



xDI DEV

J Other topics

- Web Service

# Semarchy

xDI DEV

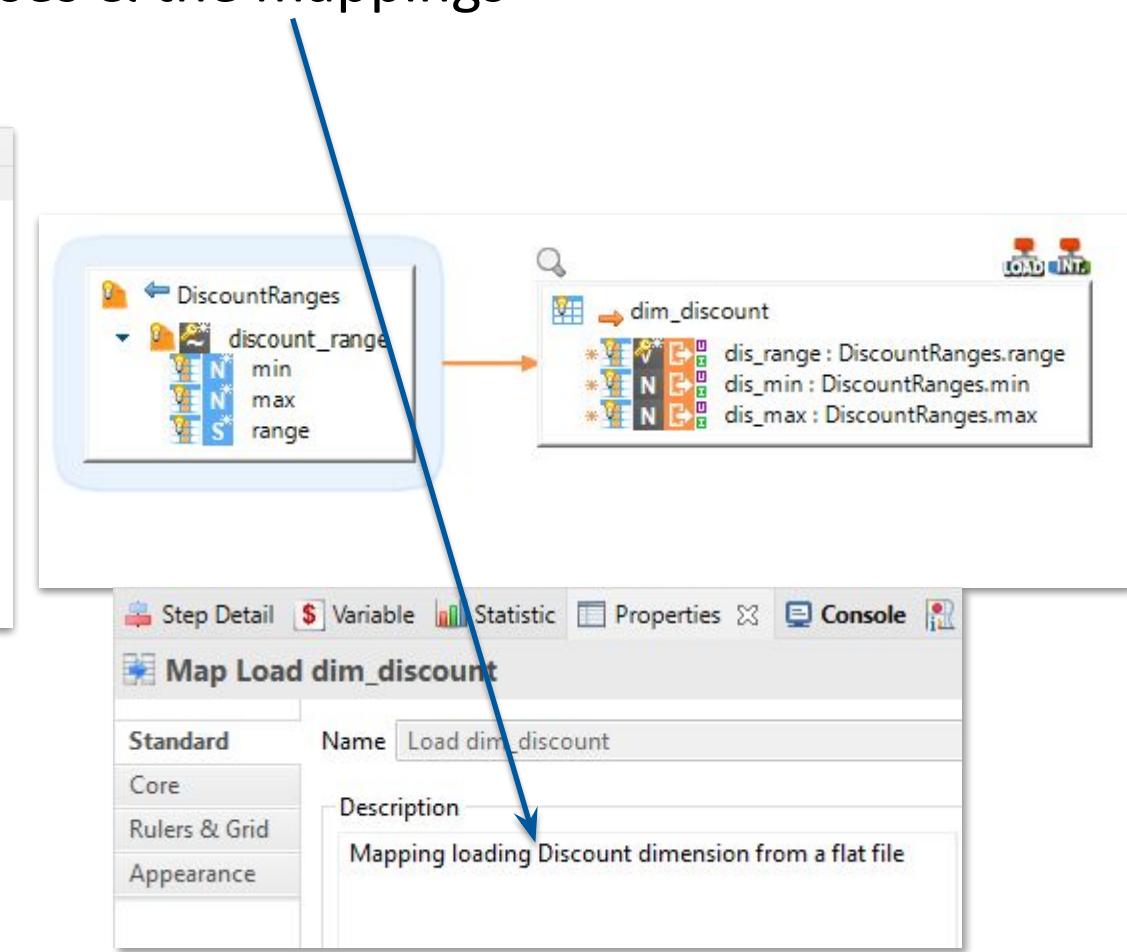
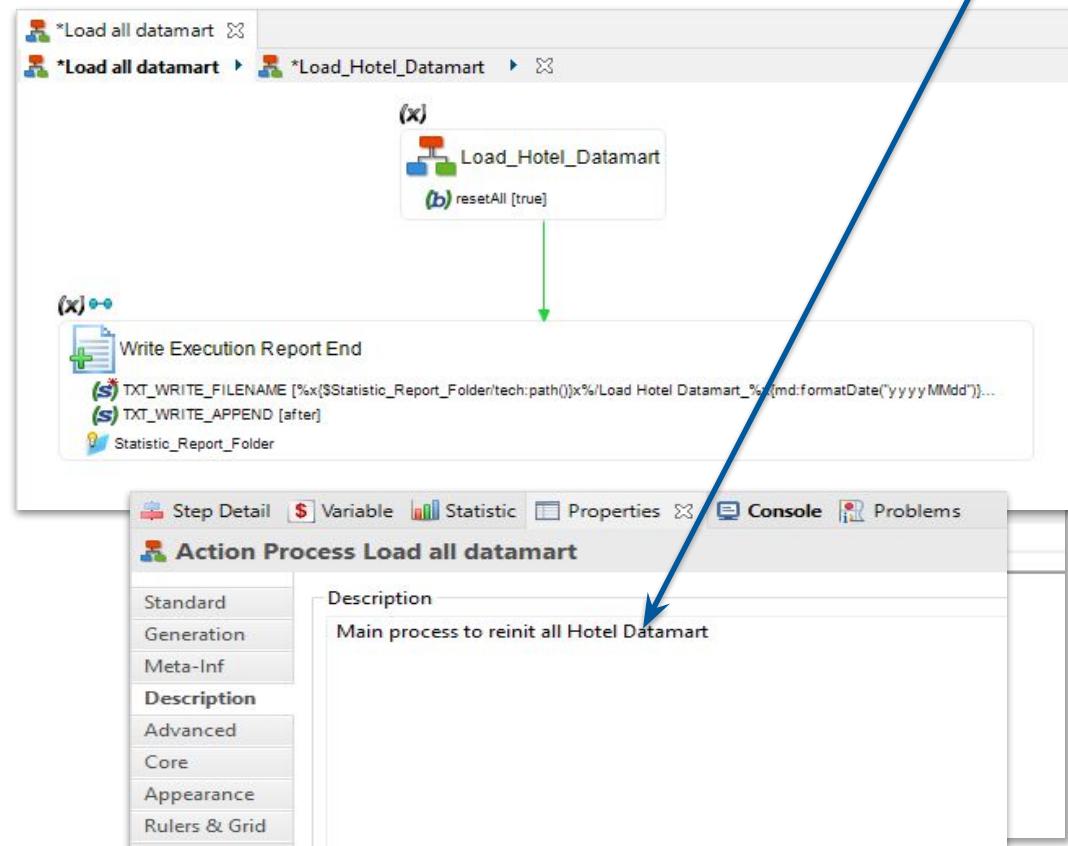
J Other topics

J1 - Documentation

# Several ways available to document in Semarchy xDI

Inside the processes, the actions of processes & the mappings

- In the “Description” view & field



# Several ways available to document in Semarchy xDI

## Inside the Metadatas

- In the “Description” fields

The image displays two screenshots of the Semarchy xDI interface, illustrating different ways to document metadata.

**Left Screenshot:** Shows the configuration for a PostgreSQL database named "PG\_Hotel". The "Description" field under the "PG\_Hotel" node contains the text: "PostgreSQL database which contains the management of the hotel".

