

Oracle Data Integrator Release Notes

These release notes contain information about the known issues associated with Oracle Data Integrator and the post-installation patches.

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What's New in Oracle Data Integrator?

Oracle Data Integrator 14c provides several new features.

To view the new features and significant product changes for Oracle Data Integrator in the Oracle Fusion Middleware 14c release, see the [New and Changed Features for Release 14c \(14.1.2.0.0\)](#) section in the *Administering Oracle Data Integrator* guide.

Oracle Data Integrator 14.1.2.0.0 ReadMe File

The ReadMe file contains information about the current release. This includes features, prerequisites, install/uninstall instructions, and the like.

A ReadMe file is included in your distribution. It is located in the top level directory of the zip. The ReadMe file includes information about this release (features, prerequisites, install/uninstall instructions). You must use the ReadMe file to install ODI 14.1.2.0.0. Please read the entire ReadMe file before proceeding.

Configuration Issues and Workarounds

Use this information to understand the known configuration issues and workarounds for Oracle Data Integrator.

This section contains information on the following issues:

- [999 is a Prohibited Master Repository ID](#)
- [Domain Assisted Schema Upgrade \(DASU\) Does Not Pre-populate ODI Supervisor Credentials](#)
- [Unable to Include Dependencies while Creating Version](#)
- [CopyConfig command cannot connect to ODI schema through External Authentication](#)
- [Upgrading commons-lang from 2.6 to commons-lang3-3.8.1.jar in SDK Script File](#)
- [Upgraded bpm-infra.jar Causes NullPointerException](#)

999 is a Prohibited Master Repository ID

999 is a prohibited master repository ID and should not be used. [21083009]

Domain Assisted Schema Upgrade (DASU) Does Not Pre-populate ODI Supervisor Credentials

In the Oracle Fusion Middleware Upgrade Assistant, when the **All Schemas Used by Domain** option is selected, the Supervisor credentials for ODI are not pre-populated in the first instance as the domain does not contain them. If there are multiple ODI schemas, the Upgrade Assistant populates the user entry using the first set of credentials. [20323393]

Unable to Include Dependencies while Creating Version

When you follow the below steps:

- Enable GIT/Subversion
- Enable wallet
- Create connection to GIT/Subversion
- Add mapping to VCS
- Modify mapping

and then terminate ODI studio and start again to create a version for mapping including dependencies, you get a null pointer error.

To overcome this issue, as a workaround

- Navigate to Team -> Settings -> Edit Connection and click OK
The wallet password dialog appears.
- Enter the wallet password and then create version with dependency.

You can successfully create version for mapping including dependencies. [25168395]

CopyConfig command cannot connect to ODI schema through External Authentication

The CopyConfig command cannot be executed on an environment configured with external authentication. It needs internal authentication to connect to the ODI schema. [27084113]

Upgrading commons-lang from 2.6 to commons-lang3-3.8.1.jar in SDK Script File

There is a change in the package structure as commons-lang is upgraded from 2.6 to commons-lang3-3.8.1.jar. Due to this change, you may get compilation errors if your SDK scripts use org.apache.commons.lang package. [29966240]

As a workaround, in the SDK script file, change all the references of org.apache.commons.lang to org.apache.commons.lang3.

For example :

```
import org.apache.commons.lang.ArrayUtils;
```

to

```
import org.apache.commons.lang3.ArrayUtils;
```

Upgraded bpm-infra.jar Causes NullPointerException

Complex file dataserver with JSON file containing value as null (without any double quotations) fails Test connection and Reverse Engineering. [30214609]

JSON Payload must not contain null as a value. As a workaround, replace:

- string with "null", "n/a" or any logical value in double quotations
- integer with the value "0" (zero)

Design-Time Environment Issues and Workarounds

Use this information to understand the known design-time environment issues and workarounds for Oracle Data Integrator.

