



HPE NFV Director

Resource Modeler User Guide

Release 4.1

Second Edition



Hewlett Packard
Enterprise

Notices

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Preface

About this guide

This document explains the procedure to install and setup the Resource Modeler tool. This document also explains the process to use the tool and to create resource model and NFV Director template.

Audience

This document is for any stakeholder requiring to design the NFV Director Template and Instance offline, and upload them to NFV Director later. Pre requisite is to have knowledge of NFV Director concepts, and an understanding of NFV Director resource model.

Document history

Table 1: Document history

Edition	Date	Description
1.0	20 October 2016	First edition.

Chapter 1 Installing the Resource Modeler

1.1 Installation Process

Download the Resource Modeler from the NFV Director ISO to a Windows system, and unzip the package in the desired directory.

Launch the Resource Modeler GUI by running the `nfvdesigner.exe`

Chapter 2 Creation and edition of a NFV diagram

2.1 Creating a new file

The editor stores each NFV diagram in an xml file with “nfv” extension.

The first step when working with the editor is creating a new empty file.

In the menu, select: **File / New**

The wizard for creation of new files appears.

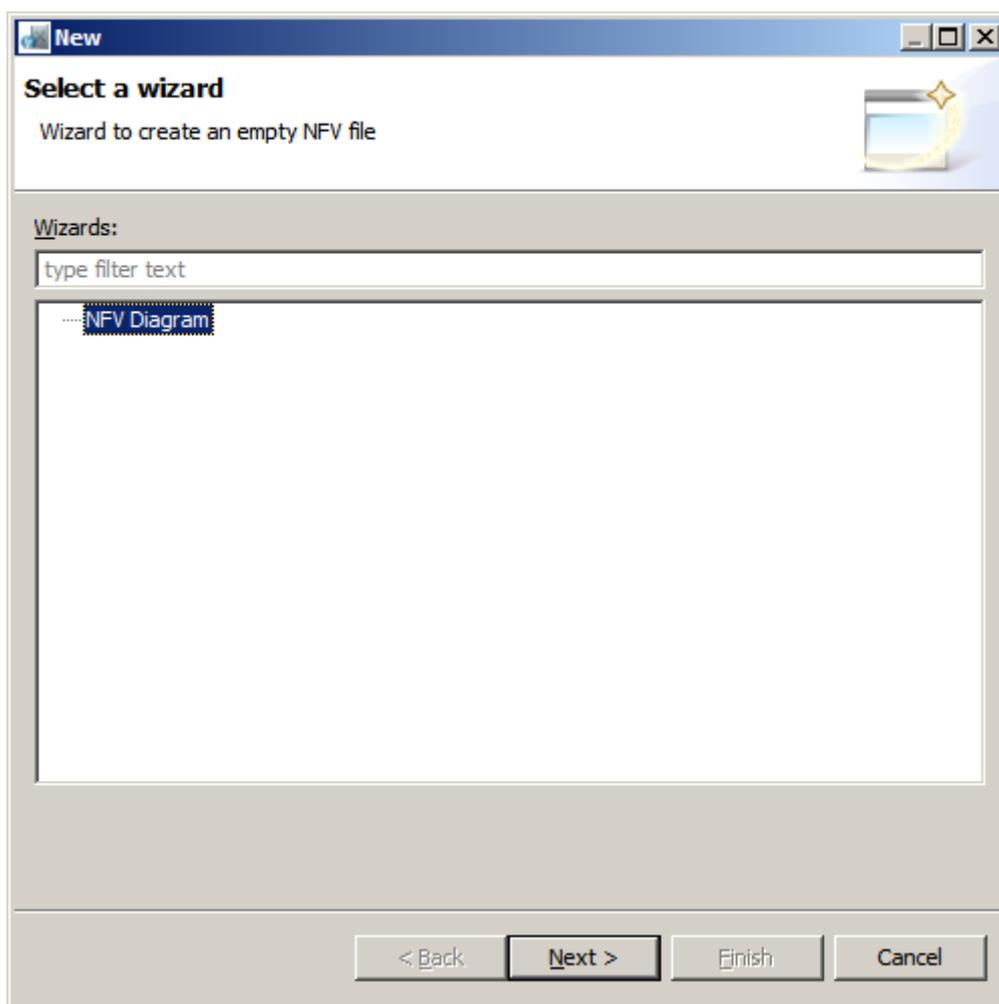


Figure 1: Create new nfv file

Select **NFV Diagram** and Click on **Next >**.

The destination file page appears.

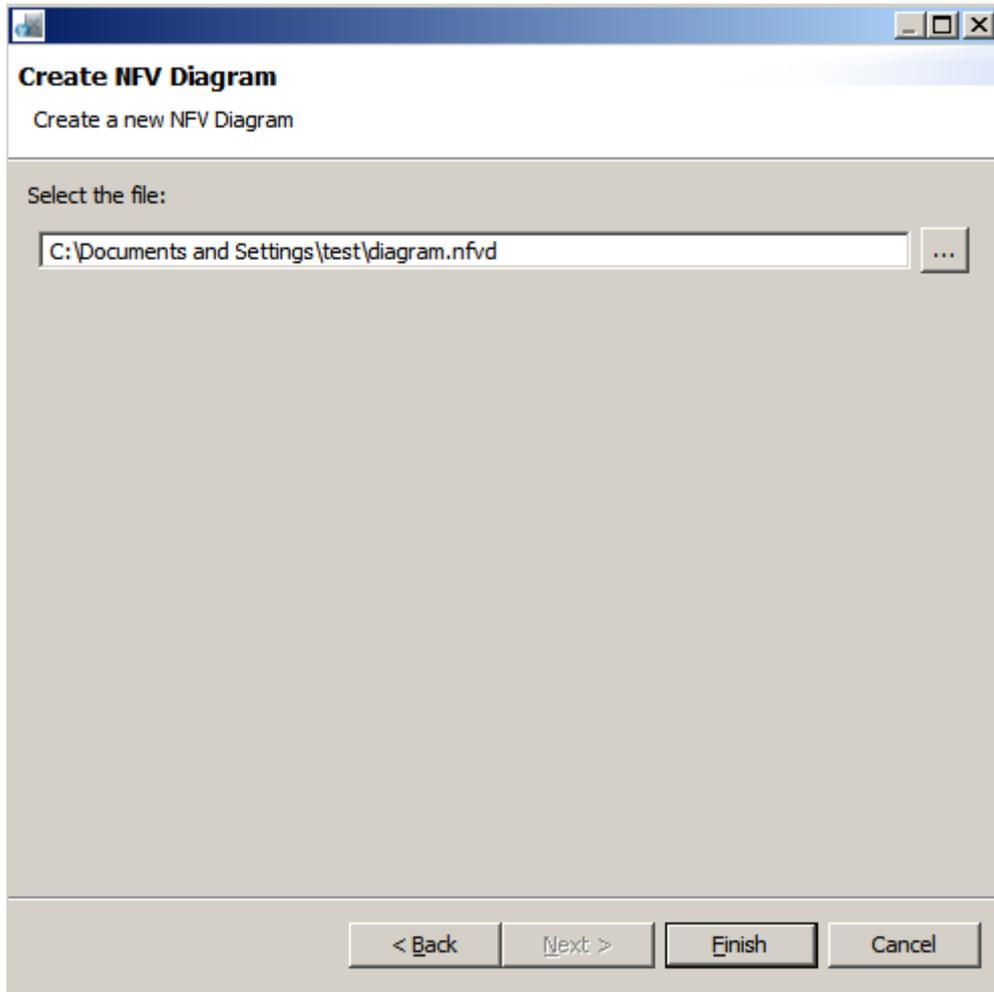


Figure 2: Create new NFV Diagram

Click on ... and select the folder where the new file will be created.