Name	PG_Hotel
Physical Name	
Jdbc	
Module	PostgreSQL
Driver	org.postgresql.Driver
Url	jdbc:postgresql://localhost:5434/hotel
User	postgres
Password	*****
Description	PostgreSQL database which contains the management of the hotel

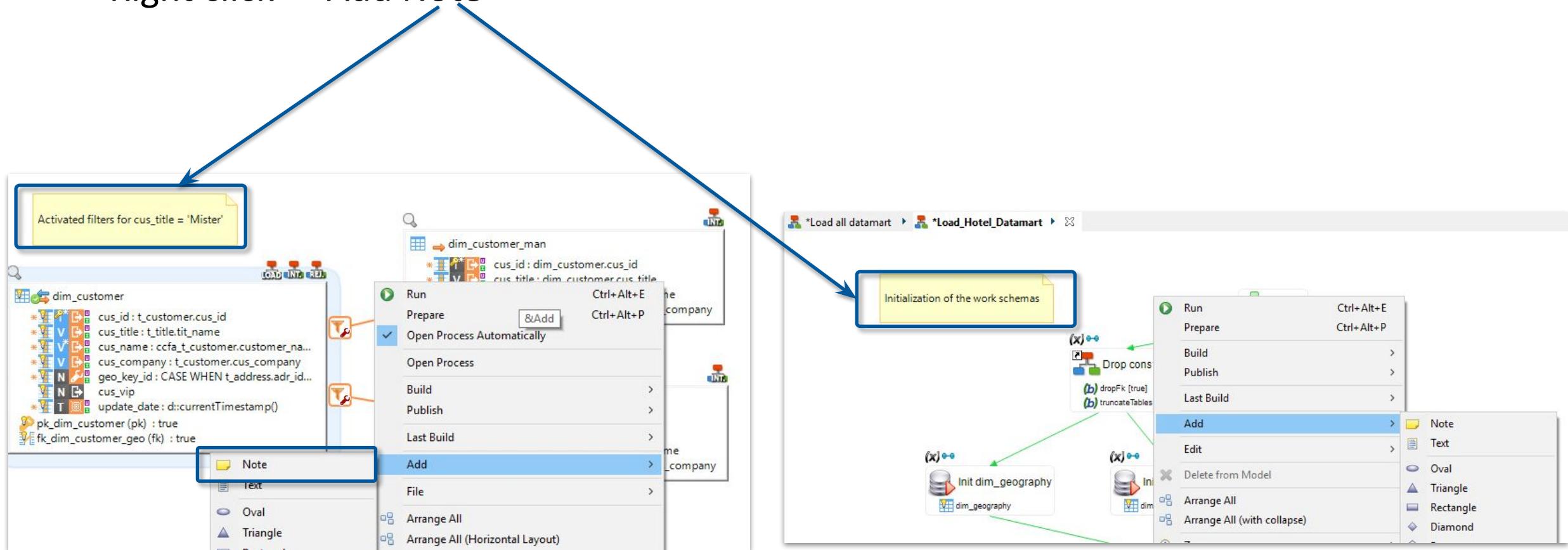
**Right Screenshot:** Shows the definition of a table named "t\_customer" under the "PG\_Hotel" schema. The "Description" field contains the text: "Customer or a future customer of the hotel".

Name	t_customer
Physical Name	t_customer
Type	TABLE
Description	Customer or a future customer of the hotel

# Several ways available to document in Semarchy xDI

Inside the processes, the actions/the links of the processes & the mappings

- Right click > “Add Note”



# Produce the documentation

Directly produce the documentation to check it in the Designer

The screenshot illustrates the Semarchy Intelligent Data Hub Designer interface, demonstrating the generation of documentation for a data loading process.

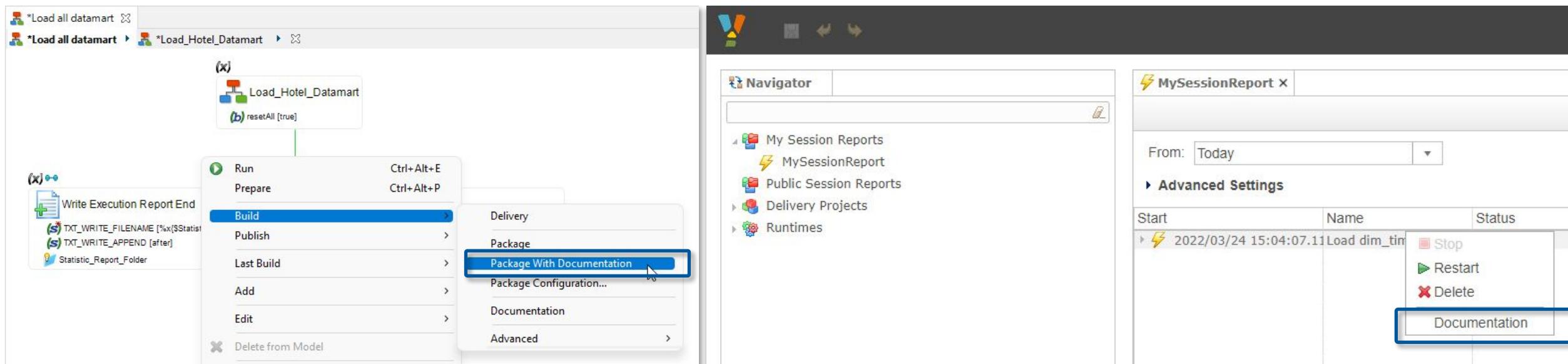
**Left Panel:** Shows a process diagram with a main step labeled "Load all datamart" and a subsequent step labeled "Write Execution Report End". A context menu is open over the "Load all datamart" step, with the "Documentation" option highlighted.

**Middle Panel:** A browser window displays the generated documentation for the "Load all datamart.proc" step. The documentation includes a "Menu" section, a "Process" section listing various sub-processes, and a "Steps" section which details the main process to reinit all Hotel Datamart.

**Right Panel:** A detailed view of the documentation, showing the "Steps" and "Diagram" sections. The "Steps" section lists the sub-processes, and the "Diagram" section shows the process flow from "Load\_Hotel\_Datamart" to "Write Execution Report End".

# Produce the documentation

Produce the documentation with the build of the package to be able to see it in Semarchy xDI Analytics



