off (FILEAGE parameter).

NSK-4602
Historically, REPLICAT checkpointed before and after a FILEOP (DDL). We made a change to first check and see if there were any operations in the current grouped transaction before we perform a checkpoint. If there are no operations in the current transaction, there is no reason to checkpoint.

NSK-4280, TS# 13544
If a file fills up during a FUP LOAD with the BULKIOLOAD parameter, the FILE_CLOSE record was not captured. We expected that to process the close before the PURGE and the purge created an Error 12. We changed the code to force a Close if the file is Open on a Purge Command.

NSK-4384, NSK-4669, TS# 16790
The current path to expire the REVERSEWINDOWSECONDS did not access the retry logic of HANDLECOLLISIONS. We changed the code to handle the collision even if the time has expired.

NSK-4385, DT# 18318
It appeared the REPLICAT was hanging when processing with REVERSEWINDOWSECS but it was actually waiting for the window to expire to make sure it did not receive any other operations. We added a message to the REPLICAT report file that informs the user that the process is waiting for the window seconds to expire so the customer knows why REPLICAT is not processing.

NSK-4084, TS# 10085
The name of the target file and source file was added to all FILEOP error messages.

NSK-4268, DT# 16511

The system to default was changed to EXACTKEY when ENTRYSEQUPDATES is used.

NSK-4513, TS# 18726
The REPLICAT error message was enhanced to include the current timestamp so the customer knows the time of the recompile.

NSK-4567, SF# 3245
A fix was made to stop REPLICAT from trapping because of a mismatch between the def record structure and the actual data in the trail record.

NSK-4487, TS# 17748
When using EntrySeqUpdates Exactkey and a reversed insert/update is encountered. The update was rejected with an error 10221 because the target record did not exist. Now REPLICAT handles that case as an error 11 and will let the TMFEXCEPTIONS/FIXREVERSED/HANDLECOLLISIONS logic attempt to deal with the condition.

NSK-4514
The current behavior of REPLICAT was changed when it encounters a primary key update, it now turns the update into a Delete and an Insert.