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G Variable Metadata

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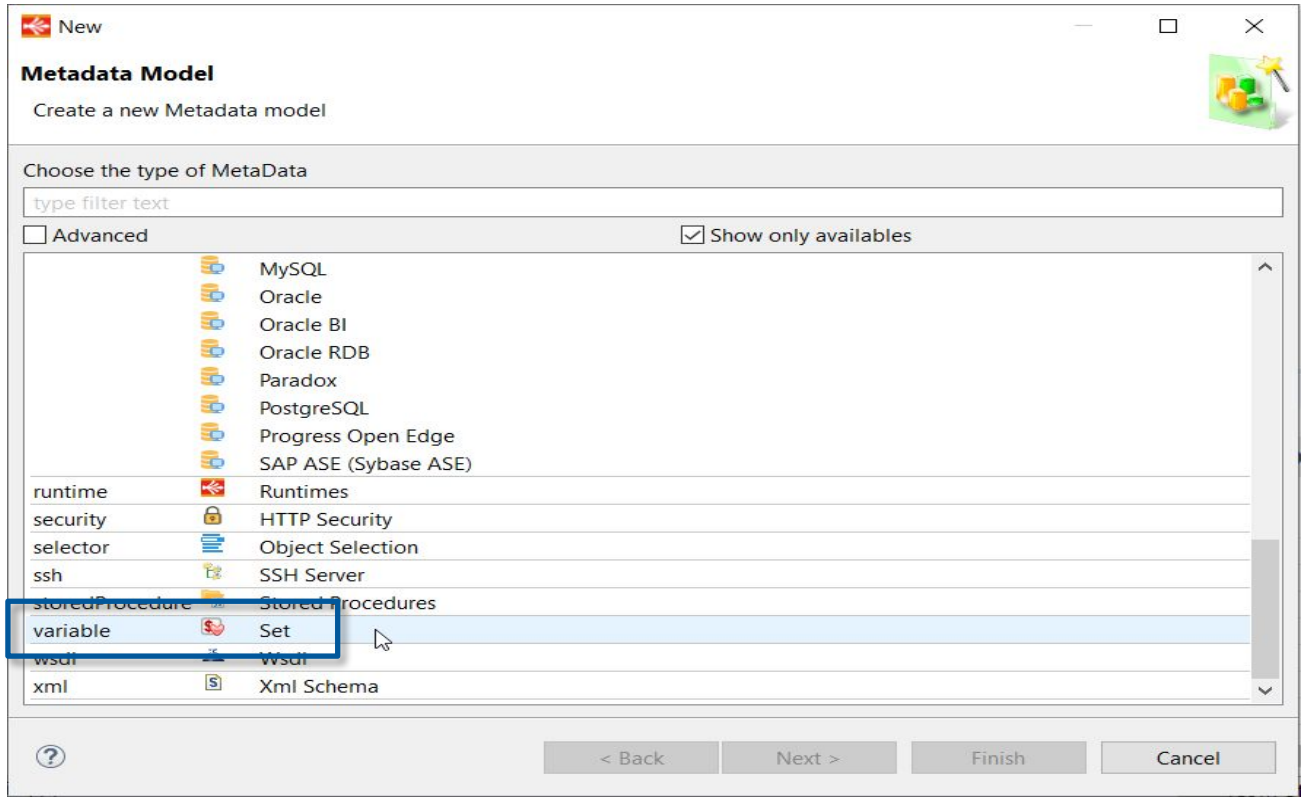
G Variable Metadata

G1 - Variable Metadata

Variable Metadata

Variable Metadata may be used to store persistent values and re-use them

- Powerful way to define and use global variables in several processes



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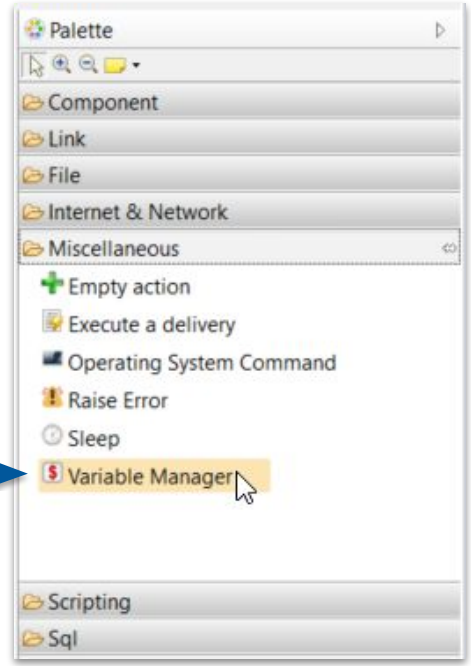
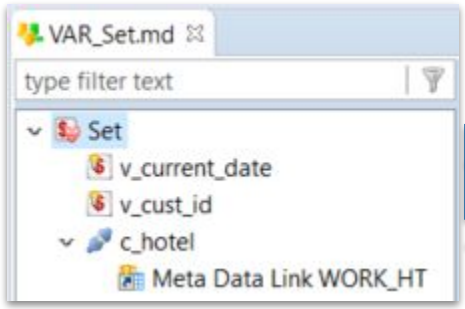
Variable Metadata

