

Release Notes

This document describes the new features, major changes, and the known issues in Oracle GoldenGate Veridata Release 12c (12.2.1.4.x).

New Features and Changes in Oracle GoldenGate Veridata 12c (12.2.1.4.x) Releases

This topic lists the new features and enhancements in the following releases of Oracle GoldenGate Veridata:

New Features and Changes in Oracle GoldenGate Veridata 12c (12.2.1.4.220831) — September 2022

SSL Communication support for the Oracle GoldenGate Veridata Import and Export utilities.

The Export and Import utilities are now supported to communicate with Oracle GoldenGate Veridata server using SSL protocol. For more information, see *SSL Configuration for Vericom* in the *Oracle GoldenGate Veridata Administration guide*.

Vericom tool enhancement to be able to disable Delta Processing for a Job once during runtime

The `-rdj` Vericom parameter has been introduced to disable parameter processing for a job. For more information, see *Running the Vericom Tool* in the *Oracle GoldenGate Veridata Administration guide*.

Support for enhancing data fetch performance in the Oracle database.

A new `database.hash` server parameter has been introduced to improve data-fetch performance. This parameter is currently supported for the Oracle database only. For more information, see `database.hash` in the *Oracle GoldenGate Veridata Administration guide*.

Support for enhance reportutil to output encryption key names before and after key rotation

The reportutil now supports a new parameter to output encryption key.

Support for citext datatype in PostgreSQL

The citext datatype in PostgreSQL is now supported by Oracle GoldenGate Veridata. For more information, see Supported Datatypes - PostgreSQL in the *Oracle GoldenGate Veridata Administration guide*.

Support has been provided to skip junk data and display skipped data for number type for Oracle Database in the Out-Of-Sync table.

During the Compare Pair configuration, whenever Oracle GoldenGate Veridata encounters a junk value in the Oracle database for the Number data type, the junk value will be handled and displayed as Hex value in the Out-of-Sync table and prevents the job failure. The row with junk data will be restricted from Repair operation. The rows with the bad data is displayed with a Skipped Status icon along with the comparison status. For more information, see Repairing Out-Of-Sync Jobs in the *Oracle GoldenGate Veridata User Guide*.

New Features and Changes in Oracle GoldenGate Veridata 12c (12.2.1.4.220228) — March 2022

Supports Trimming of Ideographic Spaces

Oracle GoldenGate Veridata now supports trimming of ideographic space represented in byte format.

Support added for Viewing and Downloading Generated SQL files from Repair UI In Oracle GoldenGate Veridata

You can now download the generated SQL File from the Oracle GoldenGate Veridata UI.

Support for PostgreSQL as Source and Target

Oracle GoldenGate Veridata now supports comparison and repair of PostgreSQL datatypes. For more information, see Supported Datatypes - PostgreSQL in the *Oracle GoldenGate Veridata Administration Guide*.

New Features and Changes in Oracle GoldenGate Veridata 12c (12.2.1.4.210630) — July 2021

- **Oracle GoldenGate Veridata supports special number type comparison for Oracle database**
Oracle GoldenGate Veridata supports comparison and repair of special values like NAN, Positive Infinity, and Negative Infinity in Oracle Number datatype.
- **Support has been added for repairing duplicate records in Oracle database, MySQL, and MSSQL database(s).**
If duplicate records occur in a table due to the absence of primary/unique keys in a table, then repair of such duplicate entries is supported for Oracle, MySQL, and MSSQL.

- **Oracle GoldenGate Veridata server run as Windows service.**
Once Oracle GoldenGate Veridata has been installed, the Veridata server can run as a Windows service. For more information, see Running Oracle GoldenGate Veridata as a Windows Service in the *Installing and Configuring Oracle GoldenGate for Veridata*.
- **Support has been added for automatic handling of Oracle NULL and non-Oracle Empty on applicable data types**
Oracle GoldenGate Veridata can now handle EMPTY (Non-oracle) versus NULL (Oracle) compare pairs without manual intervention. Data comparison between EMPTY (zero byte string) for Non Oracle Database and NULL for Oracle Database values have been implicitly handled to be treated as in-sync. This is applicable only when either source/target is Oracle. For more information, see `server.convert_empty_to_null` and `truncate_spaces_len` in the *Installing and Configuring Oracle GoldenGate Veridata Installation and Configuration Guide*.