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J Other topics

J2 - Sub Metadata & Object Selection

# Semarchy

## Sub Metadata

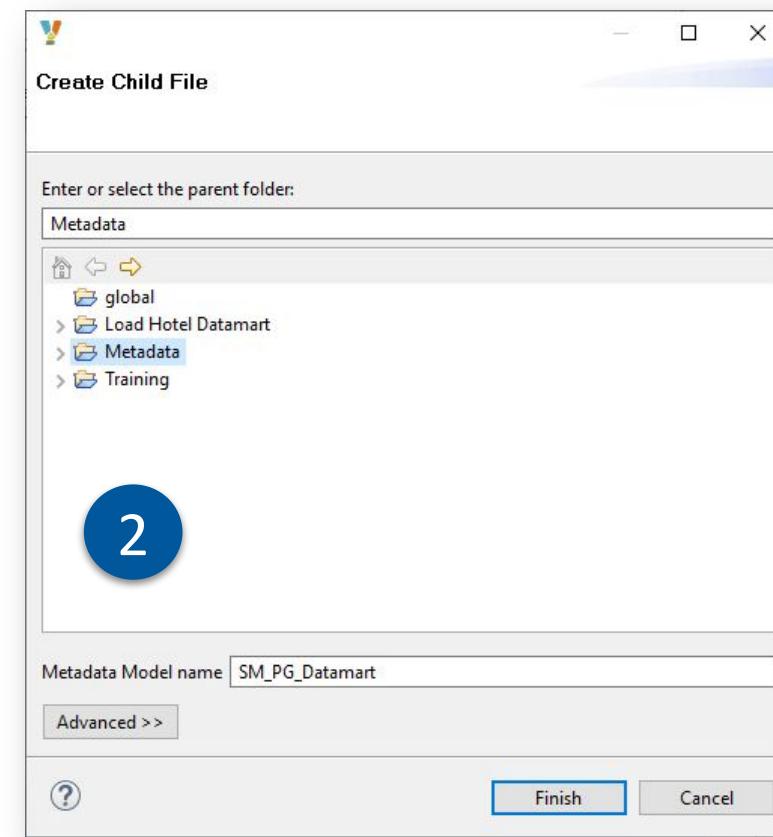
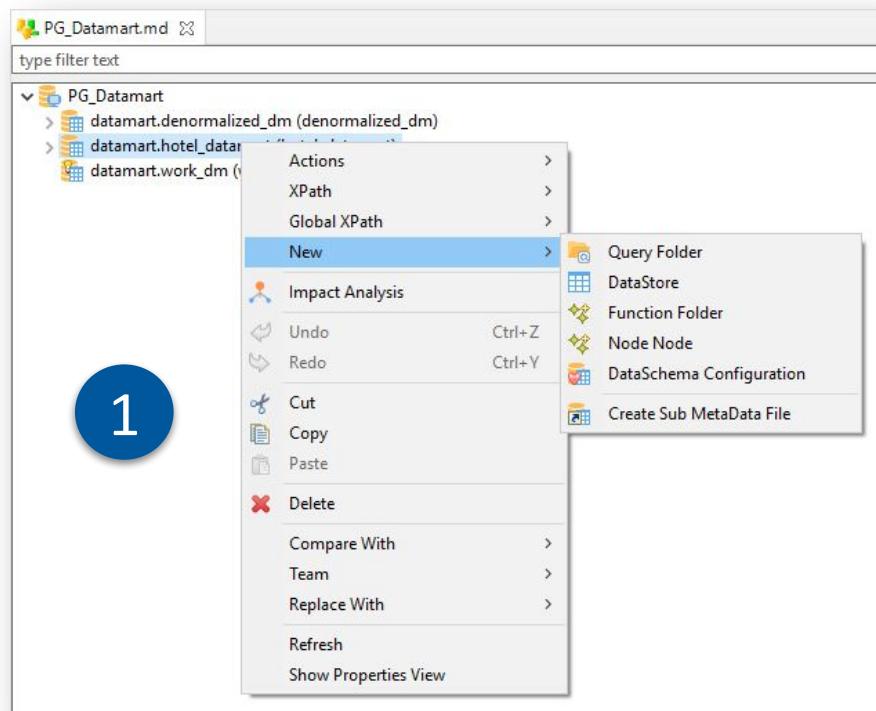


# Metadata and Sub Metadata

To separate the higher level (server & schema) required to connect & the lower level (tables, columns, ...) used in the projects:

1 : Reverse from Server to schema level

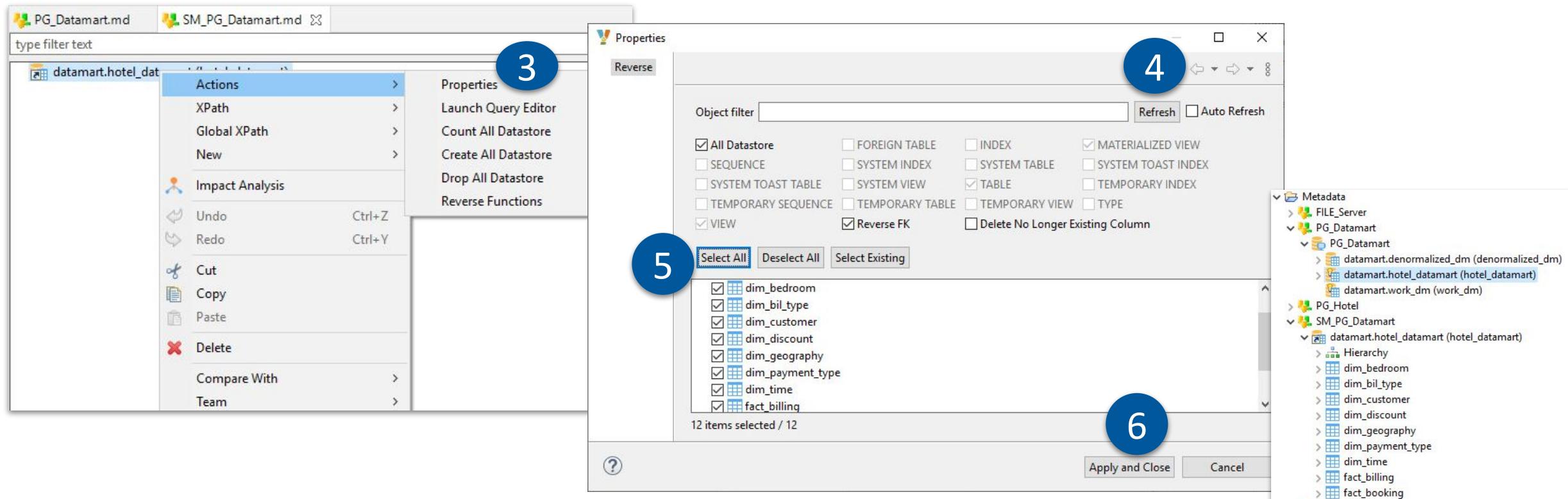
2 : Create Sub Metadata at the schema level



# Metadata and Sub Metadata

3 - Reverse tables in Sub Metadata

Use only the Sub Metadatas in the mappings & the projects



# Semarchy

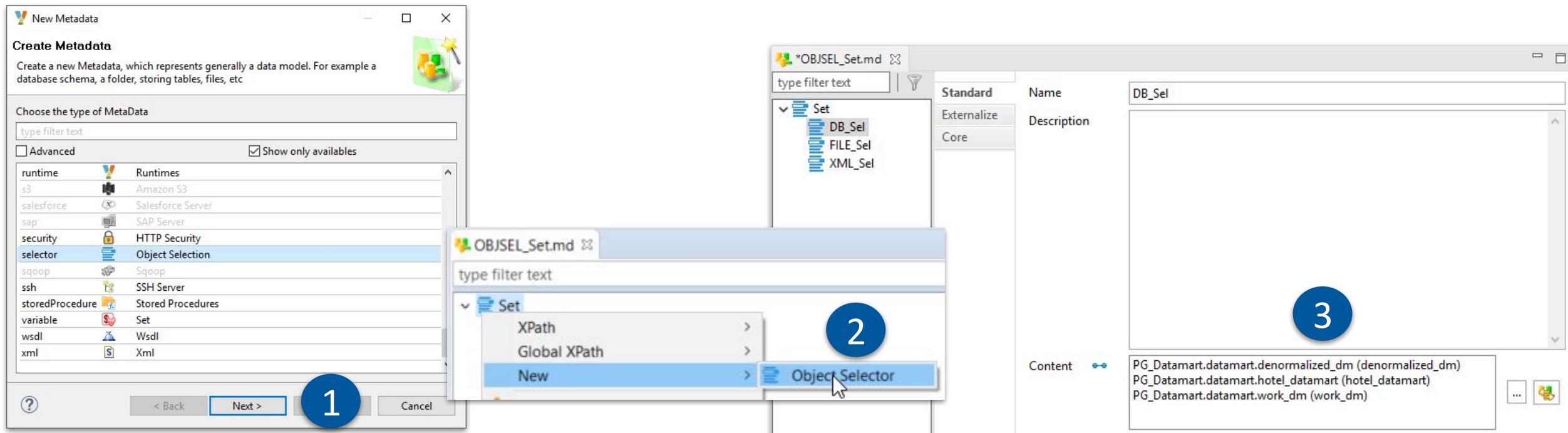
## Object Selection



# Object Selection

The Object Selection Metadata allows to drag & drop the common Metadata nodes often used