This section contains information on the following issues:

- [Preferences that are Not Used in Oracle Data Integrator Appear in ODI Studio](#)
- [Attributes are Not Copied when Duplicating a New Datastore](#)
- [Non-ASCII Characters in a Hive Table are Not Displayed Properly](#)
- [Editing Expanded Submap of Dimension or Cube component](#)

- [Performance Delay While Editing Scenarios and Load Plans](#)

Preferences that are Not Used in Oracle Data Integrator Appear in ODI Studio

Preferences that are not used in ODI are getting picked up from the JDeveloper IDE by default and these features appear in ODI Studio > Tools > Preferences. [21656747]

Attributes are Not Copied when Duplicating a New Datastore

If you attempt to duplicate a newly created datastore with attributes without first closing the tab of the newly created datastore, the attributes are not copied.

As a workaround, save and close the newly created datastore with attributes before selecting **Duplicate Selection**. [21572433]

Non-ASCII Characters in a Hive Table are Not Displayed Properly

Non-ASCII characters in a Hive table that is based on a utf-8 encoded file are not displayed properly. As a workaround, specify `-J-Dfile.encoding=utf8` and start ODI Studio to view Non-ASCII characters in a Hive table. [19632983]

Editing Expanded Submap of Dimension or Cube component

You are not allowed to edit the expanded map of a dimension or cube component. The changes done in expanded map is not persisted and are not saved. [23110100]

Performance Delay While Editing Scenarios and Load Plans

You can observe a significant delay when you try to edit a simple Scenario or Load Plan in the Load Plans and Scenarios view from Designer or Operator UI of ODI studio. This behavior is observed when more number of child nodes are associated to a parent node. As a workaround, avoid multiple refresh on save operation. Also limit the number of child nodes inside a folder to a maximum of 200, to avoid performance issues. [27395959]

Missing Menu Options in Topology Designer Tree After Successful REST Service Response Test

Perform the following steps in the topology designer tree:

1. Create a new data server for RESTful Service technology.
2. Create a physical schema with some available method supported by REST Service end point URL.
3. Test the response.
4. After successful REST service response test, right click the menu for physical and logical Architecture.

New Data Server and New Logical Schema options along with some other menu items stay missing.

As a workaround, restart the ODI studio. [29792225]

Technologies and Knowledge Module Issues and Workarounds

Use this information to understand the known technologies and knowledge module issues and workarounds for Oracle Data Integrator.

This section contains information on the following issues:

- [LKM Hive to File Direct Fails when Exporting to HDFS](#)
- [Log Files are Deleted Even in Case of Failure when Using the OdiOSCommand on Oozie](#)
- [Oozie Initialization Fails](#)
- [Error Displayed During Oozie Initialization](#)
- [SQOOP KMs Fail on Oozie](#)
- [Disregard Failed to set setXIncludeAware\(true\) for parser warnings](#)
- [Pig Does Not Provide Implicit Type Conversion](#)
- [Mapping Execution Fails in Pig](#)
- [Complex Aggregation Not Supported by Pig Latin](#)
- [Mapping Editor May Not Display All Template IKMs](#)
- [Date Comparison May Not Work as Expected if the Date is a String Datatype](#)
- [XKM SQL Distinct Limitation](#)
- [The UNION_DISTINCT Pig Operator Does Not Remove Duplicate Outputs](#)
- [Log Level and Log File Not Displayed in the Complex File Dataserver Properties](#)
- [BinaryType Data Type Not Supported in Spark 1.1](#)
- [Hive Complex Datatypes Not Supported by LKM Spark to Hive](#)
- [Spark Execution Supports only YARN Deployment](#)
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- [Flexfields Tab of KM Editor May Not Display Newly Created KMs](#)

LKM Hive to File Direct Fails when Exporting to HDFS

When executing a mapping using LKM Hive to File Direct, it fails and the following error is displayed:

```
ODI-1227: Task Unload Hive data-LKM Hive to File Direct- fails on the source connection HIVE_DATA_SERVER
```