- Variables Metadata are fully objects
- They are reusable and configurable
- They are used in processes and mappings to parametrize executions
- They are managed through the palette action “Variable Manager”



Two node types



Variables

Connections

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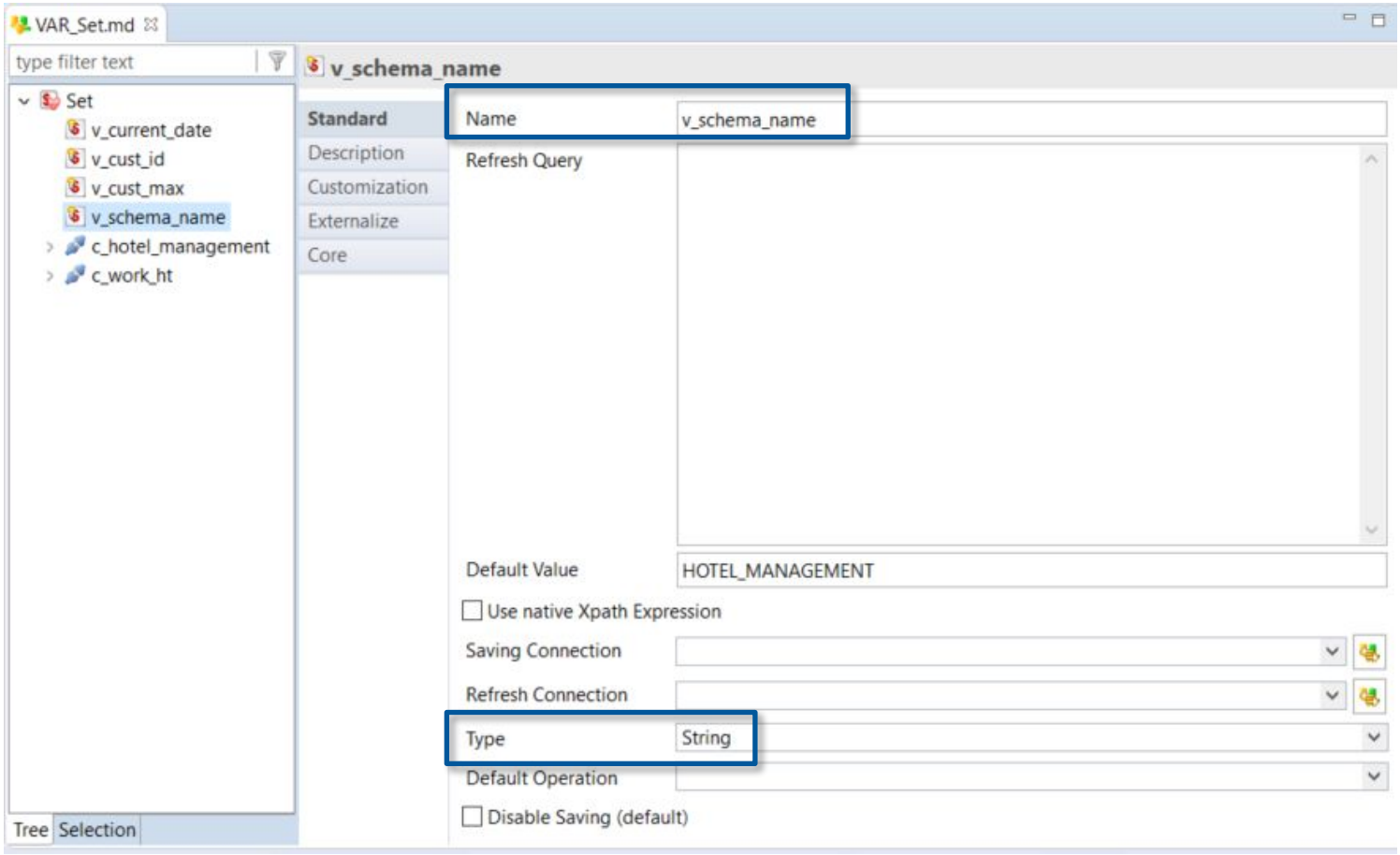
Variable Metadata