New Features and Changes in Oracle GoldenGate Veridata 12c (12.2.1.4.210226) — March 2021

- **Debugging capabilities were Enhanced with Additional Information on Table, Column, and Data**
- **Oracle GoldenGate Veridata Supports Connecting to an Oracle Database Server Authenticated by Kerberos**
You can configure Oracle GoldenGate Veridata using Kerberos to connect to Oracle Database. For more information, see Configuring Oracle GoldenGate Veridata Agent Using Kerberos to Connect to Oracle db in the *Installing and Configuring Oracle GoldenGate Veridata* guide.
- **Oracle GoldenGate Veridata Supports Connecting to a Hive Database Server Authenticated by Kerberos**
You can configure Oracle GoldenGate Veridata using Kerberos to connect to Hive. For more information, see Configuring Oracle GoldenGate Veridata Agent Using Kerberos to Connect to Hive in the *Installing and Configuring Oracle GoldenGate Veridata* guide.
- **Oracle GoldenGate Veridata command line utility 'Vericom' supports HTTPS to communicate with Oracle GoldenGate Veridata Server**
The Vericom tool is supported to communicate with Oracle GoldenGate Veridata server using SSL protocol. For more information, see SSL Configuration for Vericom in the **Administering Oracle GoldenGate Veridata**.

New Features and Changes in Oracle GoldenGate Veridata C Agent for HP NonStop (12.2.1.4.210226) — April 2021

Database Repair Changes

Oracle GoldenGate Veridata supports the HP Non Stop (Enscribe, SQL/MP) database for repair functionality.

For more information, see Supported/Unsupported Databases for Repair in *Installing and Configuring Oracle GoldenGate Veridata* Guide.

New Features and Changes in Oracle GoldenGate Veridata C Agent for HP NonStop (12.2.1.4.0) — September 2020

This is a compatibility release for bug fix only, no new feature was added.

New Features and Changes in Oracle GoldenGate Veridata 12c (12.2.1.4.200714) — July 2020

Oracle GoldenGate Veridata 12.2.1.4.2 release includes the following new and changed features :

- **Support has been added for MySQL Repair Functionality**
Oracle GoldenGate Veridata now supports users to repair out-of-sync data in MySQL database. For more information, see *Repairing Out-Of-Sync Jobs in the Using Oracle GoldenGate Veridata*.
- **Support has been added for Mapping Database Table Partitions and Automatic Row Partitions in Compare Pairs.**
Oracle GoldenGate Veridata now supports selecting Mapping Database Table Partitions and Automatic Row Partitions in Compare Pairs. For more information, see *Configuring Partitions in Oracle Goldengate Veridata*.
- **Command line utility for the purge jobs and reports** : The Vericom tool now includes an option `-purgeJobReports` to delete the latest jobs and reports. For more information, see *Running the Vericom Tool in the Oracle GoldenGate Veridata Administration Guide*.
- **Option to sort files in custom directory instead of always default to tmp dir:**
A new option has been added to the Oracle GoldenGate server parameters that specifies the directory path where `.map` files are generated. By default it uses temp directory of the operating system. For more information, see `server.memory_mapped_sort_directory` in the *Oracle GoldenGate Veridata Administration Guide*.
- **Oracle GoldenGate Veridata can now handle EMPTY (Non-oracle) vs NULL (Oracle) compare pairs**
Data comparison between spaces or blank or NULL values has been handled in the compare-format `string_en` for Varchar/Varchar2 datatypes. Without `string_en` format, the comparison result are out-of-sync for these values. With enhancement of `string_en` format, these values are treated as in-sync. Applicable only when either source/target is Oracle. For more information, see *Editing Connection Properties in Using Oracle GoldenGate Veridata*.
- **Enhancement to the Initial Compare Fetch Batch Size option in the UI:** When editing an existing connection for Oracle database, under the **Connection Settings** tab, the default value of the **Initial Compare Fetch Batch Size** check box is now displayed as the actual value instead of 0, also the maximum allowed value is increased to 100,000. For more information, see *Editing Connection Settings in Using Oracle GoldenGate Veridata*.

New Features and Changes in Oracle GoldenGate Veridata 12c (12.2.1.4.200115) — January 2020

Oracle GoldenGate Veridata 12.2.1.4.200115 release includes the following new and changed features :

Database Support Changes

- Added MySQL support for comparison as source or target database. However, there is no support added for repair.
- Oracle GoldenGate Veridata now fully supports Oracle Multitenant Container database.