Replace the suggested name with your preferred name. (Maintaining the .nfvd extension).

Click On **Finish**.

A new empty diagram appears on the editor.

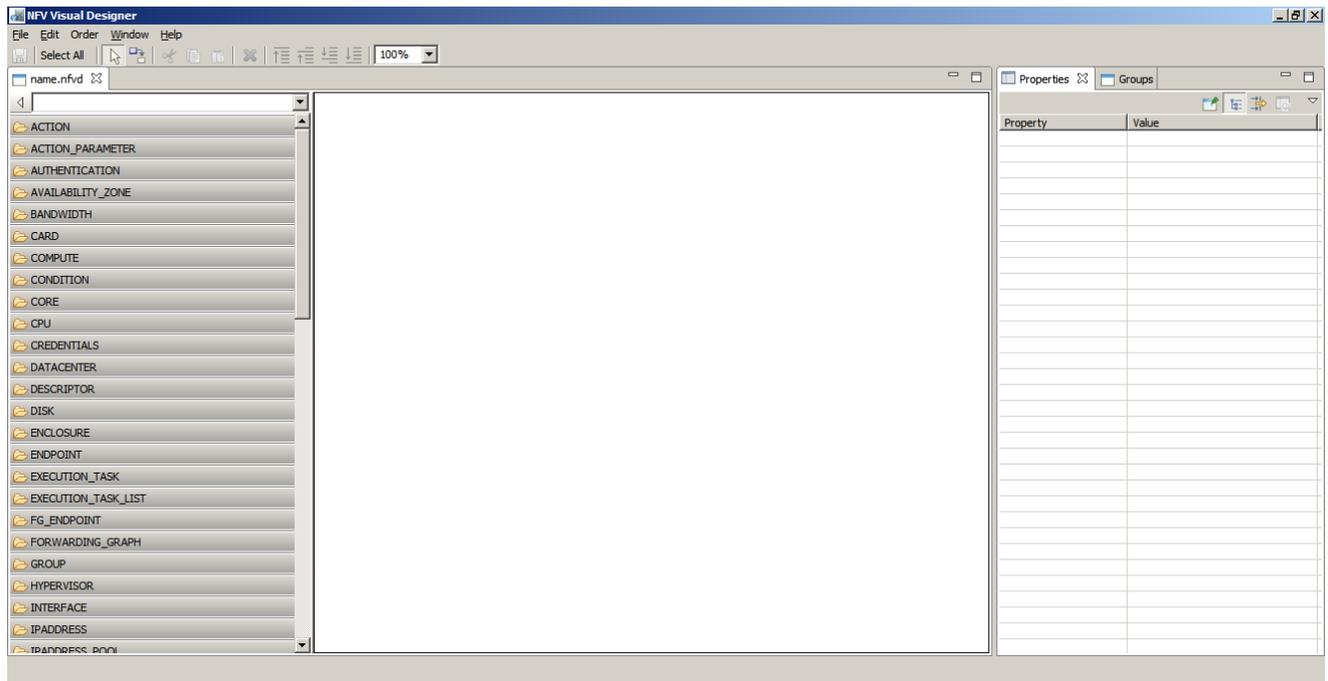


Figure 3: Empty NFV Diagram

2.2 Adding artifacts

In the Artifacts Palette on the left panel, expand the group containing the desired artifact, and select the desired artifact.

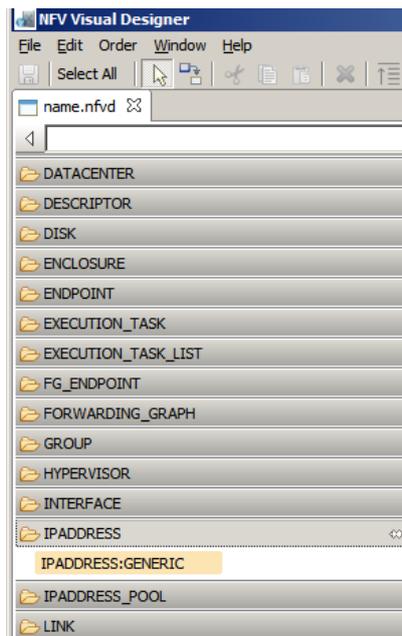


Figure 4: Artifact Palette

Next, add the artifact to the editor area. This can be done in two ways:

- Click on the artifact name in the Artifacts Palette, and then click on any point of the

editor area.

- Drag and drop from the Artifacts Palette to the editor area.

A new figure appears in the editor.

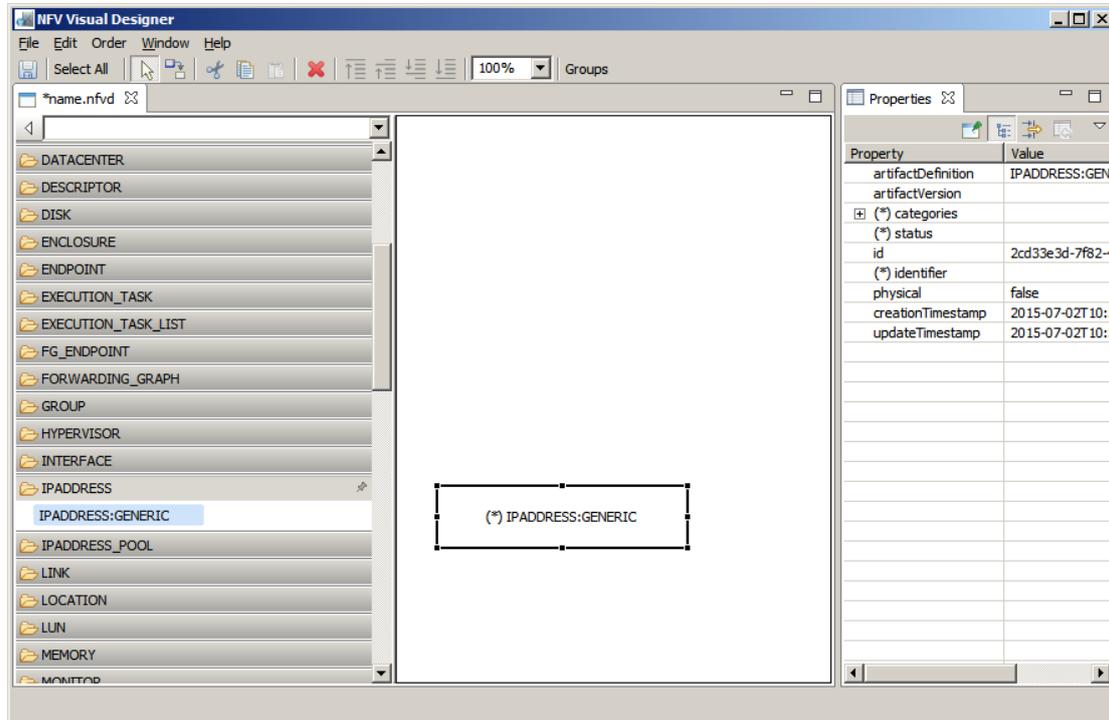


Figure 5: Drag and Drop artifact from Artifact Palette

2.2.1 Palette filters

You can choose which elements are shown in the Artifacts Palette, if you expand the pull-down at the top of the palette and select **All**, **Physical** or **Not Physical**. All is selected by default.

