



FME Package for Reportnet 3.0 – Getting started

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1 Getting started with the FME™ Package for Reportnet 3

FME is an ETL-tool made by Safe Software (www.safe.com). This package contains functionality to facilitate reading and writing of Reportnet 3 data within FME. Find out more about the FME Package technology here: <https://community.safe.com/s/article/fme-packages-faq>

The Package contain:

- A FME Reader
- A FME Writer
- A FME Transformer for downloading attachments
- FME Help files
- Web Services for Web Connections

1.1 Requirements

1.1.1 FME Desktop Software

To use the Package you do need the Software FME Desktop 2021.x (build 21222 or later). If you do not already have access to FME it can be downloaded here:

<https://www.safe.com/support/downloads/>

1.1.2 FME Desktop Knowledge

This document is not a complete FME tutorial and using the functions requires basic FME knowledge. By visiting the FME Community (<https://community.safe.com/>) you can find training, webinars and more resources to learn the basics.

1.1.3 OS Support

The package has been tested both on 64-bit Windows and macOS. It should also work on Linux-versions supported by FME.

1.1.4 Reportnet 3 Access

To access data in Reportnet 3 you do need an API-Key for the Dataflow you want to use. This is done within the Reportnet 3 Web-GUI. (For detailed instructions about Reportnet 3 please find information at <https://reportnet.europa.eu>)

1.2 Getting the package

1.2.1 Manual install

You can obtain the “`fpkg`” package file at GitHub:

<https://github.com/eea/eea.reportnet3.api.fme>

A sample filename is: “`eea.reportnet-0.2.0.fpkg`” where “`0.2.0`” states the version-number.

1.2.2 Automatic install from FME Hub

This is not yet supported for this package.

Support: discomap@eea.europa.eu



FME Hub can be found at <https://hub.safe.com>. Items in FME Hub can be listed and installed from within FME.

1.2.3 Installation of the package

When you have downloaded the package-file and have FME installed you are ready to install:



Figure 1 FME Package file icon

It's recommended to start FME Workbench and drag the package-file into the FME canvas:

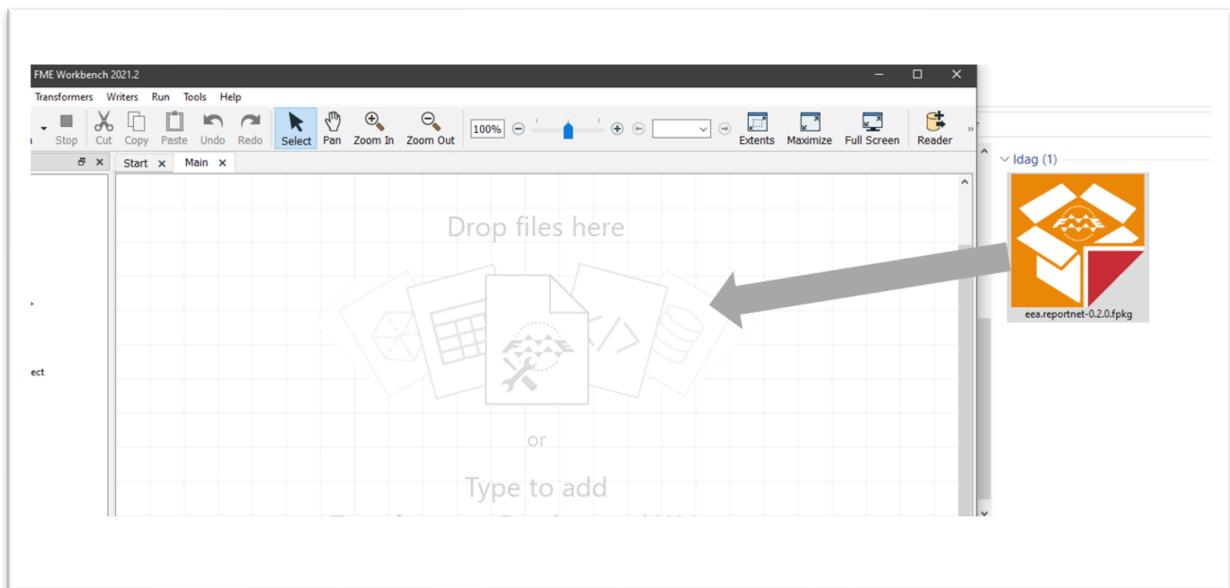


Figure 2 Dragging the FME Package file into FME Workbench

Allow the installation of the package:

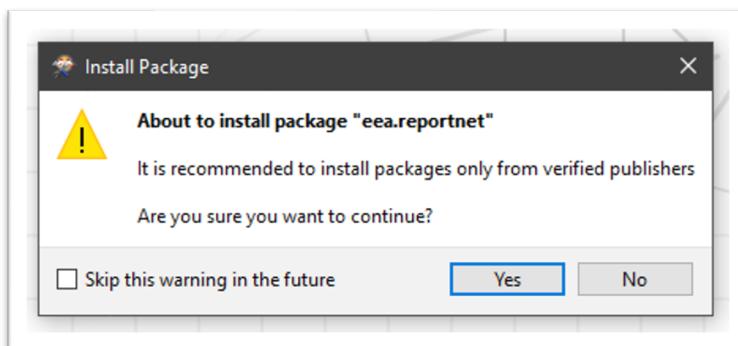


Figure 3 Allowing installation in FME



After installation it is recommended to restart FME Desktop and verify the installation.

(Note that you can double-click the package file to start the installation. However – if you have multiple versions of FME Desktop installed, it will be installed in the default version. By dragging the file into an already started FME session you can control what version the package gets installed to).

