insightsoftware

CERTENT CDM
Filing Plug-in Guide

CDM Filing Plug-in Overview

The CDM Filing Plug-in is used to submit filing packages to certain regulatory authorities. Currently, the CDM Filing Plug-in supports the taxonomies that are published by the European Banking Authority (EBA).

Filing packages for the CDM Filing Plug-in are provided solely by CDM. Filing packages respect the XBRL mandate requirements and include in-house generated taxonomy metadata to make work easier.

- It is not necessary to create tags manually. The user is not required to know the concepts of XBRL.
- All EBA Implementing Technical Standards are supported, including the EBA data point model, the various supporting taxonomies, and important business oriented and financial frameworks.
- The data is refreshed every time that a form is opened and the form is automatically validated every time that it is saved. All validation errors or warnings can be selected and are linked to the cause.
- All report modules can be rolled forward to a new reporting period or to a new entity or both.
- When a filing report is rolled forward, a release framework can be due depending on the reference date and regulatory authority, through the reporting entity, which is selected in the Rollforward wizard. CDM assists clients in this process and identifies the appropriate release framework to be used for the filing report that is created through the rollforward process.
- A filing report status report is generated when the rollforward causes the following events to occur:
  - A move from one release framework to another.
  - A move from a regulatory authority to another.

  Note: You can still access the previous version of the filing report if structural changes were made to the form by adding or removing rows and columns.
- The Filing Plug-in includes forms, units, and currencies usage logic.
- The Filing Plug-in includes reporting frequency logic.
- The Filing Plug-in includes a submission validation function that is business-centric rather than XBRL-centric.
- The Filing Plug-in includes regulatory authorities definition and automatic submission logic.
- Users can bind data directly to the forms from data queries to automatically manage a variable number of rows and columns in an open table and dynamically manage repeated tables, including tables with more than one pivoting axis.

Audience

This information is intended for individuals who work in the Office of Finance, who submit to the European Banking Authority (EBA) based on filing packages. To use this guide, you should have

experience in developing financial reports for regulatory submission.

Taxonomy File Caches

You can put the EBA taxonomy files into a cache on the CDM Server installation folder for future references.

Taxonomy Cache for XBRL CSV Generation

By default, the taxonomy files for generating the XBRL CSV output of your filing reports are saved in the `Temp/xbrlcsv` directory which could be automatically cleaned up. To avoid the files being deleted unexpectedly, you can specify a permanent location on the CDM Server installation folder to place the files.

1. Go to the folder where your CDM Server is installed.
2. Open the **Web.config** file.
3. Edit the `XBRLCSVTaxonomy path` attribute to include the location of the folder in which you want to put the files, for example:

```
<XBRLCSVTaxonomy path="C:\inetpub\wwwroot\CertentCDM-Server\XBRLCSV
taxonomy" />
```

Taxonomy Cache for XBRL Validation

You can put the EBA taxonomy files into a cache on the CDM Server installation folder to enhance XBRL validation. When there is a taxonomy update, you need to remake the caching operation of the taxonomy and replace the existing one on the CDM Server.

Save the EBA Taxonomy into Cache

You can save the EBA taxonomy into cache in CDM, which improves performance. Below is a specific example to save EBA taxonomy files into cache on the CDM Server.

1. Download and save the latest version of the compressed taxonomy files from the EBA website to your own system and extract the contents.
2. Save the taxonomy files into one folder called **EBA taxonomy files**. When you have all the necessary files, this folder includes the following folders:
   - www.eba.europa.eu
   - www.eurofiling.info
   - www.xbrl.org
3. Copy the complete **EBA taxonomy files** folder to a known location on the CDM Server, for example: `C:\inetpub\wwwroot\CertentCDM-Server`.
4. Go to the CDM Server installation folder and open the **Web.config** file.

5. Edit the `Taxonomies path` attribute to include the location of the folder you have saved:

```
<Taxonomies path="C:\inetpub\wwwroot\CertentCDM-Server\EBA taxonomy
files" />
```

Update the EBA Taxonomy

When there is a taxonomy update from the EBA, you need to remake the caching operation of the taxonomy and replace the existing folders with the new ones on the CDM Server.

Filing Reports and Report Entities

You can use a filing report in CDM to prepare and submit data to a regulatory authority according to their requirements.