Filtering Objects

- Added support to EXCLUDE VIEWS when creating compare pair.
- Added support to filter objects using NOT LIKE when creating compare pair.

Email Alerts

- Added support for sending email notification on all jobs or alert only.

Support for Jobs

- User can now re-run selected failed and out of sync jobs in Vericom.

New Features and Changes in Oracle GoldenGate Veridata 12c (12.2.1.4.0) — September 2019

Oracle GoldenGate Veridata Release 12c (12.2.1.4.0) includes the following new and changed features:

- The History Purging option was added to the Oracle GoldenGate Veridata User Interface.
- On the Oracle platform, the user can generate a SQL file for repair. Oracle GoldenGate Veridata now gives an option to the user to perform repair outside of its user interface.
- You can now compare and connect the Oracle GoldenGate Veridata to Autonomous Data Warehouse (ADW) and Autonomous Transaction Processing (ATP) as source and target databases by using the Oracle Wallet.

Parameters and Settings

After a patch is applied, compare the live configuration files against the template to verify additional or deprecated parameters:

- **Server Live:** DOMAIN_HOME/config/veridata/veridata.cfg
- **Server Template:** MIDDLEWARE_HOME/veridata/common/templates/veridata/veridata.cfg.template
- **Agent Live:** AGENT_DEPLOY_LOCATION/agent.properties
- **Agent Template:** MIDDLEWARE_HOME/veridata/agent/sample_properties/agent.properties.{DB_type}

Corrected Problems

This section contains information about bugs that have been corrected in 12.2.1.4.0 release. For questions on specific bugs or ticket numbers, consult Oracle Customer Support. SR is the Oracle Support SR number, and BugDB is the bug identification number.

Release 12.2.1.4.12.2.1.4.220831 — September 2022

Bug 34103357 - Veridata Errors while running vericom.sh and veridata_import.sh

This issue has been fixed. The Oracle GoldenGate Veridata Server Import and Export utilities are SSL enabled for communication between Oracle GoldenGate Veridata and Import/Export.

Bug 34275308 - Need Cursor logic to avoid network reset due to memory overrun by PostgreSQL JDBC driver

This issue has been fixed. For the PostgreSQL database, Oracle GoldenGate Veridata agent now always uses cursor logic to fetch data from the database itself in the initial stage (row hash stage).

Bug 33979317 - Database query failed: [FMWGEN][DB2 JDBC Driver] Transliteration failed, reason: invalid UTF8 data

This issue has been fixed. Some of the Chinese/Portuguese characters used to occupy 2 bytes. The allocation of bytes have been corrected in the binary column mapper.

Bug 34322822 - Veridata compare pairs result codes reported differently by Vericom and GUI

This issue has been fixed.

Bug 34202990 - Agent: RAC jdbc url parsing is failing for oracle database

This issue has been fixed.

Release 12.2.1.4.220228 — March 2022

Bug 33750454 - After doing import with veridata_import.sh SCALE defined on TIMESTAMP columns gets missing

This issue has been fixed.

Bug 33719877 - Veridata Comparison Result Shows Difference in Portuguese from between AS600 v6.1 and Oracle 12c

This issue has been fixed. Special characters are treated properly with other databases.

Bug 33885974 - Oracle GoldenGate Veridata - .x0 file under oosxml is not encrypted

This issue has been fixed. The server configuration has been updated to make the .xNNN files encrypted. For more information, see Enabling Report Encryption in the *Administering Oracle GoldenGate Veridata* guide.

Release 12.2.1.4.210831 — September 2021

Bug 33188570 - Repair on strings is truncated at 30 characters

This issue has been fixed. Repair is successful for char or varchar datatypes with length of the data more than 30, where the target database is SQL Server.

Bug 33104967 - Repair apply failed: index out of range

This issue has been fixed. Repair is successful for char or varchar datatypes with a mix of data with or without trailing spaces, where the target database is SQL Server.

Oracle GoldenGate Veridata C Agent for HP NonStop (12.2.1.4.210815) — August 2021

Bug 33061115 - Oracle GoldenGate for HP Non Stop (NSK) Compare with Delta enabled fails with Oracle GoldenGate Veridata-00118: Agent message (999): null.

