



Lab 5: Reporting with RPE

Objectives

After completing this lab, you will be able to:

- Report on Rhapsody Models and Linked OSLC Artifacts using Rational Publishing Engine

Scenario

In this Lab, you will first start the Rhapsody REST server (by starting the Report Publishing Wizard). You will then open Rational Publishing Engine Document Studio and create a simple template to report Use Cases and their linked OSLC artifacts by reporting on the Rhapsody client. You will then create a second template which reports directly on the model in RMM.

Note that this lab is only intended to show that you can report on linked elements in RMM models – for a more detailed guide on Reporting on Rhapsody please refer to the RPE for Rhapsody lightning lab and the full RPE for Rhapsody course – contact your IBM representative for details.

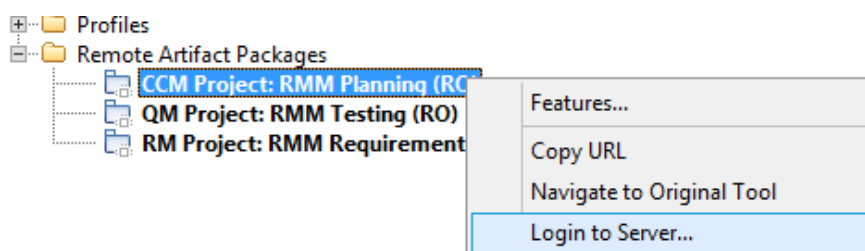
It is assumed you are still working in Dan's workspace where the previous lab ended.

Task 1: Load Remote Artifact Packages

In this task you will login to each of the three remote data sources (CCM, QM and RM) so that the linked artifacts will be resolved and thus available for reporting

1. Login to CCM:

- a. In the Rhapsody browser, expand the **Remote Artifact Packages** category
- b. Right-click the **CCM Project: RMM Planning** Remote Artifact Package and select **Login to Server**:



- c. If asked to login, login as dan/dan:

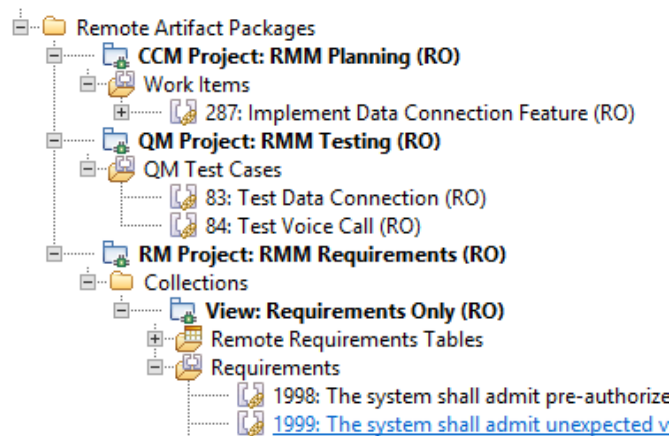


2. Login to QM:

- a. In the Rhapsody browser, right-click the **QM Project: RMM Testing** Remote Artifact Package and select **Login to Server**

3. Login to RM:

- a. In the Rhapsody browser, right-click the **RM Project: RMM Requirements** Remote Artifact Package and select **Login to Server**
- b. All three Remote Artifact Packages should now be loaded:

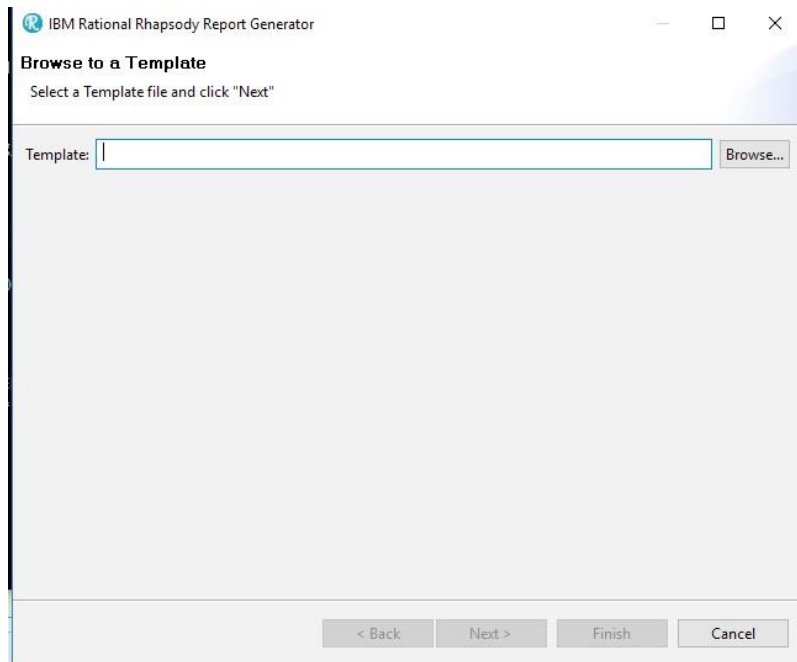


Task 2: Start the Rhapsody REST Server

In this task, you will launch the Rhapsody REST Server. The simplest way to do this is to start the IBM Rational Rhapsody Report Generation Wizard – which also launches the server in preparation to generate a report. You will cancel the report generation wizard once the REST server has started. In the next task, you will design a simple template from scratch

1. Start the REST Server:
 - a. From the menu, select **Tools → Publish → Generate Report**
 - b. Note that this first launches the Rhapsody REST server:

- c. Then the Report Generator Wizard is launched:



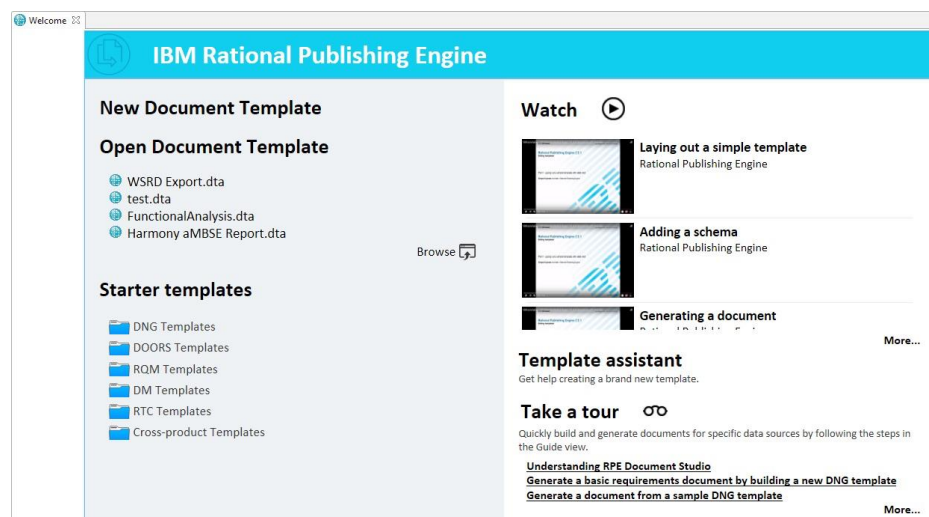
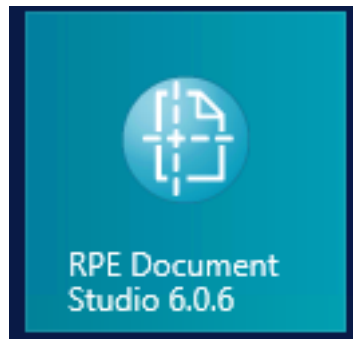
- d. Click **Cancel** to close the RRDG report generator wizard

Task 3: Create a New Document Template for Rhapsody

In this task, you will start RPE Document Studio, create a new blank template and add Rhapsody as a data source.

1. Start RPE Document Studio:

- a. Launch **Rational Publishing Engine Document Studio 6.0.6** from the Windows start menu:



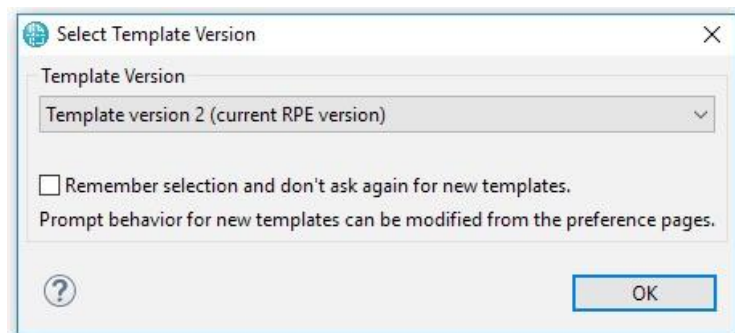
2. Create a New Template:

- a. Click the **New Document Template** link on the Welcome page:



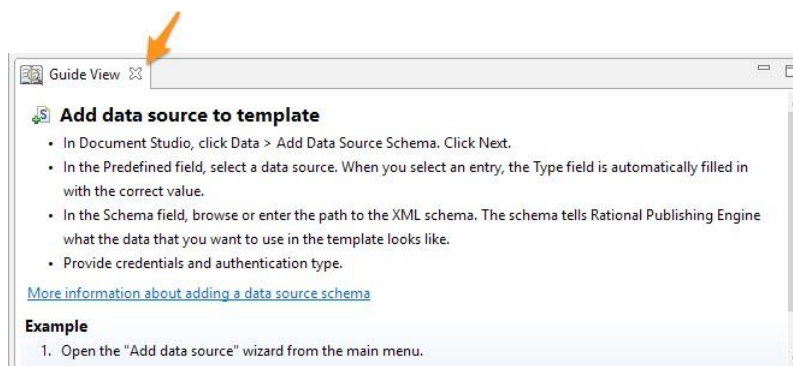
TIP: Alternatively, from the menu, select **File → New → Document Template**. If you use this option then you will be presented with a dialog where you can fill in a Name and Description. Just click Finish (this is metadata that may be filled in later).

- b. Click **OK**:



3. Close Guide Views:

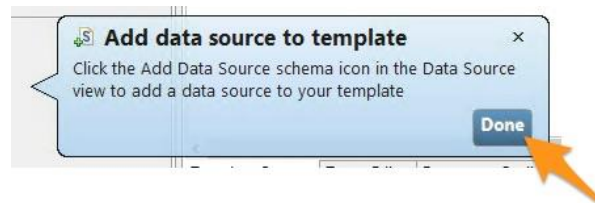
- a. Click the X in the **Guide View tab** to close it



- b. Click the X in the New Document Template **header** to close it:

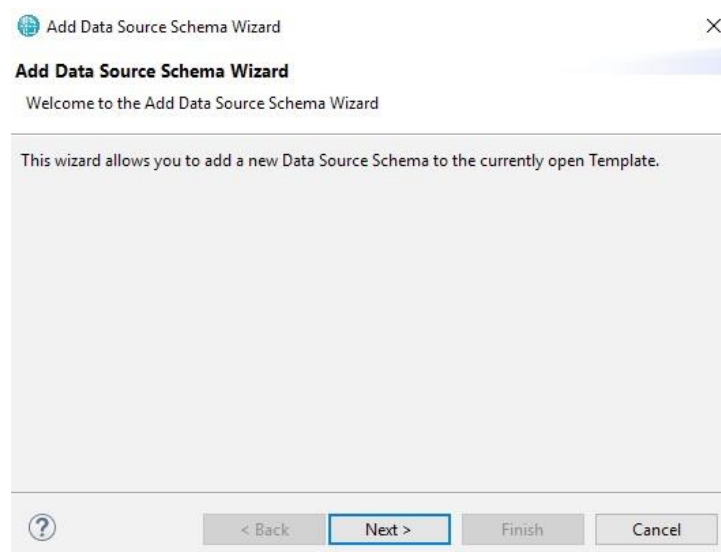


- c. In the blue **Add data source to template** popup, click **Done**:

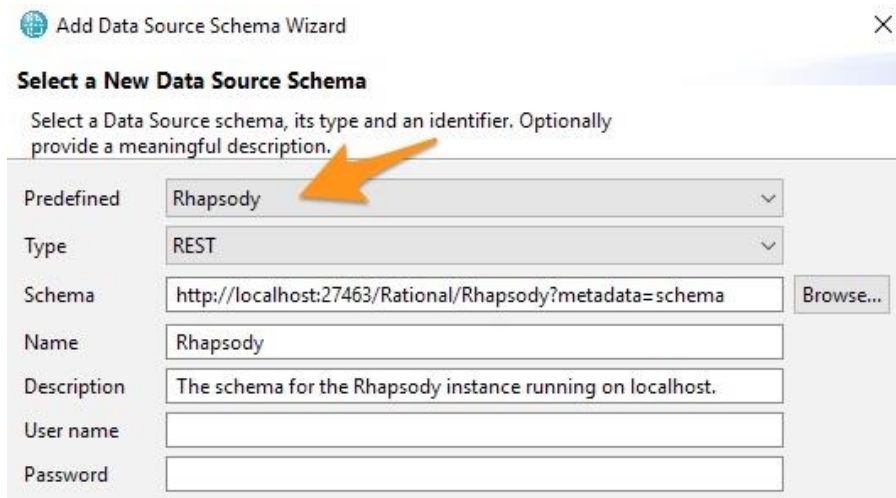


TIP: These are useful guides for new users – but since this Lab will guide you – these windows are simply taking up space.

4. Add Rhapsody as a Data Source:
- From the menu, select **Data → Add Data Source**
 - Click **Next**:



- c. In the **Predefined** field, select **Rhapsody**:

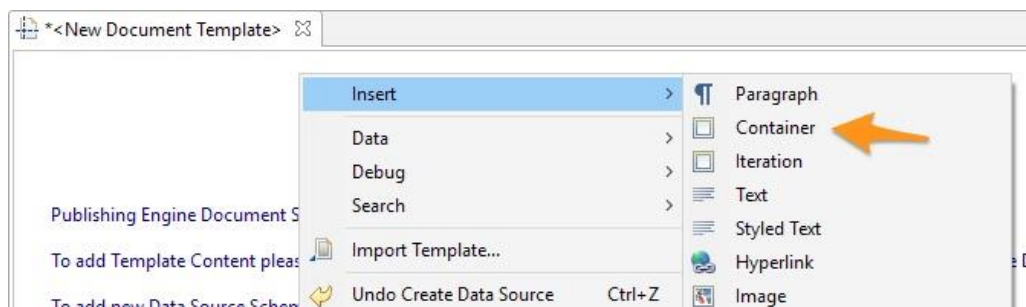


- d. Click **Next**
- e. Click **Finish**

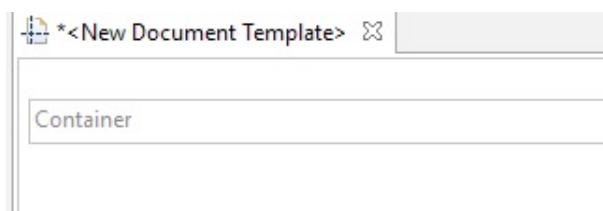
Task 4: Create a Use Case Report

In this task, you will create a simple report that outputs the names of all the Use Cases in the model. You will then configure the document specification so that RPE can connect to and report on the currently loaded model.

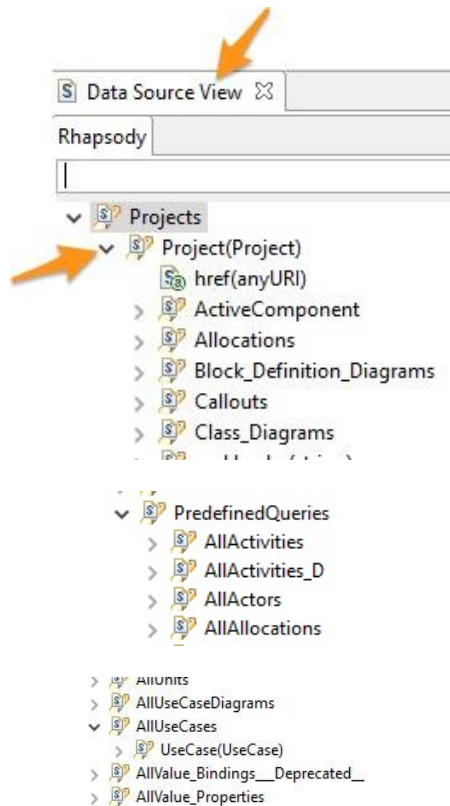
1. Create a Container to Iterate Over All Use Cases:
 - a. Right-click inside the empty template and select **Insert → Container**:



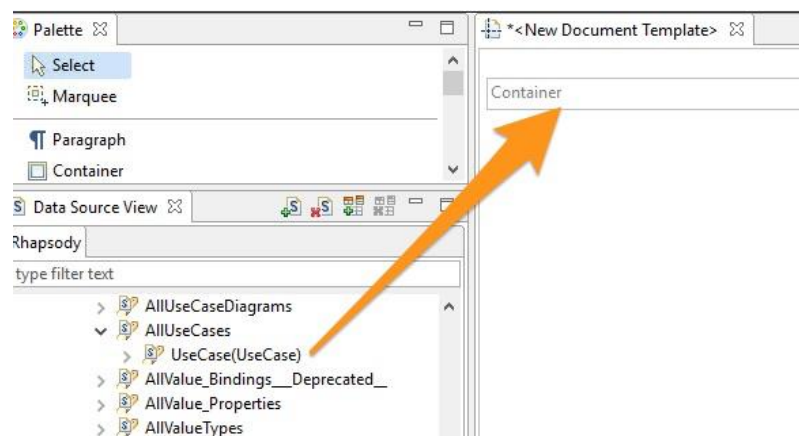
TIP: You may also use the tool palette – but note that by default any tool selected stays selected until you click the Select tool. This behavior may be switched off in the preferences



- b. In the **Data Source View**, expand the tree to **Projects → Project → Predefined Queries → AllUseCases**:



- c. Expand the **AllUseCases** node and drag the **UseCase(UseCase)** node from the Data Source View onto the **Container**:

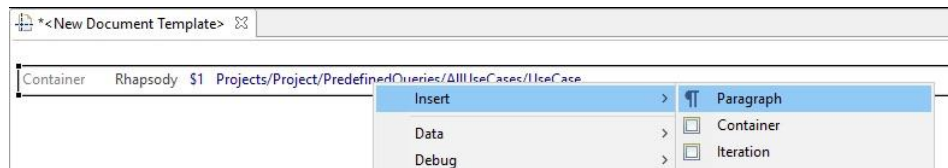


- d. Note that the Container now has the context **\$1 Projects/Project/PredefinedQueries/AllUseCases/UseCase**:

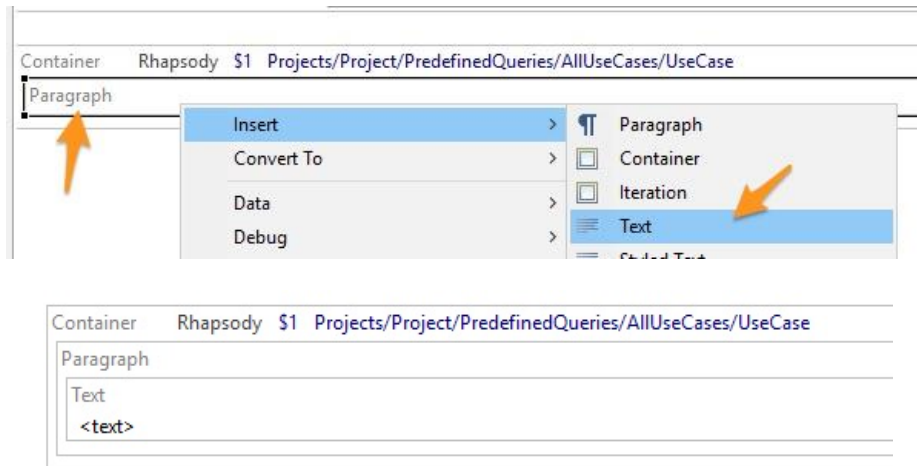
Container Rhapsody \$1 Projects/Project/PredefinedQueries/AllUseCases/UseCase

2. Add the Use Case Name:

- a. Right-click the **container** and select **Insert → Paragraph**:

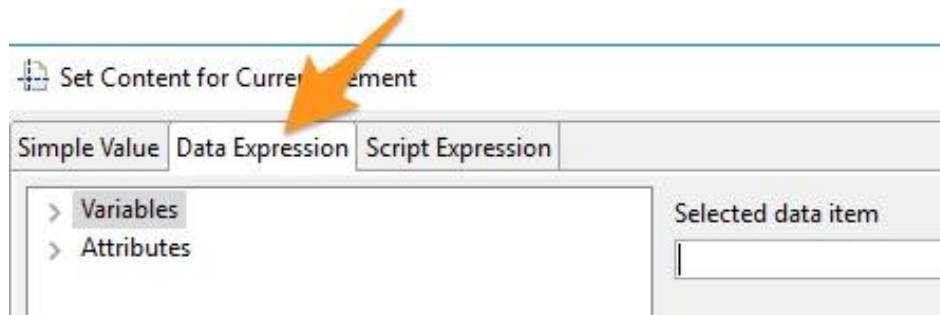


- b. Right-click the new paragraph container and select **Insert → Text**:



- c. **Double-click** the new **Text** container

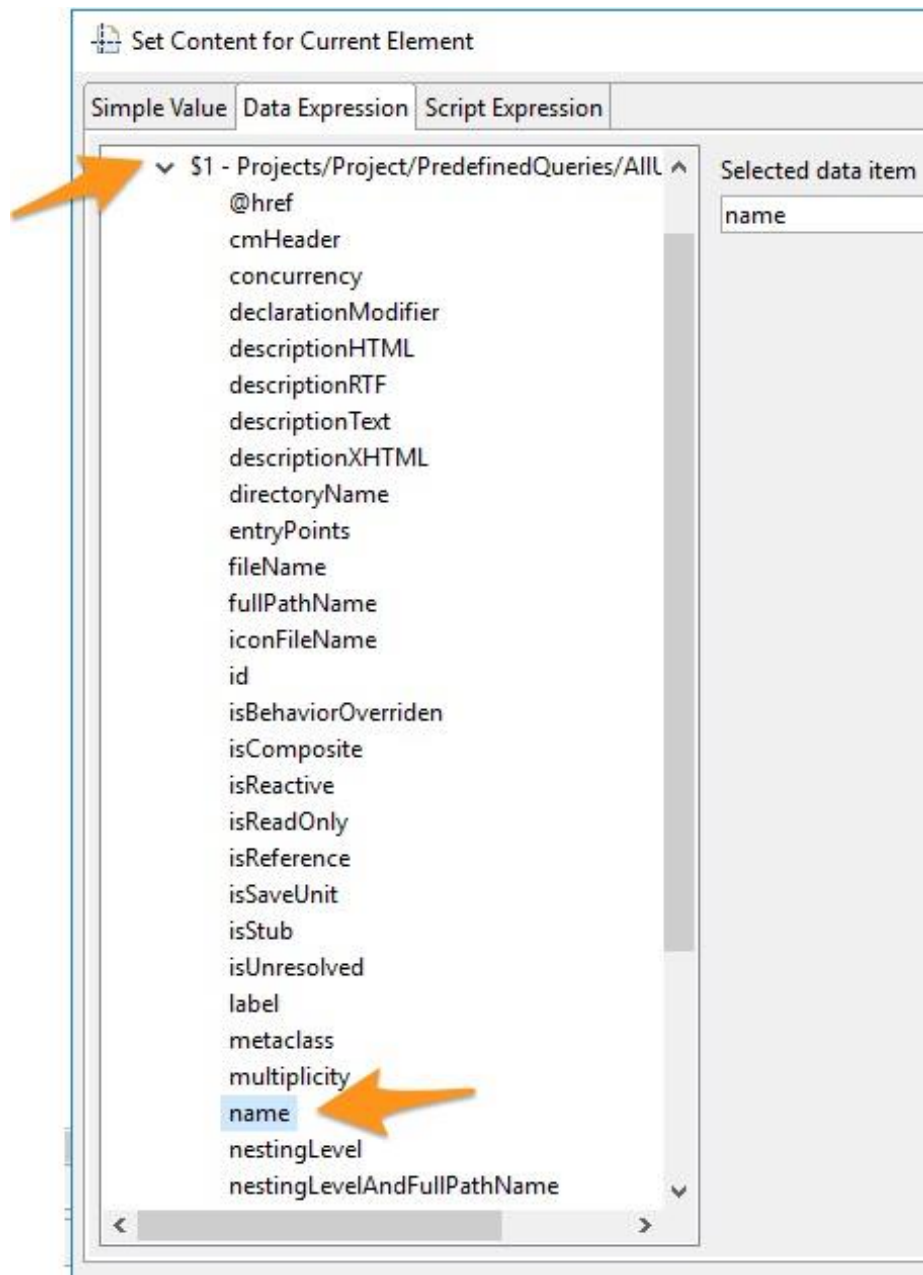
- d. In the **Set Content for Current Element** window, select the **Data Expression** tab:



- e. Expand the **Attributes** section

- f. Expand **\$1 Projects/Project/PredefinedQueries/AllUseCases/UseCase**

- g. Select the **name** attribute:

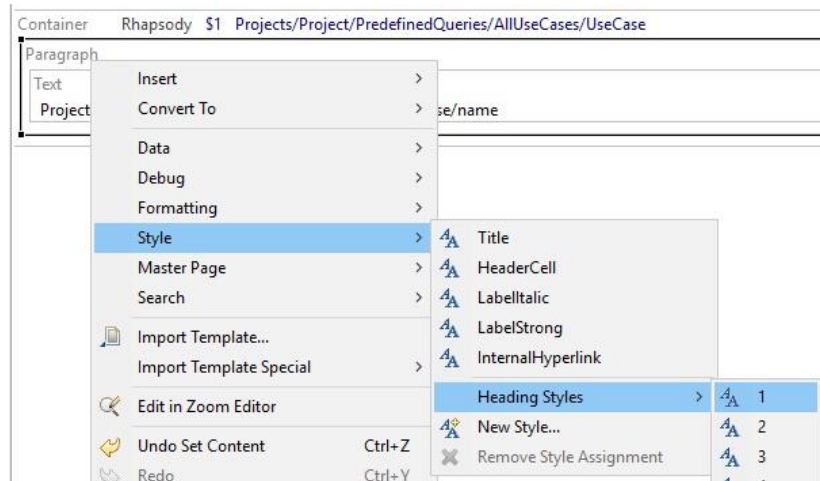


h. Click **OK**:

Container	Rhapsody	\$1	Projects/Project/PredefinedQueries/AllUseCases/UseCase
Paragraph			
Text			Projects/Project/PredefinedQueries/AllUseCases/UseCase/name

3. Apply a Style:

a. Right-click the **Paragraph** and select **Style → Heading Styles → 1**:



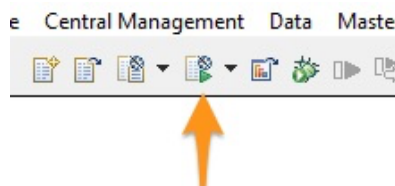
4. Record the Rhapsody REST server URI:
 - a. In the windows taskbar, switch to the Rhapsody REST server console
 - b. Highlight the **server URI** and **right-click** to **copy** it (alternatively simply make a note of it):

```

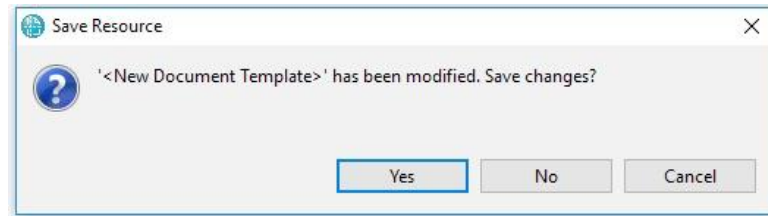
IBM Rational Rhapsody - Web Server

* -----
* IBM(R) Rational(R) Rhapsody(R) Web Server
* (C) Copyright IBM Corporation 2009 All Rights Reserved
* -----
* Creating server working configuration...
*   C:\Users\andy1\AppData\Local\Temp\RhpWebServerConfig_155114.443414
* Launching the server...
*
osgi> 2017-07-31 15:51:15.968::INFO: Logging to STDERR via org.mortbay.log.StdErrLog
2017-07-31 15:51:16.011::INFO:   jetty-6.1.x
2017-07-31 15:51:16.065::INFO: Started SocketConnector@0.0.0.0:27463
*
* Rhapsody Web server is running. The server address is:
*   http://localhost:27463/Rational/Rhapsody/
*
* * To stop the server, type CLOSE or EXIT and press ENTER
* =====
    
```

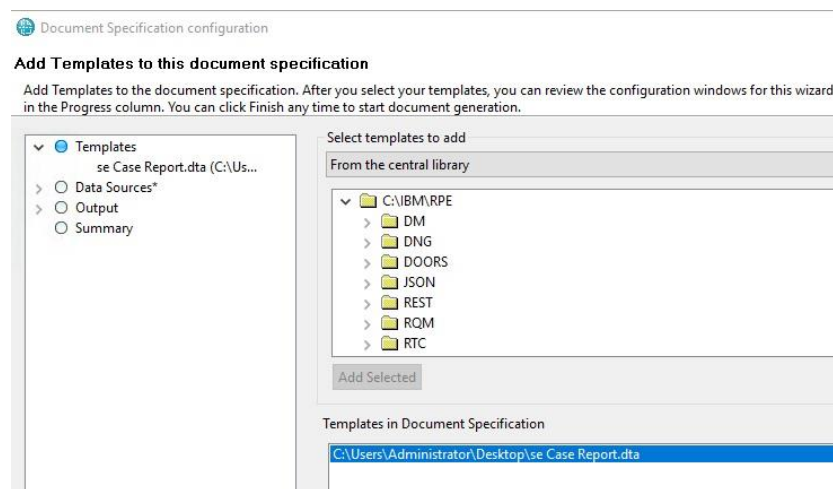
- c. Return to RPE Document Studio
5. Start the Report Configuration and Generation Wizard:
 - a. On the toolbar, click the **Generate Document** button:



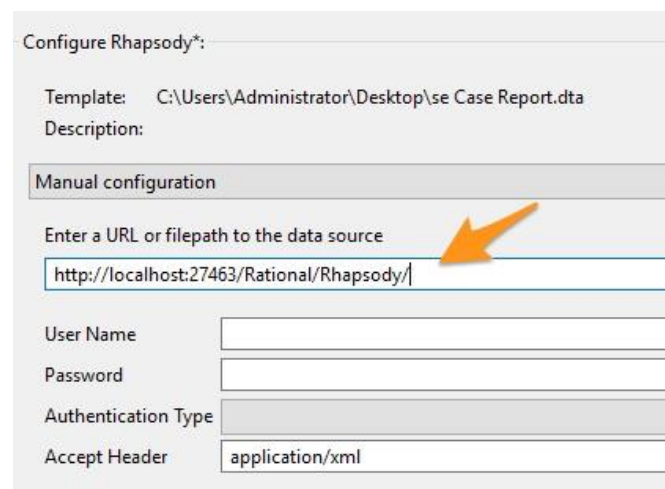
- b. Click **Yes** to save the template:



- c. Choose a location and a filename for the template (in this sample you can name it Use Case Report) and click **Save**
- d. The configuration wizard then starts:



- e. Click **Next**
- f. In the **Enter a URL or filepath to the data source** field, paste (or type in) the Rhapsody REST server address:



- g. Click **Next**
- h. Note that five output documents will be generated (in parallel). For each output a save location and a style sheet may optionally be selected:

Templates
Use Case Report.dta (C:\U...

Data Sources

Output

Html

Word

PDF

Excel

Xsifo

Summary

Configure Word output:

☒ Generate Word output

Save location:

Style sheet:

Macro name:

Configure PDF output:

☒ Generate PDF output

Save location:

Style sheet:

Configure HTML output:

☒ Generate Html output

Save location:

Style sheet:

Configure Xsifo output:

☒ Generate Xsifo output

Save location:

Configure Excel output:

☒ Generate Excel output

Save location:

i. Click **Next**

j. Note the Finish options:

Finish options

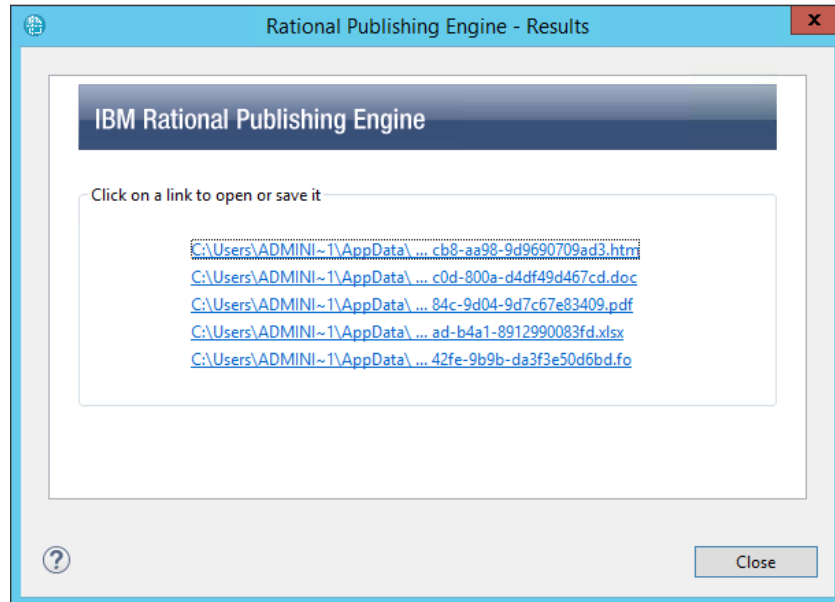
☒ Run the document generation

☐ Run the document generation and quit RPE

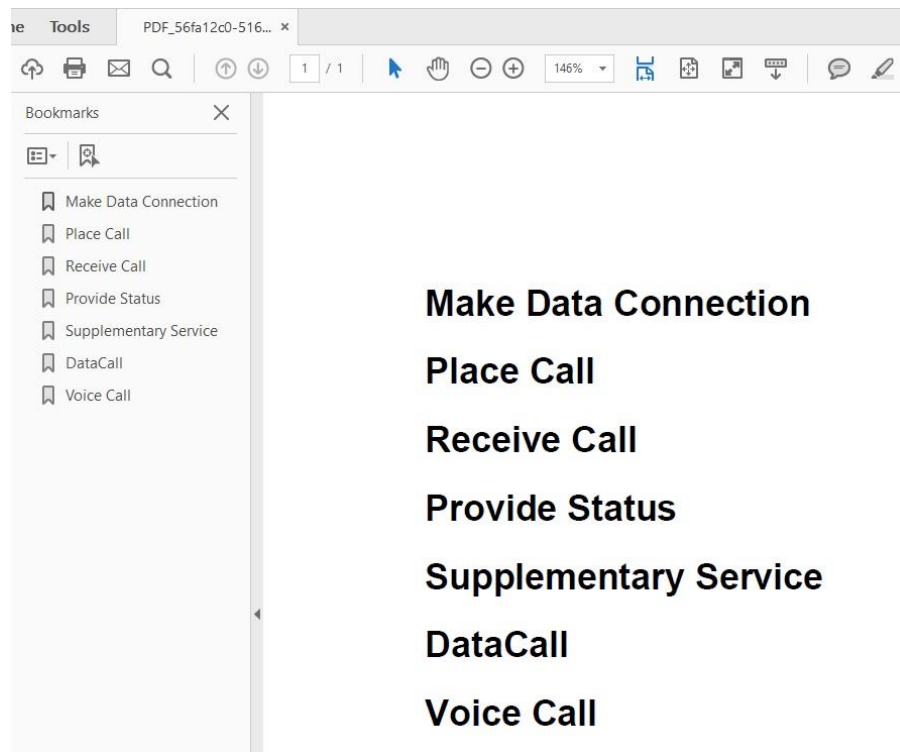
☐ Save and close this wizard without generating the document

k. Click **Finish**

l. The document is now generated in five output formats and a results window appears:

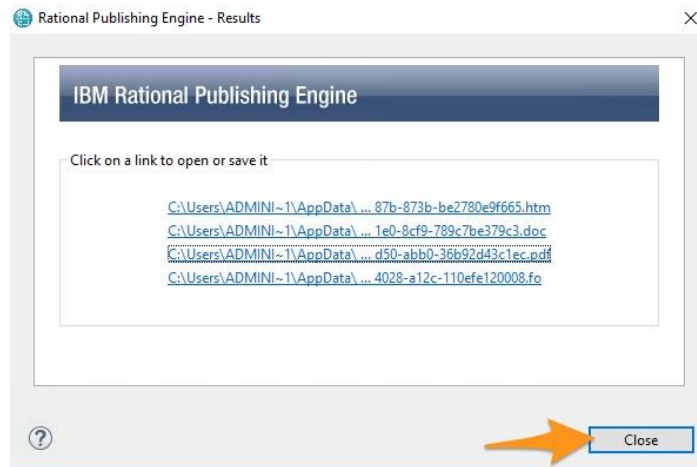


m. Click the result with the **.pdf** extension to open the generated PDF document:



n. Close **Acrobat Reader**

o. Click **Close** to close the results generation window:

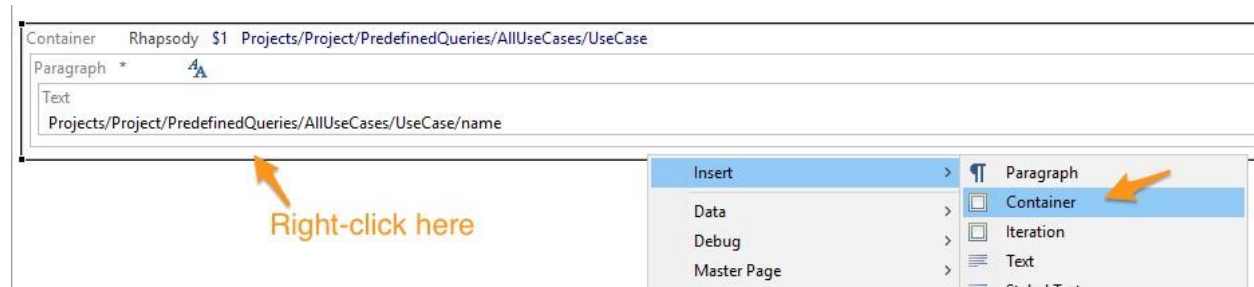


Task 5: Report on Linked Requirements

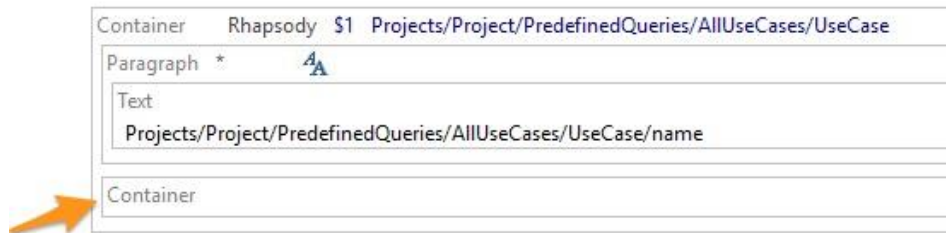
In this task, you will complete this simple template – adding a container that will report on the Remote Requirements linked to the Use Cases.

1. Add a Container to Iterate Over Dependencies:

- Right-click inside the \$1 Container – **after** the Paragraph – and select **Insert → Container**:

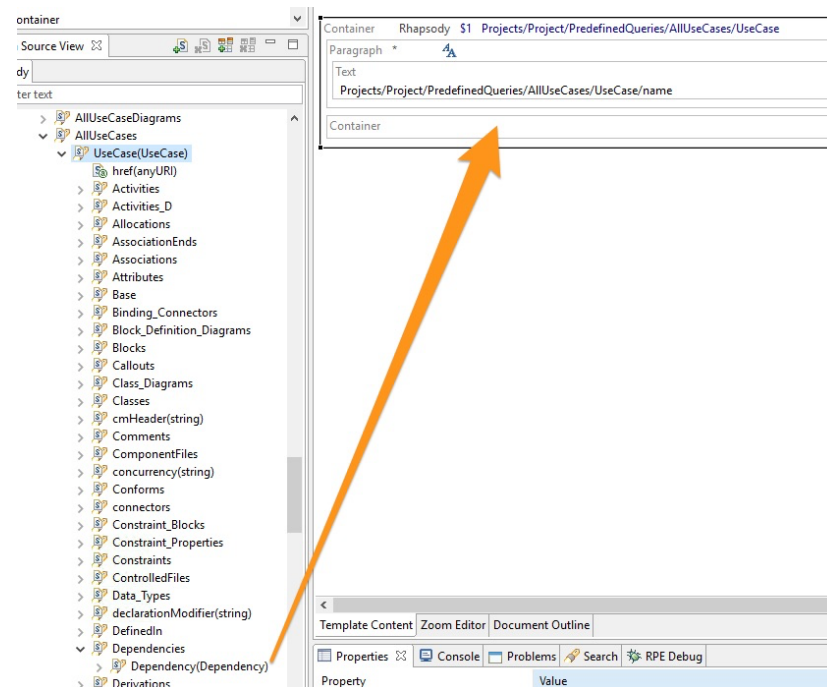


TIP: This should insert a container inside the \$1 container – after the paragraph:

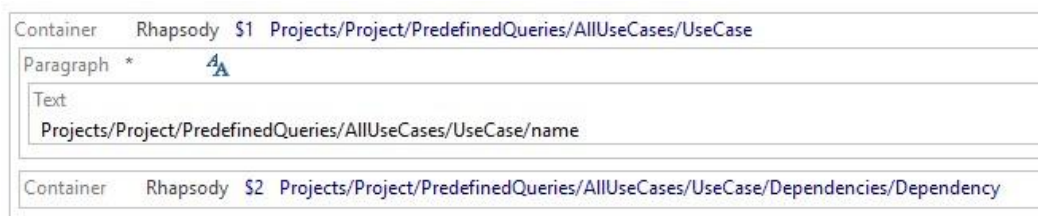
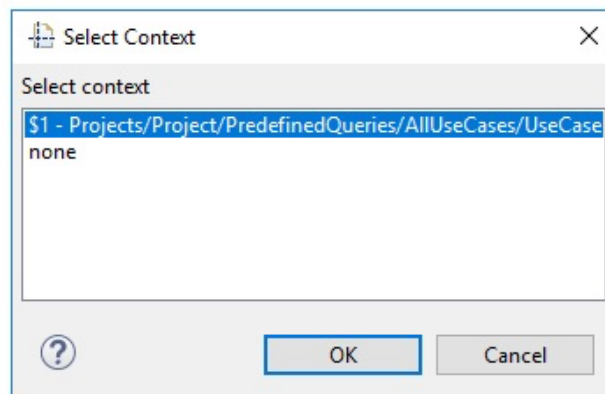


2. Iterate over Dependencies:

- In the **Data Source View** panel, scroll down and expand the **Dependencies** node (make sure you are looking at the child nodes of UseCase(UseCase))
- Drag the **Dependency(Dependency)** node onto the new container:

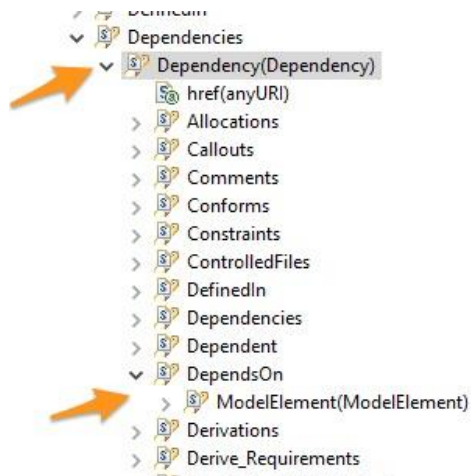


c. In the **Select Context** window, click **OK**:

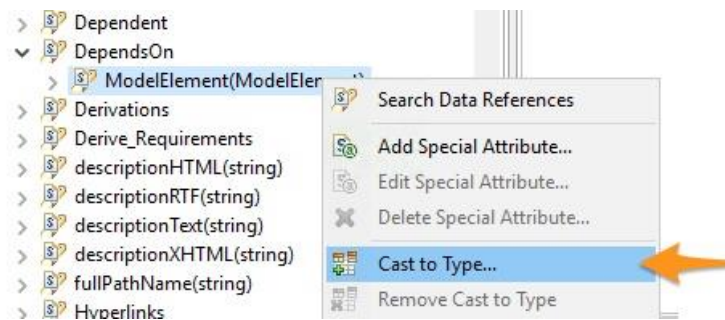


3. Cast Dependent Element to Requirement:

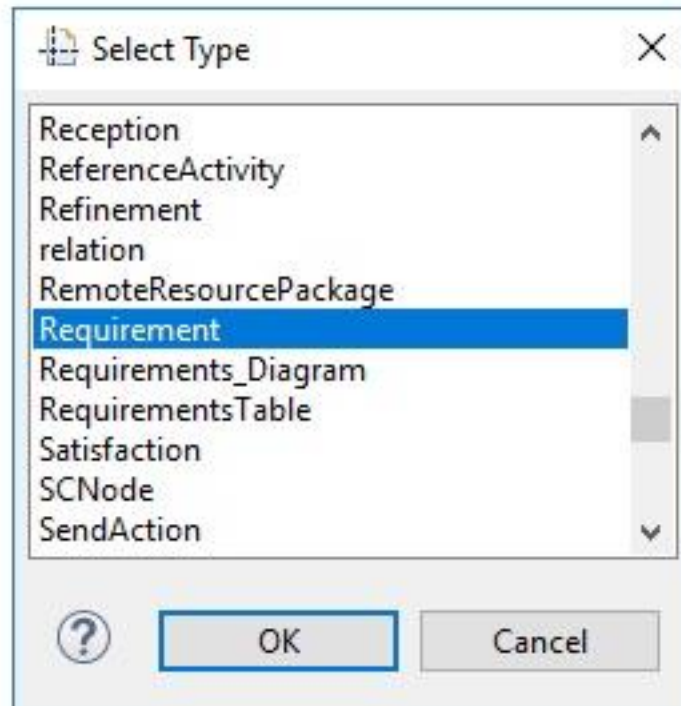
a. In the **Data Source View**, expand the **Dependency(Dependency)** node - then scroll down and expand the **DependsOn** node:



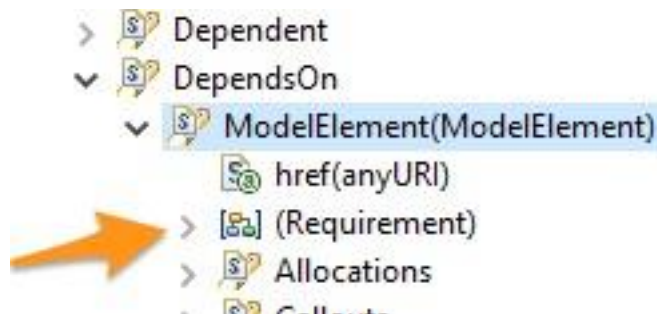
- b. Right-click the ModelElement(ModelElement) node and select **Cast to Type**:



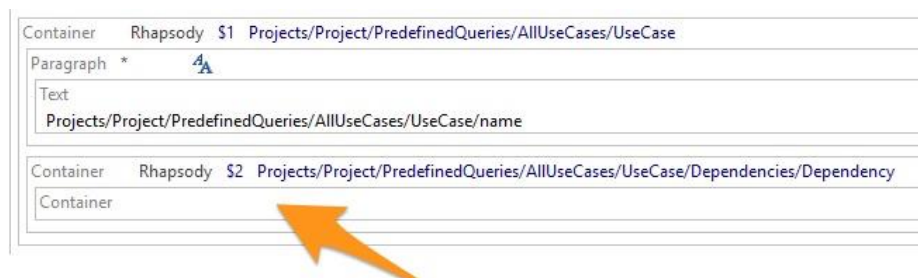
- c. In the **Select Type** window, select **Requirement** and click **OK**:



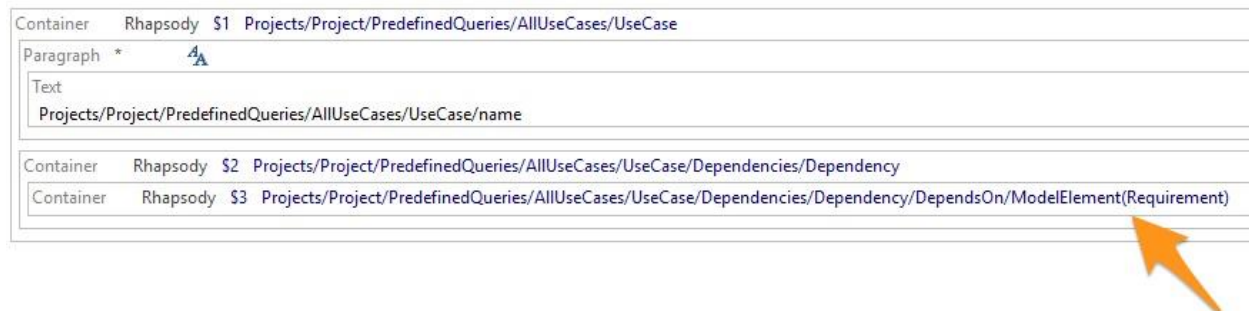
- d. In the **Data Source View** panel, expand the **ModelElement(ModelElement)** node and note that Requirement appears as a **node** under ModelElement:



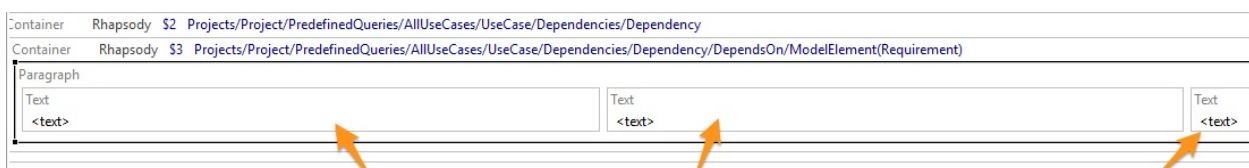
4. Add a Container to report on Requirements:
- In the Template, right-click the **\$2 Container** and select **Insert → Container**:



- Drag the **Requirement** node from the Data Source View to the new Container and click **OK** in the **Select Context** window:

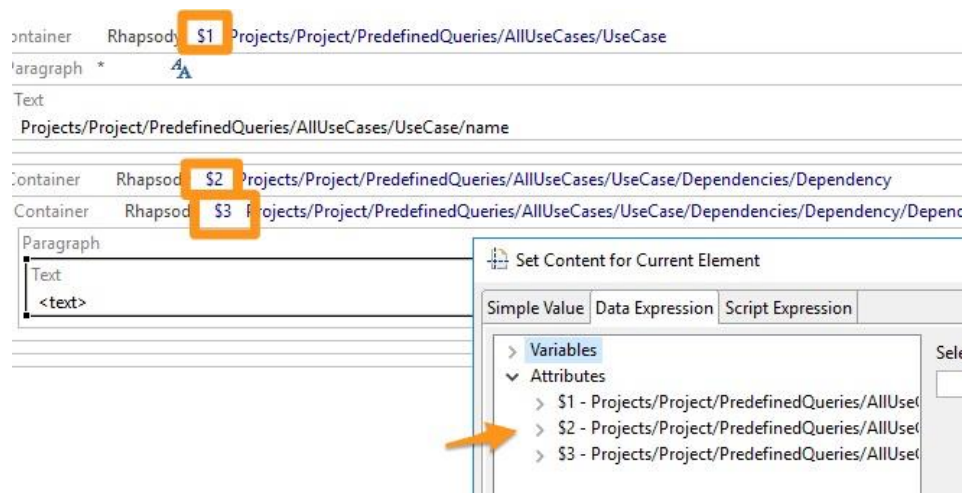


- c. Right-click the **\$3 Container** and select **Insert → Paragraph**
- d. Right-click the new **Paragraph** and select **Insert → Text**
- e. **Repeat** step (d) **twice** more – you should now have three text elements inside the Paragraph:

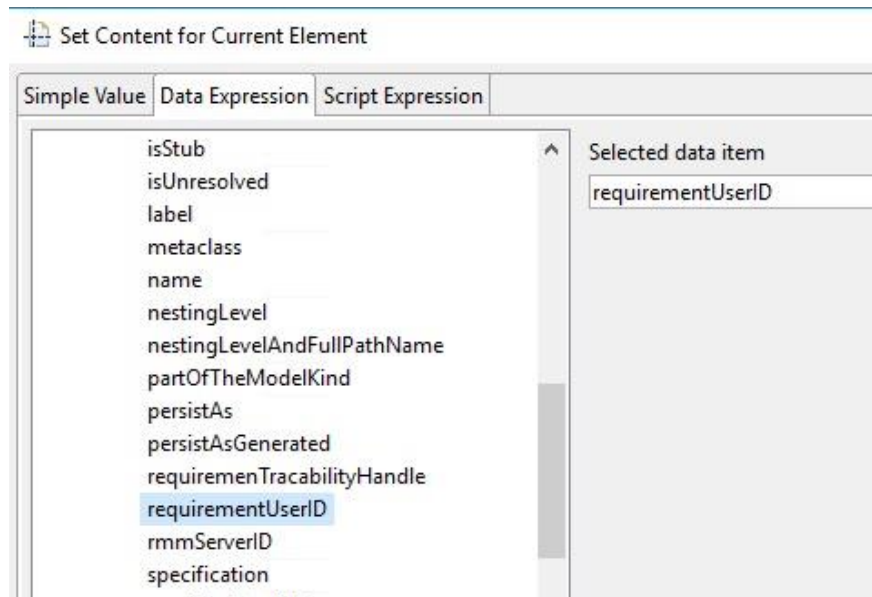


5. Report the Requirement ID:

- a. Double-click the **first Text** container
- b. In the **Set Content for Current Element** window, select the **Data Expression** tab
- c. Expand the **Attributes** section
- d. Note that you may select attributes from any of the three contexts in the template:



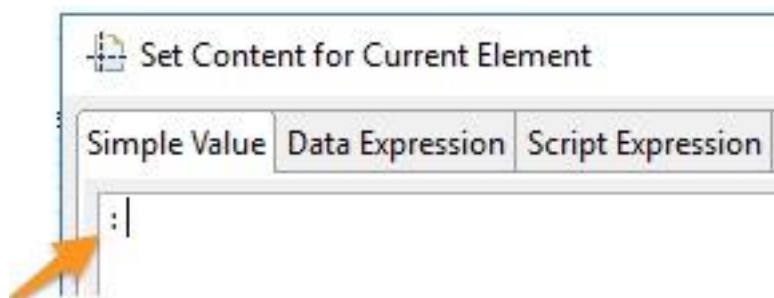
- e. Expand the **\$3** context and select **requirementUserID**:



f. Click **OK**

6. Report the Requirement Specification:

- a. Double-click the **third Text** container and repeat the above steps – this time selecting the **specification** attribute
- b. Double click the **second Text** container and in the Simple Value tab, type : (that is a space, followed by a colon, followed by another space – this is to separate the ID and the Specification in the report):



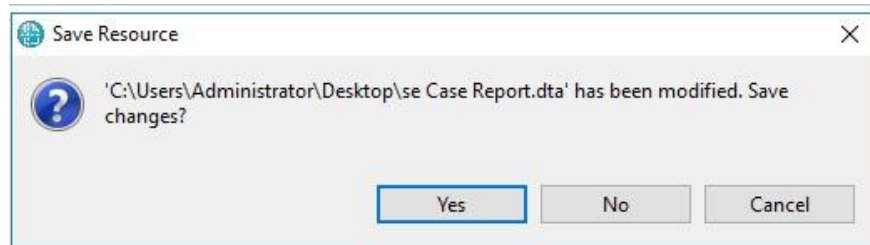
c. Click **OK**

7. Generate the Report:

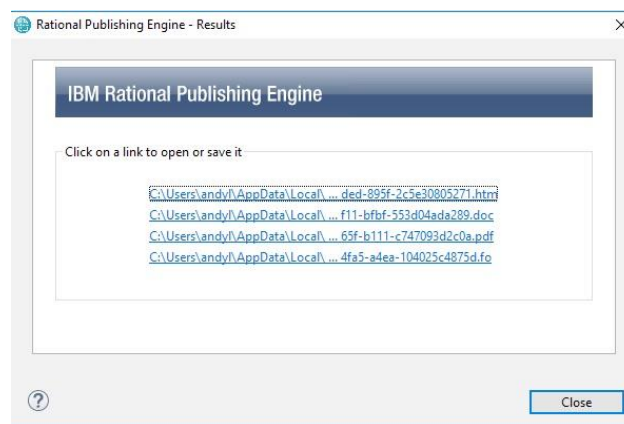
- a. On the toolbar, click the **Generate Document** button:



- b. Click **Yes** to save the template:



- c. The configuration wizard then starts
- d. Click **Finish**
- e. The document is now generated in all four output formats and a results window appears:



- f. Click the result with the **.pdf** extension to open the generated PDF document – note the linked requirements in the report:

Make Data Connection

1999 : The system shall admit unexpected vehicles when there are unutilized spaces.
2000 : The system shall allow vehicles to leave when payment has been received
2001 : The system shall prevent vehicles from leaving when payment has not been received
2002 : The system shall inform the guest that he is at the wrong parking lot when there is insufficient availability at the current lot

Place Call

1999 : The system shall admit unexpected vehicles when there are unutilized spaces.

Receive Call

Provide Status

Supplementary Service

DataCall

1998 : The system shall admit pre-authorized vehicles

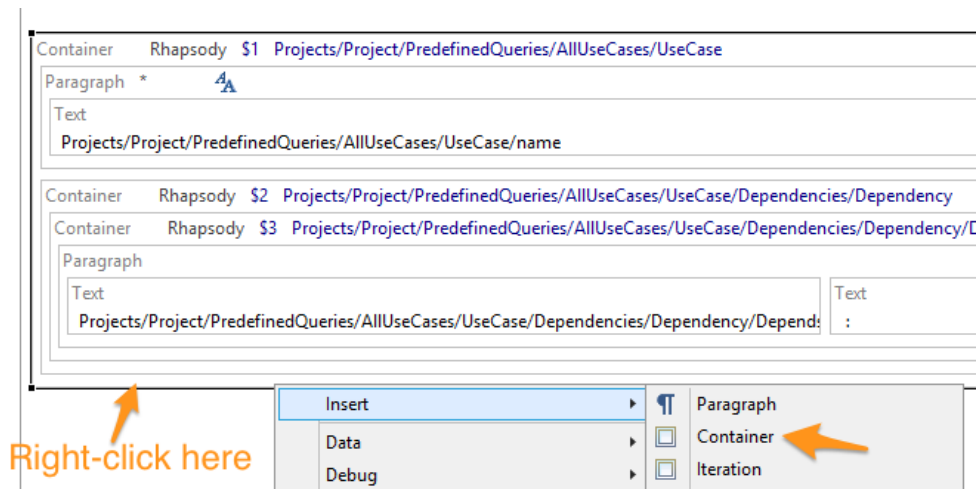
- g. Close Adobe Acrobat Reader
- h. Close the Results window

Task 6: Report on Linked Work Items

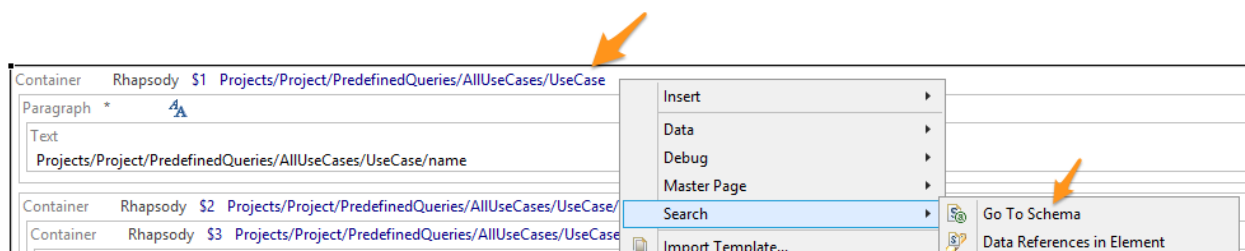
In this task you will extend your template to report on linked work items.

1. Add an Elaborates container:

- a. Right-click inside the **\$1 UseCase** container – **after** all of the existing **child** containers – and select **Insert** → **Container**:

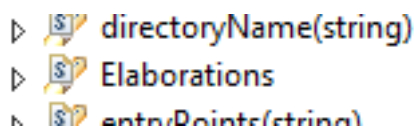


- b. Right-click the outer **\$1 UseCase** container and select **Search** → **Go to Schema**:

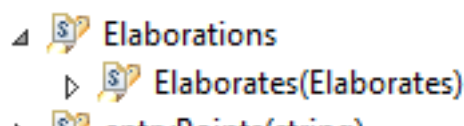


TIP: This is a quick and easy way to find a specific element in the Data Source View panel

- c. In the **Data Source View** panel, scroll down and locate the **Elaborations** node (Make sure you are looking under the UseCase(UseCase) node):

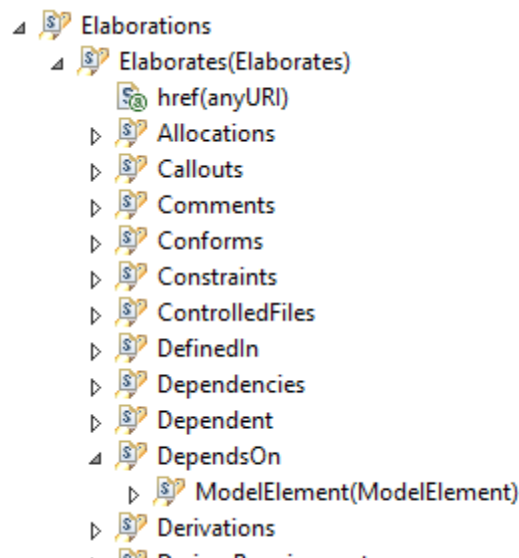


- d. Expand the **Elaborations** node:

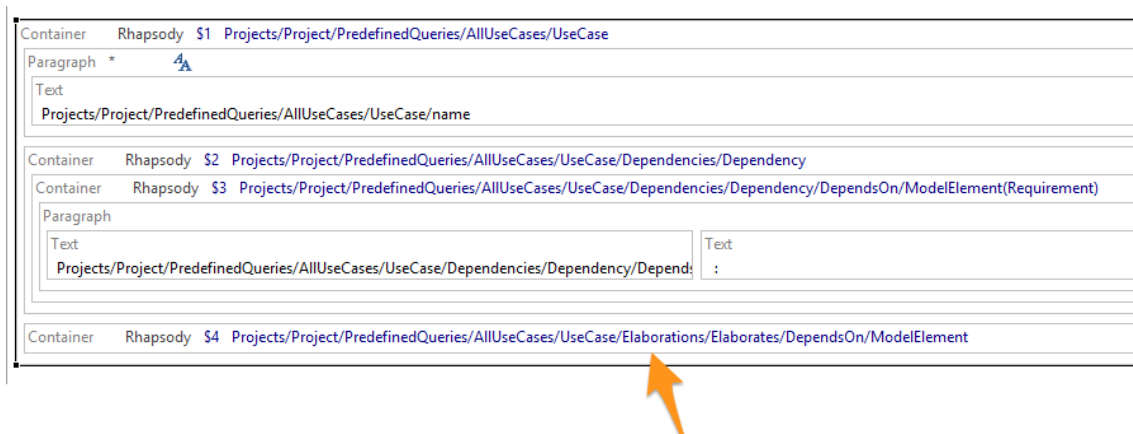


- e. Expand the **Elaborates(Elaborates)** node

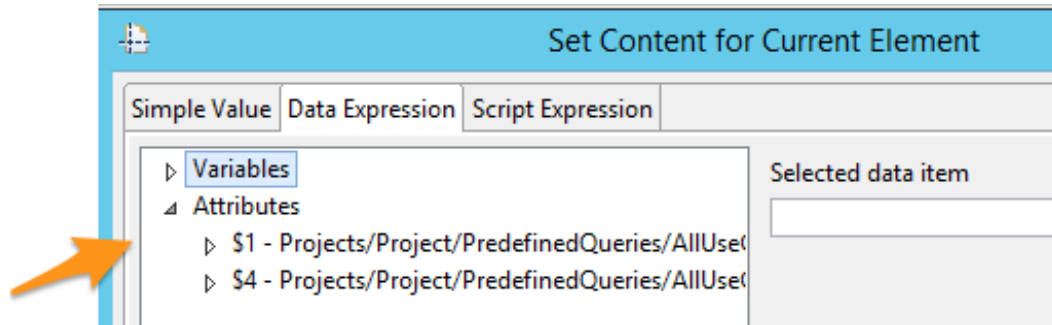
- f. Scroll down and locate (and expand) the **DependsOn** node:



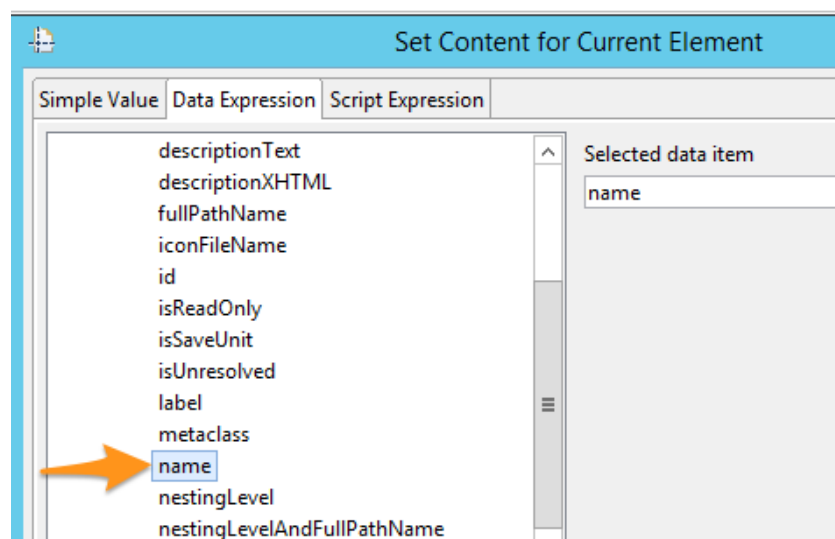
- g. Drag the **ModelElement(ModelElement)** node onto the new container and click **OK**



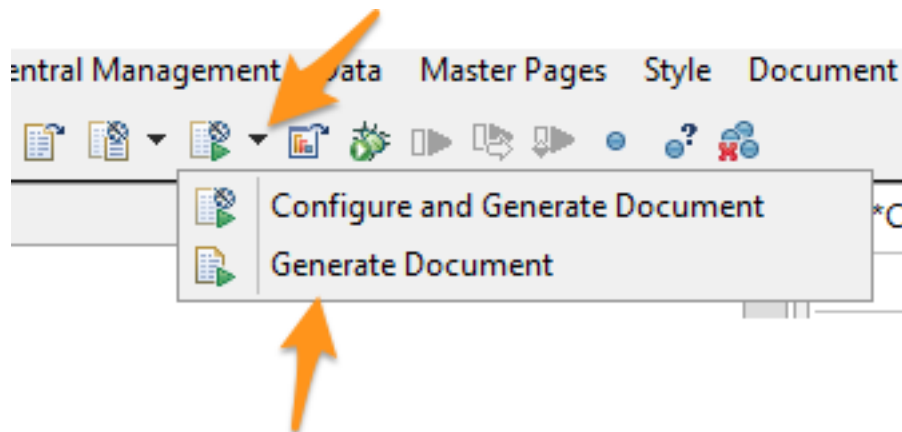
- h. Right-click the **\$4** container and select **Insert → Paragraph**
- i. Right-click the new **Paragraph** container and select **Insert → Text**
- j. **Double-click** the new **Text** container
- k. Select the **Data Expression** tab
- l. Expand the **Attributes** section:



- m. Expand the **\$4** section
- n. Select the **name** attribute:

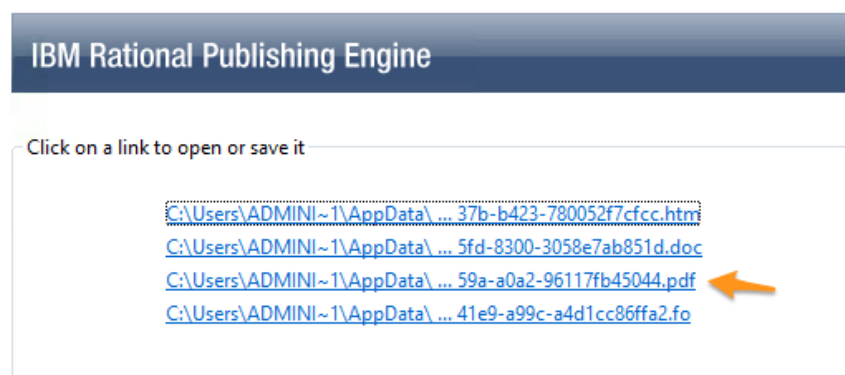


- o. Click **OK**
- 2. Publish the document:
 - a. In the toolbar, click the **twisty** in the document generation button and select **Generate Document**:



TIP: This bypasses the document generation wizard – since you have already configured the document generation it is no longer needed

- b. Click **Yes** to save the template
- c. Click the generated PDF to view it:



Linked work item

Make Data Connection

1999 : The system shall admit unexpected vehicles when there are unutilized spaces.