This is caused due to Hive bugs, [HIVE-5672](#) and [HIVE-6410](#), which cause the INSERT OVERWRITE statement to fail when writing to HDFS. Please note that these Hive bugs are already fixed and the issue is resolved when upgraded to a recent version of CDH and Hortonworks. [21529011]

Log Files are Deleted Even in Case of Failure when Using the OdiOSCommand on Oozie

Many KMs that use OdiOSCommand use the `OUT_FILE/ERR_FILE` parameters to redirect output into log files. The directory for such files is based on the KM option `TEMP_DIR`, which uses a default value of `System.getProperty("java.io.tmpdir")`. This causes ODI on Oozie to use an Oozie job temporary directory, which gets cleaned up on job completion, irrespective of whether the job was successful. This results in the log files not being available after execution.

As a workaround, when executing on Oozie, overwrite the KM option `TEMP_DIR` to a specific temporary directory. [21232650]

Oozie Initialization Fails

Oozie initialization fails and the following error is displayed:

```
java.io.IOException: E0504 : App directory <dir_name> doesn't exist OR ODI-1028: There are issues with the Log Retriever components. No Log Retriever flow with name <name> is running.
```

The issue occurs on pure CDH5.4.0+ pseudo/multi node clusters.

As a workaround,

1. Make sure that oozie share lib is already created using the following command:

```
oozie-setup sharelib create -fs hdfs:///user/oozie -locallib <path to local folder [oozie-sharelib-yarn]>
```

Note:

Folder oozie-sharelib-yarn is local to the oozie setup. After creating the sharelib, you can verify the sharelib on HDFS at the location `hdfs:///user/oozie/share/lib/lib_<timestamp>`

2. Add the following properties to `oozie-site.xml`. These properties are needed for Oozie to obtain the hadoop configuration files to access HDFS. In the first property value, add the path after `"*="`

```

<property>
<name>oozie.service.HadoopAccessorService.hadoop.configurations</name>
<value>*<replace_this_with_path_to_hadoop_configuration_folder For
Example:/etc/hadoop/conf></value>
<value>*<replace_this_with_path_to_hadoop_configuration_folder
For Example:/etc/hadoop/conf></value>
</property>
<property>
<name>oozie.service.WorkflowAppService.system.libpath</name>
<value>hdfs:///user/oozie/share/lib</value>
</property>

```

3. Restart your oozie and hadoop services. [21410186]

Error Displayed During Oozie Initialization

There is an issue with the `OdiLogRetriever.properties` file and the `oozie.coord.application.path` value does not get appended to it and the following error is displayed: [21410186]

```
E0504: App directory doesn't exist
```

SQOOP KMs Fail on Oozie

KMs using SQOOP fail when executed on Oozie on a CDH version prior to 5.4.1.

As a workaround, set KM option `EXTRA_HADOOP_CONF_PROPERTIES` to `--skip-dist-cache`. Another workaround for this issue is to upload all SQOOP jars into the HDFS directory reported in `FileNotFoundException`. [21232570]

For example:

```

hdfs dfs -mkdir -p /opt/cloudera/parcels/CDH-5.3.0-1.cdh5.3.0.p0.30/jars
hdfs dfs -copyFromLocal
/opt/cloudera/parcels/CDH-5.3.0-1.cdh5.3.0.p0.30/jars/* /opt/cloudera/parcels/
CDH-5.3.0-1.cdh5.3.0.p0.30/jars

```

Disregard Failed to set setXIncludeAware(true) for parser warnings

When you execute Pig or Oozie workflows through ODI, you may encounter warning messages such as, Failed to set `setXIncludeAware(true)` for parser, regarding xml parsing failures in the ODI logs or studio console. This error occurs when JAVA xerces parser gets used for PIG execution, as the default implementation does not support `XIncludeAware` feature in xml parsing.