1.3 Verification and uninstall

By starting FME Desktop and select “Tools/FME Options” in the menu you can verify that the package did get installed.

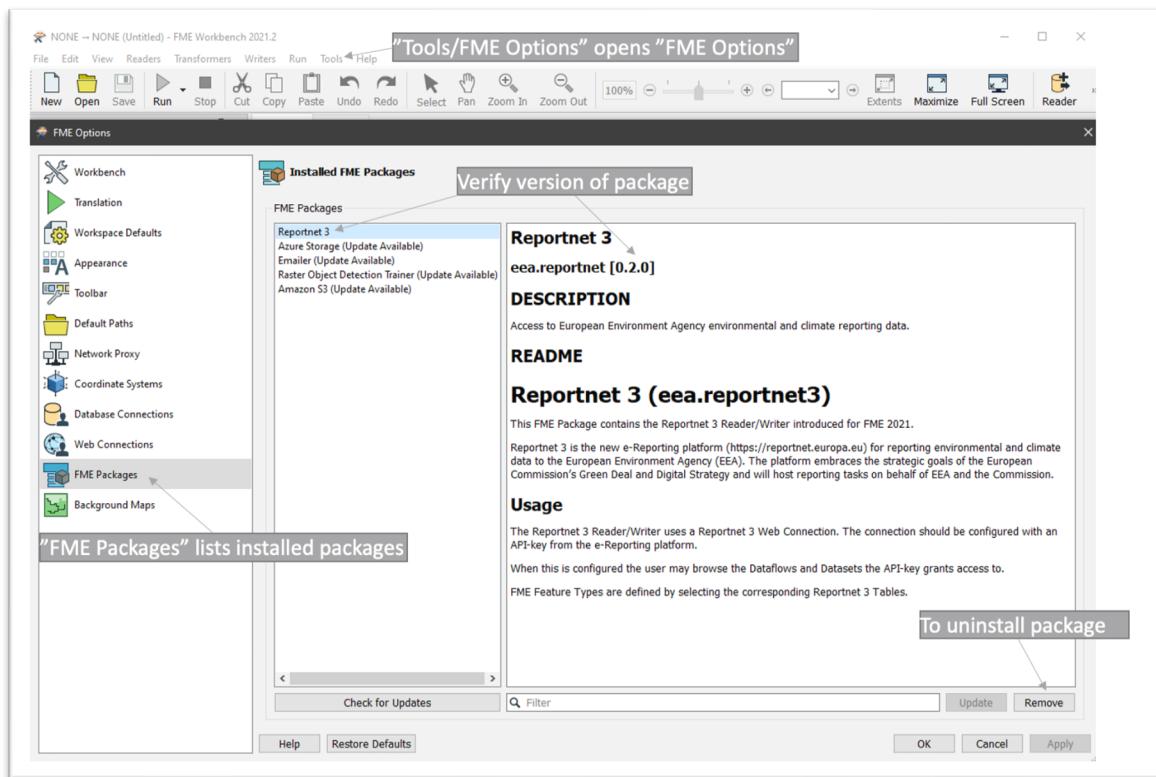


Figure 4 Checking installation



1.3.1 Uninstalling Reportnet 3 Web Services

The package uses Web Connections in FME. (Find out more:

<https://community.safe.com/s/article/Web-Connections-and-FME>)

This also means that a Web Service will be installed together with the package. These are not automatically uninstalled when removing the package. If for any reasons it needs to be uninstalled, you can do it following this instruction:

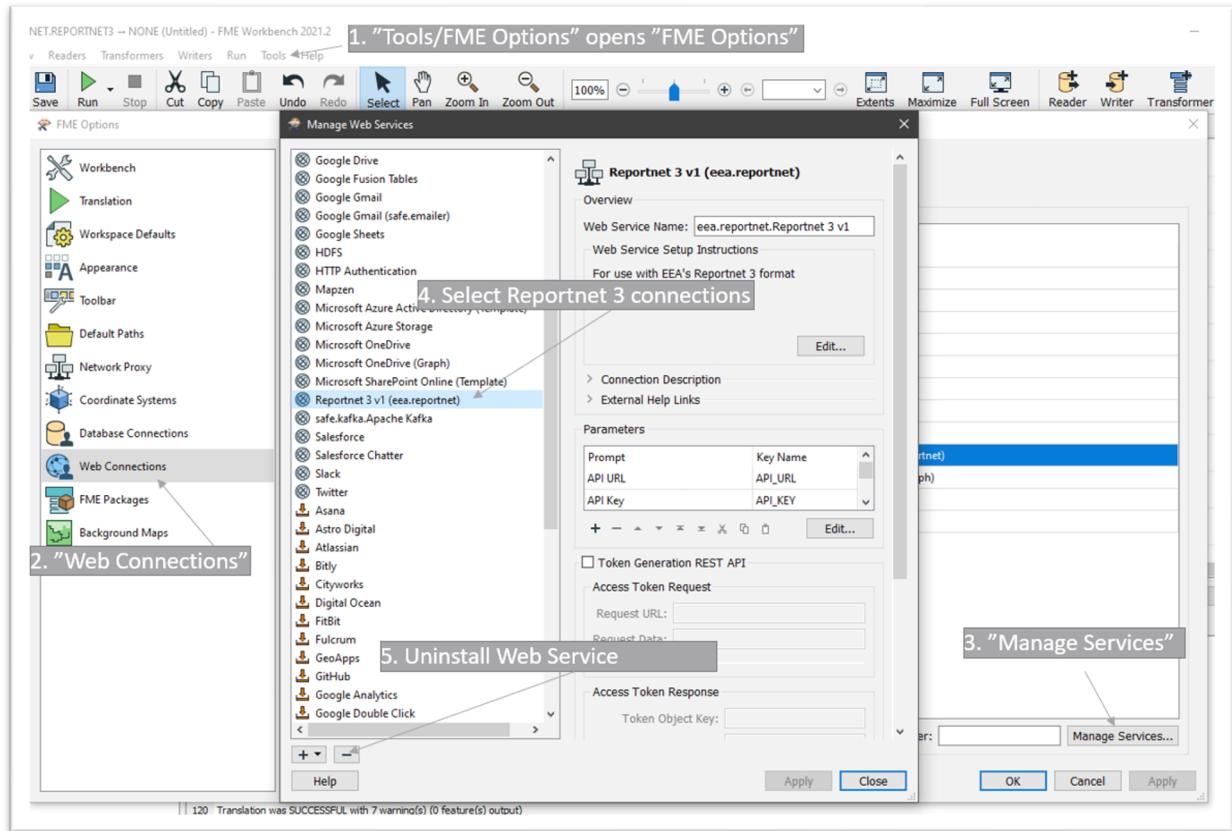


Figure 5 Uninstalling Reportnet 3 Web Service



1.4 Connecting to Reportnet 3

To access data in Reportnet 3 you do need an API-Key and a Dataflow ID. This is done within the Reportnet 3 Web-GUI. (For detailed instructions about Reportnet 3 please find information at <https://reportnet.eropa.eu>)

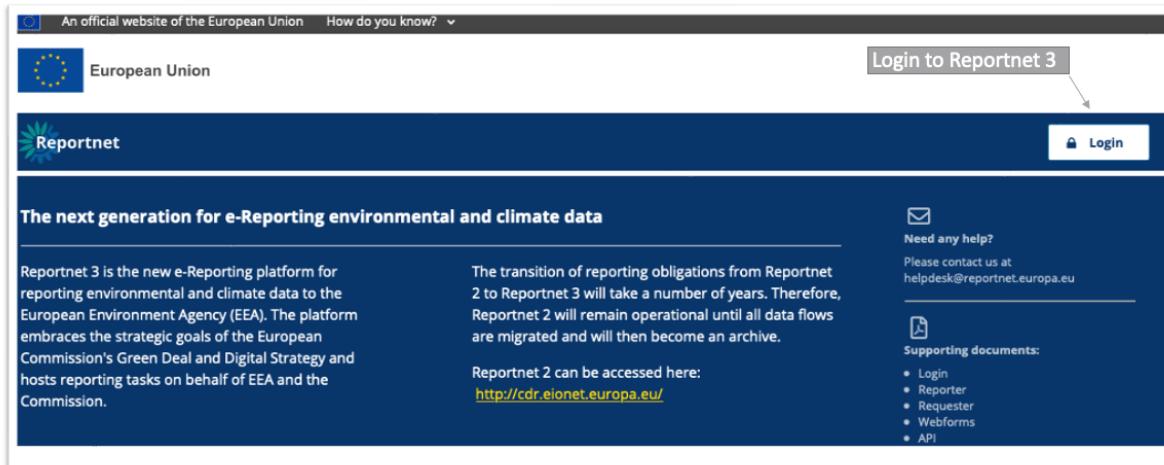


Figure 6 Logging in to Reportnet 3



Figure 7 Selecting Dataflow in Reportnet 3



The screenshot shows the Reportnet 3 Dataflow interface for the 'N2000_sites' dataflow. The top navigation bar includes 'Reportnet 3 > Dataflows > Dataflow'. On the left, a vertical sidebar contains icons for Home, Help, Dataflow, Data, Dashboards, Data Collection, Copy Data Collections, EU Dataset, Test dataset, France, Spain, and Sweden. The main area displays a grid of buttons: 'Manage lead reporters' (teal), 'Dataflow help' (yellow), 'nordic_count ries' (teal), 'Dashboards' (purple), 'Data Collection - nordic_count ries' (blue), 'Copy Data Collections to EU datasets' (teal), and 'EU Dataset - nordic_count ries' (red). Below these are four smaller buttons: 'Test dataset' (blue), 'France' (blue), 'Spain' (blue), and 'Sweden' (blue). A grey button labeled 'Press for API-Key' is positioned above the smaller buttons. Arrows point from the 'Press for API-Key' button to both the 'Test dataset' and 'France' buttons.

Figure 8 Icon for getting the API-Key

The screenshot shows the 'Manage API-key' dialog box overlaid on the Reportnet 3 Dataflow interface. The dialog box has a header 'Manage API-key' and two buttons at the bottom: 'Generate new API-key' and 'Close'. Inside the dialog, it displays 'API-key:' followed by a redacted string 'ec81e...' and a 'Copy the API-Key' button. It also displays 'Dataflow: 898' and a 'Copy the Dataflow ID' button. The background shows the 'N2000_sites' dataflow interface with the same set of buttons and icons as Figure 8.