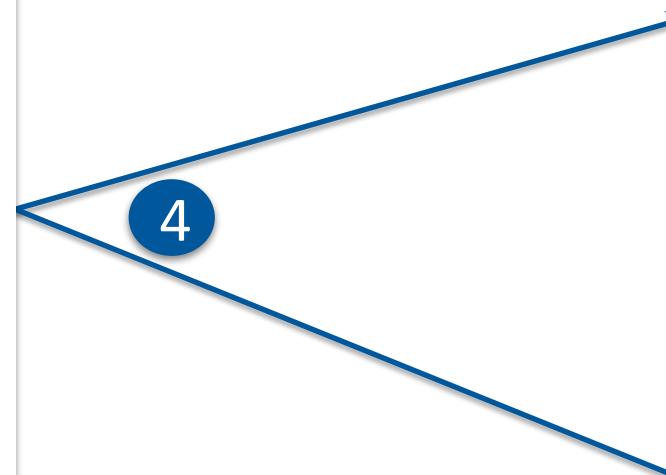
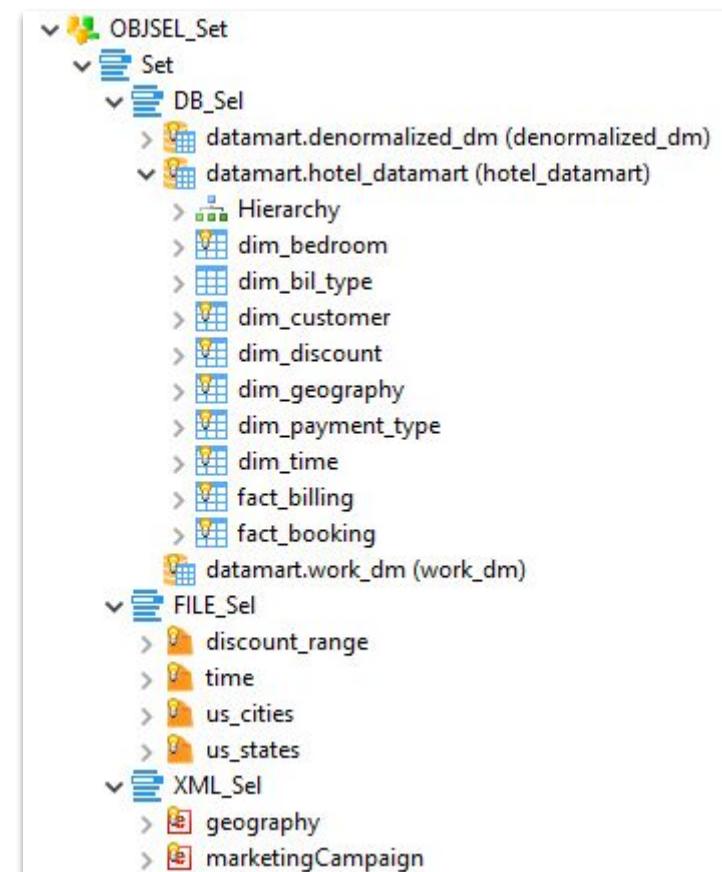
- 1 : Create an “Object Selection” metadata
- 2 : Add new “Object Selector” nodes to organize the Metadatas to use
- 3 : Drag & drop Metadata links in the Content property



# Object Selection

Once defined, the Metadata nodes of the “Object Selection” can be used

4 : in Mappings & Processes



The 'My Mapping' window shows the 'DiscountRanges' object selected in the 'FILE\_Sel' category of the Project Explorer. The 'My Process' window shows the 'hotelManagement' object selected in the 'Set' category of the Project Explorer.

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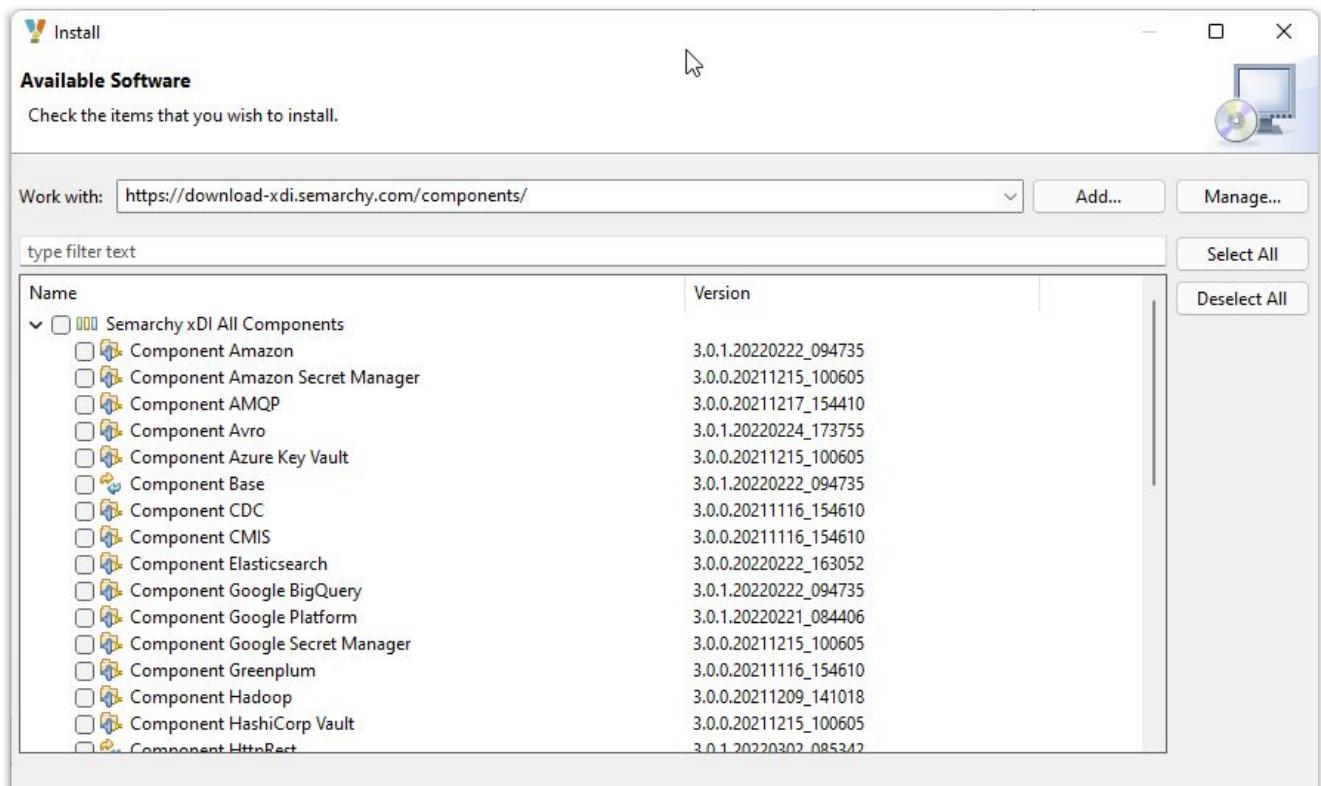
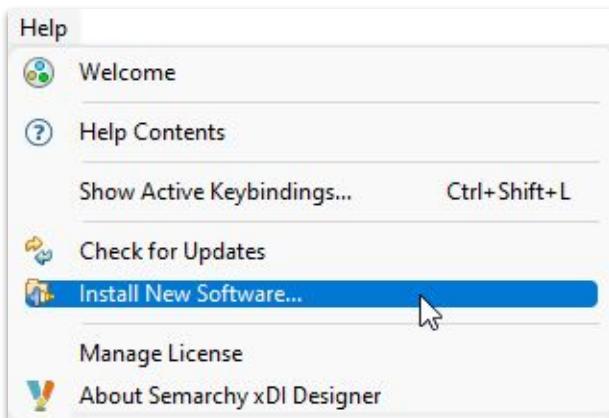
J Other topics