This issue has been fixed by memory allocation fix for bad malloc during COOS missing delete processing.

Release 12.2.1.4.210630 — July 2021

Bug 32669339 - Oracle GoldenGate Veridata repair takes time and is slow.

This issue has been fixed by providing support to handle duplicate records.

Bug 33017930 - Oracle GoldenGate Veridata import fails With NPE when compare pair contains SQL partition

This issue has been fixed.

Bug 32852132 - In MySQL, schema or table name containing hyphens caused error in the SQL syntax

This issue has been fixed by providing support for special characters, such as hyphen in the database object names.

Bug 32821397 - DB2 database lock and contention issue due to Oracle GoldenGate Veridata queries

This issue has been fixed by avoiding table locks during Initial Compare in the DB2 database.

Bug 32633049 - VGPP error when parameter file contained long REPERROR code

This issue has been fixed.

Bug 32348306 - Job abends - An invalid XML character (Unicode: 0xb) was found in the value of attribute "val" and element is "col" .

This bug has been fixed. Oracle GoldenGate Veridata XML Parser has been enhanced to handle invalid XML characters.

Bug 32286962 - Database query failed while fetching XMLType data.

Oracle GoldenGate Veridata used a deprecated API from Oracle Database that caused the issue. It has been updated to use XMLSerialize. A new property `compare.xmldatatype.format` has been added in `agent.properties.oracle` to use the `INDENT/NO INDENT` functionality of XMLSerialize. For more information, see `compare.xmldatatype.format` in the *Administering Oracle GoldenGate Veridata* guide.

Release 12.2.1.4.210420 — April 2021

Bug 32717596 - Filter option not working in Run/Execute Job page

This issue has been fixed by correcting the Filter option on the **Run/Execute** Job page. When a job is run, only the filtered list of compare pairs are run.

Bug 32213540 - Generate SQL Fails displaying an Error Message

This issue has been fixed. Generate SQL was generating wrong queries when there are special characters in OOS records.

Bug 32322787 - Loading Out of Sync page is slow

This issue has been fixed. Loading of out of sync (OOS) page has been made efficient.

Release 12.2.1.4.210226 — March 2021

Bug 32249623: Veridata Creating 100s of Connections even though our Max Concurrent Comparisons Threads is configured for 24

This issue has been fixed.

Bug 32113971: Checkbox unchecked when moving through Run/Execute Job and Group Configuration pages

This issue has been fixed. The checkbox does not disappear when navigated to other pages from the **Run/Execute** job page.

Bug 32250963: Precision in dec_float does not work properly for Oracle DB

This issue has been fixed.

Bug 32348306: Job abends - An invalid XML character (Unicode: 0xb) was found in the value of attribute "val" and element is "col"

This issue has been fixed.

Bug 32486366: Unable to login to Veridata java.lang.NullPointerException on landing page

This issue has been fixed.

Oracle GoldenGate Veridata C Agent for HP NonStop (12.2.1.4.210226) — April 2021

Bug 32407381 - Enscribe table comparison fails with Delta turned on

This issue has been fixed.

Oracle GoldenGate Veridata C Agent for HP NonStop Release 12.2.1.4.0 — September 2020

Bug 30765673 - An unexpected error occurred error when trying to generate compare pair

This issue has been fixed. Comparison should no longer fail with the following error message `java.lang.Exception: java.lang.Error: Lost rows from source.`

Release 12.2.1.4.200714 — July 2020

Bug 31568607 - Veridata Import is failing with OGGV-60013: Unhandled exception 'java.lang.StringIndexOutOfBoundsException': String index out of range

This issue has been fixed. Changes have been made to connect to PDB using database service names (with or without fully qualified name).

Bug 31344851 - Compares do not complete with Delta processing on

This issue is fixed.

Bug 31518396 - Veridata job failed with error message Lost rows from source - after upgrade to 12.2.1.4

This issue is fixed. The Job failed error message is not shown in Oracle GoldenGate 12.2.1.4.2.

Bug 31518402 - Jobs running for long time and hung on some tables

This issue is fixed. The long running of the job or hanging of the tables issues are not seen any more.

Bug 31518401 - Delta processing on target SQL Server results in SQLException

This issue is fixed.

Bug 31518397 - Float columns not added to Compare Group

This issue has been fixed by correcting the Float columns mapping issue.