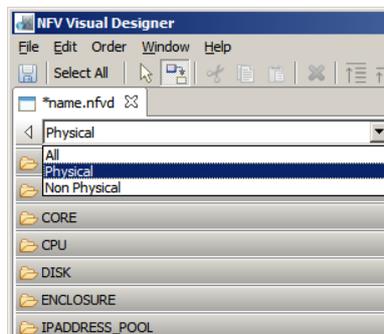


Figure 6: Palette Filter

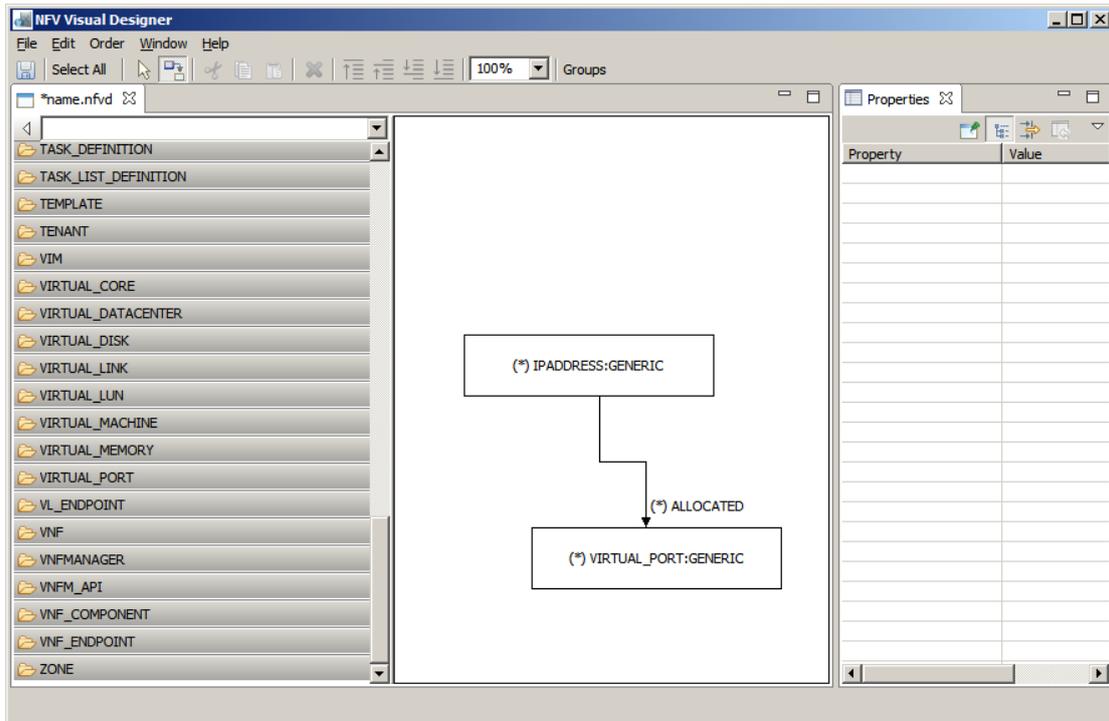


Figure 8: New connection

You can continue adding more Relationships, or exit the Relationship Creation mode at any time by Clicking on **ESC** key, or by clicking the  button to get back to Selection mode.

2.4 Moving and resizing artifacts

The artifacts can be moved to any location of the editor by drag and drop.



Figure 9: Moving artifacts

The artifacts can be resized by pointing to one of its sizing handles, and dragging the handle.

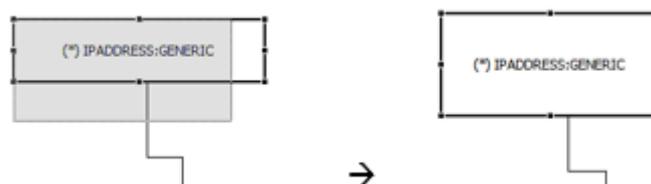


Figure 10: Resizing artifacts

2.5 Selecting artifacts or relationships

If the Selection Mode is active ( button is active), you can select one or more Artifacts or Relationship. There exist multiple possible ways to do it:

- Click on an Artifact or Relationship to select it.

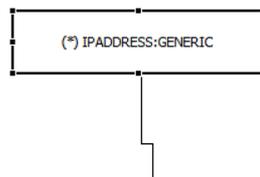


Figure 11: Selecting artifact or relationship

- Hold **CTRL** key and click on more Artifacts or Relationships to add them to the current selection, or to remove an Artifact or Relationship from the current selection.

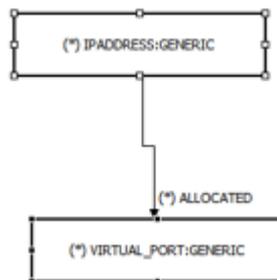


Figure 12: Add artifact or relationship to current selection

- You can also select by dragging a rectangle from any empty point of the diagram. This way, the selection will include all the enclosed elements.

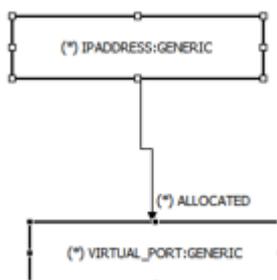


Figure 13: Dragging rectangle to select artifact or relationship

- Alternatively, you can click on **Select All** in the Toolbar, or **Edit / Select All** in the menu, to select all the Artifacts and Relationships of the diagram.

2.6 Deleting artifacts or relationships

To delete the currently selected Artifact/s or Relationship/s, Click on **DEL** key, or click in the Toolbar, or **Edit / Delete** in the Menu.



2.7 Editing the properties of an artifact or relationship

The properties of the last selected Artifact or Relationship appear on the Properties panel on the right. (The Properties panel can be resized or dragged to another position).

The panel is divided on two main groups, the general section and the categories section.

The general section offers a button for show / hide advanced properties.