J3 - Components

# Components

## Components

- Contain all resources required to work on a technology
- Some are already installed in default Designer installation
- Others will require dedicated license and are not included in default installation



# Components contain

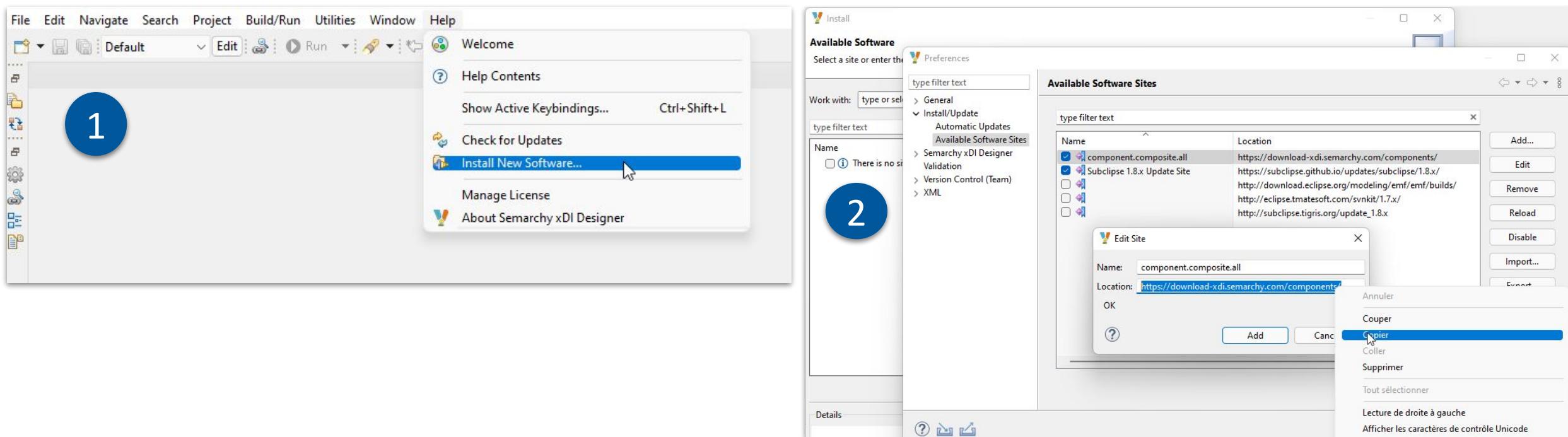
- Resources below will be automatically installed/updated during the installation of a component:
  - Metadata definition files (Technology and Product files)
  - Templates
  - Modules
  - Sample Projects
  - Documentation

# Components installation

Choose “Install New Software” in the “Help” menu

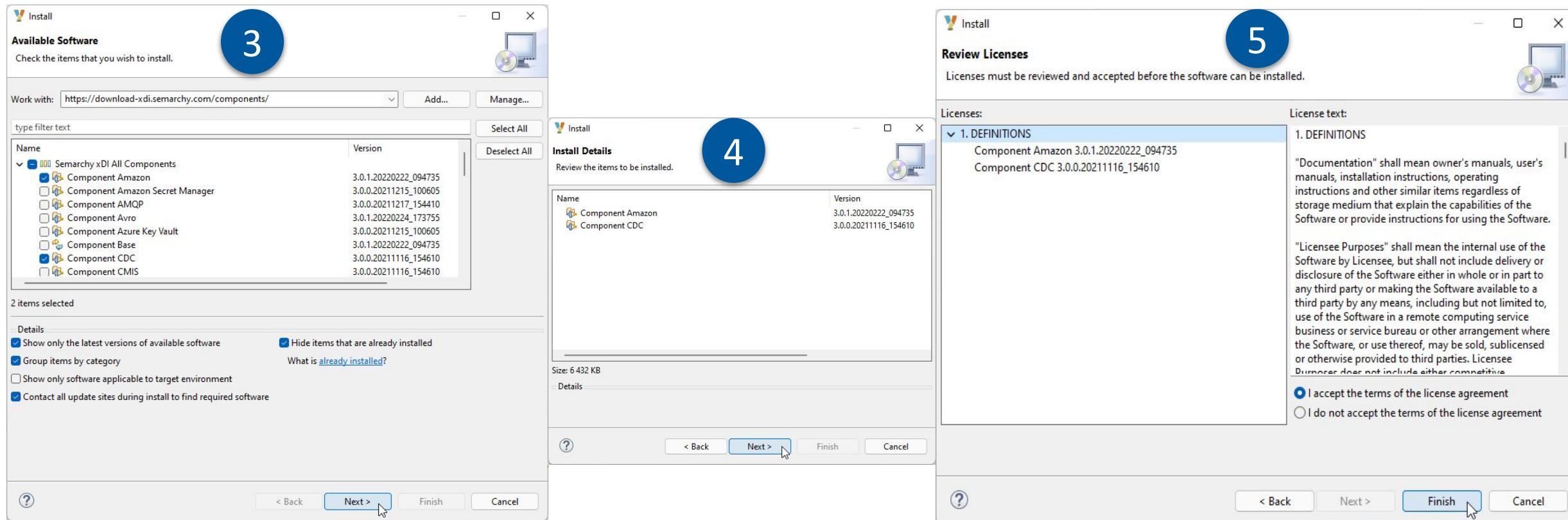
Click on “Manage...” and choose the first line in “Available Software Sites” `component.composite.all`

Double click on this line and in “Edit Site” window copy the `Location` link



# Components installation

Put copied link into “Work with” field, select the Components to be installed and click on “Next” twice, accept the terms of the license agreement and click on “Finish” to confirm the installation



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J Other topics

J4 - Modules

# Modules

Modules are:

- Used to communicate with a technology such as
  - SQL Databases,
  - NoSQL Databases,
  - Cloud Platforms, ...
- A set of all what is necessary to communicate with a technology
  - All the libraries files which are required for the communication with the given technology
    - JDBC drivers,
    - API libraries,
    - Libraries dependencies, ...
- Uniquely identified through their names

The modules can be used in multiple Metadata

# Modules

Module to be used must be defined mostly directly in your Metadata

The screenshot illustrates the Semarchy Server Wizard interface for defining a new database connection. It consists of two main windows: the 'Server Wizard' and the 'Module Selection/Creation' window.