As a workaround, add `xmlparserv2.jar` in classpath of the Pig Dataserver. [21238180]

Pig Does Not Provide Implicit Type Conversion

When specifying constant expressions, the datatype for the constant must exactly match the attribute datatype because Pig does not provide implicit type conversion.

For example, if the attribute is defined as DOUBLE, the constant expression for this attribute should be set to 999.0 instead of 999. [20808984]

Mapping Execution Fails in Pig

When a mapping is processed using Pig and there is an Aggregate component in the Pig staging area, the Having clause must be set differently from similar mappings for SQL-based technologies. [20723728]

Complex Aggregation Not Supported by Pig Latin

When using the Aggregate component in Pig staging, you cannot specify a complex expression in an aggregate function, for example, `SUM(source.col1 + source.col2)`. This kind of aggregation is called "complex aggregation" and Pig Latin does not support this. If complex expression is needed, the Expression component must be added to the mapping ahead of the Aggregate component. [20302859]

Mapping Editor May Not Display All Template IKMs

The Mapping Editor may not correctly list the imported Template IKMs for selection. To list the imported IKMs, you must change the **Target Integration** type from its default (**Control Append**) to either **Incremental Update** or **None**. [20583432]

Date Comparison May Not Work as Expected if the Date is a String Datatype

In the Spark project, if the source file uses File technology, ODI converts the Date into a string datatype. This may cause the Date comparison to fail. [20029929]

XKM SQL Distinct Limitation

When a mapping is created with Oracle as source and Oracle as target using a Distinct component and the XKM SQL Distinct is selected in the DISTINCT node, the mapping fails and the following error is displayed:

```
The physical node DISTINCT_ cannot be supported by technology Oracle on
execution unit src_UNIT of mapping Mapping New_Mapping[11] owning
folder=ODIOGG.First Folder
```

To resolve this issue, upgrade the topology information so Support Distinct Operator is set to `True`. [20234590]

The UNION_DISTINCT Pig Operator Does Not Remove Duplicate Outputs

The UNION Pig operator uses the following modifiers to specify the uniqueness characteristic: [20368827]

- unspecified – Perform a DISTINCT operation on output
- DISTINCT – Perform a DISTINCT operation on input, but not output
- ALL – Do not perform a DISTINCT operation on input or output

Log Level and Log File Not Displayed in the Complex File Dataserver Properties

When creating a Complex File dataserver, the log level (ll) and log file (lf) properties are not displayed in the Properties tab. [20377218]

BinaryType Data Type Not Supported in Spark 1.1

The Hive datatype, BinaryType, is not supported in Spark 1.1. When using LKM Hive to Spark with Spark 1.1 the following error is displayed in the Spark execution log: [20260906, 20391714]

```
HIVE ValueError: not supported type: <type 'bytearray'>
```

Hive Complex Datatypes Not Supported by LKM Spark to Hive

The following Hive complex datatypes are not supported:

- MapType
- UnionType
- ArrayType

Using these complex datatypes causes an unknown issue. [20141453, 20391743]

Spark Execution Supports only YARN Deployment

It is recommended to run Spark applications on YARN, as ODI supports only yarn-client and yarn-cluster mode executions along with a runtime check. Please switch to YARN execution, if you have been using other Spark execution modes. [24846472]

If switching to YARN execution mode is not possible or you wish to continue with unsupported Spark execution modes, the following DataServer property must be added to the Spark DataServer:

```
odi.spark.enableUnsupportedSparkModes = true
```

Also, please note that no Support Requests can be raised regarding the unsupported Spark execution modes.