2000 : The system shall allow vehicles to leave when payment has been received

2001 : The system shall prevent vehicles from leaving when payment has not been received

2002 : The system shall inform the guest that he is at the wrong parking lot when there is insufficient availability at the current lot

287: Implement Data Connection Feature

Place Call

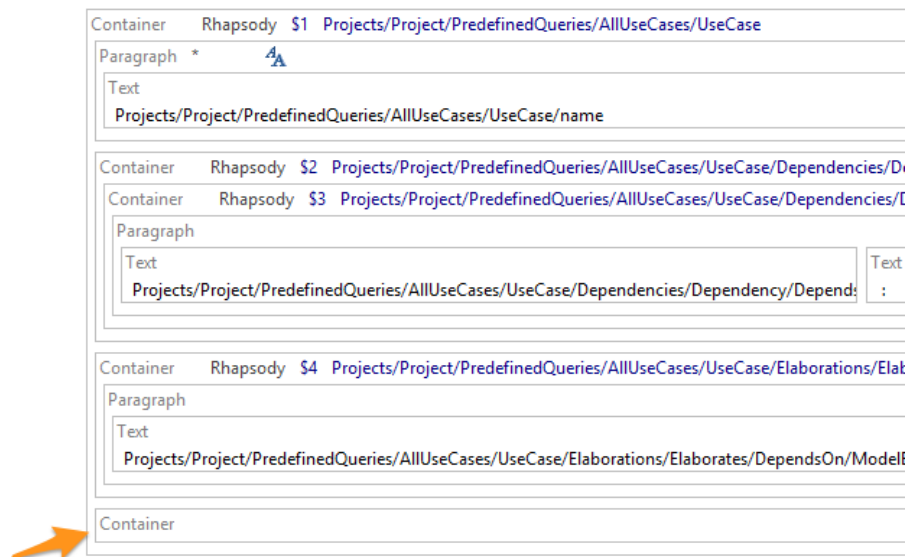
- d. Close Adobe Acrobat Reader
- e. Close the results window

Task 7: Report on Linked Test Cases

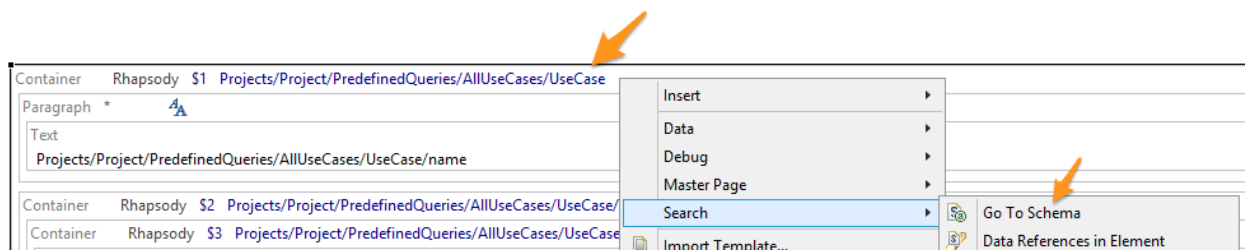
In this task you will extend your template further – this time reporting on linked test cases. You will also see how to include a hyperlink in the generated document that allows navigation to the linked remote artefact.

1. Add a Validated By container:

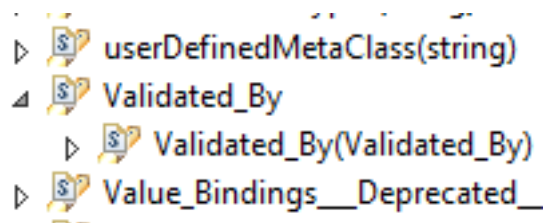
- a. Right-click inside the **\$1** container – again after all of the existing child containers – and select **Insert → Container:**



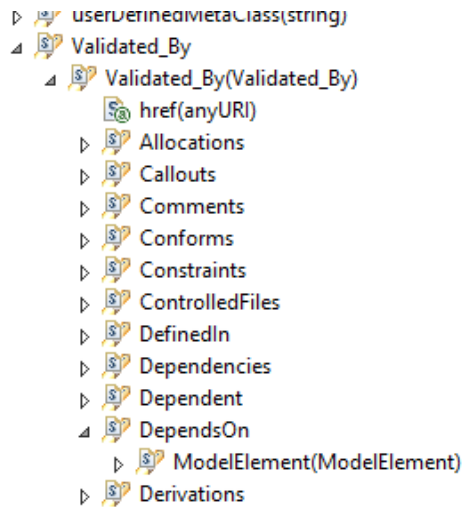
- b. Right-click the outer **\$1 UseCase** container and select **Search → Locate in Schema:**



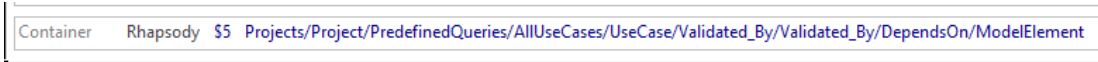
- c. In the **Data Source View** panel, scroll down and locate the **Validated_By** node (Make sure you are looking under the UseCase(UseCase) node:



- d. Expand the **Validated_By → Validated_By(Validated_By)** node
- e. Scroll down and locate (and expand) the **DependsOn** node:

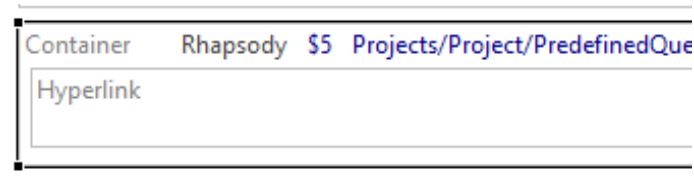


- f. Drag the **ModelElement(ModelElement)** node onto the new container and click **OK**



2. Add a hyperlink:

- a. Right-click the **\$5** container and select **Insert → Hyperlink**

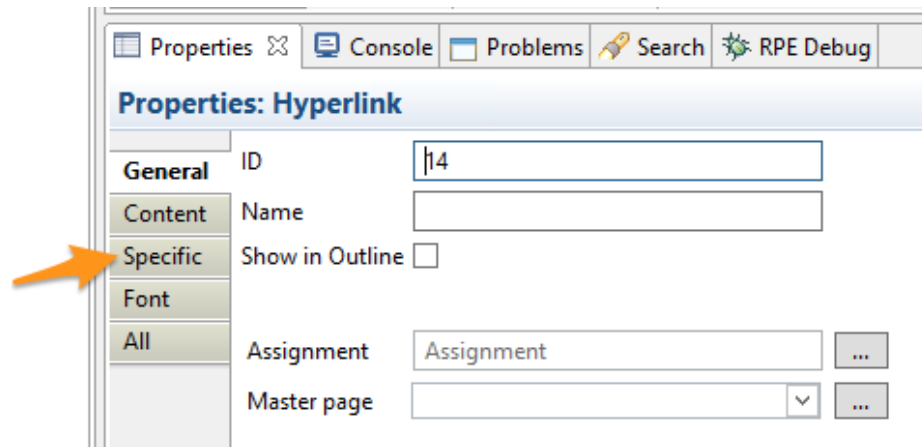


- b. Double-click the new Hyperlink container
- c. Select the **Data Expression** tab
- d. Expand the **Attributes** section
- e. Expand the **\$5** section
- f. Select the **remoteURI** attribute and click **OK**:

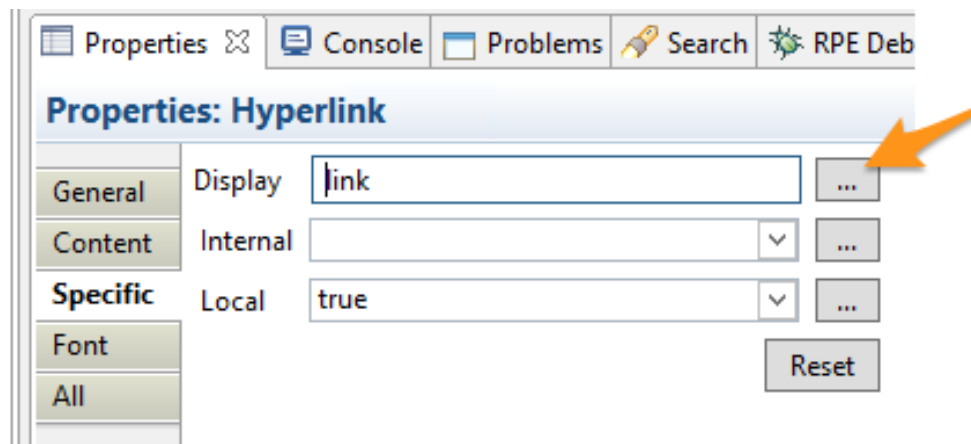


TIP: This defines the target of the hyperlink – you will now configure how the hyperlink will be displayed in the document

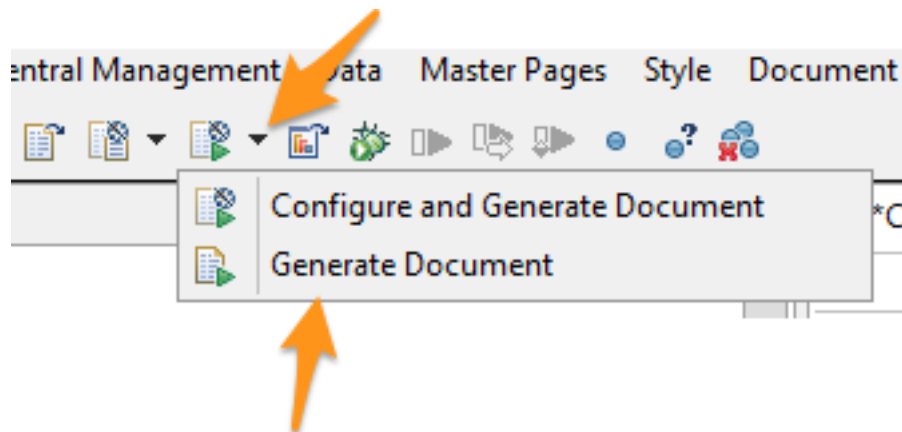
- g. At the bottom of the screen, in the **Properties** section, click the **Specific** tab:



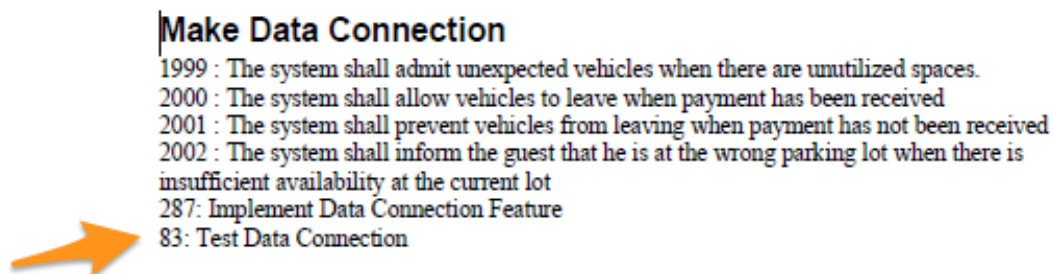
- h. In the **Display** field, click the **browse button** (...)



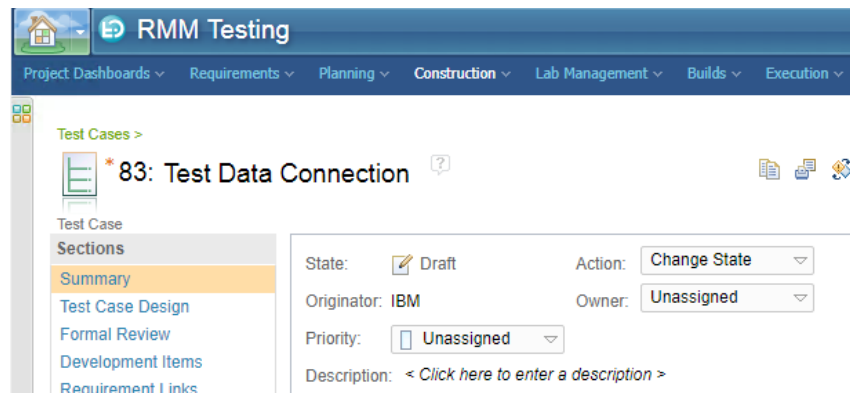
- i. Select the **Data Expression** tab
 - j. Expand the **Attributes** section
 - k. Expand the **\$5** section
 - l. Select the **name** attribute and click **OK**
3. Publish the document:
- a. In the toolbar, click the **twisty** in the document generation button and select **Generate Document**:



- b. Click **Yes** to save the template
- c. Click the generated PDF to view it
- d. Note the included **Test Case**:



- e. Click the Test Case link in the document to open it in Rational Quality Manager

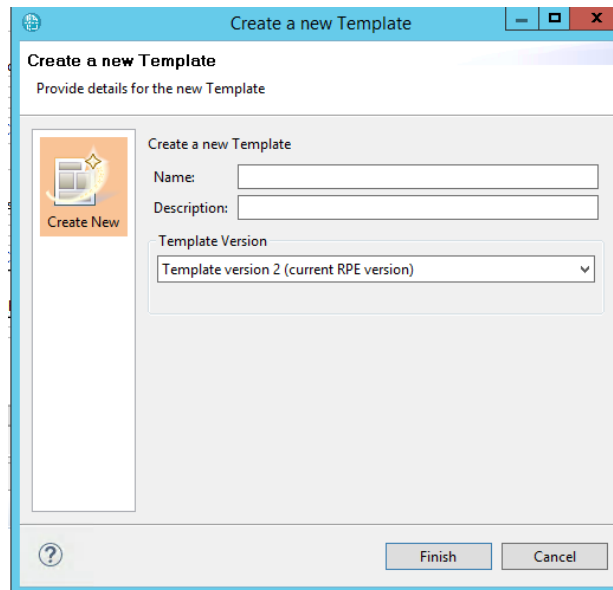


Task 8: Report on RMM

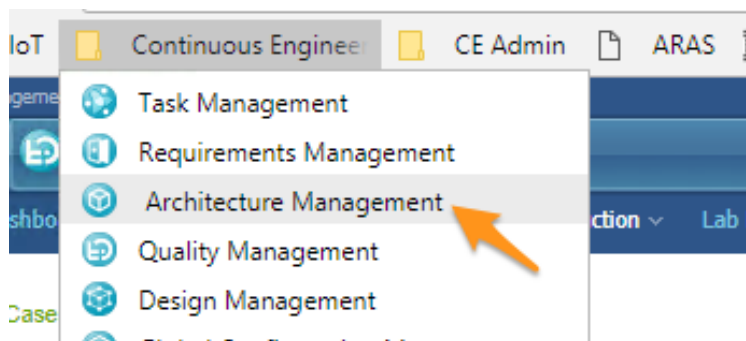
In this task you create a new template that reports directly on the RMM server. In this case you will report on the model in RMM, along with its linked artifacts. Note that you could also report in the other direction – for example a DNG Requirements module report that includes linked model data – refer to the full RPE training class for details.

1. Create a New Template:
 - a. Close Adobe Acrobat Reader
 - b. Switch back to RPE Document Studio

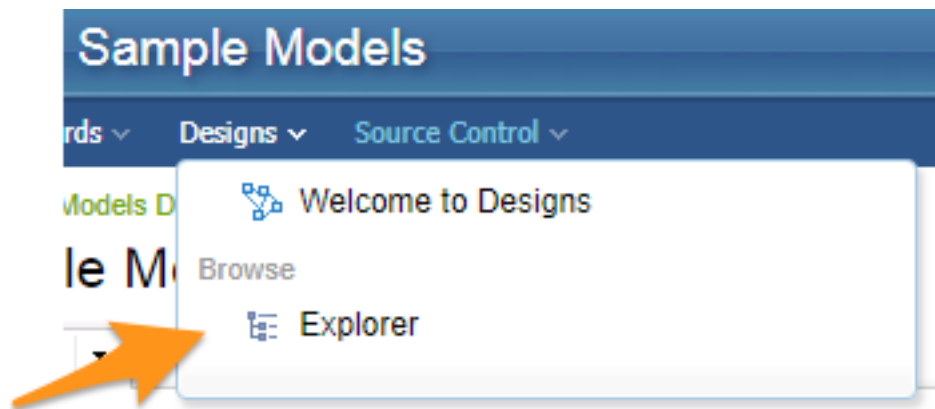
- c. Close the results window
- d. Select the menu entry **File → New → Document Template**
- e. Click **Finish**:



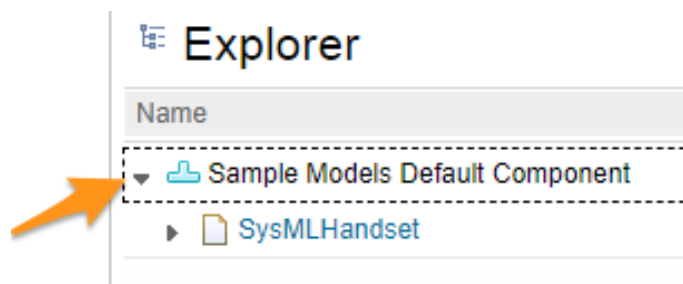
- 2. Obtain the URL of an RMM project:
 - a. Open a web browser and navigate into Architecture Management (or use the browser shortcut)



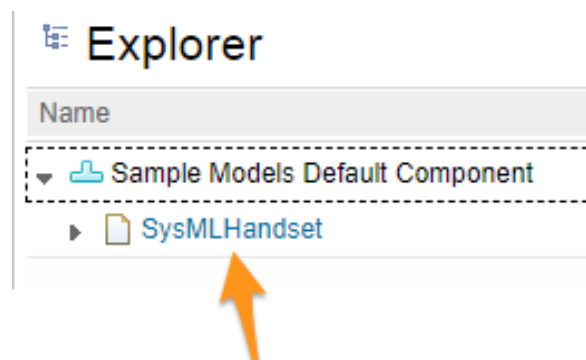
- b. Click the **Sample Models** project to open it
 - c. Select **Designs → Explorer**:



- d. Expand the **Sample Models Default Component**:



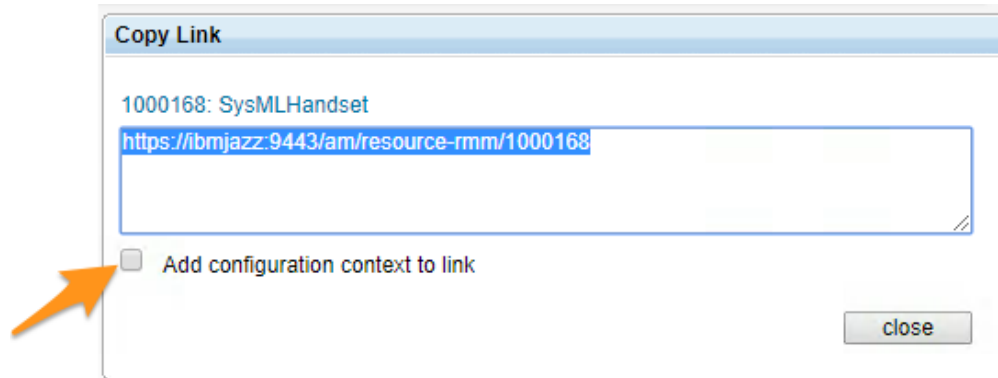
- e. Click the **SysMLHandset** model:



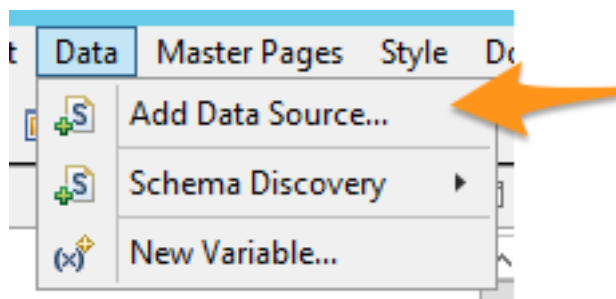
- f. In the breadcrumb, click the **link** button at the end:



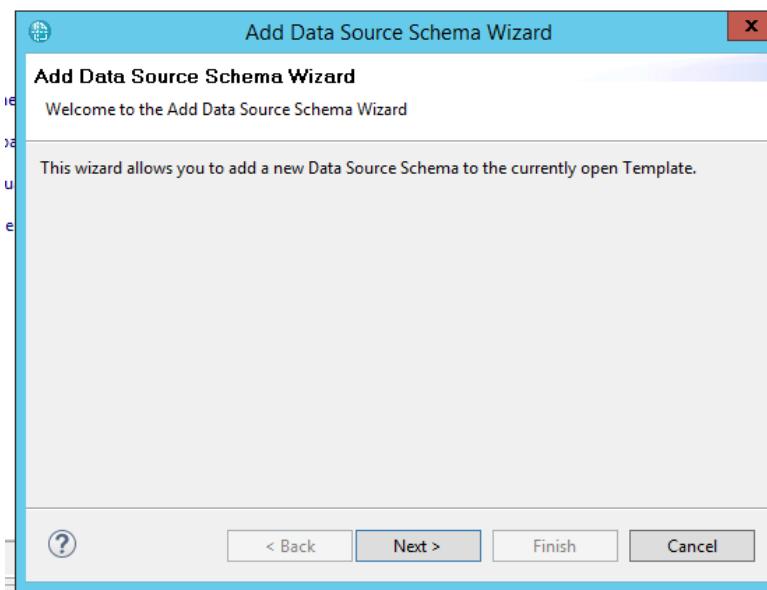
- g. Clear the **Add configuration context to link** checkbox:



- h. **Copy** the remaining text – you will need it in a moment in RPE Document Studio
- i. Click **close**
- 3. Add an RMM Data source:
 - a. Switch back to RPE Document Studio
 - b. From the menu, select **Data → Add Data Source**:



- c. Click **Next**:



- d. In the **Type** field, select **REST**:

Select a New Data Source Schema

Select a Data Source schema, its type and an identifier. Optionally provide a meaningful description.