**Server Wizard (Left Window):**

- Connection:** The 'Server' tab is selected.
- Fields:** Name (PG\_hotel), Module (PostgreSQL), Driver (org.postgresql.Driver), URL (jdbc:postgresql://localhost:5432/hotel), User (postgres), Password (\*\*\*\*\*), and AutoCommit (checked).
- Status:** Disconnected.
- Buttons:** Connect, Disconnect, Back, Next, Finish, Cancel.

**Module Selection/Creation (Right Window):**

- Type:** Default [1], Generic [0], PostgreSQL [1].
- Module:** <new PostgreSQL Module>, PostgreSQL (selected), PostgreSQL JDBC Driver 42.2.6.
- Details:** Name (PostgreSQL), Third Party Pack (PostgreSQL JDBC Driver). A note says "This module is complete, it contains everything required." with a green background.
- Inner Files:** postgresql-42.2.6.jar, Users Files.

**Annotations:**

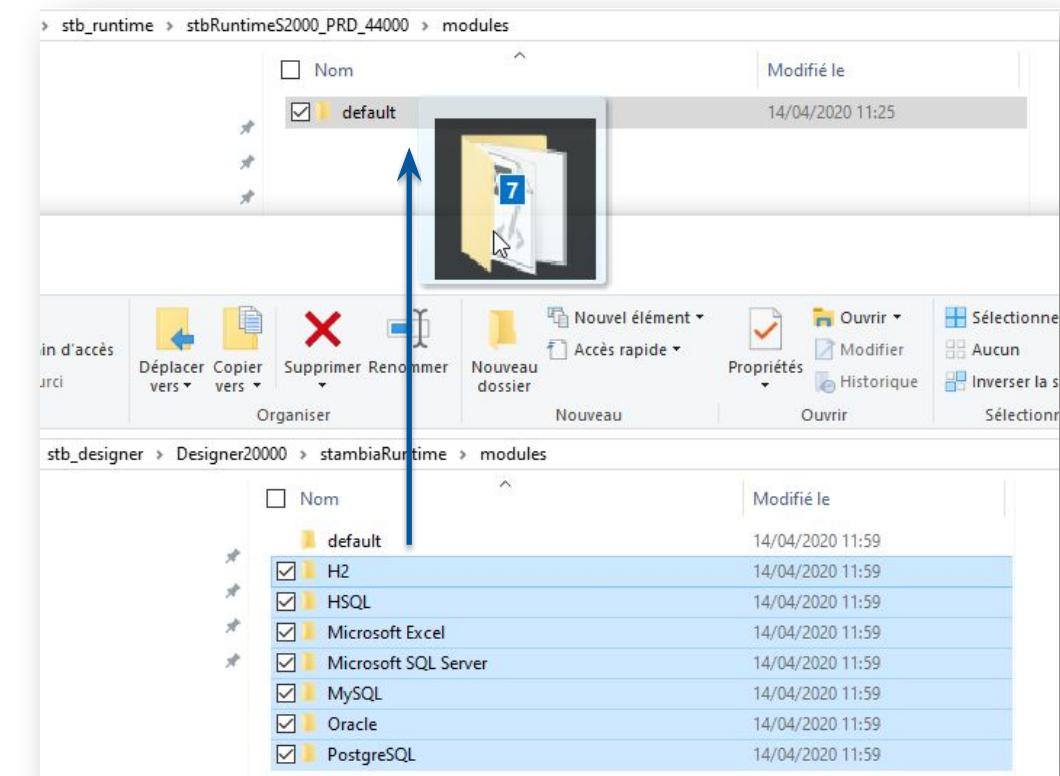
- A blue arrow points to the 'Type' section in the 'Module Selection/Creation' window with the text: *Selection of a module category*.
- A blue arrow points to the 'Module' section in the 'Module Selection/Creation' window with the text: *Selection of an existing Module or creation of a new one*.
- A blue arrow points to the 'Details' section in the 'Module Selection/Creation' window with the text: *Module details / Module configuration*.

**J-Other Topics**

# Manage Modules

On a default installation, Modules are located under Runtime folder/modules

- For production (or other environments) Runtime, it's required to
  - Copy dedicated modules folders inside
  - Restart the runtime



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# Semarchy

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J5 - Support

# Contacting the support team

## Before contacting the Support Team

- Make sure the subject is not already treated
  - In the Semarchy xDI documentation
  - In the xDI support portal (articles & forums)

## Support Team can be joined

- By email at [support-xdi@semarchy.com](mailto:support-xdi@semarchy.com)
- Through the support portal : <https://support-xdi.semarchy.com>

The screenshot shows the Semarchy xDI Support Portal homepage. At the top, there's a navigation bar with the Semarchy xDI logo, "xDI Support Portal", and "DATA INTEGRATION". Below the navigation, a main heading says "How can we help you today?" with a search bar below it. Two buttons are visible: "New Support Ticket" and "Check Ticket Status". A "Knowledge base" section is shown with categories like "xDI - Components and Technologies", "xDI - Troubleshooting", and "xDI - How To - Components and Technologies". Each category has a list of articles with small icons next to them.

Category	Sub-Category	Article Count
xDI - Components and Technologies		25
xDI - Troubleshooting		23
xDI - How To - Components and Technologies		23