Properties of Variable Metadatas must be defined to properly use them



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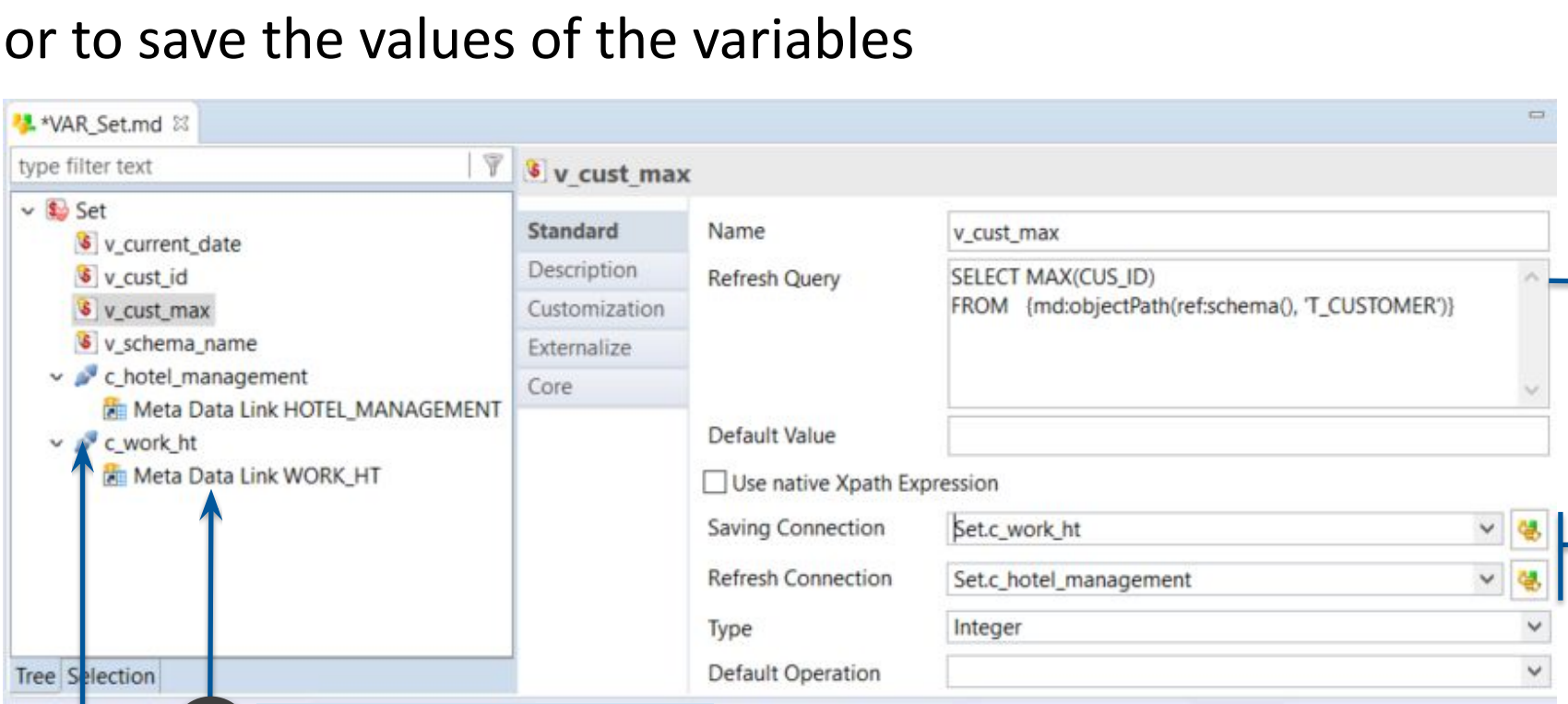
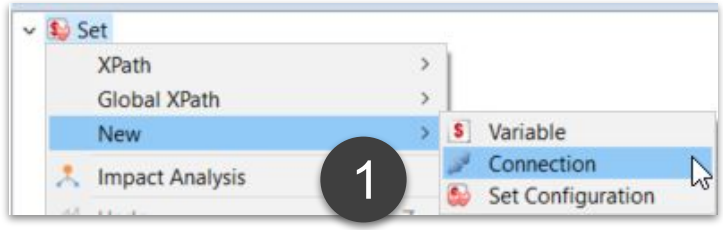
Variable Metadata

Connection must be defined and used in case of “Refresh Query” specified or to save the values of the variables