Predefined	DS 1
Type	REST
Schema	<enter the file path or the URL to the schema (XSD file)>

e. In the **Schema** field, **paste** in the **URL** you copied from **RMM**

f. Add the text ?metatdata=schema to the end of that URL:

Select a New Data Source Schema

Select a Data Source schema, its type and an identifier. Optionally provide a meaningful description.

Predefined	DS 1
Type	REST
Schema	https://ibmjazz:9443/am/resource-rmm/1000168?metatdata=schema
Name	DS 1

g. In the **Name** field, type RMM

h. In the **User** field, type dan

i. In the **Password** field, type dan

j. In the **Extra Headers** field, select **Link:** <<http://jazz.net/ns/profile#POX>>; rel="profile"

Enter Details

Predefined: DS 1

Type: REST

Schema: jazz:9443/am/resource-rmm/1043647?metadata=schema [Browse...](#)

Name: RMM

Description: New data source.

Authentication

Authentication Type: Auto

User: dan

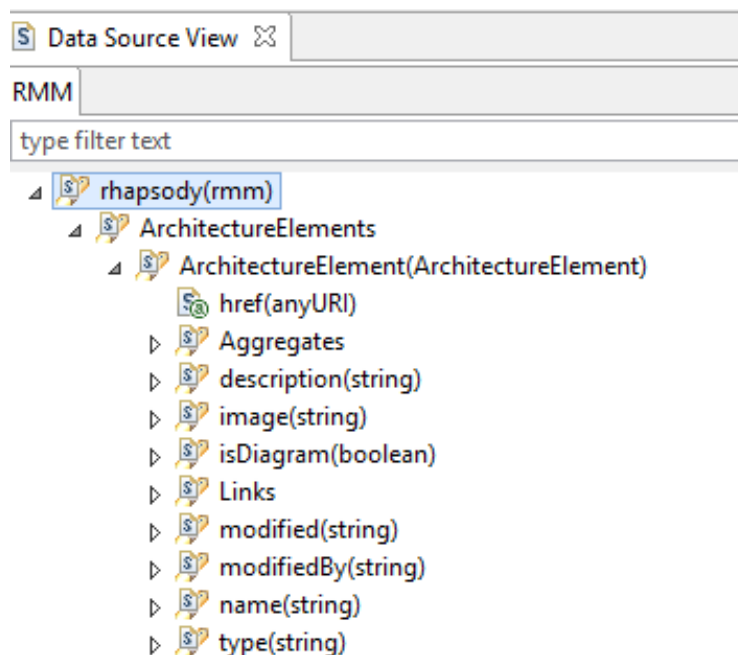
Password: ...

More Details

Extra Headers: Link: <http://jazz.net/ns/profile#POX>; rel= "profile"

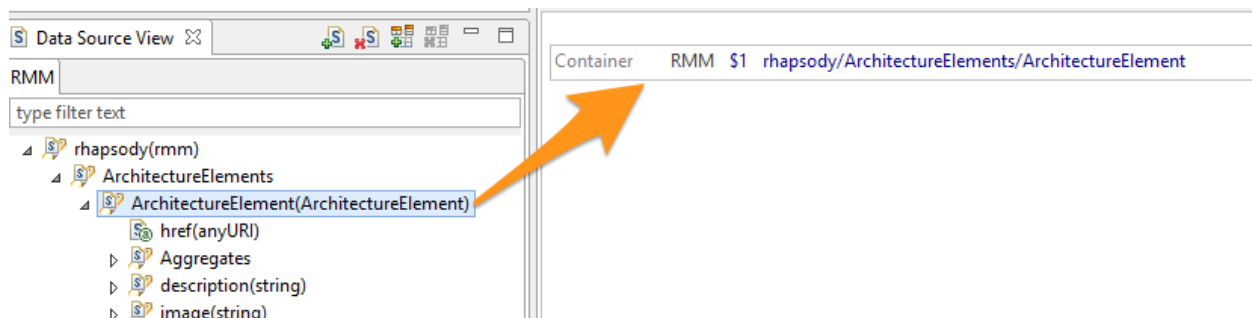
[?](#) [< Back](#) [Next >](#) [Finish](#) [Cancel](#)

- k. Click **Next**
- l. Click **Finish**
- m. Note the new Data Source in the **Data Source View**:

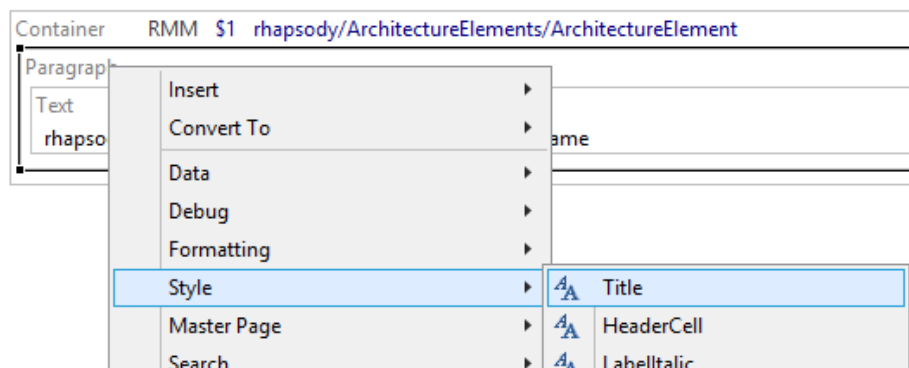


- 4. Report on Project
 - a. Right-click inside the empty template and select **Insert → Container**

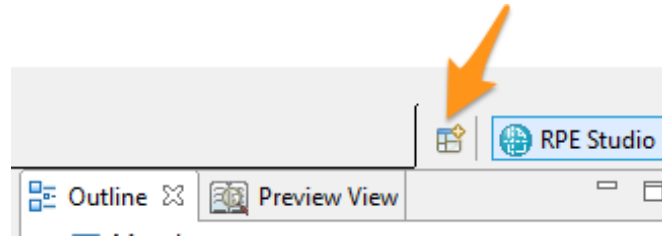
- b. Drag the ArchitectureElement(ArchitectureElement) node onto the new container:



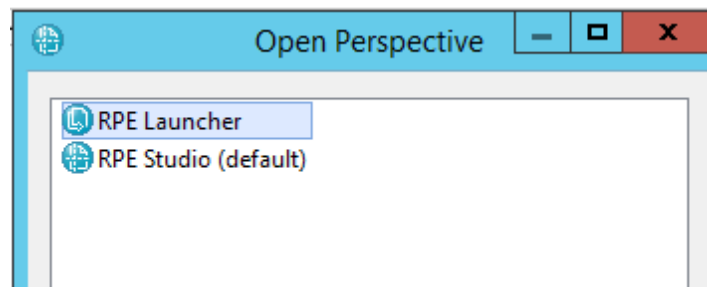
- c. Right-click the **\$1** container and select **Insert → Paragraph**
- d. Right-click the new Paragraph container and select **Insert → Text**
- e. Double-click the new **Text** container
- f. Select the **Data Expression** tab
- g. Expand the **Attributes** section
- h. Expand the **\$1** section
- i. Select the **name** attribute
- j. Click **OK**
- k. Right-click the **Paragraph** container and select **Style → Title**:



5. Save the Template:
 - a. From the menu, select **File → Save**
 - b. In the **File name** field, type RMM Report
 - c. Click **Save**
6. Configure the Data Source:
 - a. In the top, right-hand corner of the application, click the **Open Perspective** button:

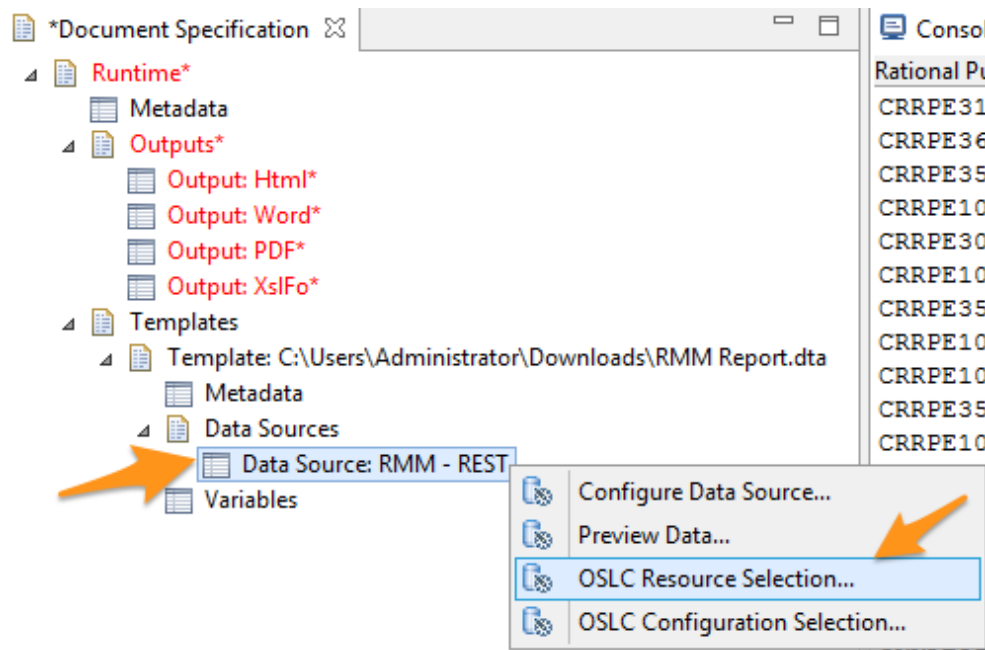


b. Select **RPE Launcher**:

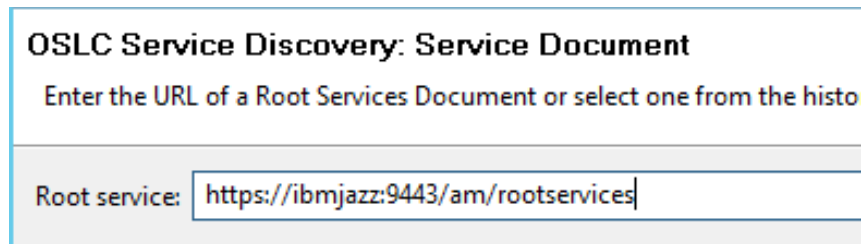


c. Click **OK**

d. In the **Document Specification** panel (the top, right-hand panel), right-click the **Data Source RMM – REST** and select **OSLC Resource Selection**:



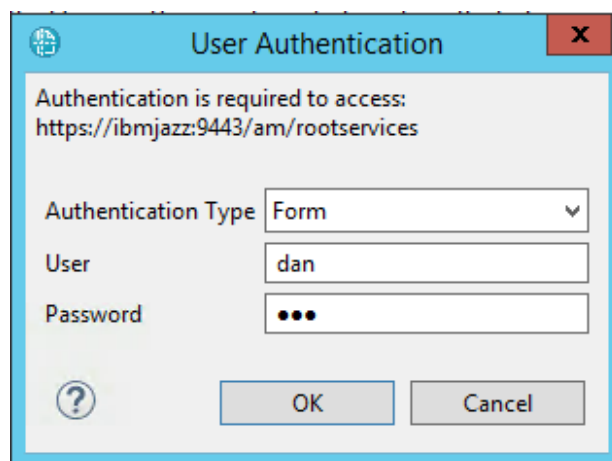
e. In the **Root service** field, type: `https://ibmjazz:9443/am/rootservices`



OSLC Service Discovery: Service Document
Enter the URL of a Root Services Document or select one from the history

Root service:

- f. Click **Next**
- g. In the **User** field, type dan
- h. In the **Password** field, type dan
- i. Click **OK**



User Authentication

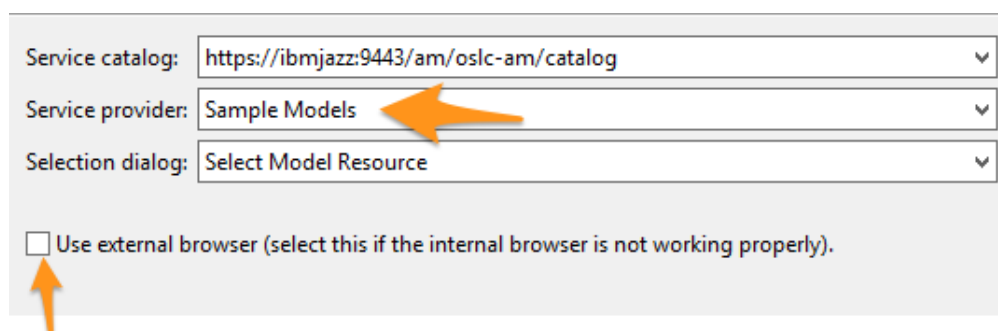
Authentication is required to access:
https://ibmjazz:9443/am/rootservices

Authentication Type:

User:

Password:

- j. In the **Service provider** field, select **Sample Models**
- k. **Clear** the **Use external browser** checkbox:



Service catalog:

Service provider:

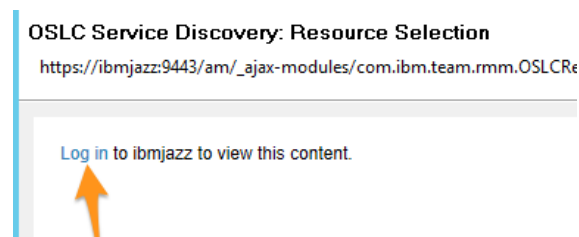
Selection dialog:

☐ Use external browser (select this if the internal browser is not working properly).