# Guidelines to submit issues

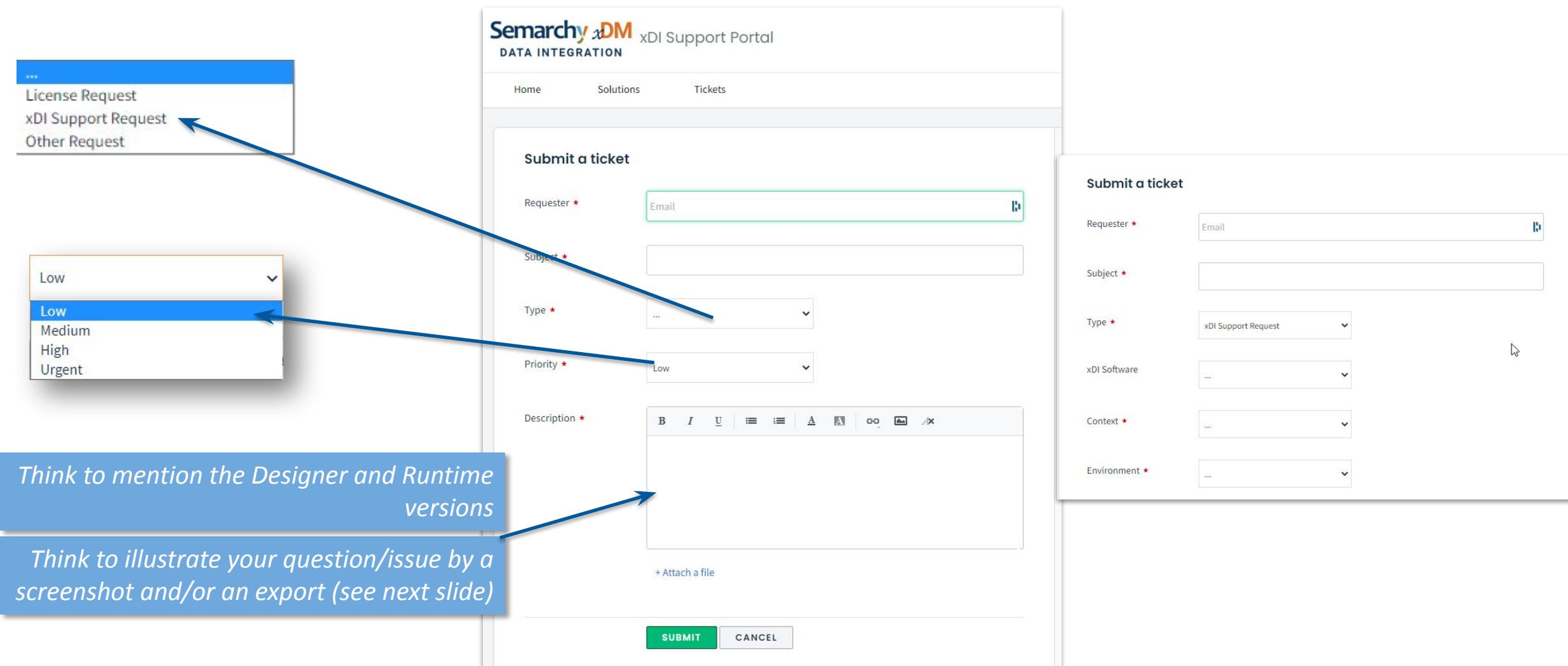
The support team needs to understand

To help you, answer to the following questions



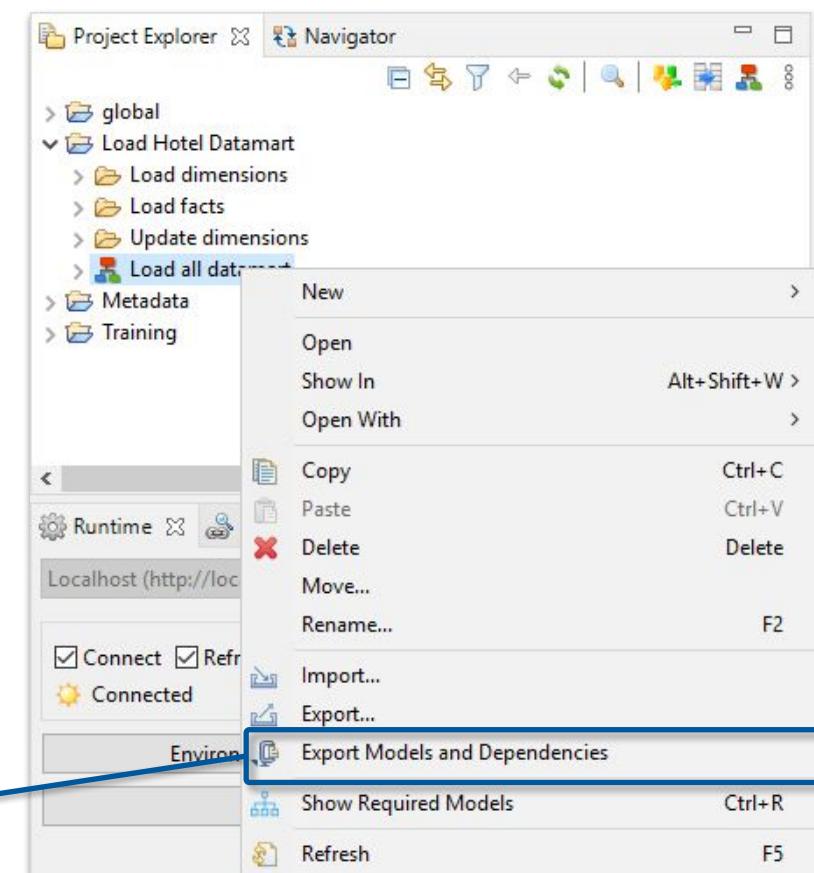


# Create a ticket in the Semarchy xDI support portal



# EXPORT MODELS AND DEPENDENCIES

- The support team may ask you to do an
  - Export models and dependencies of your mapping/process
    - To see how it is configured
    - To build it to see how it generates
  - The generated zip file contains the process, mapping, metadata, templates that are necessary for building the delivery



A popup appears : specify the full path of the ZIP file to be produced, for example "d:\temp\Export.zip"  
Repeat these steps for any process which would be called by Execute Delivery actions

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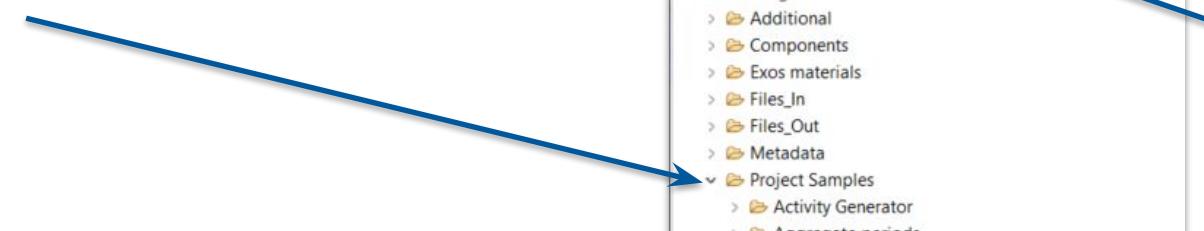
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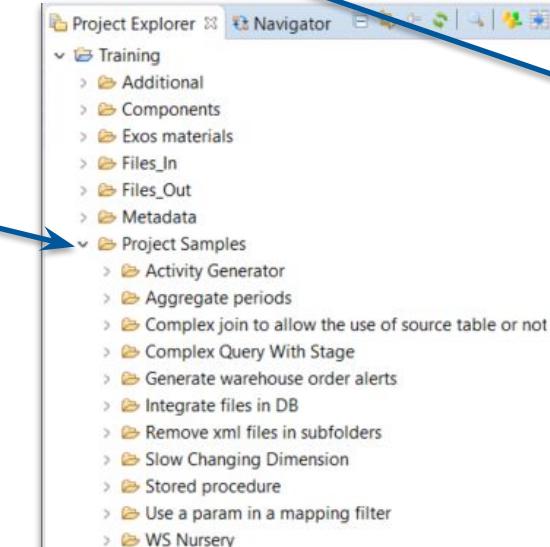
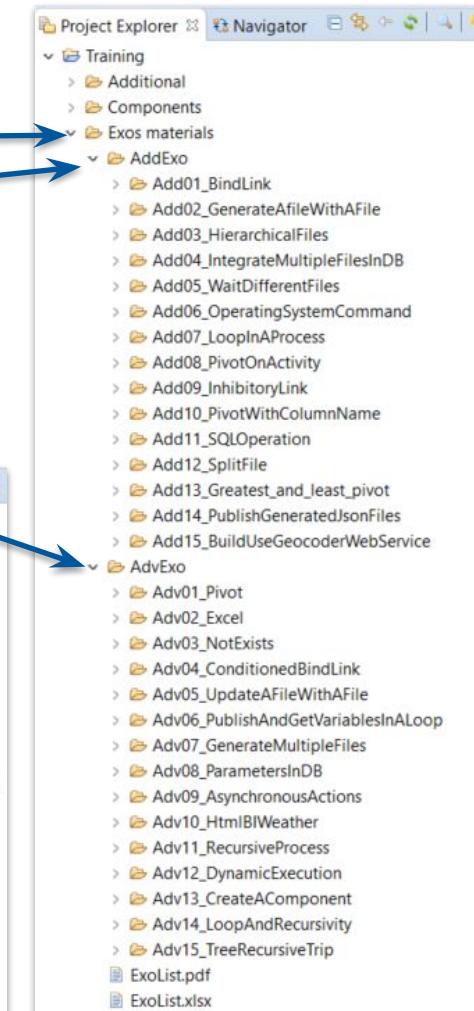
J Other topics