Figure 9 Copying of API-Key and Dataflow ID



1.5 Adding a Reader in FME

You can add a Reportnet 3 reader in any of the standard ways of FME. An example is shown below:

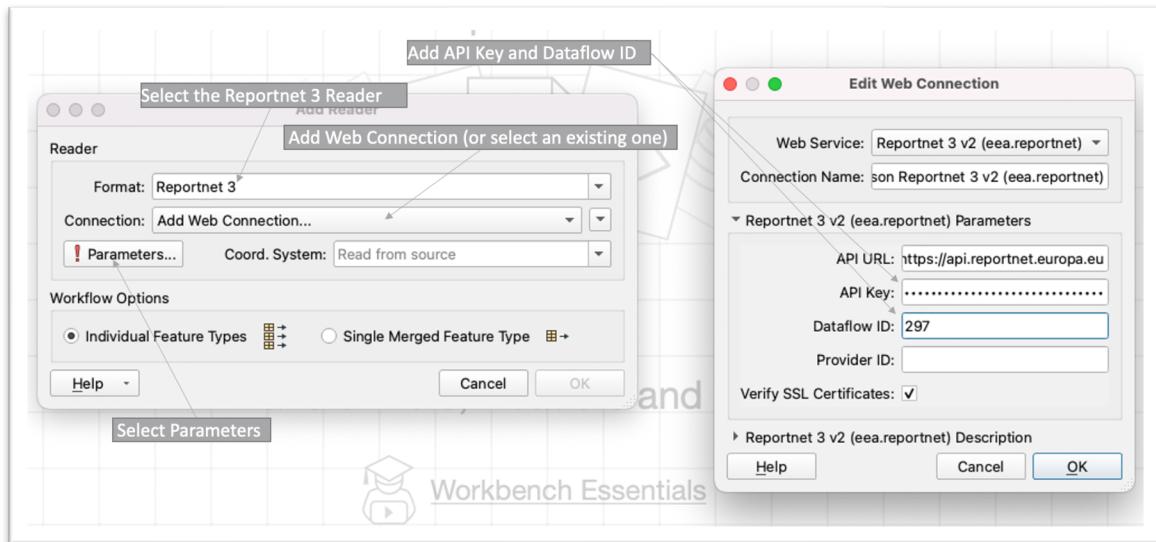


Figure 10 Adding the FME Reader and Parameters

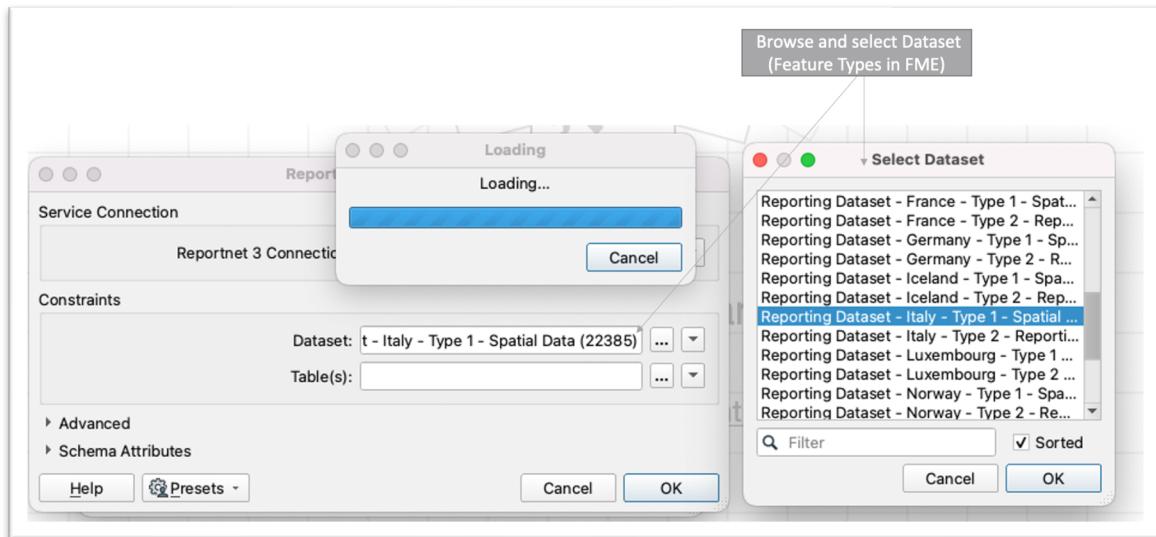


Figure 11 Select Dataset

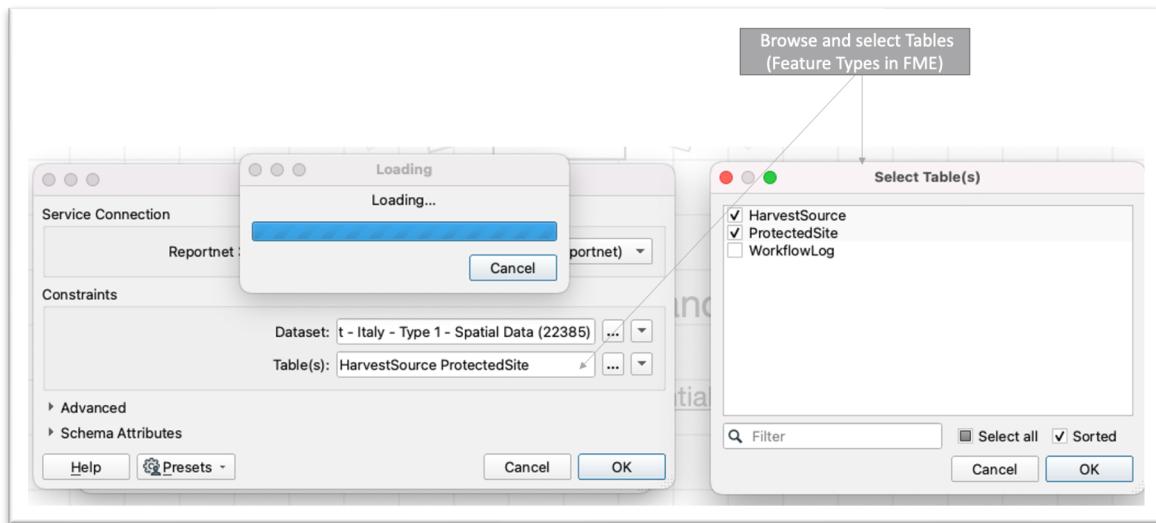


Figure 12 Select Tables

The tables you select will be represented as Feature Types in FME when you finish adding the Reader:

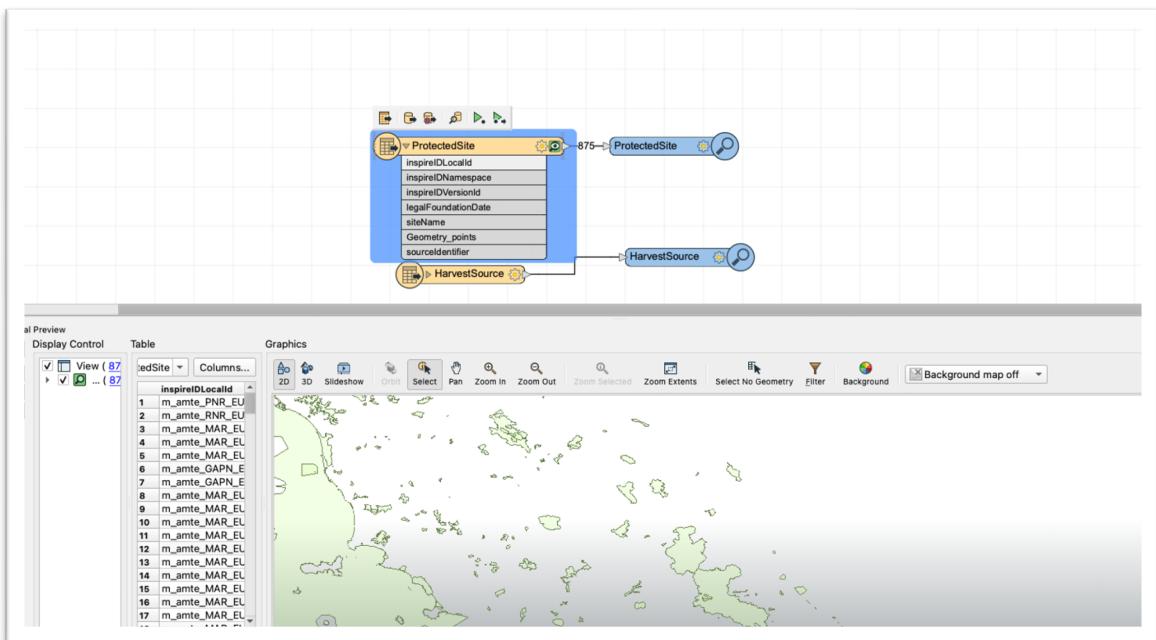


Figure 13 Tables as FME Feature Types



1.5.1 Reader Advanced Settings

The Reader do have several advanced settings. For details you can read the built-in help.

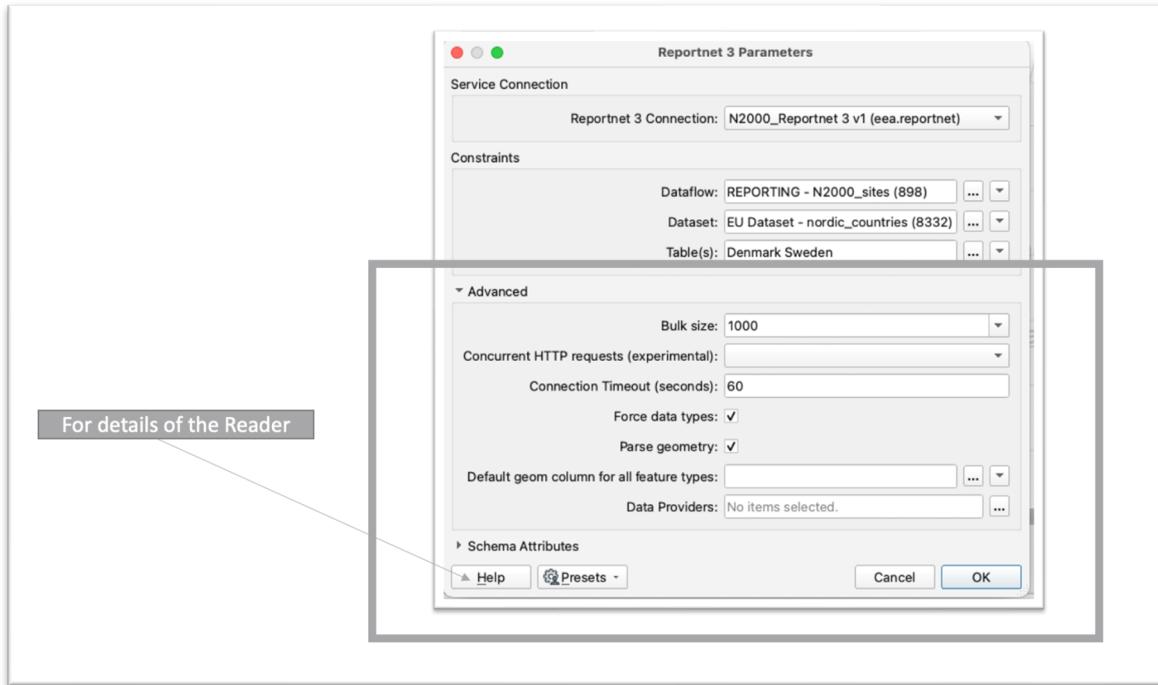


Figure 14 Advanced settings of the Reader

The built-in FME Help describes details of all settings:

The screenshot shows the 'FME Help' window with the URL bar set to 'Enter an URL'. The main content area displays the 'Advanced' section of the Reportnet 3 help documentation. The 'Bulk size' section is expanded, containing the following text:

Bulk size
The number of features (table records) to fetch in each roundtrip to the Reportnet3 HTTP API backend.
Depending on how many fields a table has, the optimal value may differ.
Setting a value lower than 1 is not supported.