Bug 31518386 - org.xml.sax.SAXParseException when trying to view OOS

This issue is fixed.

Release 12.2.1.4.191130 — November 2019

Bug 30425385 - Jobs are failing with Failed:**java.util.concurrent.ExecutionException: java.lang.NullPointerException**

This issue was fixed. Comparison should no longer terminate abnormally due to this error.

BUG 30558507 - Veridata shows comparisons performed as 0

This issue has been fixed.

Release 12.2.1.4.0 — September 2019

Bug 27866348 - OGGV-00507: 'Is a directory' creating directory

The issue was fixed. The user can create reports for large tables now.

Bug 29135702 - Veridata job failed with error " Failed:**java.util.concurrent.ExecutionException: java.lang.NullPointerException"**

This issue was fixed. The Null Pointer Exception is no longer displayed.

Bug 28892920 - Veridata not showing previous run screen, its refreshing to latest run only

This issue was fixed. The browser page doesn't refresh to the latest job results page, but stays on the selected job results itself.

Bug 25876077 - Veridata Inserts field with extra spaces

This issue was fixed. Prior to the fix, Oracle GoldenGate Veridata inserted extra space on target in the following scenarios: the source datatype was CHAR, the target datatype was VARCHAR, and the column is PRIMARY KEY.

Bug 29880216 - Veridata server sorting is taking more time for some compare pairs

This issue was fixed. Prior to the fix, intermittently, the connection between the agent and the database was getting hung when multiple compare pairs were run in parallel and each processing billions of records.

Bug 29647121 - Veridata existing group with veridata import Fails With java.lang.NullPointerException

This issue was fixed. If a compare-pair exists in the group already, but is missing from the configuration xml file, which is passed as an input to Import utility, then the compare-pair gets deleted from the Oracle GoldenGate Veridata repository.

Bug 29632716 - Veridata varbinary compare not working on varchar column

This issue was fixed. The comparison and repair for Varchar2 in Oracle to Varchar in Microsoft SQL Server with binary format works properly.

Known Issues and Workarounds

This section details the known issues and any workarounds for the Oracle GoldenGate Veridata Release 12c (12.2.1.4.x) releases.

Release 12.2.1.4.220831 — September 2022

Bug 34461043 - Filters for Skipped Rows in OOS table.

The Out-of-Sync table will not be able to filter by Skipped status. When there are skipped rows in Out-of-Sync table, filtering by any status removes the skipped rows from the table.

Workaround: To bring the skipped rows back in the table, click the top rightmost breadcrumb on the page.

Bug 34461053 OOS table is not displayed when there are bad number in Key Columns

When there is bad data in the key column of the table and on compare if all the data other than the skipped rows are in-sync, then the out-of-sync table is not displayed.

The presence of the skipped rows can be identified from the finished jobs/groups/compare pair page where an icon for skipped row is displayed in the **Comparison Status** column.

Release 12.2.1.4.210630 — July 2021

Bug 32525295 - Value showing as "NAN" in OOS for Float .

Workaround: Use NUMBER and DECFLOAT format in case of FLOAT to FLOAT in Oracle DB.

Release 12.2.1.4.210420 — April 2021

Bug 32669339 - Oracle GoldenGate Veridata repair takes time and is slow.

Oracle GoldenGate Veridata repair is very slow when there are duplicate rows. Duplicate rows are not repaired in Oracle GoldenGate Veridata. However, non-duplicate rows repair is very slow when the table contains duplicate records.

Release 12.2.1.4.210226 — March 2021

Bug 32525295 - Value showing as "NAN" in OOS for Float

Workaround: Use NUMBER and DECFLOAT format in case of FLOAT to FLOAT in Oracle DB.

Bug 31167686 - Issue with repair from second page onwards

Workaround: While repairing an out-of-sync job from second Repair screen onwards, click the **Repair** twice to run the repair.

Bug 32003875 - Float/Real datatype comparison limitations for db2iseries/db2zos/db2luw

The decimal part of REAL value from the wldb2 jdbc driver always stores 16 digits precision different from the MySQL, which is 32 digits precision. For example, db2iseries/db2zos/db2luw REAL value of 0.8 converts 0.800000011920929 and same value is different in MySQL/Oracle and other databases. Therefore, irrespective of the databases, generation of compare pairs always fail when decimal values are present.