- l. Click **Next**
- m. Click **Yes**:

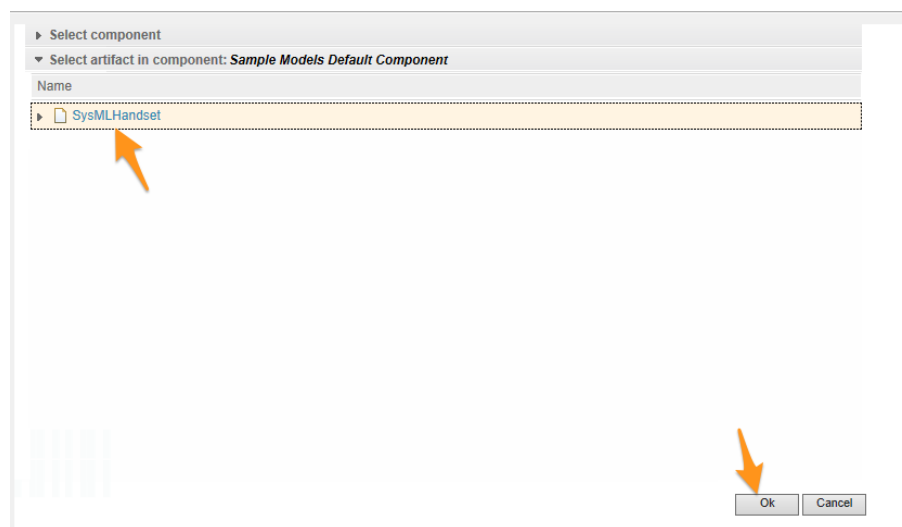


7. If necessary – click **Login** (and login as dan)



- a. Click **Sample Models Default Component**
- b. Click **SysML Handset** and click **OK**

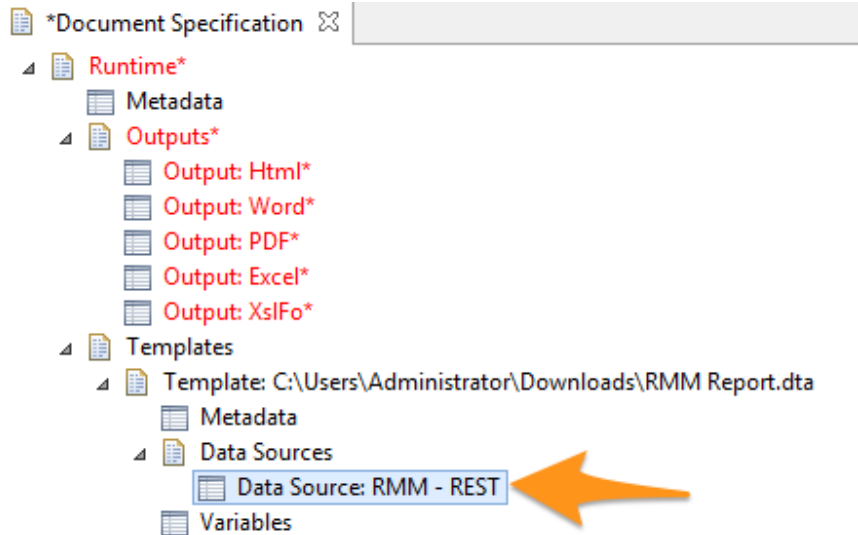
TIP: You may need to scroll to see the OK button – see below



- c. Click **Finish**

8. Add credentials:

- a. In the **Document Specification** panel, select the **Data Source: RMM – REST**:

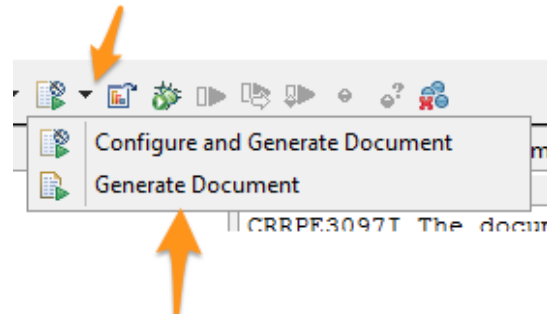


- b. In the **Properties** panel underneath it, type dan into both the User Name and Password fields:

Properties	
Property	Value
Name	RMM
Description	New data source.
Type	REST
Configuration Required	
Driver	eval
Default URI	
Read ahead allowed	true
URI	https://ihmiazz:9443/am/resource-rmm/1043647
User Name	dan
Password	*****
Cookies	

9. Generate a Report:

- a. Click the twisty in the **Generate Document** button in the toolbar and select Generate Document



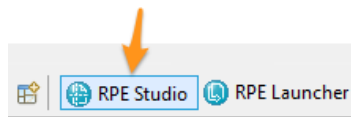
- b. Open the generated PDF and note that the project name is reported:

SysMLHandset

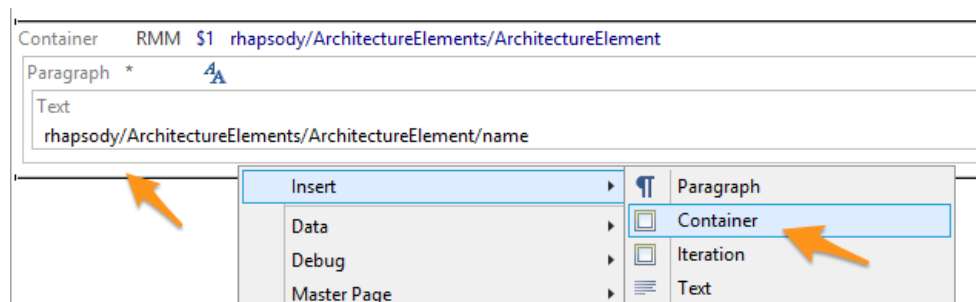
- c. Close Adobe Acrobat Reader
- d. Close the results window

10. Report on nested elements:

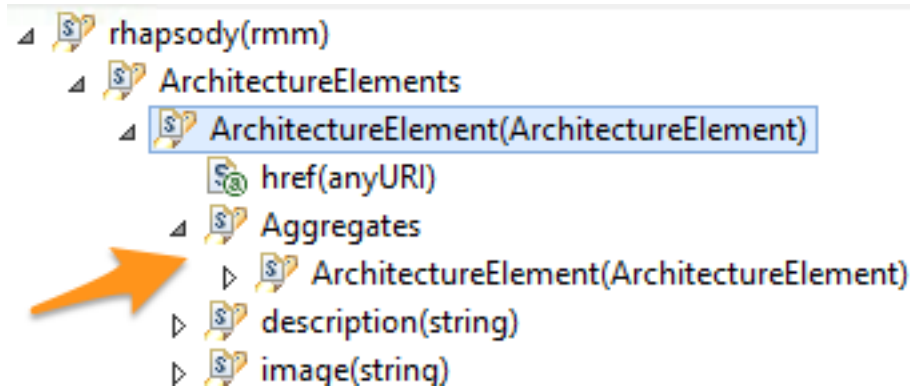
- a. In the top, right-hand corner of the application, click the **RPE Studio** button to return to editing the template



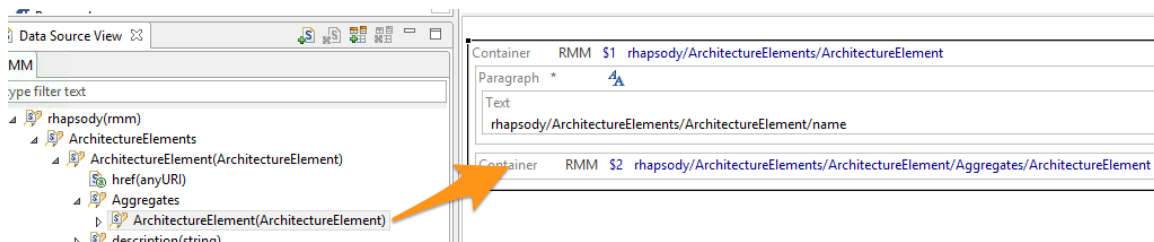
- b. Right-click inside the **\$1** container – after the existing child containers, and select **Insert → Container**:



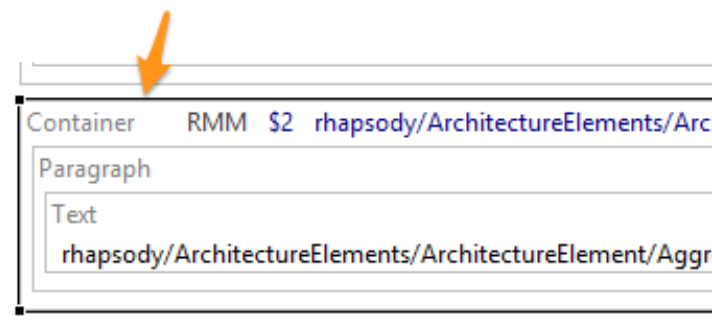
- c. In the **Data Source View** panel, expand the **Aggregates** node:



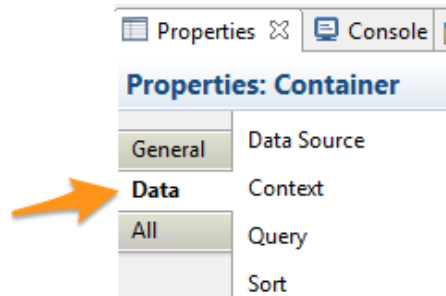
- d. Drag the **Aggregates** → **ArchitectureElement(ArchitectureElement)** onto the new container and click **OK**



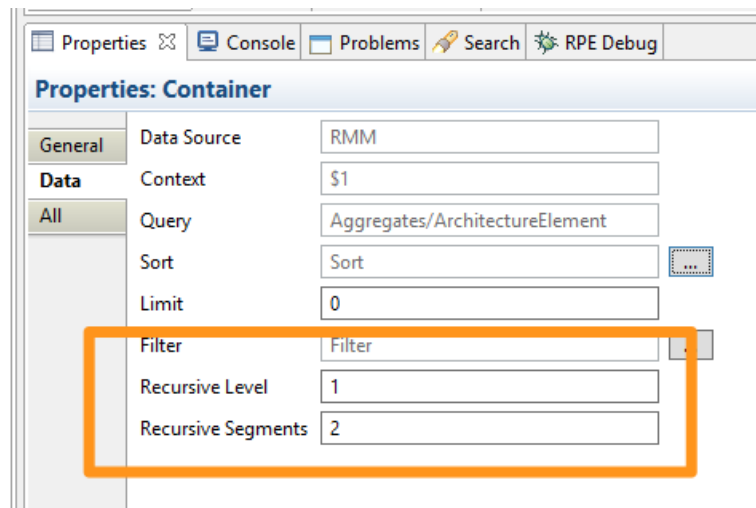
- e. Right-click the **\$2** container and select **Insert** → **Paragraph**
 - f. Right-click the new Paragraph container and select **Insert** → **Text**
 - g. Double-click the new Text container
 - h. Select the **Data Expression** tab
 - i. Expand the **Attributes** section
 - j. Expand the **\$2** section
 - k. Select the **name** attribute
 - l. Click **OK**
11. Recurse through the tree:
- a. Select the **\$2** container:



- b. In the **Properties** panel at the bottom, select the **Data** tab:

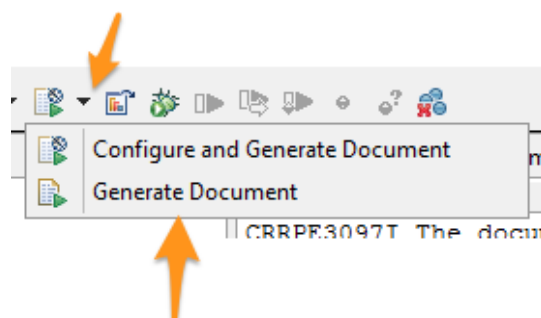


- c. In the **Recursive Level** field, type 1
- d. In the **Recursive Segments** field, type 2



12. Generate a Report:

- a. Click the twisty in the **Generate Document** button in the toolbar and select **Generate Document**



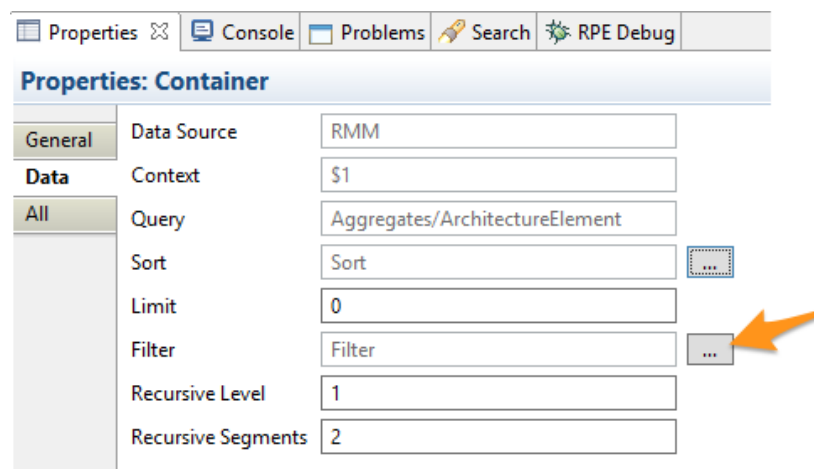
- b. Click **Yes** to save the template
- c. Open the generated PDF and note the document contains a lot more elements:

SysMLHandset

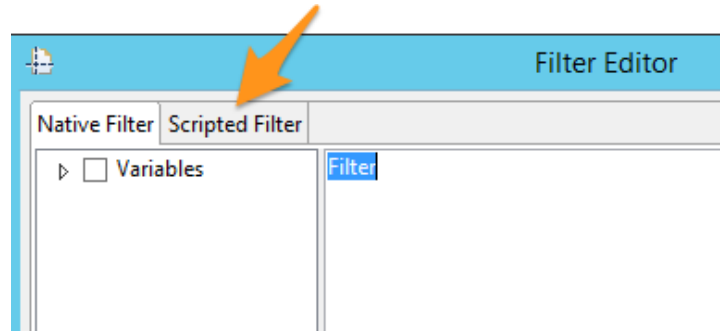
Analysis
 ConnectedDevice
 Functional Overview
 Place Call
 dBTS
 Performance
 Functional Overview
 UICompletion
 Architecture
 Req_3_2
 Overview
 Network
 UserParameters
 I1
 sina
 sinb
 location
 User
 evPlaceCall()

13. Filter on Packages or Use Cases:

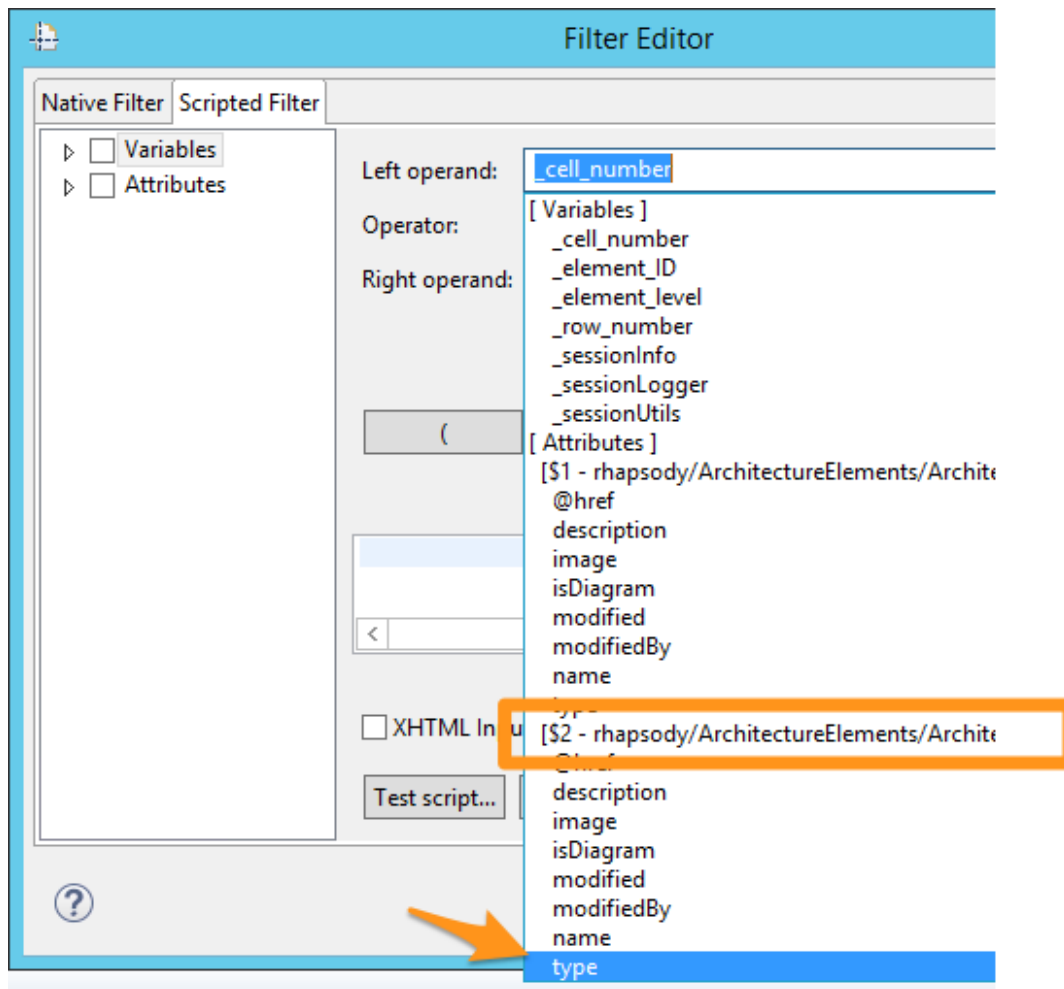
- a. Close Adobe Acrobat Reader
- b. Close the results window
- c. Select the \$2 container
- d. In the properties window at the bottom, select the **Data** tab
- e. Click the **Browse** button next to the **Filter** field:



- f. Select the **Scripted Filter** tab:



- g. In the **Left operand** field, select the **type** attribute under **\$2**:



- h. In the **Right operand** field, type `Package` and then click **Add**

Left operand: type

Operator: Equals

Right operand: Package

Add

(And Or Not)

Clear

type == "Package"

i. Click **Or**

Add

(And Or Not)

Clear

type == "Package" ||

j. In the **Right operand** field, type UseCase and then click **Add**

Left operand: type

Operator: Equals

Right operand: UseCase

Add

(And Or Not)

Clear

type == "Package" || type == "UseCase"

k. Click **OK**

14. Format headings:

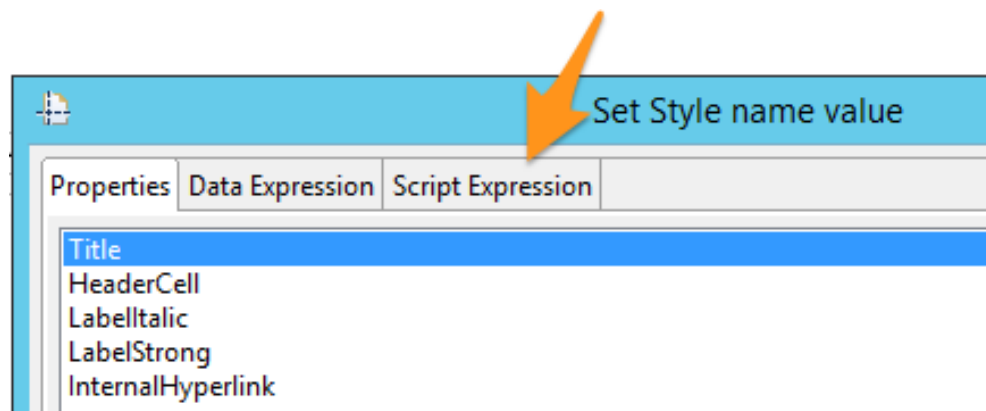
a. Select the **Paragraph** inside \$2

Container	RMM	\$2	rhapsody/Architecture
Paragraph			
Text			rhapsody/ArchitectureElements/Architecture