Concurrency
Requires pagination (see above). If set, the reader will fetch pages in parallel up to the specified number of concurrent requests. In some scenarios this *may* speed up throughput.

Connection Timeout (seconds)
Timeout value for the *full* download time.
If retrieving data from the Reportnet3 HTTP API backend is not finished within `timeout` seconds, the connection is aborted and an exception is raised.

Force data types
If set to Yes, FME will try to parse the text-values retrieved from the Reportnet3 HTTP API backend into the closest corresponding FME type, e.g. "5" NUMBER_INTEGER is parsed into an FME integer value of 5.

Figure 15 Example from the FME Help

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1.6 Dynamic Connection Strings

In some advanced scenarios when a user wants to access several Dataflows at the same time, the use of Web Connections may be impractical. As an advanced alternative there is a method to create dynamic connection strings. The syntax for this is described in the built-in help.

Note that this is an advanced setting and Web Connections are preferred in most cases.

1.7 Downloading Attachments

The package also contains a Transformer, “[Reportnet3AttachmentDownloader](#)”, for downloading attachments. This will work with Reportnet 3 tables that have populated attachment-fields. (The Transformer requires the use of a Web Connection as for the Reader).

You may either download to file or an attribute. More details can be found in the installed FME Help.

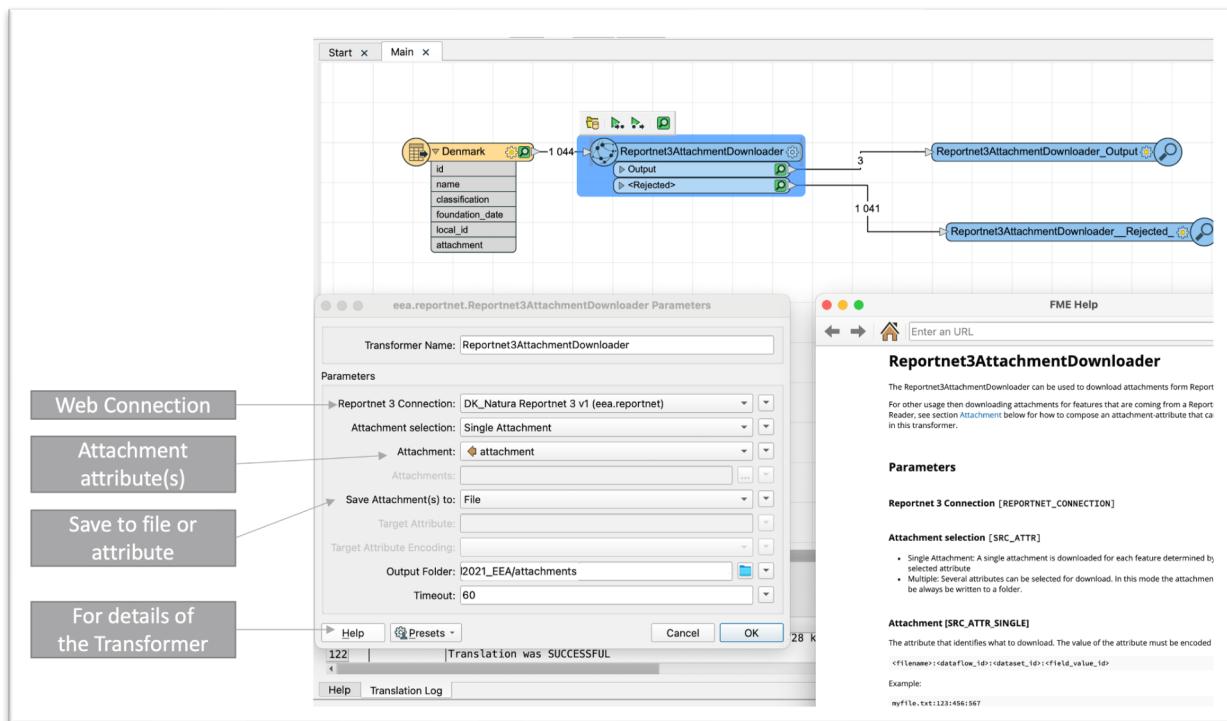


Figure 16 Download of Attachments



2 Writing data with FME

There are writing capabilities included in the FME Package. An important note is that you can only write to existing tables in Reportnet 3 – the Reportnet 3 writer will not automatically create tables.

As for the Reader you need a Web Connection with an API-Key for the Dataflow you intend to write into.

2.1 Example of Writing.

In this example we do have a table in Reportnet 3 with Natura 2000 Data for Denmark:

The screenshot shows the Reportnet 3 interface with a table titled 'Denmark'. The table has columns: name, classification, foundation_date, local_id, and geom. The data includes entries for Borrebakken, Brede Bakke og Troldhøj, Borrebakken, Brede Bakke og Troldhøj, Borrebakken, Brede Bakke og Troldhøj, and Hvidding Krat. The 'geom' column contains coordinates like 4478502.85,3... and 4478588.34,3... . The table also has sections for 'Table description' and 'Validation'.

name	classification	foundation_date	local_id	geom
Borrebakken, Brede Bakke og Troldhøj	natureConservation	2003-01-01	349788	4478502.85,3...
Borrebakken, Brede Bakke og Troldhøj	natureConservation	2003-01-01	349788	4478588.34,3...
Borrebakken, Brede Bakke og Troldhøj	natureConservation	2003-01-01	349788	4478307.17,3...
Hvidding Krat	natureConservation	1984-01-01	337314	4306945.11,3...