Filing Reports

The filing package that is offered by the Filing Plug-in allows the creation of filing reports for released frameworks. For example, the EBA taxonomy versions 2.0, 2.1 and 2.2 are supported to create filing reports.

After a package is added, you can create filing reports according to the regulatory authority requirements that are supported by the package. The filing package also supports previous requirements. A filing package cannot be deleted if it is in use.

Important: You cannot use filing reports as narrative reports or within an XBRL project. Report cascade is not supported. If you select a filing report and cascade it, the new report is considered a regular report and not a filing report. Cascading does not preserve the filing properties of the filing report.

Reporting Entities

Reporting entities are used to identify the entity that is submitting the filing report, its end of fiscal year, and the regulatory authority that it is making a submission to. If the same entity needs to report to two or more regulatory authorities at the same time, give it a name that avoids confusion and error. For created reporting entities, the regulatory authority that is used determines the validation checks and generation that are used. Entity schemes and entity identifiers are used to correctly identify the reported facts in the XBRL instance. Also, the fiscal year end determines the list of applicable reference dates.

Important: When you define a reporting entity, you can choose from several entity schemes according to the regulatory authority requirements. You must insert a valid entity identifier according to the entity scheme that you choose. You can then choose an end of fiscal year for your entity.

Permissions for Filing Reports

A filing report requires specific permissions that you can use to manage filing packages, reporting entities, and XBRL validation.

The following permissions are specific to filing reports:

- Application Permissions > Filing > Manage Packages - Allows a user to manage a filing package.
- Application Permissions > Filing > Manage Reporting Entities - Allows a user to manage a reporting entity.
- Application Permissions > Filing > Perform XBRL Validation - Allows a user to test the filing report to ensure that the XBRL is valid.

For each filing report, report permissions must follow the same flow as for a regular report.

Frequency and Reference Dates

Report type frequencies for filing reports are based on the requirements of the regulatory authority. Based on the report type that you select, you can see a list of frequencies that are applicable to the forms that apply to the report type. Depending on the frequency that you select, the list of forms available for reporting is filtered to match only the forms for the chosen frequency. Based on the regulatory authority requirements, an additional frequency of All might be available through the filing package offering. The All selection gives you the option to include forms with different frequencies in the same report, so that you can submit a single instance for multiple type of frequencies. When you select All as the filing report frequency, it is your responsibility to leverage the custom group feature to filter the report based on current reporting period requirements.

The EBA Common Own Funds report is set up with the selected reporting frequency as All, which means that it applies to quarterly and semi-annual reporting. It is your responsibility to mark the semi-annual forms with a semi-annual custom group and quarterly forms with both a quarterly and semi-annual custom group.

When you report quarterly, you must work with the filing report so that the appropriate custom group selection is shown.

Year quarter	Reporting custom group
Q1	Quarterly
Q2	Semi-Annual
Q3	Quarterly
Q4	Semi-Annual

Accuracy

While you are setting up your filing report in CDM, you can set the XBRL decimal attribute and accuracy level for the facts that are being reported. The tolerance is used to evaluate formula validations.

Form level validation errors evaluate the left and right members of the formula validation expressions and display the information in the following format:

`{Left Member} +/- {Left Member Calculated Tolerance} = {Right Member} +/- {Right Member Calculated Tolerance}`

All relevant XBRL facts carry over the XBRL decimal attribute as it was set up during the filing report setup.

For an EBA submission, `2.2 +/- 0.5 = 3 +/- 0.5` is successful according to the interval arithmetic specification provided by the EBA, for the following reasons:

- The EBA has recommendations on setting up the accuracy for reported facts in XBRL instances.
- XBRL formula calculations are best carried out on instance values for validation purposes, without truncations or rounding or any other type of change applied to the numeric facts in the instance. Therefore, accuracy and the decimal attribute must be set accordingly.
- Tolerance used in formulas is determined by the value of the decimals attribute. Accuracy is calculated as `0.5x10-n`, with `n` as the value of decimal attribute.
- Formulas can fail if the level of accuracy is set too high or if it is not applicable to the reported facts for the instance.