Spark-Cassandra: Permission Errors in YARN-client mode

When connecting to Cassandra sources or targets using "LKM SQL to Spark" or "LKM Spark to SQL", the JDBC driver parameter or property `SchemaMap` must not be used in YARN-client mode. Due to conflicting owners in the YARN-client execution model, the

WebLogic JDBC Driver for Cassandra will encounter file permission problems and displays errors messages such as:

```
py4j.protocol.Py4JJavaErrorpy4j.protocol.Py4JJavaError: An error
occurred while calling o140.jdbc.
: java.sql.SQLException: [FMWGEN][Cassandra JDBC Driver]
[Cassandra]Unable to create local database file: $$ The cause: $$
```

This error is often caused by the driver not having write access to the target directory. [24928801]

Known Datatype Issues using Spark 1.6

Due to limitations in Spark 1.6, the following Oracle datatypes cannot be handled using LKM SQL to Spark or LKM Spark to SQL [25047069]:

- Use of FLOAT and REAL will cause the following ValueError:

```
(ValueError(u'Could not parse datatype: decimal(38,-127)',))
```

- Use of extended TIMESTAMP and INTERVAL datatypes such as: TIMESTAMP WITH TIME ZONE, TIMESTAMP WITH LOCAL TIME ZONE, INTERVAL DAY TO SECOND, INTERVAL YEAR TO MONTH will cause the following errors:

```
py4j.protocol.Py4JJavaErrorpy4j.protocol.Py4JJavaError:
An error occurred while calling o43.jdbc.:
java.sql.SQLException: Unsupported type -101
```

Unable to Store Alias Error in Pig

If the mapping execution in Pig fails and the Unable to store alias error is displayed, the `pig.optimizer.rules.disabled` property for the Pig server should be set to `FilterLogicExpressionSimplifier`. [20520865]

KMs Replaced During Repository Upgrade

By default, all loaded KMs in the repository are replaced during repository upgrade, irrespective of whether they are modified or not. Do not upgrade the KMs during repository upgrade.

The following are the workarounds to upgrade the KMs:

- If you have SAP KMs, you must not upgrade the KMs during repository upgrade. The new SAP KMs require new ODI SAP components. Using new SAP KMs with old ODI SAP components causes any SAP mappings to fail.

As a workaround, uncheck **Replace KMs with Mandatory Updates** when upgrading the ODI repositories. To upgrade SAP KMs, follow the upgrade instructions given in the *Application Adapters Guide for Oracle Data Integrator* for the respective ODI SAP adapter.

- If you have any custom KMs, the customizations are lost if you upgrade the KMs during repository upgrade.

As a workaround, uncheck Replace **KMs with Mandatory Updates** when upgrading the ODI repositories. After you upgrade the repositories, manually replace only those KMs that you want to upgrade.

Erroneously Published SDK API Classes Removed from the 12c Javadocs

Due to a bug in Javadoc generation, 41 internal classes were erroneously published in the 12.1.2, 12.1.3, and 12.1.3.0.1 public SDK API Javadocs. These classes were intended for internal use and have been removed from the 12c public SDK APIs. The classes removed from the 12c Javadocs are listed below and if you are using any of these classes in your program, correct your program and remove their usage: [21700125]

- AdapterException
- ComponentDefinitionParser
- ComponentRegistryHelper
- ExecutionUnit.GenerationType
- FCONamedObject
- FCOPropertyOwner
- FCORoot
- IMapReferenceOwner
- IMappingObject.SyncState
- IModelObjectChange
- IModelObjectChange.ChangeType
- IObjectAdapterFactory
- LocationAdapterBase
- MapAttribute.ConnectionTypeInfo
- MapAttribute.ConnectionTypeSelector
- MapAttribute.DefaultConnectionTypeSelector
- MapComponent
- MapComponentOwner
- MapComponentType.uidef
- MapPhysicalDesign.ContextualComponentTreeNode
- MapPhysicalDesign.ExecutionUnitConfiguration
- MapPhysicalDesign.ExecutionUnitGraph