Figure 17 Table in Reportnet 3 for Reading



We have setup a FME Workspace for Reading this table already. In the sample workspace we do filter out all the records that are max 10 years old according to the attribute “foundation_date”.

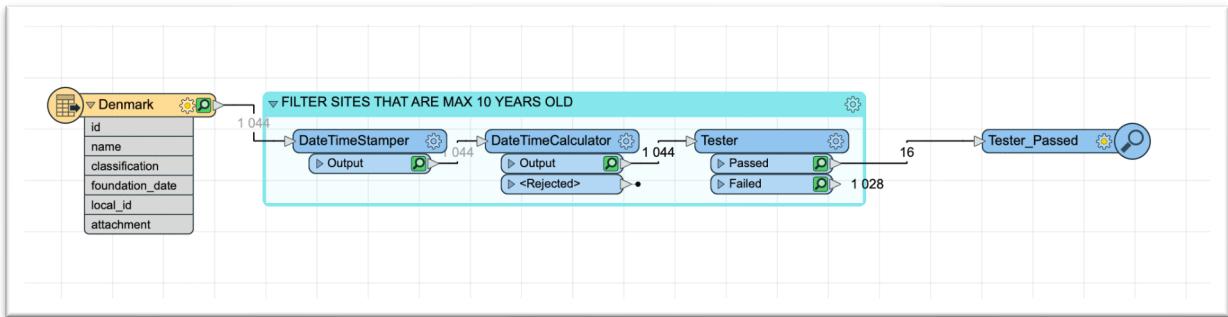


Figure 18 FME Workspace for Reading data

To write the subset to a separate table in Reportnet 3 we first must make certain there is an existing table in Reportnet 3. (Details about Reportnet 3 functionality can be found here: <https://reportnet.europa.eu.>)

In this particular example we have created an empty table by using the “**Export/Import Definition**” so we do get the same schema as for the source table “Denmark”. The new empty table is named “**DK_Max_10_Years**”:

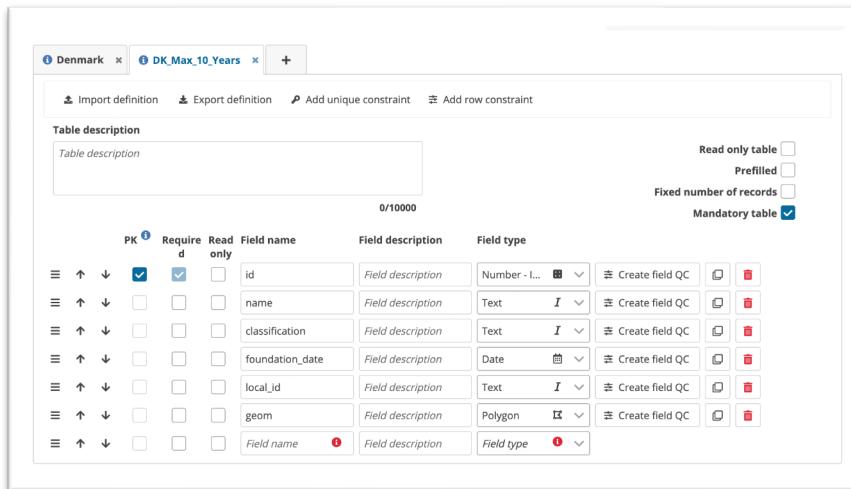


Figure 19 Destination Table in Reportnet 3



To define the Table in FME we want to be writing into, choose “Import From Dataset” in FME when adding the writer. You also need to use a Web Connection and set up the destination by selecting the Dataflow and Dataset:

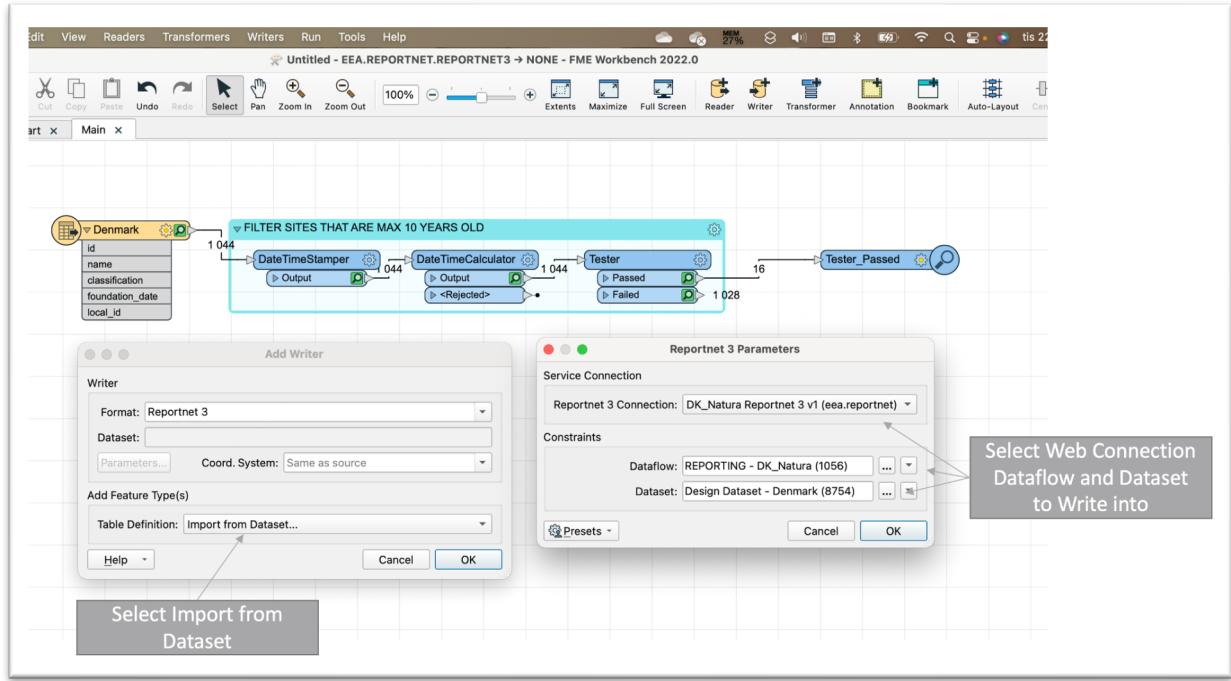


Figure 20 Adding a Writer in FME

As we did select “Import from Dataset” you get the option to import the table-definition for the new Table:

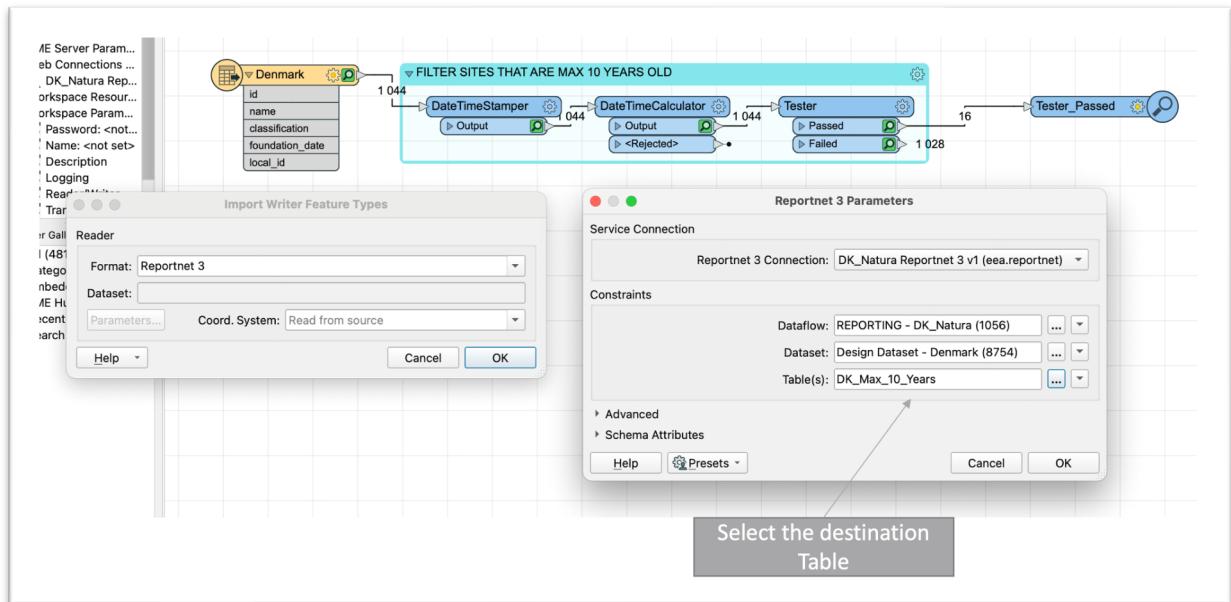


Figure 21 Select Destination Table



After this you can connect the writer “DK_Max_10_Years” into your translation and run the translation:

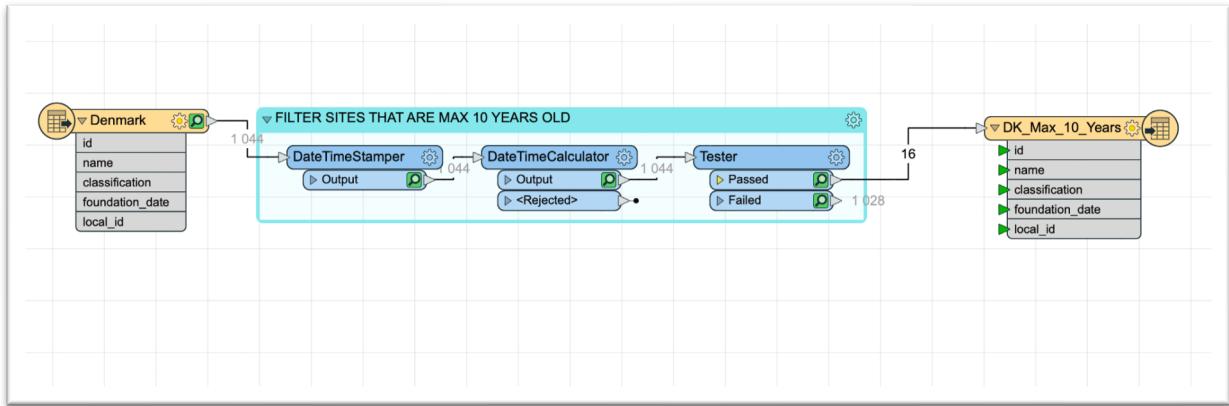


Figure 22 Workspace Reading and Writing Reportnet 3 Tables

The result should be 16 records in the table “DK_Max_10_Years”:

The screenshot shows the Reportnet 3 interface with two tables open: "Denmark" and "DK_Max_10_Years". The "DK_Max_10_Years" table is currently selected. The table description is empty. There are checkboxes for "Read only table", "Prefilled", "Fixed number of records", and "Mandatory table", with "Mandatory table" checked. The table data grid shows two rows of data:

id	name	classification	foundation_date	local_id	geom
23	Ulvshale Skov	natureConservation	2016-01-01	555639830	4464926.03,3..
32	Allerød Lergrav	natureConservation	2016-01-01	555639826	4469707.03,3..

Figure 23 Resulting records in new table