Submission Process Workflow

The submission process follows a particular workflow in CDM. The recommended workflow is:

1. Set permissions.
2. Set up a filing report:
   a. Define the reporting entity.
   b. Select the report type.
   c. Select the frequency.
   d. Select the forms to be reported.
   e. Select any applicable breakdown forms.
3. Add data.
4. Validate for preliminary review.
5. Generate.
   a. Generate Excel for review purposes.
   b. Perform business validation.
6. Validate for final approval.

Add a Filing Report

Filing reports in CDM are standalone reports that offer the support that is needed to submit to a particular regulatory authority. An XBRL project is not needed.

Filing reports are added through **Administration** > **Reports** and have a distinctive icon that differentiates them from narrative reports and regular XBRL projects. Filing reports are located in report groups and can be grouped with narrative reports.

To add a filing report:

1. Click the **Home** tab, then in the **Navigation Pane**, click **Administration**.
2. Double-click **Reports**.
3. In the table, right-click the report group, click **Report**, and select **Filing Report**.
4. On the **Submission Setup** tab, enter the following information:
    - **Name** - Type a name that is easily identified where it is used.
    - **Reporting Entity** - Select from the list to determine the regulatory authority, the entity scheme or identifier, and the fiscal year end of the entity that is submitting the report.
    - **Framework Release** - Select from the list to determine the framework release, for example, a particular version of the European Banking Authority.
    - **Report Type** - Select from the list of report types that are requested by the regulatory authority, based on the data from the filing package. The report type determines the suitable taxonomy entry point for this type of report based on the data from the filing package.
    - **Frequency** - Select from the list of frequencies that are applicable to the selected report type as requested by the regulatory authority, based on data from the filing package. If more than one frequency is applicable, you can manage all frequencies in a single filing report.
    - **Reference Date** - Select the reference date of the report that is being added from a list of reference dates that are applicable, based on the fiscal year end of the reporting entity and the filing report type.
    - **Start Date** - The start date is based on the selected reference date.
5. Click **Next**.
6. On the **Report Details** tab, enter the following information:
    - **Currency** - The currency of the facts that are being reported.
    - **Due Date** - The target date to complete the preparation of the filing report. Select a date that is on or before the remittance date enforced by the regulatory authority for the prepared report.
    - **Default Report Accuracy** - If you want to report facts that are exact (implying INF as the XBRL decimal attribute for the reported facts), select **Exact**. To report facts that are within the limits that are enforced by the regulatory authority, select **Custom**.
7. Click **Next**.
8. Optionally, on the **Select Forms** tab, select the forms according to the regulatory authority requirements that are applicable for the selected frequency and respecting the rules in effect for the selected reference date. This step is optional because the list of forms to be reported can be updated at any time from within the filing report.
9. Click **Finish**.

Add a Reporting Entity

Reporting entities in CDM are used to identify the entity that is submitting the filing report, its end of fiscal year, and the regulatory authority that it is making a submission to.

To add a reporting entity:

1. Click the **Home** tab, then in the **Navigation Pane**, click **Administration**.
2. Click **Filing** > **Reporting Entities**.
3. Click **Add**> **Reporting Entity**.
4. Enter the following information:
   - **Name** - User-defined descriptive name where the entity is used.
   - **Description** - User-defined.
   - **Regulatory Authority** - Select from the list.
   - **Entity Scheme** - Select from the list.
   - **Entity Identifier** - User-defined. It must be in the form of a regular expression.
   - **Fiscal Year End** - As required by the regulatory authority.
5. Click **OK** to complete.

Add a Form

Forms that are included in a filing report in CDM are considered intended to be reported, regardless of the existence of data being added into the form.

When you open a filing report, you can add or delete forms at any time. In effect, for EBA reporting, the filing indicator is set to True for all templates mapped by the forms that are in the filing report. You can delete forms that are not intended to be reported.

If you do not want to delete a form but you do not want it to be reported, you can specify it as Not Printable. When a form is set as Not Printable and contains data, the generated instance does not include any data from the form and no validation is performed for the report. You can also delete forms that are not intended to be reported.

Some forms, called breakdown forms, can be added in multiple contexts. You can select breakdown forms in the Add Form wizard.

To add a form:

1. Open the filing report that you want to work with.
2. In the Reports work area, right-click the name of the report, then select **Add Child** > **Add Forms**.
3. Select the forms you need to add and click **OK**.