4 *Specify a SQL order in the “Refresh Query” field to get a value*

5 *Choose connections*

3 *A metadata link is created*

2 *Drag & drop a database schema on a connection*

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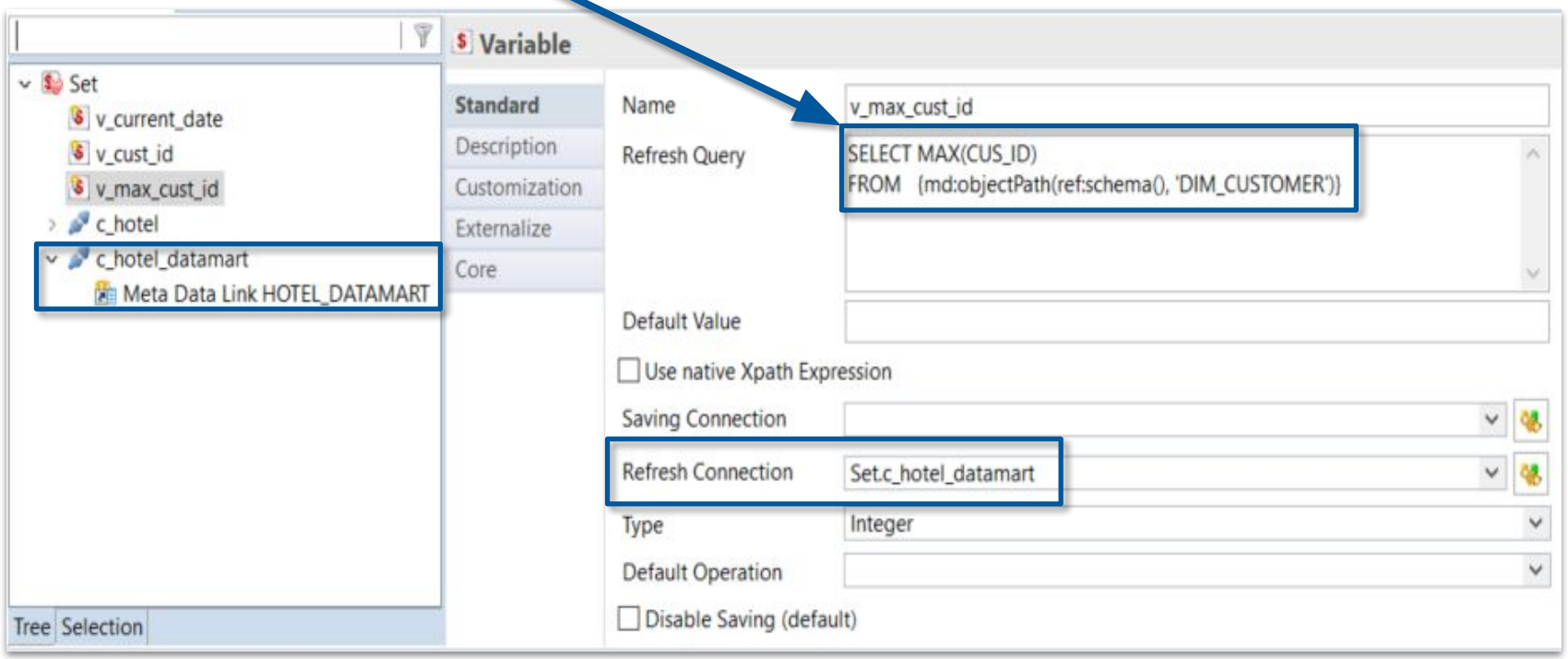
Variable Metadata

The syntax to refer to a schema in the “Refresh Query” of a metadata variable:

```
{md:objectPath(ref:schema(),'<table_name>')}
```



The schema will be the schema that is referenced (metadata link) in the Refresh connection

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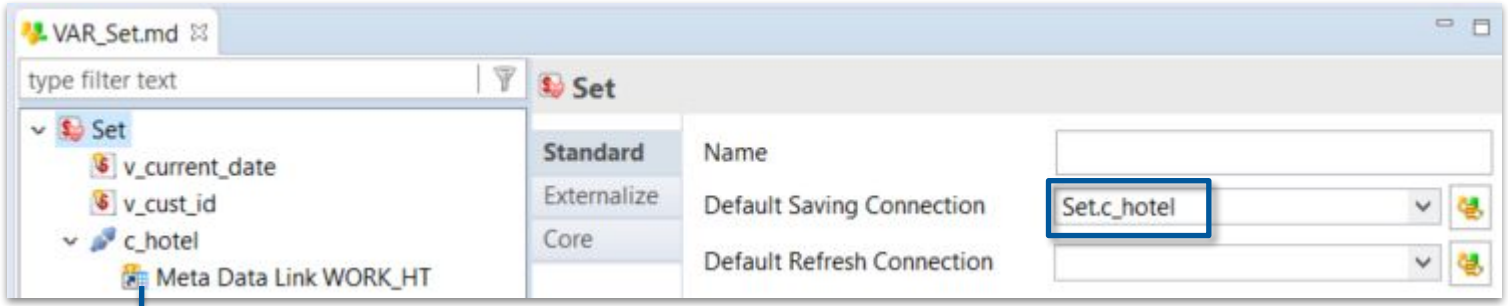
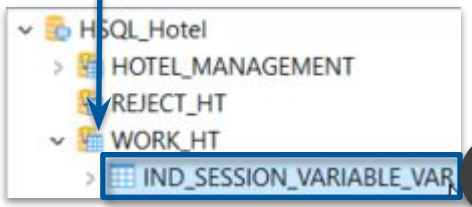
Variable Metadata

Saving connection can be defined on the “Set” node or on a “Variable” node



1. *A table is created in the related schema dropped on the connection*
2. *Each time a variable is used, defined with a saving connection, a row is inserted into this table*




```
select * from WORK_HT.IND_SESSION_VARIABLE_VAR
```

2

VAR_NAME	VAR_TYPE	VAR_NO_LINE	VAR_VALUE	VAR_CONF	VAR_DATE	VAR_SESS_ID
v_cust_id(_mSQqMDfCEeyYIL-Ke2hBSw)	Integer	1	90	Default	2021/10/29 22:44:10.775	c0a87001017ccdcbaed762827f1437da
v_current_date(_Z_qBYDflEeyYIL-Ke2hBSw)	String	1	20211029	Default	2021/10/29 22:44:10.890	c0a87001017ccdcbaed762827f1437da