J6 - Exercises Library

# Instructions for exercises & Project samples

## The “Training” project

- Exos materials 
  - Two categories of exercices (add/adv)
    - One sub-folder per exercise & Several resources available per exercise
  - One Excel file to describe the exercises
- 
- All done Projects samples 



# Instructions for exercises

The Excel file to list the characteristics of each exercise :

Category	Exercise name	Description	Difficulty	Duration	XML META DATA	JSON META DATA	WEB API HEAL FILES META DATA	FLAT FILES META DATA	PROPERTY FIELDS	QUERY METADATA	EXCEL METADATA	VARIABLE META DATA	TRANSFORMATION LINE	WEB SERVICES	Pivot	CROSS JOIN	FULL OUTER JOIN	REPLICATION TEMPLATE	WEB API HEAL FILES TEMPLATE	SCRIPTING ACTION	PUBLISH PARAMETERS	GET PARAMETERS	SQL OPERATION VALUE	EXECUTE DELIVERY ACTION	OR COMMAND ACTION	BIND LINK	INHIBITORY LINK	GENERATION CONDITION	PHYSICAL LOOP	EXECUTION CONDITION	START DELIVERY COMMAND	XPATH EXPRESSION
Additional	Add01 - Bind link	Bind link & variables	1	1																												
	Add02 - Generate a file with a file	XML, JSON & Stage	1	1																												
	Add03 - Hierarchical files	Hierarchical file : Metadata, replication and mapping	2	2																												
	Add04 - Integrate multiple files in DB	Reverse and Read multiple files with the same structure in a mapping	1	1																												
	Add05 - Wait different files in DB	Wait different files, SqlOperation, executeDelivery & parametrized md	2	3																												
	Add06 - Operating system command	OS command, return code,message & startDelivery execution	2	2																												
	Add07 - Loop in a process	Loop with parameters & conditions. Used to build a tool.	2	2																												
	Add08 - Pivot on activity	Pivot columns to rows, query and cross join	2	2																												
	Add09 - Inhibitory link	Parameter, action variable and condition, inhibitory link	2	2																												
	Add10 - Pivot with column name	Pivot columns to rows with a parameter table	2	2																												
	Add11 - SQL Operation	SQL Operations and Bind Link	2	2																												
	Add12 - Split file	Reverse file with Transformation Line in Javascript, filter and cross join	3	2																												
	Add13 - Greatest and least pivot	Pivot column to row, stages	2	2																												
	Add14 - Publish generated json files	Generate multiple json files and publish a parameter with the list of the files generated. Use get parameters to do a cumulative concat	1	1																												
	Add15 - Build and use Geocoder Web	Publish, reverse and invoke a Web Service, use of parameters and XML	2	3																												
Advanced	Adv01 - Pivot	SQL manipulation, Pivot Row to Column and Column to Row, cross join, query	2	2																												
	Adv02 - Excel	Excel Reverse, Read & Write	1	1																												
	Adv03 - Not Exists	Not exists on a source table, on a target table, XPATH expressions, filters and stage	1	1																												
	Adv04 - Conditioned bind link	XML, JSON, Bind conditions & variables with ExecuteDelivery and parameters	2	2																												
	Adv05 - Update a file with a file	Files, stage and full outer Join	2	2																												
	Adv06 - Publish/get variables in loop	Publish & get parameters, generation & execution conditions, parametrized md	3	2																												
	Adv07 - Generate multiple files	Hierarchical Files template & tag	2	2																												
	Adv08 - Parameters in DB	Publish variables and use them in conditions and actions, scripting action	3	2																												
	Adv09 - Asynchronous actions	Variable & parameters manipulation, conditions	2	3																												
	Adv10 - Html BI weather	Html tool, executeDelivery, parameters	2	2																												
	Adv11 - Recursive process	ExecuteDelivery, parameters, ExecutionCondition	3	2																												
	Adv12 - Dynamic execution	ExecuteDelivery action, bind link, Loop, parameters & execution conditions	3	3																												
	Adv13 - Create a component	Xpath expressions & XSL variables	3	2																												
	Adv14 - Loop and Recursivity	Xpath expressions, Loop, parameters, recursivity, bind link, execution conditions	3	3																												
	Adv15 - Tree recursive trip	Xpath expressions, Loop, parameters, recursivity, bind link, execution conditions	3	3																												

# To go further

Document Type	Link
French video Getting started with components for DI S20 and higher	<a href="https://stambia.org/doc/260-stambia-di-software/components/stambia-di-s20-or-higher/775-getting-started-with-components-for-di-s20-and-higher">https://stambia.org/doc/260-stambia-di-software/components/stambia-di-s20-or-higher/775-getting-started-with-components-for-di-s20-and-higher</a>
Stambia.org article Getting started with modules	<a href="https://stambia.org/doc/272-development-hints-and-tips/modules/763-getting-started-with-modules">https://stambia.org/doc/272-development-hints-and-tips/modules/763-getting-started-with-modules</a>
Stambia.org article Modules and scripting	<a href="https://stambia.org/doc/272-development-hints-and-tips/modules/807-modules-and-scripting">https://stambia.org/doc/272-development-hints-and-tips/modules/807-modules-and-scripting</a>
Stambia.org article Impact Analysis utility	<a href="https://stambia.org/doc/223-development-hints-and-tips/impact-analysis/542-impact-analysis-utility">https://stambia.org/doc/223-development-hints-and-tips/impact-analysis/542-impact-analysis-utility</a>
Getting Support	<a href="https://stambia.org/support">https://stambia.org/support</a>
Stambia.org article Guidelines for submitting issues to Support team	<a href="https://stambia.org/doc/22-support-procedures/276-guidelines-for-submitting-issues-to-the-support-team">https://stambia.org/doc/22-support-procedures/276-guidelines-for-submitting-issues-to-the-support-team</a>
Stambia.org article Technical tasks	<a href="https://stambia.org/doc/22-support-procedures/486-technical-tasks">https://stambia.org/doc/22-support-procedures/486-technical-tasks</a>
Stambia.org article Using the object selection metadata	<a href="https://stambia.org/doc/77-development-hints-and-tips/metadata/453-using-the-object-selection-metadata-to-make-a-customized-metadata-view">https://stambia.org/doc/77-development-hints-and-tips/metadata/453-using-the-object-selection-metadata-to-make-a-customized-metadata-view</a>



Questions?