Rollforward Feature

You can reduce the amount of time that is required to create a new report in CDM by reusing an existing report or report object.

The rollforward process creates a complete copy of a report or report object in the destination report. All report features, including the report structure, security settings, and data, are duplicated in the destination report.

The checkout and lock status of reports or report objects does not affect the ability to run a rollforward process. If a report object is checked out, the most recent version from the database is used.

Rollforward processes do not duplicate queries. Queries that are associated with the original report are also associated with the destination report, and the associations between report objects and queries are also copied to the destination report. The report-level and object-level query variables are copied to the destination report. In the Rollforward wizard, you can modify the query variables. You can modify the value for object-level and data query-level variables.

Release Framework Report

When a release framework is due, the rollforward process produces a report that describes the differences between the release framework of the source report and the release framework of the destination report, specific to the current report type. The report includes the following items:

- A list of forms that are added.
- A list of forms that are removed. If such a form exists in the source report, it is removed from the destination report.
- A list of forms that are renamed.
- A list of rows or columns that are added per form.
- A list of rows or columns that are removed per form.
- A list of data points whose XBRL definition was changed per form.
- A list of data points that are added per form. The cells are unshaded.
- A list of data points that are removed per form. The cells are shaded.
- A list of breakdown forms, open Z scenarios, that are being invalidated. If such a form exists in the source report, it is removed from the destination report.

Form Updates

When a form has the data area that is structurally updated by adding or deleting a row or column, CDM adds the updated sheet to the form. The previous version of the form is kept as a separate sheet. The updated data area of the form must be reconnected by the client on their end.

For all other type of form updates (data point shaded, unshaded, updated), CDM automatically updates the existing form.

Procedure

To roll forward a report to reuse it for a new period or reporting entity:

1. Click the **Home** tab, then in the **Navigation Pane**, click **Administration**.
2. Double-click **Reports**.
3. Right-click the source report and then click **Rollforward**.
4. In the first window of the Rollforward wizard, enter the following information:
   - **Report Name** - Type a name that is easily identified where it is used.
   - **Period Start** - Select the start date for the reporting period.
   - **Period End** - Select the end date for the reporting period.
   - **Report Due Date** - The target date to complete the preparation of the filing report. Select a date that is on or before the remittance date that is enforced by the regulatory authority.
5. Select the destination report group, then click **Next** five times.
6. In the sixth window of the Rollforward wizard, enter the following information:
   - **Reporting Entity** - Select from the list to determine the regulatory authority, the entity scheme or identifier, and the fiscal year end of the entity that is submitting the report.
   - **Target DPM Version** - This option is available only to EBA (European Banking Authority) reports and displays when more than one target package code is available for roll forward (if there is only one package type added CDM does not display the option). Select which DPM version to roll forward the report to, **EBA** for EBA DPM 1.0 or **EBA_DPM 2.0** for EBA DPM 2.0.
   - **Reference Date** - Based on the selected reference date, the taxonomy is applied for the corresponding release framework. For example, if you select 12/31/2014 as a reference date, the new filing report uses the EBA 2.2 taxonomy version that is applicable for the selected reference date.
   - **Start Date** - Is automatically calculated based on the selected reference date and filing report frequency.
   - **Due Date** - The target date to complete the preparation of the filing report. Select a date that is on or before the remittance date that is enforced by the regulatory authority for the prepared report.
7. The new report appears in the destination report groups.

Data Input

After the forms are defined, you can add in data. Regular forms are closed templates with a known number of cells (data points) to be populated. This type of form is filled with data from various data sources.

Open forms allow for reporting as many sets of information as are pertinent to your business. There are two types of open templates: those that are open on the Y axis, and those that are open on the Z axis. Typically, data for these templates is obtained from different data sources: relational data sources, OLAP data sources, or Microsoft™ Excel.

Missing Data

When data is imported from various data sources, missing values can be present in databases and implicitly in queries. As a result, you must take note as to how missing values are referenced in forms in CDM.

Missing values can be referenced in forms as empty cells or cells containing zeros, depending on the data that must be reported. For example, for OLAP queries (TM1® or Essbase), when you create these types of data queries, you can select how missing values are handled through the **Display missing data as {_}** option.