VAR_NAME	*is full technical name of the variable.*
VAR_TYPE	*is the variable type*
VAR_NO_LINE	*when the value is a long string, it may be written over several rows (depending on the database's varchar max size). Usually there is only one line*
VAR_VALUE	*the value to set*
VAR_CONF	*the configuration which applies. Note that a variable may be stored with one value per configuration in the same table.*
VAR_DATE	*when the variable was last saved*
VAR_SESS_ID	*the session that did the last save*

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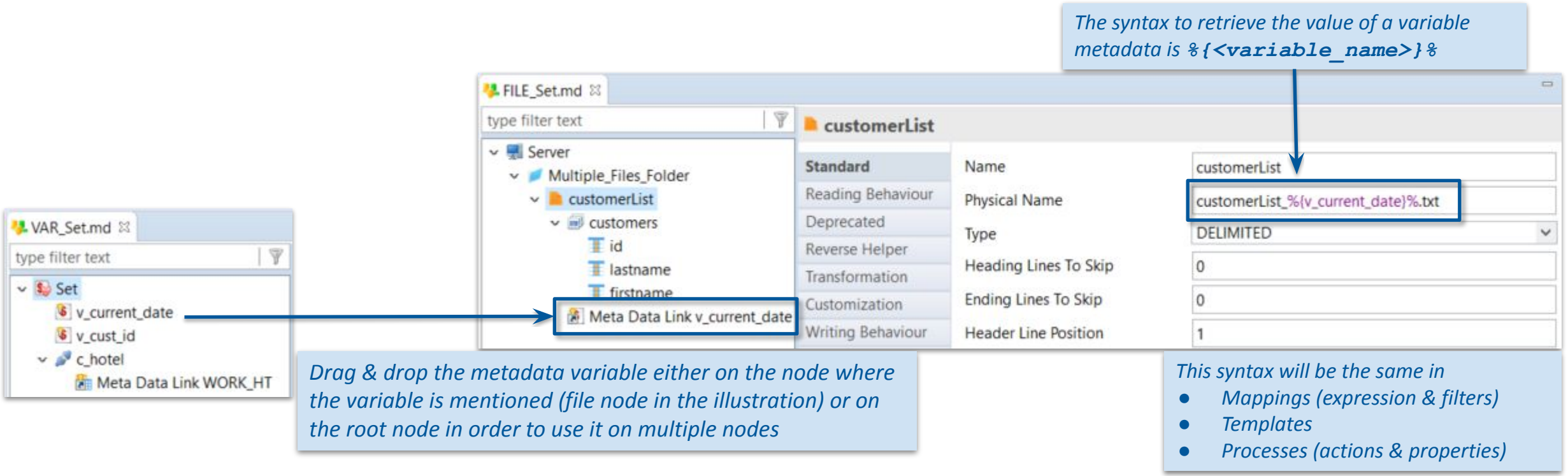
Variable Metadata

Variable Metadatas can be used to parametrize other Metadata properties



If the parametrized metadata is used in a mapping, the related variable Metadata must be drag & drop in this mapping