Bug 32376095 - Date/time compare with timestamp/datetime as primary key issue

When the primary key is Date/Time one side (source DB) and DateTime/Timestamp is the primary key in the other (target DB), then the compare pair generated are faulty as Oracle GoldenGate Veridata always considers higher side of the datatype as the primary key.

Workaround: Update the Date/time column as a hash column and the other datatype column as the key column.

Bug 31543800 - Schema dropdown for db with catalog and schema are not working

Workaround: Click **Browse** beside the Schema drop-down list to select a schema.

Oracle GoldenGate Veridata C Agent for HP NonStop Release 12.2.1.4.0 — September 2020

Bug 31891066 - Extra "Refresh Source/Target Files/Tables" button in manual mapping

Workaround: Click either of the duplicated (**Refresh Source Files/Tables** under Source, **Refresh Targets Files/Tables** under Target) buttons to continue.

Release 12.2.1.4.200714 — July 2020

Bug 31537719 - Veridata should dynamically determine scale instead of always use scale of target

Workaround: If the scale of Target is larger than the scale of Source, then you need to manually set the scale of Target to match the scale of Source.

Bug 31179181 - [Oracle-Mysql][Repair]: Issue with LONG to VARCHAR

Use `LONGTEXT` instead of `VARCHAR` in MySQL.

Release 12.2.1.4.200115 — January 2020

Bug 30829622 - Incorrect comparison result for few datatypes when running comparison between mysql and Teradata, DB2

When running comparison between MySQL to Teradata or MySQL to DB2 LUW/DB2 iSeries/DB2 z/os, incorrect comparison results are shown for REAL, DATE, and DATETIME datatypes.

Bug 30666183 - [Mysql-Hive]: Job is failing for BINARY datatype

An unexpected exception occurs and job fails for BINARY datatype.

Release 12.2.1.4.0 — September 2019

Bug 29695925: Delta processing may cause 'invalid identifier issue' in some corner cases

Workaround: Wrap the delta column inside `TO_CHAR()` method while creating delta query for delta column type '

`TIMESTAMP(6) WITH LOCAL TIME ZONE'`. For example, use `SELECT TO_CHAR(MAX("SRC_MODIFIED_DATE"), 'yyyy-MM-DD:hh24:mi:ss.FF6') FROM "REPL_ENVIRONMENT"."LOGICALDEVICE_CHAR" where entityid between 0 and 31537113` instead of `SELECT MAX("SRC_MODIFIED_DATE") FROM "REPL_ENVIRONMENT"."LOGICALDEVICE_CHAR" where Entity ID is between 0 and 31537113.`

Bug 27676721 — Unable to override the settings at Connection level in compare pair

Its not possible to override the **Use Source** or **Target Columns** as Key Columns when the generating Compare Pairs feature is configured at the connection level in the **Compare Pair Generation** page.

Bug 27755796 — ROWID, RAW data type in Oracle is considering as Key Column

Data types, such as ROWID and RAW with internal datatype as binary is considered as key columns when using **Use all columns as key columns**.

BUG 27304630 — Delta Processing for Bit Data Type in MSSQL is Not Working.

Bit datatype of MSSQL is not supported in delta processing even though the Oracle GoldenGate Veridata format for the datatype is also Number.

Bug 27303272 — File Pattern: for NSK is Not Working

With the HP NonStop (NSK) source and target connection, the user is unable to do the File pattern in the **Pattern Mapping** page.

BUG 27292701 — 'java.lang.NoClassDefFoundError': com/google/protobuf/ProtocolMessageEnum'

Without proxy user configuration properties, impersonation isn't possible.

Workaround: Configure `core-site.xml` in hadoop system with the following configuration:

```
hadoop.proxyuser.<super-user>.groups=*
hadoop.proxyuser.<super-user>.hosts=*
```

General Known Issues

On Windows, the `JAVA_HOME` must be set to a directory path that does not contain spaces.

Veridata Agent Incorrectly Rounds Timestamp Values for Sybase Target

The Veridata agent is incorrectly rounding off `TIMESTAMP/DATETIME/TIME` values when the time part of the value ends in `.998` and `.999`. The comparison of a `TIMESTAMP/DATETIME/TIME` value from the source to a `DATETIME` value from a Sybase target can be reported incorrectly as in-sync or out-of-sync when the source value ends in `.998` or `.999`.