If missing values are imported as 0 or empty cells and you do not want them to be reported, you can use an Excel formula to display empty cells in forms instead of zero cells. Type a formula to return empty, for example: `IF(logical_test, value_if_true, [value_if_false]),IF (Database!F10="","",Database!F10),` or `IF(Database!F10=0,"",Database!F10).`

Similarly, if missing values from data sources are imported as dashes or null values, you must manipulate those using Excel formulas to return empty (not reported) or zero (reported) cells.

Empty Cells

Empty cells in a form are considered to not be reported.

According to the regulatory authority guidance, it might mean that the fact is either zero, not reported, or not applicable. According to EBA Filing Manual rule 2.19, data that is related to white cells can be reported with a nonzero value, as zero or unreported, and nil value must not be used. Inapplicable information does not have to be included in an instance.

When form cells are empty, validation rules that apply to that particular cell, according to their definition, can either treat the value as being 0 and use it in the validation, or not run the value. Data that is inserted in a form cell produces a fact to be submitted along with the accuracy set for its metric type and also its unit. For monetary cells, **currency** would be the appropriate term to use. Data cells can reference data that is brought into the form through data queries.

Expected Values

For a properly generated instance in CDM, form cells must be formatted according to the type of data that is entered.

To avoid errors, follow these tips:

- Monetary data points are formatted as Currency and/or Numeric.
- Integer data points are formatted as Numeric with no decimal places.
- Format as percentage the Excel cells in forms before you enter values or data.
- Boolean data points receive one of these possible values: true, false, 0, or 1.
- QName type cells accept as values the appropriate `MemberXBRLCode` for values that are reported. The user must insert the value for QName. They should be formatted as General or Text.
- String data points are formatted as General or Text.

For a percentage:

Cell value	Cell format	Reported fact	Reported formatted fact
12.34	Percentage	0.1234	12.34%
1234	Numeric or General or Currency	12.34	1234%

For QName:

QName type cells must be populated by the user by referencing the `MemberXBRLCode` of data points. To identify the correct values, refer to additional information in the COREP FINREP technical notes.

Open Templates

Templates for various regulatory authorities can be open or closed. Open templates can be open on the Y axis (down) or the Z axis (deep).

If you load all data into a template, you might create a template with an unmanageable amount of data. Alternatively, you can bind a query to an open template to specify only the data that you require, and then generate the data in an instance. When you bind a query to a template and then generate the instance, you might produce one or more forms.

To generate your instance from an open template, you must complete three main steps:

1. Use the query building feature to build the query. See Build a Query for an Open Axis Template.
2. Bind the query to the template. See Bind a Query to an Open Axis Template.
3. Generate the instance.

Tip: If you would find it useful to see all data in an Excel workbook before you generate your instance, you can do so.

Open X Axis Templates

To prepare your data for filing, you can use CDM to add data to an open X axis template. Typical data for open X axis template is currencies.

A template with an open X axis contains a single blank column. If you filled the template with data, you would fill this column and many other columns beside it. For example, you might have data for many currencies. If you inserted all data into your template with an open X axis, the template might contain hundreds of columns, which would be very difficult to manage.

Instead, you can use a query to define the location of the data. Then CDM retrieves the data when you generate your instance.

Open Y Axis Templates

To prepare your data for filing, you can use CDM to add data to an open Y axis template. Typical data for an open Y axis template is investment data.

A template with an open Y axis contains a single blank row at the top. If you filled the template with data, you would fill this row and many other rows below it. For example, you might have data for thousands of different investments. If you inserted all data into your template with an open Y axis, the template might contain thousands of rows, which would be difficult to manage.

Instead, you can use a query to define the location of the data. Then, CDM retrieves the data when you generate your instance.

Open Z Axis Templates

To prepare your data for filing, you can use CDM to add data to an open Z axis template. Typical data for an open Z axis template is countries or currencies.

Open Z axis templates are sometimes called breakdown forms. You might want to use a breakdown form for multiple countries. When you do so, instead of selecting the country manually from a predefined list, the query picks up the information automatically.

A template with an open Z axis typically contains a range of cells that can be filled with data. For example, you might have the same set of data for each of the countries in which your company does business.