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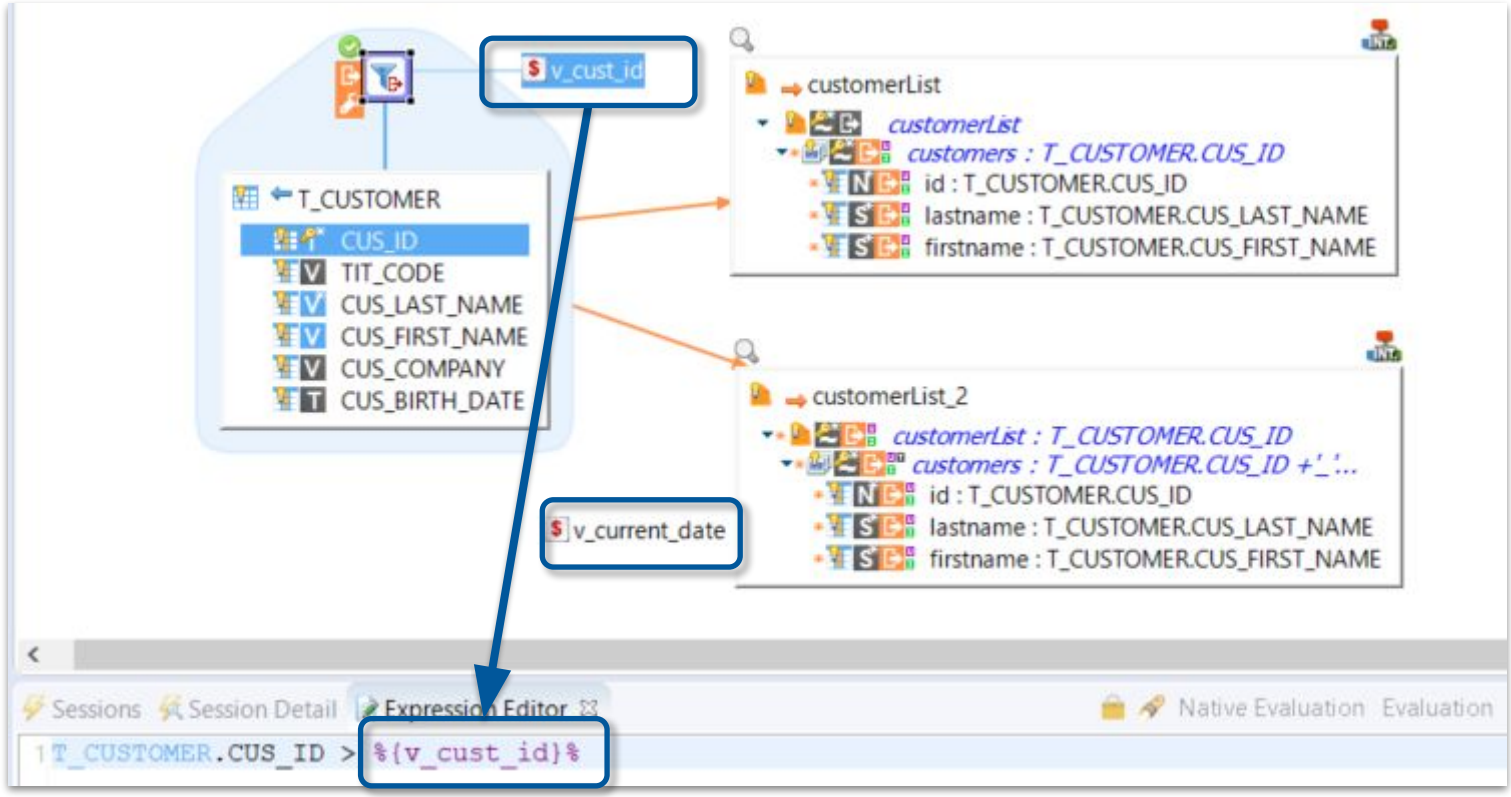
G Variable Metadata

G2 - Using Variable Metadata

Using Variables Metadata

Drag & drop variable metadatas to use them in a mapping



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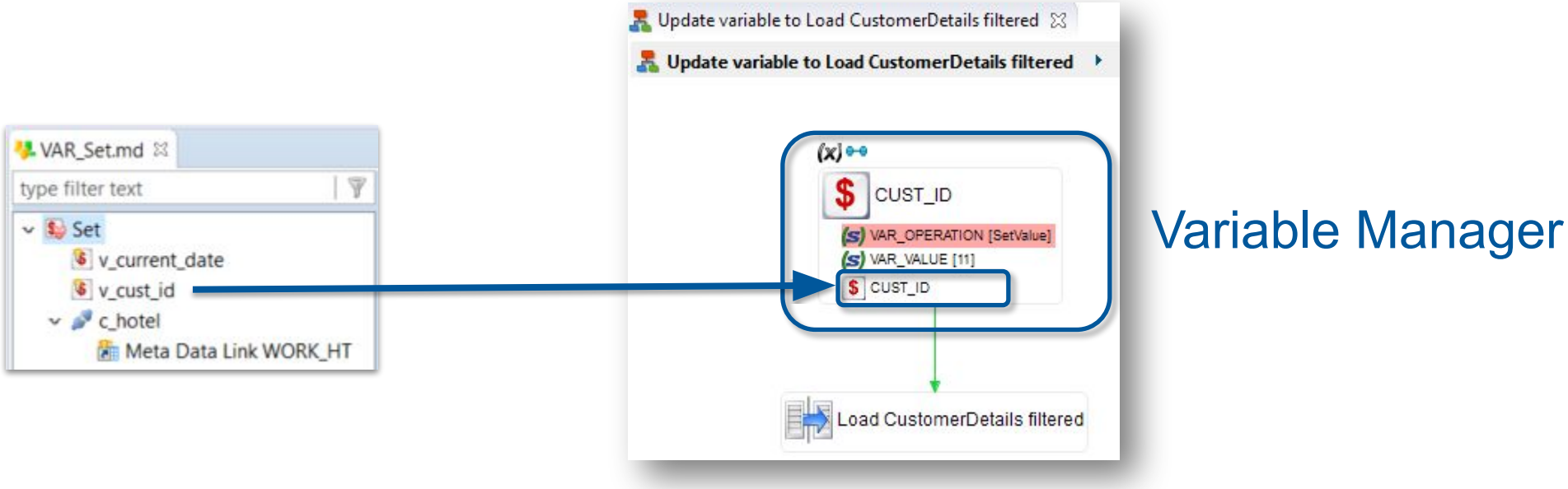
Using Variables Metadata

When the variable is drag & dropped into a process, an instance of a Variable Manager action is automatically created