- MapPhysicalDesign.ExecutionUnitGraphNode
- MapPhysicalDesign.MapPhysicalDesignConfig
- MapPhysicalDesign.NodeConfiguration
- MapPhysicalDesign.PushDirection
- MapPhysicalNode.RMCStackPropertyManager
- MapRootContainer
- MappingGenericTechnology.MappingLanguage
- MappingGenericTechnology.MappingLanguageElement
- MappingGenericTechnology.MappingSubLanguage
- NamedObject
- OdiComponent
- OdiInterface.IPersistenceComparable
- PropertyOwner
- ResourceLoader
- ResourceLoader.ResourceCandidate
- ReusableMappingComponent.RMCConnectorPointDelegate
- Root
- RootIssue.TextPos
- TargetLoadOrderException

CKM Fails with XML and Complex Files When Database is Set to External

Flow control steps (CKM) fail with ORA-00904: "NOW": invalid identifier errors when CKM is used with XML and Complex Files. Mapping is defined to load data into a Complex File target Datastore, while the Complex File Data Server is defined to use an external database.

You get the following error message:

```
ODI-1228: Task insert PK errors-Copy of CKM SQL- fails on the target
connection COMPLEX_ROTA_OUT_ISL.
Caused By: java.sql.SQLException: ORA-00904: "NOW": invalid
identifier
```

```
at oracle.jdbc.driver.T4CTTIoer11.processError(T4CTTIoer11.java:495)
at oracle.jdbc.driver.T4CTTIoer11.processError(T4CTTIoer11.java:447)
```

The problem is due to ODI not being able to pick the right DATE function when the flow or static control is run on a XML (or Complex File) Data Server defined to use an external database.

One of the main reason behind this limitation is, the CKM code being executed on the external database technology (for example Oracle), should use DATE function specific to that technology. Instead it gets the information from the definition of the XML or Complex File technology and the resulting function does not apply to the external database technology. As a result ODI is not able to run static or flow control (CKM) on technologies such as XML and Complex Files when the Data Server is set to use an external database.

So, the workaround is to edit the CKM Insert PK errors, Insert AK errors, Insert FK errors and Insert CK errors tasks' target commands by replacing `OdiRef.getInfo("DEST_DATE_FCT")` with the date function of the used external database technology. For example — `sysdate`, if you are using Oracle external database. [28641256]

Flexfields Tab of KM Editor May Not Display Newly Created KMs

When you re-open the KM Editor and go to Flexfields tab, the newly created flexfields may not be displayed, though they are already saved. Refreshing the Tree on save when multiple editors are open may result in performance issues. To avoid performance issues, refresh the parent of the KM before you re-open it.[28561299]

Post-install Patch Information for Oracle Data Integrator 14c

You can find out more information on the post-installation patches for Oracle Data Integrator 14c.

After installing Oracle Data Integrator 14c (14.1.2.0.0), perform the following steps:

1. Make a backup of your ODI repository schema.
2. Upgrade all ODI repositories associated with the installation using the Upgrade Assistant. See your Upgrade documentation for detailed upgrade instructions.

Note:

Once the ODI repository is upgraded it cannot be reverted back even if you remove the patch. So make sure you make a proper backup of your existing ODI repository so that it can be restored if you remove this patch in the future for any reason.

3. For setting up new domains with this patch, follow the instructions in *Installing and Configuring Oracle Data Integrator*.
4. Clearing of the JDev cache is required for all installations where the ODI Client is to be launched:

- For UNIX platforms:
Locate `system14.1.2.0.0` in your **Home** directory and remove it.
For example: `rm -rf $HOME/.odi/system12.2.1.0.0`
 - For Windows platforms:
Locate `system14.1.2.0.0` in your **Home** directory and remove it.
For example: `delete C:\Users\\AppData\Roaming\odi`
5. Start ODI Studio.
 6. Depending upon the installation type, start Standalone Agent or all servers (AdminServer and all Managed server(s)).

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>.

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Oracle Fusion Middleware Release Notes for Oracle Data Integrator, 14c (14.1.2.0.0)
G10244-01

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