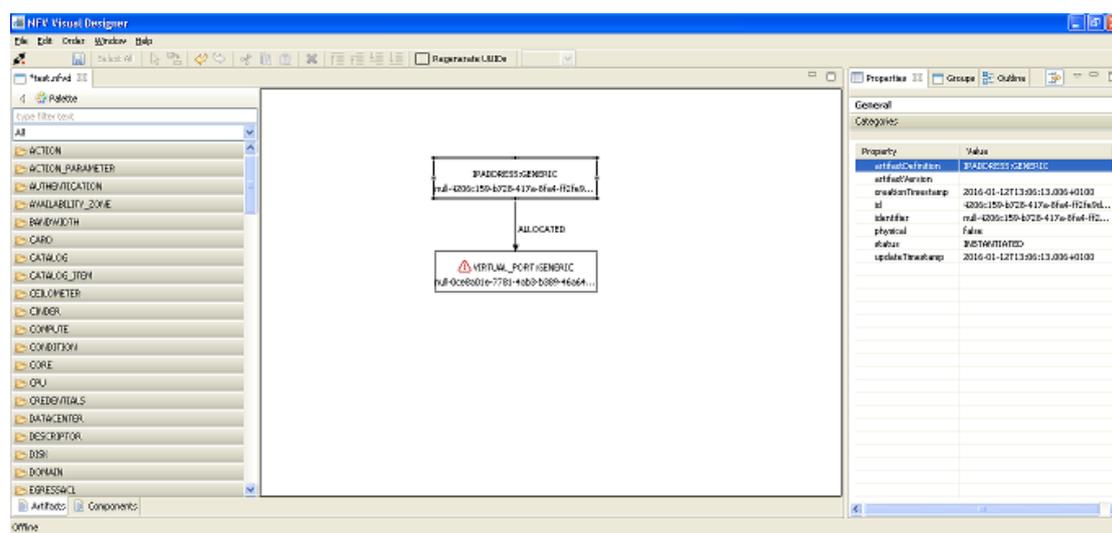


Figure 14: Editing properties of artifact or relationship

The categories section allows to expand categories in order to show the attributes table.

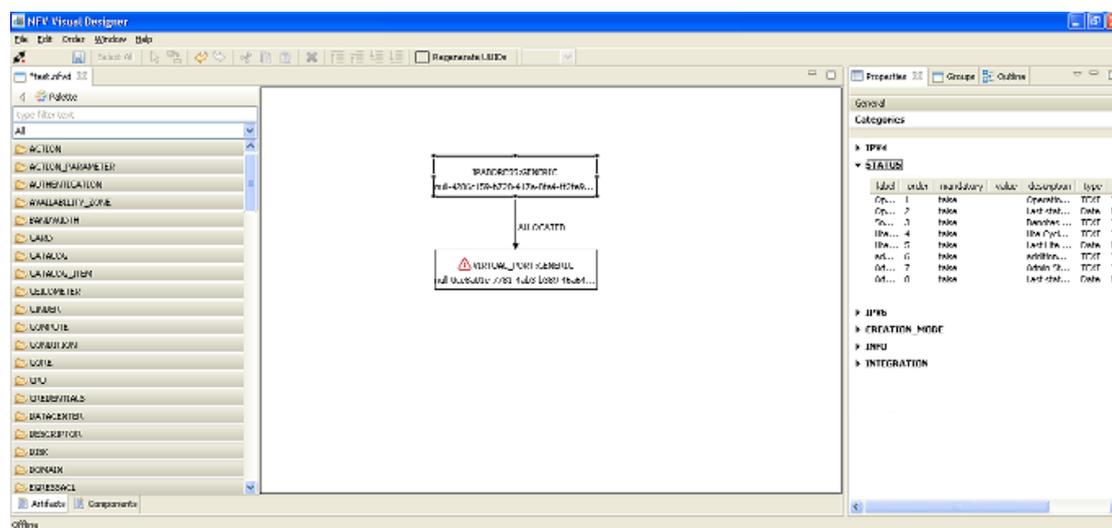


Figure 15: Category section

The elements that contain an empty required value are marked with (*) before the property key.

Some columns in attributes table show special buttons for custom actions when clicked over them, like restrictions column. The following example explain how to manage restrictions.

First push the manage button on restrictions column.

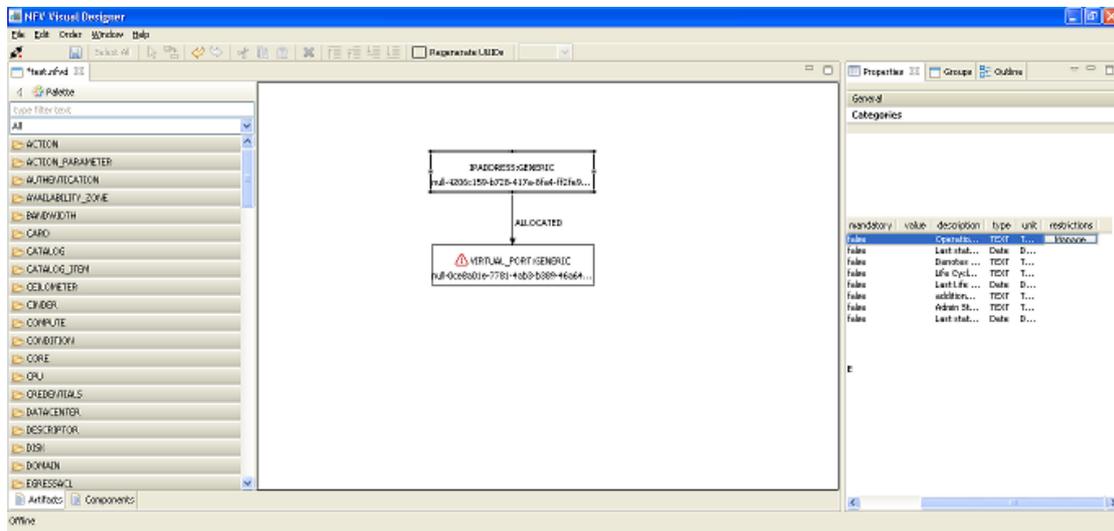


Figure 16: Manage restrictions

Second push the add button in restriction column of the opened dialog.

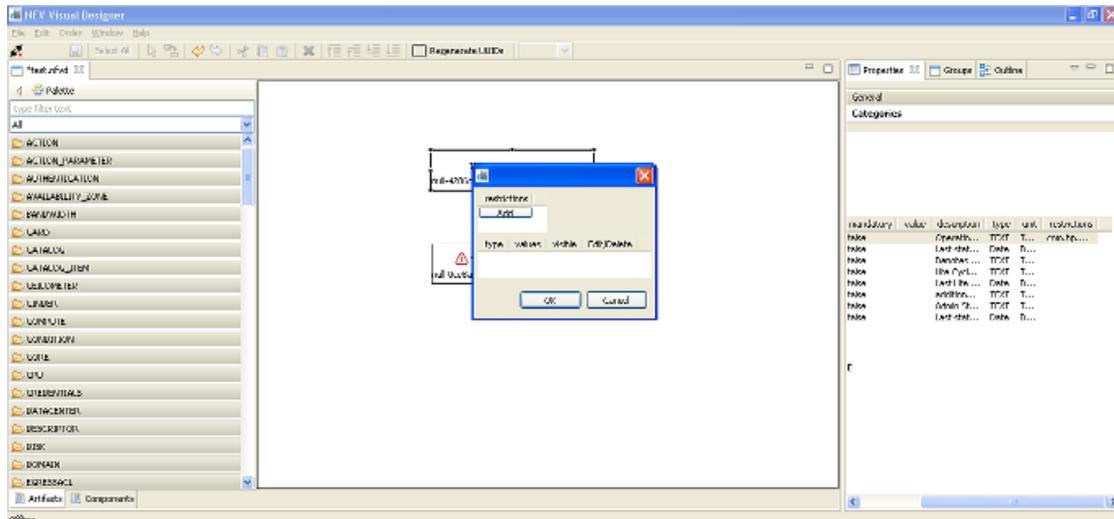


Figure 17: Push add button in restriction column

Third fill the new restriction dialog.