DB2 for i: DataDirect Driver with VARCHAR Key Columns

When using the DataDirect driver, `VARCHAR` key columns are returned with trailing blanks truncated during the COOS step. This is only occurring during the COOS step when a predicated `SELECT` is processed. You can workaround this issue by generating SQL statements to concatenate an empty string to the end of `VARCHAR` key columns to preserve the trailing spaces.

DB2 for i: DataDirect Driver with CLOBs and CCSID 1208

When using the DataDirect driver, CLOBs declared with CCSID 1208 (UTF-8) are returned incorrectly. The correct data is inserted correctly and verified by casting the value to a BLOB then inspecting that the raw bytes were the correct UTF-8 values. There is currently no workaround for this issue because the JTOpen driver does not select these values correctly.

DB2 for i: DataDirect Driver with the DB2 Native Driver

When using the DataDirect driver and DB2 Native driver, `IDENTITY` columns cannot be detected from the JDBC metadata. You can workaround this issue by querying the DB2 iSeries `SYS_COLUMNS` directly to supplement the JDBC metadata.

DB2 for i: DataDirect Driver with NULLID Library

The DataDirect driver requires a DB2 package to store query execution plans. By default the `NULLID` library is used; if it does not exist, it is created the first time a connection is made. If the package already exists in the `NULLID` library and the current user does not have permission to access the package a failure occurs. The DataDirect driver has workarounds to manually create the package and to use an alternative library to store the packages, see the driver documentation for specifics.

DB2 for i: Native Driver with UTF-8

During a repair, the native driver fails when the LOB column is UTF-8 and the inserted data is multibyte. The driver does not recognize that UTF-8 expansion may require a larger buffer.

Informix: Unsupported Data Types with DataDirect JDBC Drivers

The `INTERVAL`, `BIGINT`, and `BIGSERIAL` data types are not supported when using the DataDirect JDBC drivers.

Informix: Integer Minimum Value Limitation

The limitation for the minimum value of the `SMALLINT`, `INTEGER`, and `BIGINT` data types is $-(2x-1)$ (x is 31, 15, 63 sequentially). On a repair attempt (insert/update) of $(-2x)$ from a non-Informix data base to an Informix data fails as repair Warning.

Getting Help with My Oracle Support

Use My Oracle Support to find knowledge solutions, workaround, and other information that is reported by customers, partners, and Oracle employees. My Oracle Support also enables you to open a Service Request. If a patch is required to resolve a service request, you will receive instructions on how to download it from My Oracle Support.

Note:

If you purchased Oracle GoldenGate Veridata and support through a distributor, contact your distributor instead of attempting to create a service request through My Oracle Support.

Using the Oracle GoldenGate Knowledge Base

To view the Oracle GoldenGate Knowledge Base, follow these steps:

1. Go to <http://support.oracle.com>.
2. Select your language and then log in with your email and Oracle password.
3. Click the **Knowledge** tab.
4. Under **Select a Product Line**, type the name "GoldenGate" and then select an Oracle GoldenGate product from the context menu. (You may have to wait a few seconds for this list to appear). As an alternative, you can select from the drop-down list or use the **Browse** link to select **Middleware**, then **Data Integration**, then **GoldenGate**.
5. Under **Task**, select the type of query you want to make, such as **Troubleshoot**.
6. Under **Version**, select the version of Oracle GoldenGate that you are using.
7. Under **Enter Search Terms**, type a search keyword or multiple keywords to focus the query.

If you need help with My Oracle Support, click **Help** at the top of the application window.

Creating an Oracle GoldenGate Support Case

If you cannot find an answer to your question or problem in the Knowledge Base, you can open a support case with Oracle Support by following these steps:

1. Go to <http://support.oracle.com>.
2. Select your language and then log in with your email and Oracle password.
3. Click the **Service Requests** tab.
4. Click **Create SR**.
5. Complete the form, referring to the **Help** at the top of the application window if necessary.

Documentation Accessibility

For information about Oracle's commitment to accessibility, visit the Oracle Accessibility Program website at <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=docacc>.

Access to Oracle Support

Oracle customers that have purchased support have access to electronic support through My Oracle Support. For information, visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=info> or visit <http://www.oracle.com/pls/topic/lookup?ctx=acc&id=trs> if you are hearing impaired.

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