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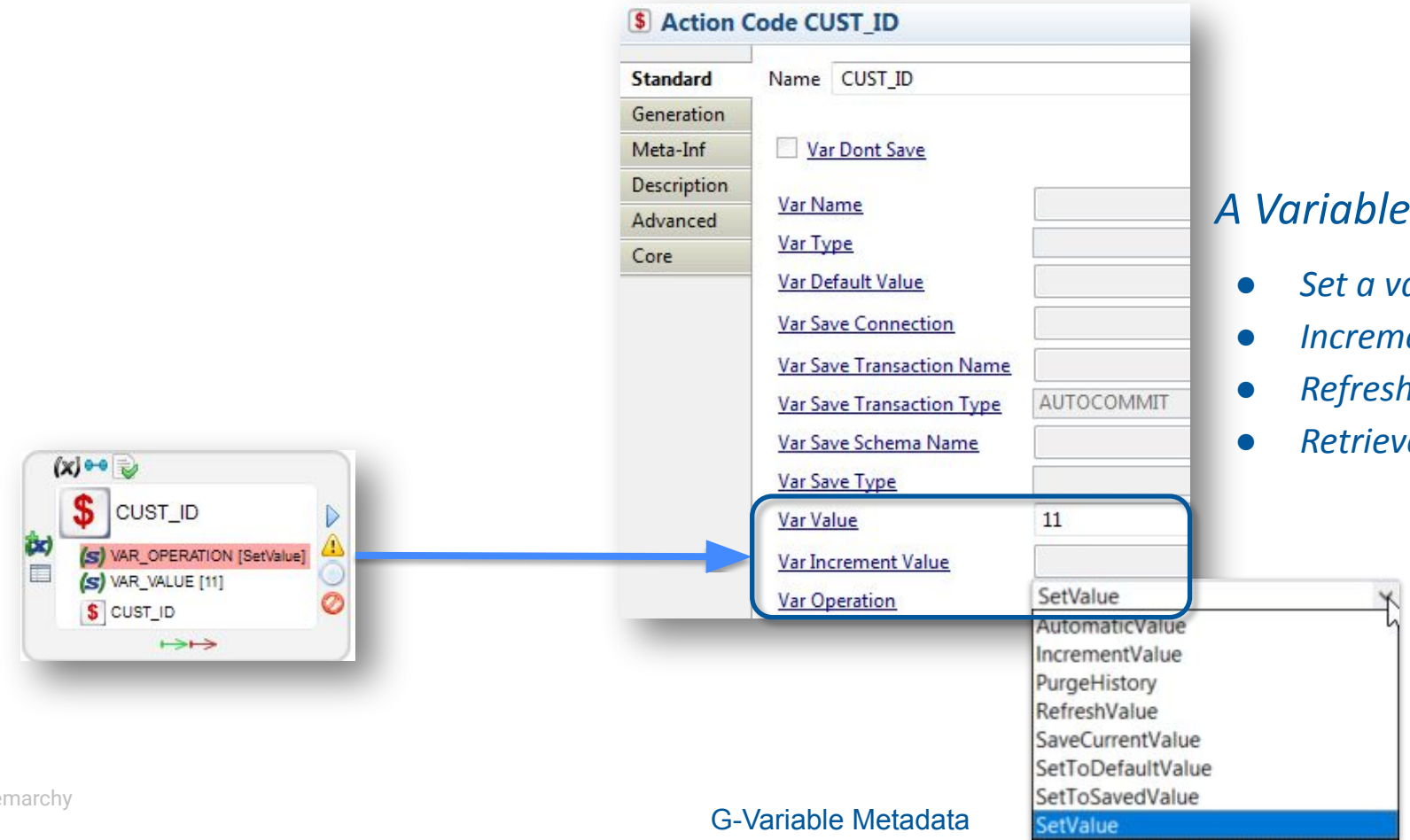
Using Variables Metadata

In a Variable manager action, the “Var Operation” property drive the operation to apply on the related variable metadata



G-Variable Metadata

A Variable Manager allows to

- *Set a variable value*
- *Increment a variable value*
- *Refresh the value from a SQL Query*
- *Retrieve a previously stored value*

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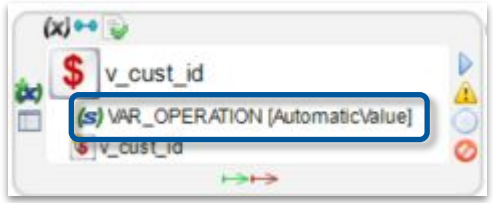
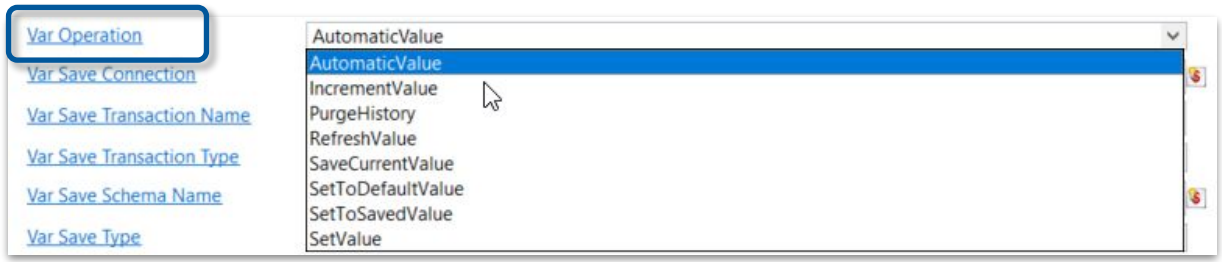
Using Variables Metadata