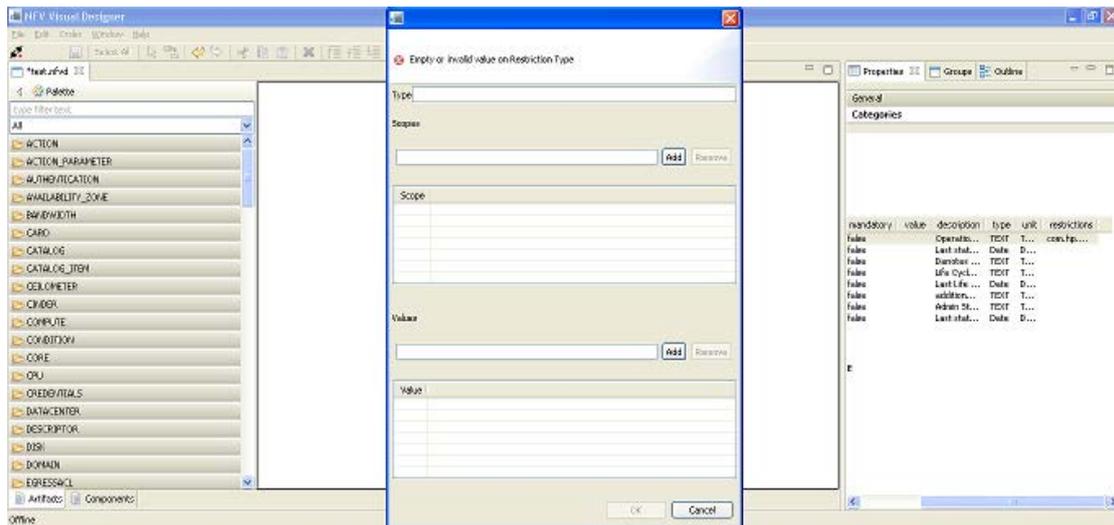


Figure 18: Fill the restriction dialog

Finally the new restriction appear in list. Push the edit or delete button on edit / delete column in order to manage the new restriction.

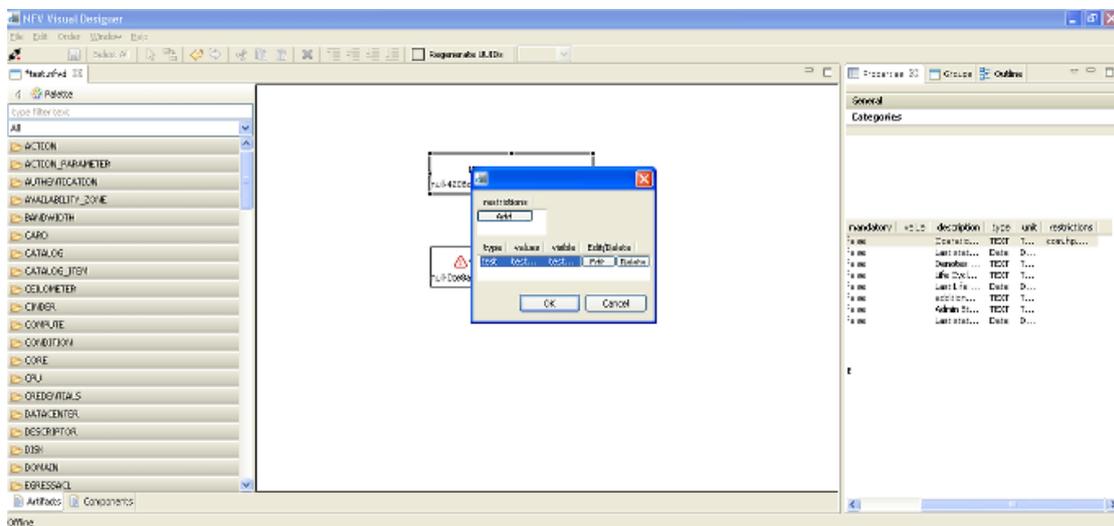


Figure 19: Manage the new restriction

2.8 Changing the color of an artifact or relationship

The color of the currently selected Artifact/s and Relationship/s can be changed by **right click / Change color...**

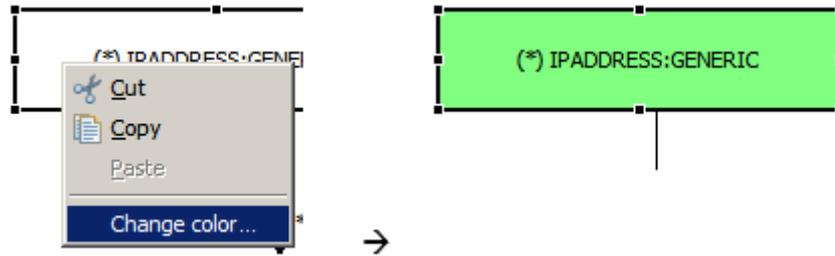


Figure 20: Change color of an artifact or relationship

2.9 Moving artifacts up or down in the diagram

The stack order of Artifacts in the diagram can be changed by clicking on the **Order** buttons in the Menu, or the corresponding buttons in the Toolbar.

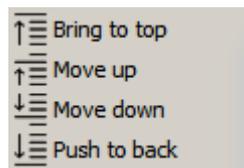


Figure 21: Moving artifacts up or down

In the example below, we selected *INTERFACE:GENERIC* and moved it down.



Figure 22: Example of artifact moving down

2.10 Changing the zoom in the editor

The Zoom in the editor can be changed with the Zoom drop-down in the Toolbar.

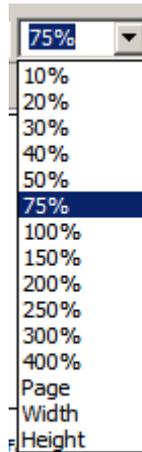


Figure 23: Changing zoom

Another way to zoom-in or zoom-out is by holding **CTRL** key and scrolling the **mouse wheel**.

2.11 Allowing root artifacts automatic changes

This option can be enabled on the toolbar, it ask for permission to change the root artifacts name and description and replace them with the group name and description.



Figure 24: Enable automatic changes in root artifacts

2.12 UUID regeneration

Push the toolbar button for the UUID regeneration, the action will ask for permission. Keep in mind that all the artifacts and components UUIDs will be regenerated.



Figure 25: Regenerate UUID

2.13 Artifacts filter

Window -> Filters give access to the filters dialog, the dialog offers simple text filters for artifacts and relationships. With the use of the special character “\$” we can concatenate filters and apply them.