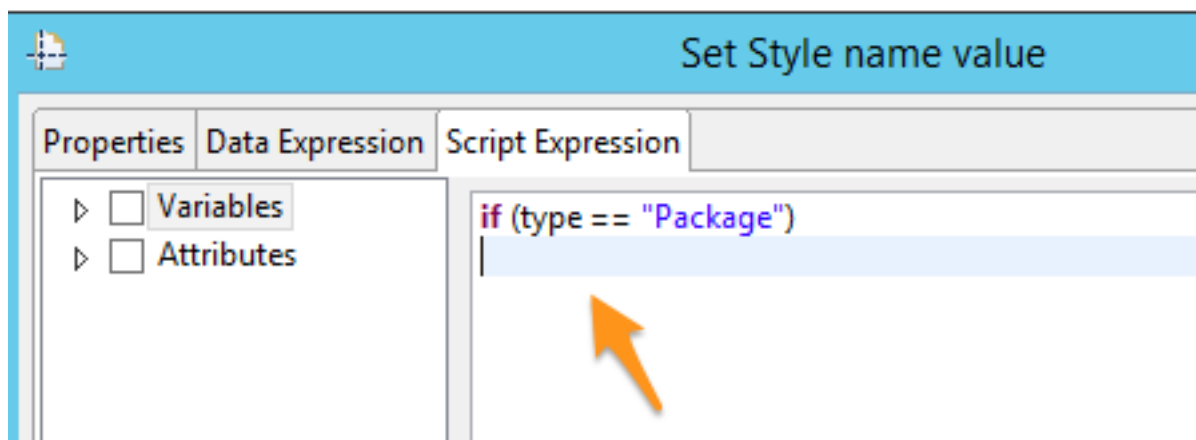
b. In the **Properties** panel at the bottom, select the **General** tab

c. In the **Style name** field, click the **Browse** button (...)

d. Select the **Script Expression** tab:

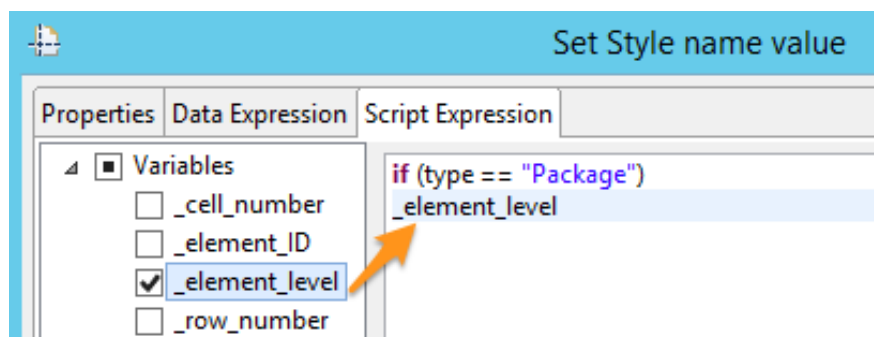


- e. In the **Script Expression** field, type `if (type == 'Package')` and hit **enter** to add a carriage return:



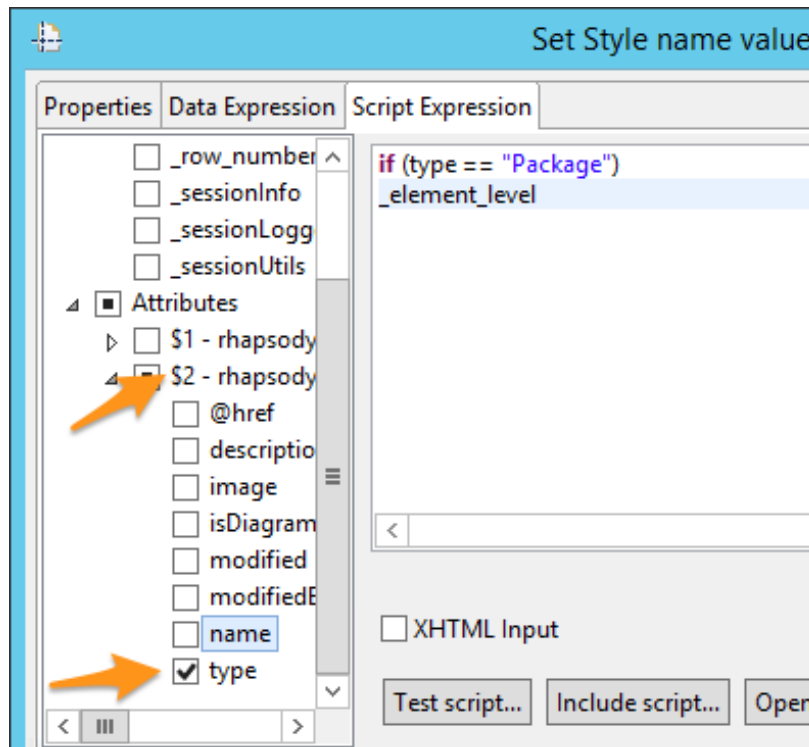
TIP: If you copy and paste this from word you will find that the quotes do not come across correctly and you will get an error when you try to close the editor window – if this occurs then manually replace the pasted quotes with typed ones.

- f. Expand the **Variables** section
- g. Drag the `_element_level` variable into the new line:



TIP: RPE will automatically select and element you have dragged into a script expression. If you manually typed an element then you have to select it in the tree – you will do that now for the type attribute

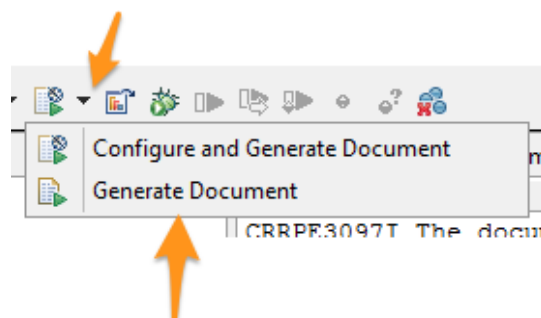
- h. Expand the **Attributes** section
- i. Expand the **\$2** section
- j. Select the **type** attribute:



- k. Click **OK**

15. Generate a Report:

- a. Click the twisty in the **Generate Document** button in the toolbar and select **Generate Document**



- b. Click **Yes** to save the template
- c. Open the generated PDF:

SysMLHandset

Analysis

Place Call
Receive Call
Provide Status
Supplementary Service
DataCall
Voice Call
Make Data Connection
Switch Networks

HandsetRequirements

Architecture

Subsystems

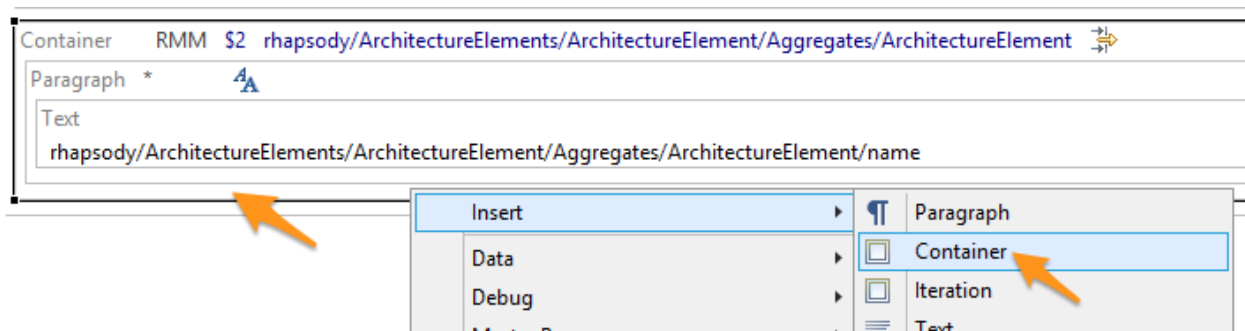
DataLink

ConnectionManagement

MobilityManagement

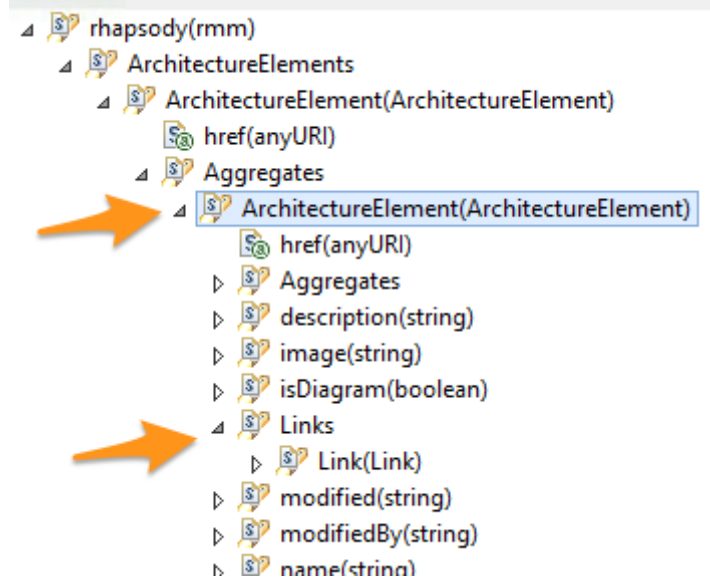
16. Report on Linked Artifacts:

- a. Close Adobe Acrobat Reader
- b. Close the results window
- c. Right-click inside the \$2 container – after any existing child containers – and select **Insert → Container**:

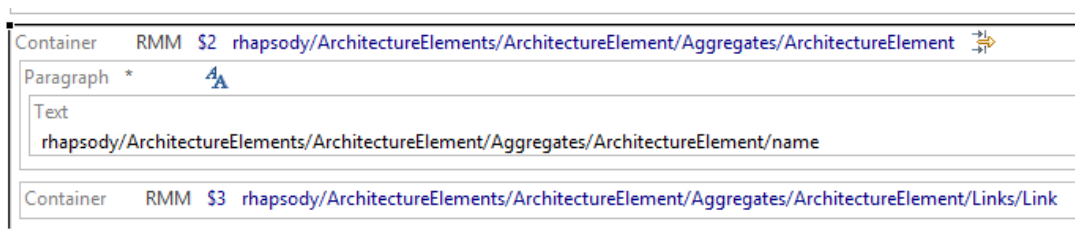


- d. In the **Data Source View** panel, expand the **Aggregated** ArchitectureElement(ArchitectureElement) node – then expand the **Links** node

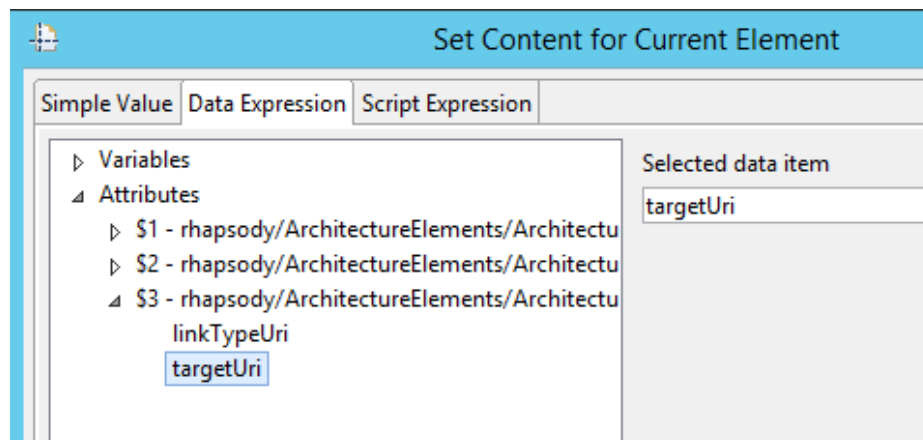
TIP: Make sure it is the Links node under the Aggregated Architecture element you are expanding – not the Links node at the root



- e. Drag the **Link(Link)** node onto the new container and click **OK**

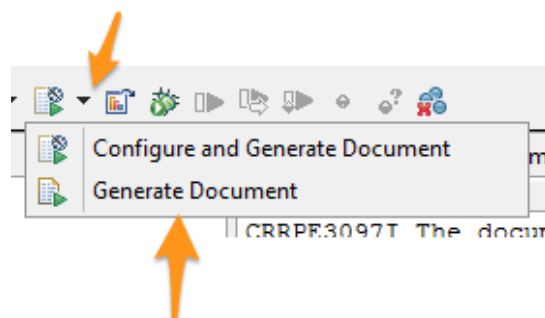


- f. Right-click the **\$3** container and select **Insert → Paragraph**
- g. Right-click the new **Paragraph** and select **Insert → Text**
- h. **Double-click** the new **Text** container
- i. Select the **Data Expression** tab
- j. Expand the **Attributes** section
- k. Expand the **\$3** section
- l. Select the **targetUri** and click **OK**:



17. Generate a Report:

- a. Click the twisty in the **Generate Document** button in the toolbar and select **Generate Document**



- b. Click **Yes** to save the template
- c. Open the generated PDF and note the linked resource URIs:

SysMLHandset

Analysis

Place Call

https://ibmjazz:9443/rm/resources/MB_c23dce6d20ba49dbbdfc98dace923144

[https://ibmjazz:9443/qm/oslc_qm/contexts/_09mnwHt_Eei6D6FQPNd-](https://ibmjazz:9443/qm/oslc_qm/contexts/_09mnwHt_Eei6D6FQPNd-4Q/resources/com.ibm.rqm.planning.VersionedTestCase/_5H22IX36EeiGJ5AYn8Anrg)

[4Q/resources/com.ibm.rqm.planning.VersionedTestCase/_5H22IX36EeiGJ5AYn8Anrg](https://ibmjazz:9443/qm/oslc_qm/contexts/_09mnwHt_Eei6D6FQPNd-4Q/resources/com.ibm.rqm.planning.VersionedTestCase/_5H22IX36EeiGJ5AYn8Anrg)

Receive Call

Provide Status

Supplementary Service

DataCall

https://ibmjazz:9443/rm/resources/MB_c1b03a472b254cc6a2b0d2973976a41a

Voice Call

Make Data Connection

https://ibmjazz:9443/rm/resources/MB_4832132827c34bdbb54680de17d567c6

https://ibmjazz:9443/rm/resources/MB_c23dce6d20ba49dbbdfc98dace923144

https://ibmjazz:9443/rm/resources/MB_8a4154b88cde428893143736db90d051

https://ibmjazz:9443/rm/resources/MB_3748749ee14d43f1a2bfd87d9aeeff12

[https://ibmjazz:9443/qm/oslc_qm/contexts/_09mnwHt_Eei6D6FQPNd-](https://ibmjazz:9443/qm/oslc_qm/contexts/_09mnwHt_Eei6D6FQPNd-4Q/resources/com.ibm.rqm.planning.VersionedTestCase/_GQZzoH33EeiGJ5AYn8Anrg)

[4Q/resources/com.ibm.rqm.planning.VersionedTestCase/_GQZzoH33EeiGJ5AYn8Anrg](https://ibmjazz:9443/qm/oslc_qm/contexts/_09mnwHt_Eei6D6FQPNd-4Q/resources/com.ibm.rqm.planning.VersionedTestCase/_GQZzoH33EeiGJ5AYn8Anrg)

<https://ibmjazz:9443/ccm/resource/itemName/com.ibm.team.workitem.WorkItem/287>

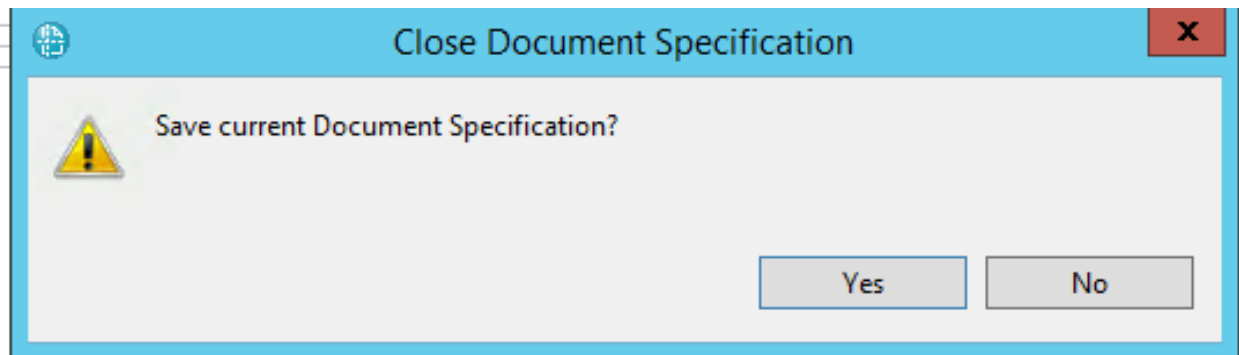
Switch Networks

HandsetRequirements

18. Close Rational Publishing Engine:

- a. Close Rational Publishing Engine

- b. Click **No** in these dialogs:



- c. Close the Rhapsody REST Web Server console window

TIP: This is as far as we will go with this reporting lab – for more information on how to follow the link uris and extract relevant data from the linked elements – refer to the full RPE training class. A sample template is also included with this lab:

UseCase Receive Call

UseCase DataCall

Refines: The system shall admit pre-authorized vehicles

UseCase Make Data Connection

Refines: The system shall admit unexpected vehicles when there are unutilized spaces.

Refines: The system shall allow vehicles to leave when payment has been received

Refines: The system shall prevent vehicles from leaving when payment has not been received

Refines: The system shall inform the guest that he is at the wrong parking lot when there is insufficient availability at the current lot

Validated By: Test Data Connection

Elaborates: Implement Data Connection Feature

Hyperlinks