

Oracle® FMW

Release Notes for Enterprise Data Quality



14c (14.1.2.0.0)

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The Oracle logo, consisting of a solid red square with the word "ORACLE" in white, uppercase, sans-serif font centered within it.

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Oracle FMW Release Notes for Enterprise Data Quality, 14c (14.1.2.0.0)

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Preface

Related Documents

For more information about EDQ, see the Oracle Enterprise Data Quality documentation set.

EDQ Documentation Library

Find the latest version of the EDQ guides and all of the Oracle product documentation at <https://docs.oracle.com>.

Online Help

Online help is provided for all user applications of Oracle Enterprise Data Quality. It is accessed in each application by pressing the **F1** key or by clicking the Help icons. The main nodes in the Director project browser have integrated links to help pages. To access them, either select a node and then press **F1**, or right-click on an object in the Project Browser and then select **Help**. The EDQ processors in the Director Tool Palette have integrated help topics, as well. To access them, right-click on a processor on the canvas and then select **Processor Help**, or left-click on a processor on the canvas or tool palette and then press **F1**.

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Conventions

The following text conventions are used in this document:

Convention	Meaning
boldface	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.

1

Oracle Enterprise Data Quality Release Notes

Oracle recommends you review this document before installing or working with the product.

1.1 Release 14.1.2.0.0

This document contains release information for Oracle Enterprise Data Quality (EDQ) (12.2.1.4.4) and includes the following sections:

- [New Features and Improvements](#)
- [Known Issues and Workarounds](#)

1.1.1 New Features and Improvements

This release introduces the following enhancements:

1.1.1.1 New Script Security Model

EDQ would rely on the Java Security Manager framework for secure script execution, but this feature is deprecated in JDK version 17 and later. EDQ now implements a new configuration property called `scriptprocessor.security` that you can use to control the behavior of direct entry script processors and gadgets.

Note that this enhancement applies to the use of scripts in direct-entry script processors and gadgets only. This does not affect all the other uses of scripts (for example, triggers and so on). See [Configuring Secure Script Execution](#) for more information.

1.1.1.2 REST API to Access and Manage MBeans

EDQ includes a REST API that supports read and write of MBean attributes and invocation of MBean operations.

EDQ defines a large number of JMX MBeans, some of which have real-world uses. The following MBeans have been web-enabled in 14.1.2.0.0:

- Logger control
- Runtime data Nexus
- Bucket providers and consumers
- Runtime engine
- Source code control

See [Using REST APIs to Access and Manage MBeans](#) for information on how to use the REST interfaces to read and write MBean attributes and invoke operations.

1.1.1.3 External Storage for Case Management Attachments

Earlier versions of EDQ would store the binary data for case management attachments in a BLOB column in the `dn_caseattachments` table. While this allowed fast storage and retrieval,

systems with a large number of attachments could use a significant amount of database storage, which could lead to tablespace sizing and backup issues.

EDQ 14.1.2 onwards you can store attachment data in the file system or in cloud storage. New attachments are stored externally, while existing attachment data remains in the database table. This release also includes REST APIs that you can use to migrate data to external storage and return the migrated external data back into the database. See [Configuring External Storage for Case Management Attachments](#) for detailed information about how to configure and use external storage for attachments.

1.1.1.4 Browser-based Downloads for Case Management and Note Attachments

In versions prior to EDQ 14.1.2.0.0, case management and note attachments were downloaded to the local system and opened using `Desktop.open`. This bypassed any file scanning provided by browser downloads.

For security reasons, such attachments are now opened and saved using the browser by default. When you try to download a case management or note attachment, EDQ generates a temporary unique URL in the `http://server/edq/downloads/key/name` format and opens it using the `Desktop.browse` API. For Save operations EDQ adds a `Content-Disposition: attachment` header to the result to force the browser to save the file.

While browser-based downloads are now the default, there may be situations where organizations or individual users may wish to use the current "local" download mode. You can control the download type by adding the `attachment.download.style` property to `clientstartup.properties`. If the value is `local`, EDQ uses the current local mechanism for all users. If the value is `choose`, individual users can select how to download the attachments.

Setting `attachment.download.style` to `choose` enables the following options in the user interface:

- The **Attachment download style** drop-down in the Director application Preferences dialog box includes two options - **Download using browser** and **Download locally**.
- In Case management, right-click the attachment to see the **Attachment download style** drop-down that includes two options - **Download using browser (recommended)** and **Download locally**.

Note that the same download style setting is applied across the EDQ application.

1.1.1.5 Support for AWS Roles Anywhere Authentication

EDQ now supports AWS Roles Anywhere stored credentials alongside the current access key/secret stored credentials type.

AWS Roles Anywhere allows on-premise workloads to access AWS services such as S3 or SQS. Roles Anywhere is an alternative to the use of standard access key based AWS credentials. See [Creating AWS Roles Anywhere Stored Credentials](#) for more information.