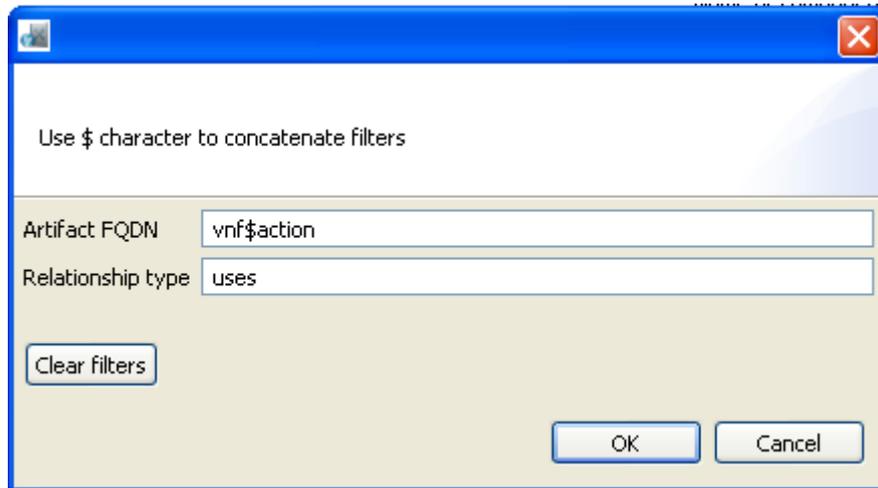


Figure 26: Filter artifacts and relationships

You can also access the filters dialog with the filters action of the artifacts editor toolbar.



Figure 27: Filter action

Chapter 3 Trees/Groups

3.1 Creating, editing or deleting a group

Click on the **Groups** tab on the panel on the right of the editor. (The Groups panel can be resized or dragged to another position).

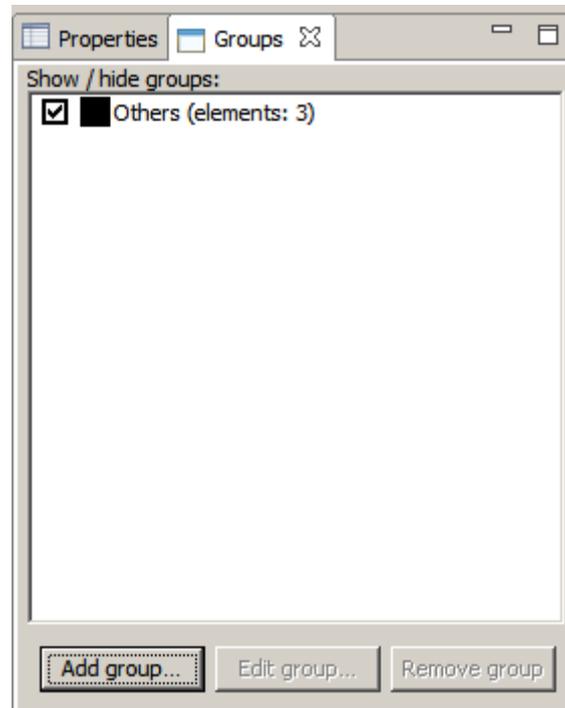


Figure 28: Groups tab

To add new groups, click **Add group...** and complete the attributes of the group.

First, fill the basic attributes, Id, Group name, type and optionally the description and color.

Second, optionally fills the component source attribute, and the group source template attribute, also you can add custom component scopes to the list.

Third, optionally you can select the Artifacts from the diagram that will be set as root Artifacts of the group, the selected ones will be added to the group if they were not already included.

Click **OK** to confirm.

Id: bb7bbae5-d2ef-44bd-8178-36fa34927f44

Group name: VNF1

Type: VNF

Description: VNF Parent

Group color:

Source: test_source1

Source Template: test_source2

Scopes

Scope
vnf_user
vnf_manager

Root Artifacts (Selected artifacts will be added to group)

<input checked="" type="checkbox"/>	vnf1 VNF:GENERIC
<input type="checkbox"/>	vnf2 VNF:GENERIC

Automatically include relationships

Figure 29: Add new groups

To edit a group, select its name and click **Edit group...** Click **OK** to confirm the changes.

To remove a group, select its name and click **Remove group**.

There exists a special non-editable group, named Others, that will always contain the elements that are not included in any other group.

3.2 Adding or removing artifacts or relationships to/from a group

To add the currently selected Artifact/s or Relationship/s to a group, Click On **right click** on the mouse and click on **Groups** in the context menu that appears. (Note: for the option to appear, there must exist at least one group).

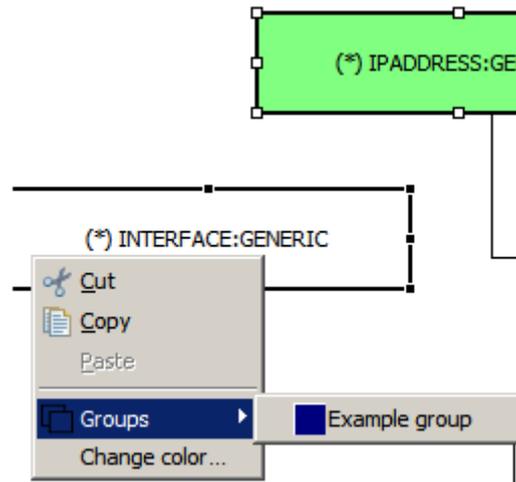


Figure 30: Add artifacts or relationships to a group

A submenu with the existing groups will show up, each one with a **checkbox** you can check to add the item/s to it, or uncheck to remove the item/s from it.

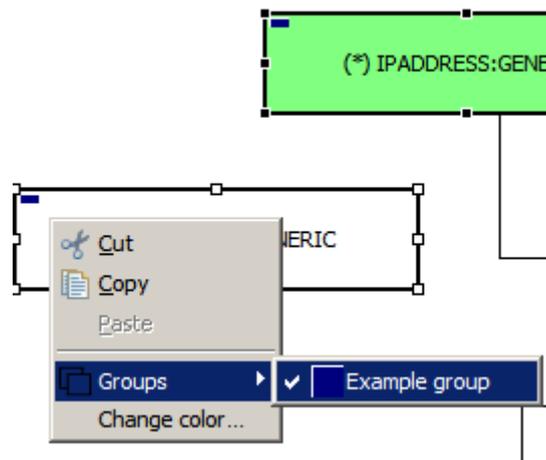


Figure 31: checkbox to add or remove items from group

Any Artifact or Relationship can be added to one or more groups.

When an artifact is contained on a group, a small box with the corresponding color will appear on the figure.

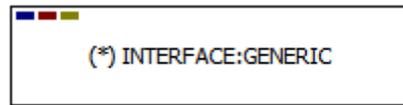


Figure 32: Color indicating artifact contained in a group

3.3 Adding group root artifacts

To add the currently selected Artifact/s to a group as root Artifacts, Click On **right click** on the mouse and click on **Check/Uncheck Root** in the context menu that appears.

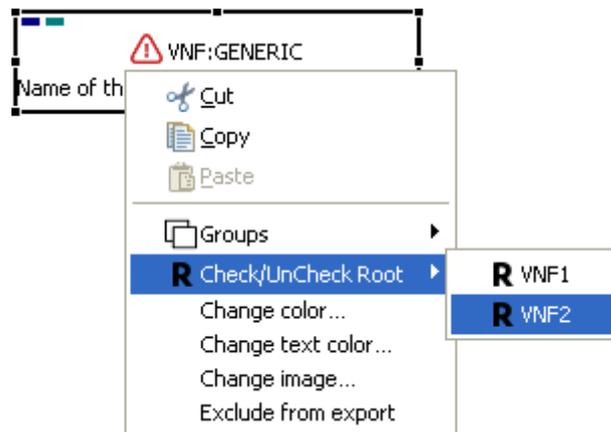


Figure 33: Adding artifacts to group as root

A submenu with the groups that contain the Artifacts will show up, each one with a **checkbox** you can check to set the item/s as roots, or uncheck to unset the item/s as roots.