- If the dimension members that define the Z axis are selected from a fixed list, such as a list of all the countries in the world, you can access the complete list during the process of defining your filing report.
- If the dimension members that define the Z axis are selected from a non-fixed list, the list must be defined with a typed dimension.

If you inserted all data into your template with an open Z axis, the template might contain hundreds of pages, which would be difficult to manage. Instead, you can use a query to define the location of the data. Then, CDM retrieves the data when you generate your instance.

Build a Query for an Open Axis Template

To prepare data for an open axis template, you must use the query building feature in CDM to build the query. You can use query variables, just as you would for any other query. CDM supports all relational data sources for binding queries to a template.

If you add data directly into a template that uses a query, that data is not used in the validation and generation of the template or the filing report.

Important: In the following procedure, column names are case sensitive.

To build a query:

1. Create a column with the name **ORD_X** in which the X ordinates will be listed.
2. Create a column with the name **ORD_Y** in which the Y ordinates will be listed. If you are working with an open Y template, all Y ordinates will state **999**.
3. Create a column with the name **ORD_Z** in which the Z ordinates will be listed.
4. Create key columns with the name **Dimension_<DIMENSION CODE>** in which the template keys will be listed. A column is needed for each set of keys.
5. Create a column with the name **Value** in which the value of the data points will be listed. To give a certain data point a value, you must match the X and Y ordinates along with the relevant set of keys.
6. A template supports multiple queries for binding, so you can build your query with multiple `Value` columns, one for each data type (numeric, string, and date). In this situation, you must bring up three data queries: one for the numeric values, one for the date values, and one for the string values (columns for ordinates, keys, dates, and only one for values). Construct the queries in a way that only one non-NULL value can ever be returned for any one-dimensional intersection. In addition, this value must be of the correct data type.
7. If necessary, you can change default settings in the CDM.config file to specify preferences for your query.
   - By default, the `ExcelRefresh queryResultMaxRows` parameter specifies a maximum of 1000 rows in a query. To ensure that your query is not truncated at 1000 rows, you can increase the limit in the parameter.
   - By default, the `truncateOnQueryResultMaxRowsExceeded` parameter is set to true, which means that you will see the completed query even if it is truncated. If you do not want to see the completed query if it is truncated, change the parameter to **false**.

Bind a Query to an Open Axis Template

After you build your query, you can use CDM to bind the query to any type of open axis template. To create and bind a query to an open axis template, follow these steps:

1. Create a relational data source that connects to the created table.
2. Build a relational data query against the defined data source to bring in data. See Build a Query for an Open Axis Template.
3. Create a filing report (see Add a Filing Report), and add the query to it.
4. Assign report permissions. See Permissions for Filing Reports.
5. Assign the data query to the filing report. (If you made your relational data query global, you do not need to complete this step.)
6. Open the filing report that you want to work with.
7. Check out the open axis template report object that you want to bind the query to.
8. In the **Data** tab, click **Insert Data**, select the query that you built, and click **Next**.

9. In the **Data Query** tab of the wizard, complete these steps:
    a. Click **Location** > **Bind to the report object**.
    b. Click **Finish**.
10. In the **Report Object** tab, click **Save** and then click **Yes**. In the Validation area, you can now see a message that confirms that the template has an attached query.
11. When you are ready to generate the instance document, click **Generate**, select the **Microsoft Excel** format, and click **OK**. To see the result of the generation, click **Filing Generation**. You can now see the appropriate data in a separate Microsoft™ Excel spreadsheet. You can see details about successful actions, and also about errors and warnings.
12. When you are finished, check in the report object.

Filing Report Validation

When you generate your filing report, CDM runs a validation process to identify any possible errors in the report.

Detailed validation information is available in a separate Microsoft™ Excel worksheet. You can see details about successful actions, and also about errors and warnings.

If the report contains data point errors, the invalid data points are not output to the XBRL instance document. For example, values are not output to the XBRL instance in the following situations:

- Invalid ordinates (through query binding)
- Invalid dimensions
- Missing dimensions
- Invalid metrics
- The same data point is reported multiple times in the same form
- The same data point from different forms is reported with inconsistent values

If all data points in a report are invalid, the XBRL instance document is generated with no values.

When you generate a filing report, CDM automatically generates a snapshot at the same time. The snapshot contains the XBRL file and an Excel document with the validation result as a separate worksheet.