1.1.1.6 Web Access to EDQ Configuration and Log Files

You can now access configuration and log files using HTTP and HTTPS.

For compatibility reasons web access is not enabled by default, but you can enable this by setting `director.properties` and an MBean. See [Using HTTP and HTTPS Server to Access EDQ Files](#) for more information.

1.1.1.7 Tool to Identify and Purge Deleted Users

EDQ now includes a tool called `usergc.jar` that can check whether users that have been deleted from the internal or external store have a reference in any of the configuration schema tables.

You can use this tool to identify such users and then cleanup the respective records from the database. For detailed information about the tool, see [Using the User Garbage Collection Tool to Manage Deleted Users](#).

1.1.1.8 New Autorun Chore Type to Import Package Files

You can now use the new "import" Autorun task to import package files at system startup.

The chore XML includes the package import definition as inline JSON or as a file name. See [Using Autorun to Execute Startup Tasks](#) for more information.

1.1.1.9 Sysreport REST API Enhancements

Support and customers can use the `http://server:port/edq/admin/sysreport` endpoint in the system administration name space to generate sysreports in JSON format.

You can use the REST API to return a subset of the full report, which could be useful for automated testing and quick diagnostics. See [REST Interface for EDQ System Report](#) for information on how to use the REST interfaces to retrieve configuration and runtime information.

1.1.1.10 Packaging and Importing Configuration REST API Enhancements

Now you can also include global case filters when packaging and importing configuration between EDQ environments.

For more information, see [Using REST APIs for Importing and Exporting Configuration](#).

1.1.1.11 Case Management REST API Enhancements

The Case Management REST API now allows you to define filter specifications as a JSON map, bulk update cases and alerts, bulk export cases and alerts, run a report, and cancel bulk operations. This release also includes simple REST APIs for Case Management Administration.

The Case Management REST API includes the following new functionality:

- **Filter definitions as a JSON map to run searches:** In previous versions it was necessary to specify a named filter to run searches using the case management REST APIs. Now the **filter** attribute in the **runfilter** and **bulkdelete** POST operations can be a JSON map defining the conditions for the search. These filter conditions can include any of the standard and extended attributes that are supported in the Case Management UI. Note that currently searches using case comments and transitions are not supported.
- **Bulk update multiple cases using filter:** You can filter and update multiple cases or alerts using the **bulkupdate** method. The user making the call must have the case management bulk update permission as well as any permissions defined with the transitions used in state change definitions.
- **Export multiple cases and alerts:** You can now use the **export** method to filter and export multiple cases or alerts to a file or URL. Supported output formats are JSON, JSON

lines, XLSX and CSV. The user making the call must have the Export to Excel case management permission.

- **Run a report:** You can use the **report** method to run a case management report using a generic filter.
- **Cancel a bulk operation:** You can cancel a bulk delete, update or export operation using the execution key that is returned by the call that initiated the bulk operation.
- **Case Management Administration APIs:** This release includes simple APIs that allow you to list and delete case sources, case workflows, case management dynamic permissions, and global filters.

For detailed information about the Case Management REST APIs, see Using the EDQ Case Management API.

1.1.2 Known Issues and Workarounds

This section details known issues in this release, and their workarounds.

1.1.2.1 Apache POI XLSX Sheet Creation Fails if fontconfig Package is not found

Fonts are no longer shipped with Oracle JDK 11 and later versions. Applications that require font rendering rely on the fonts that are installed along with the operating system.

Apache POI relies on the Java font mechanism to determine the average character width. If the Linux `fontconfig` package is not present, output generation fails with the “`java.lang.reflect.InvocationTargetException`” error.

To avoid this issue, you can do one of the following:

- Install the `fontconfig` package:

```
# yum install fontconfig
```
- Allow Apache POI to ignore the missing fonts by setting the Java property `org.apache.poi.ss.ignoreMissingFontSystem` to `true`.
Note that this is applicable to Apache POI version 5.2.x and later.

1.1.2.2 Case Management REST API Filters can fail if there are duplicate sourceid Display values

The generalized filter format in EDQ Case Management REST APIs allows you to filter records using the `sourceid` attribute to run searches.

For example:

```
sourceid": "process(cm-wf-p) processor(Advanced Match)"
```

The filter code builds a map between the `sourceid` display value and the internal `sourceid` identifier. However, the `sourceid` display values may be duplicated, for example, if you copy a match process between projects. Such duplicate `sourceid` display values can cause the map building to fail with an `IllegalStateException` error.

To avoid this issue, do not use the `sourceid` attribute to run filters.

1.1.2.3 Case Management REST API Bulk Delete and Update Fail in a Clustered Environment

The result objects that are stored using the asynchronous operation for the Case Management bulk delete and update API are not serializable. When you try to bulk delete or update cases or alerts using the Case Management API in a clustered environment, an exception is thrown when the operation completes and the result object is stored for later retrieval.