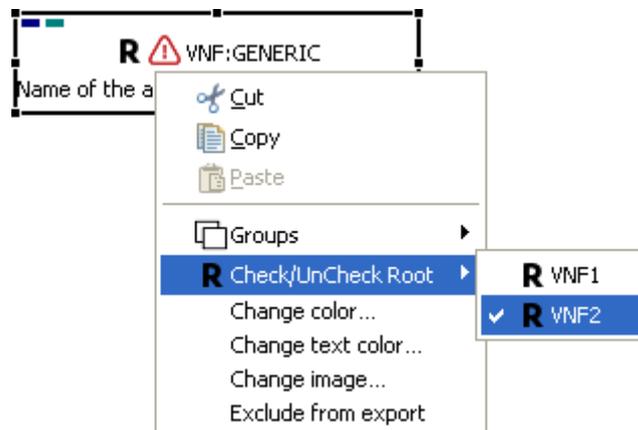


Figure 34: Check/Uncheck root artifact from a group

Any Artifact can be set as root in more than one group.

When an artifact is the group root artifact, an icon will be show on the editor.



Figure 35: Icon indicating group root artifact

3.4 Showing or hiding groups

In the Groups selection dialog, use the checkbox next to each group name to control which elements are shown or hidden in the diagram.

- Checking a group will make visible all the contained Artifacts and Relationships.
- Unchecking a group will hide the Artifacts and Relationships that are not contained in any other visible group.

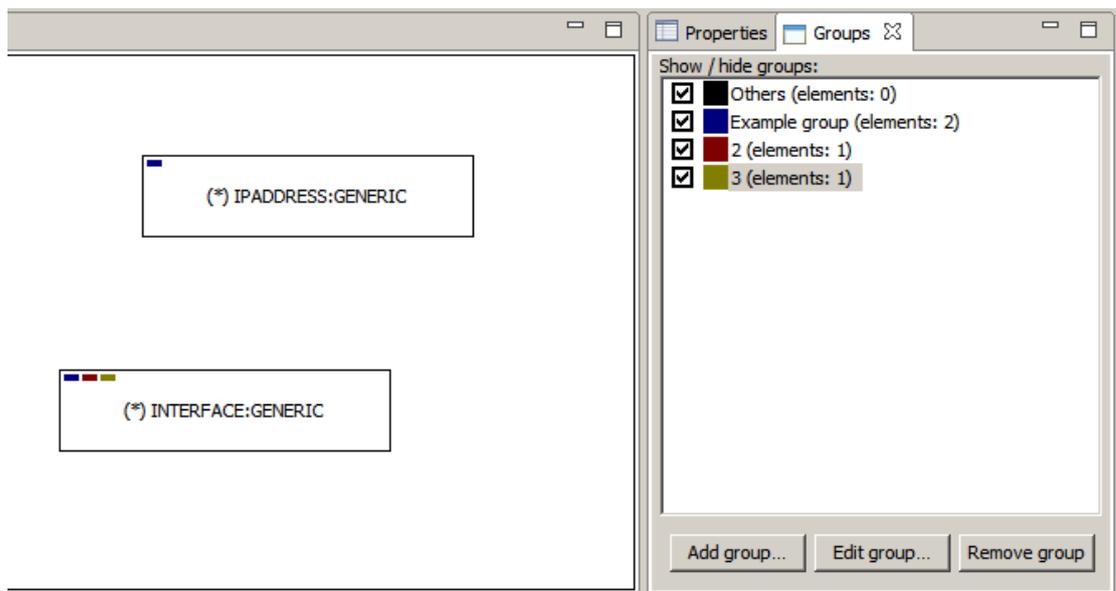


Figure 36: Showing or hiding groups

Unchecking *Example group* hides *IPADDRESS:GENERIC*

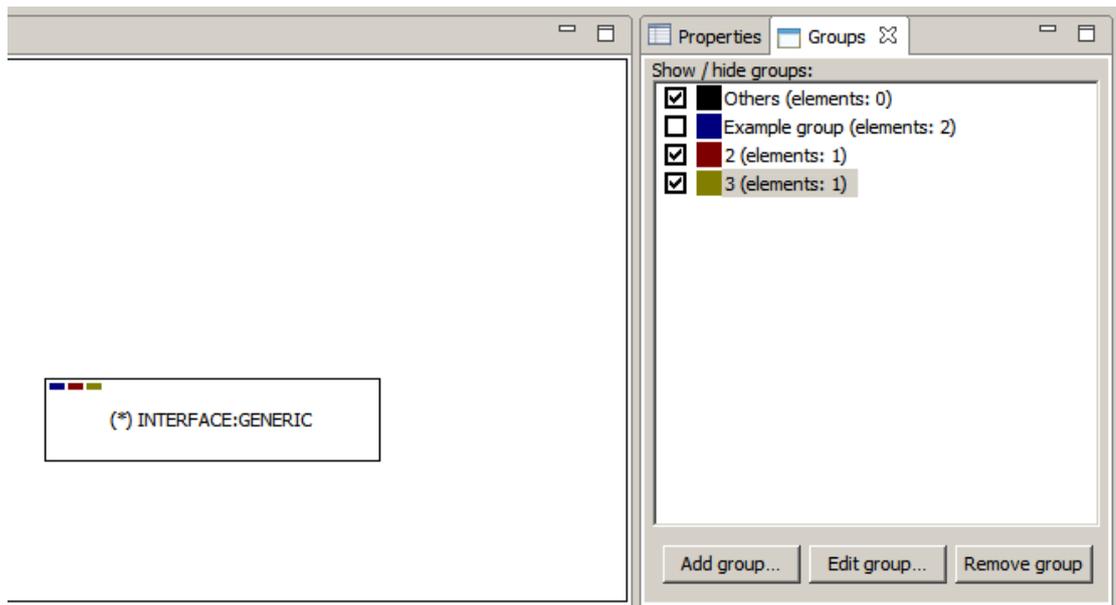


Figure 37: unchecking group hides artifact

INTERFACE:GENERIC will hide if we uncheck the 3 groups it belongs to.