- Choosing **"AutomaticValue"** in the "Var Operation" property of a Variable manager action will provide the following value, in order of precedence:





1. *In-memory value of the Session*
2. *Latest saved value if any*
3. *Value returned by the Refresh Query if any*
4. *Default value of the Metadata Variable*

If no value is found an error is raised !

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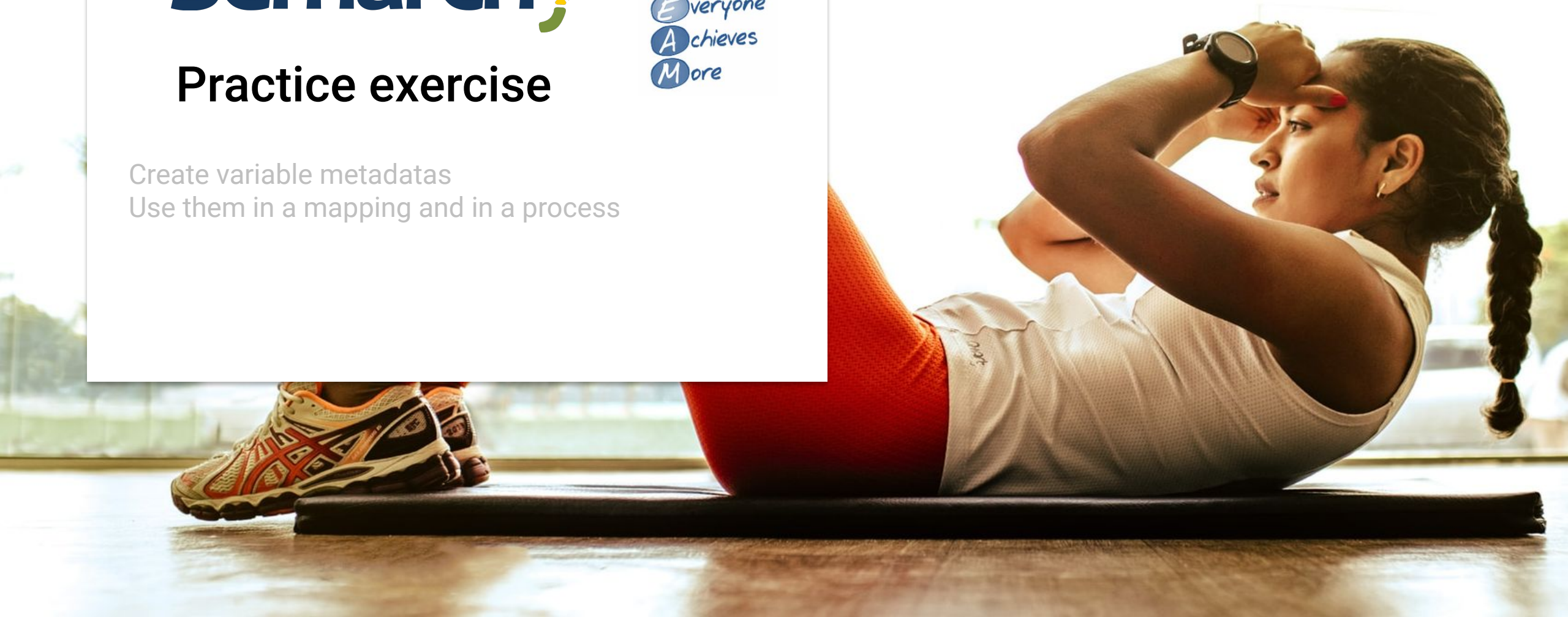
Together Everyone Achieves More

Practice exercise

Create variable metadatas
Use them in a mapping and in a process



To go further

Document Type	Link
Stambia.org article Storing variables in a database for global use in several processes	https://stambia.org/doc/87-development-hints-and-tips/variables-and-parameters/how-to/279-storing-variables-in-a-database-for-global-use-in-several-processes
Stambia.org article How to reference a schema in a variable's refresh query	https://stambia.org/doc/87-development-hints-and-tips/variables-and-parameters/how-to/61-how-to-reference-a-schema-in-a-variable-s-refresh-query
Stambia.org article How to use a variable as a table physical name	https://stambia.org/doc/87-development-hints-and-tips/variables-and-parameters/how-to/23-how-to-use-a-variable-as-a-table-physical-name

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Questions?