The error is reported with the following status:

```
{
  "start": "2024-11-13T13:27:30.002Z",
  "complete": true,
  "failed": true,
  "error": "(Wrapped) java.io.NotSerializableException:
oracle.edg.casemanagement.rest.data.DeleteResult",
  "end": "2024-11-13T13:27:30.050Z"
}
```

1.1.2.4 XMLTransformer.purifyXML does not disable external entity expansion

To support complex conversions, for example XML parsing, a JavaScript script can be provided to process the record value. The script `XMLTransformer.purifyXML` function does not disable external entity expansion, which could cause security vulnerabilities.

1.1.2.5 Dashboard Display can Fail with a 500 Error Due to Comparison Method Failure

The Dashboard provides a high-level view of results, in the form of Indexes, Summaries or by Rules. These are collectively known as elements. The dashboard UI sorts all elements by status and passrate. The sorting is done by comparing passrates (passcount / totalcount).

If the total count is zero, this evaluates to NaN. Greater than and less than comparisons with NaN always return false, and so the comparison method returns 0.

For example, say you have elements A, B, and C where C has zero counts and the A passrate is greater than B. In this scenario, the comparisons will return as follows:

A > B (correct)

B < A (correct)

A = C (incorrect)

B = C (incorrect)

Since A = C and B = C, the sort expects A = B as well, which is incorrect.

If there are any dashboard rules that have zero comparison because no records in the process passed through the related processor, then the UI display may fail with a 500 error caused by the following exception:

```
java.lang.IllegalArgumentException: Comparison method violates its general
contract!
```

To avoid this error do one of the following:

- Ensure that all rules have some published records
- Set the following system property:

```
-Djava.util.Arrays.useLegacyMergeSort=true
```

1.1.2.6 Exports to Oracle can Leave Old Tables in Recycle Bin

If an export is configured to create a new table, EDQ removes the existing table first using the `DROP TABLE tablename` SQL statement. The space associated with the table is not immediately removed. The Oracle database renames the table and places it and any associated objects in the Recycle Bin.

1.1.2.7 Schema Password Reset Does Not Change Connection Pool Password

You can change the schema password either automatically using the `schema.password.auto.reset.after` option or manually using the REST API. The schema password change updates the password in the database and in the `director.properties` file, but not in the underlying connection pool.

After the schema password update, the existing idle connections in the pool work fine, but any attempt to get a new connection will fail with an invalid username/password error.

1.1.2.8 getindexinfo Call can cause a Deadlock when Creating Tables in an Apache Derby Database

The `DatabaseMetaData.getIndexInfo` method is used to retrieve details of the table's indices. In almost all cases this is not necessary because the table is newly created and has no indexes.

When multiple threads are used to create tables in an Apache Derby database, the `getIndexInfo` call can trigger a deadlock on the data dictionary causing the following exception:

```
ERROR 40XL1: A lock could not be obtained within the time requested
```

1.1.2.9 The Call External Web Services (CEWS) Processor Displays Garbled text in Result Body if UTF-8 Encoding not used

The CEWS processor always decodes the result body using UTF-8 encoding. If a server returns an error message in a different encoding, the message will not be displayed correctly. This has been observed in calls where an incorrectly formatted payload resulted in a 400 error, but the error message was garbled.

A

Using Oracle Text for Case Management Filters and Reports

This appendix describes how to use SQL and Oracle Text for Case Management filter and report execution.

From this release, you can use pure SQL in conjunction with Oracle Text and JSON indices for Case Management filter and report execution. Note that switching from Lucene to Oracle Text is a considerable change and may require tuning to improve search performance. Oracle recommends that you test all aspects of search behavior and performance before you configure your production systems to use Oracle Text.

Follow the below procedure to enable SQL filtering and disable Lucene.



Note:

To use this option, the EDQ repository database must be running Oracle database 19.10 or later.

A.1 Working of Case Management Filters

Case management filters are mapped to SQL searches on the `dn_case` and supporting tables. Filters on the case key, case description and comment text are mapped to Oracle Text searches. Filters on source data are mapped to Oracle JSON Text searches on a new column in the supplementary data table which contains JSON encoded source data. All other fields do not support free text searches and are mapped to simple SQL predicates.

A.2 Understanding Oracle Text Expressions

There are very few differences between Lucene filter expressions and Oracle Text Context Grammar. For more guidance on the Oracle Text search syntax, refer to [The CONTEXT Grammar](#) documentation.

The existing filters use Lucene search syntax and you have to modify them to work correctly with Oracle Text. Asterisk ("`*`" - wild card) characters in filters are replaced with `%` automatically.

Refer to [Key differences in Search Functionality between Lucene and Oracle Text in EDQ Case Management](#) for more information.

A.3 Additional Considerations

The extended attribute (custom flags) columns in the case table do not have database indexes by default. If searches on extended attributes are common without other search filters, it is necessary to create additional indices. This depends on the individual requirements.