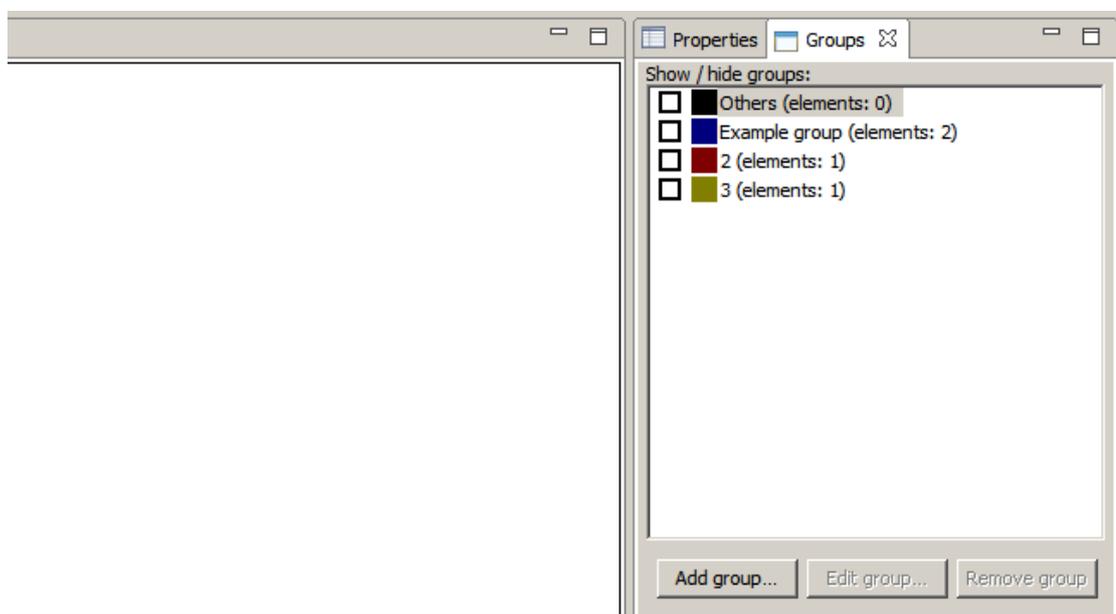


Figure 38: Hiding artifacts belonging to multiple groups

Chapter 4 Components

4.1 Overview

A component is the visual representation of a group. They have their own editor, in order to access it, you can simply switch between the artifacts and components tab at the bottom of the application, right above the status bar.

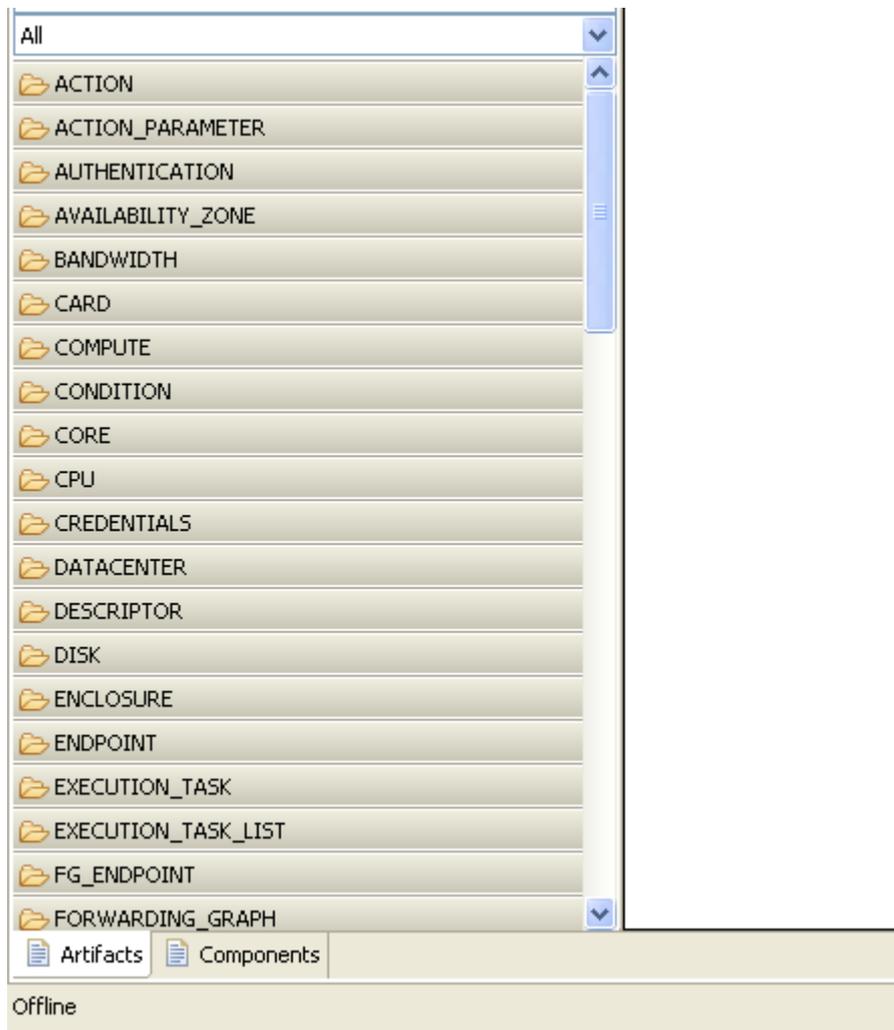


Figure 39: Components tab

4.2 Adding relationships between components

You can add a Relationship between two Components, but keep in mind one restriction. If the target component is child (target) of another component, checkout that following the targets direction you cannot reach the father (source) component that you try to connect with.

Click on the Relationships button . The editor enters in Relationship Creation mode.

Next, connect two components. This can be done in two ways:

- Click on the component that will be the parent, and then click on the component that will be the child.
- Drag and drop from the component that will be the parent to the component that will be the child.

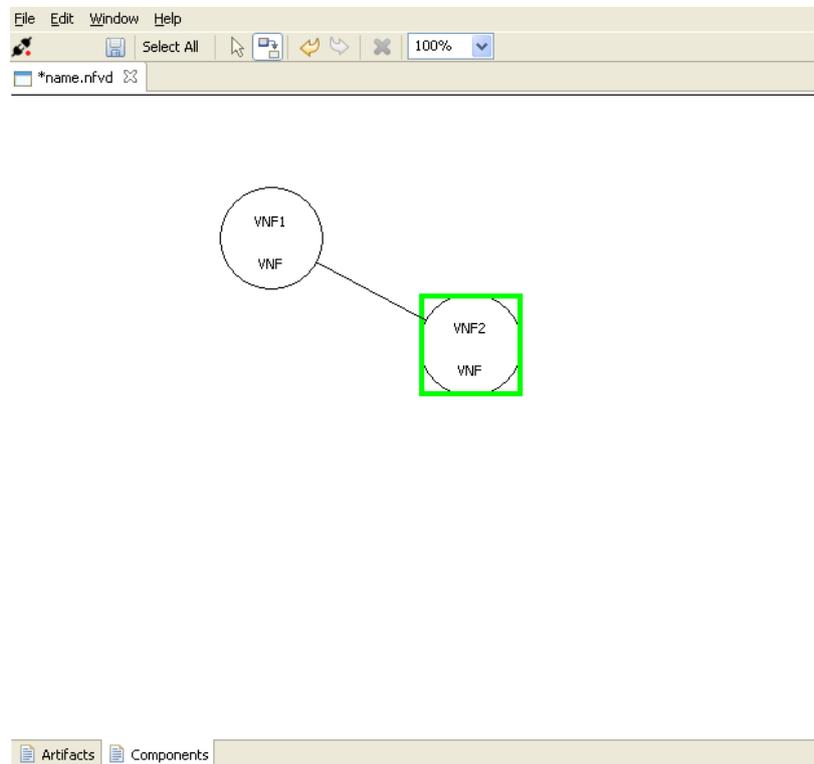


Figure 40: Connect two components

A new connection appears in the diagram joining the Components.

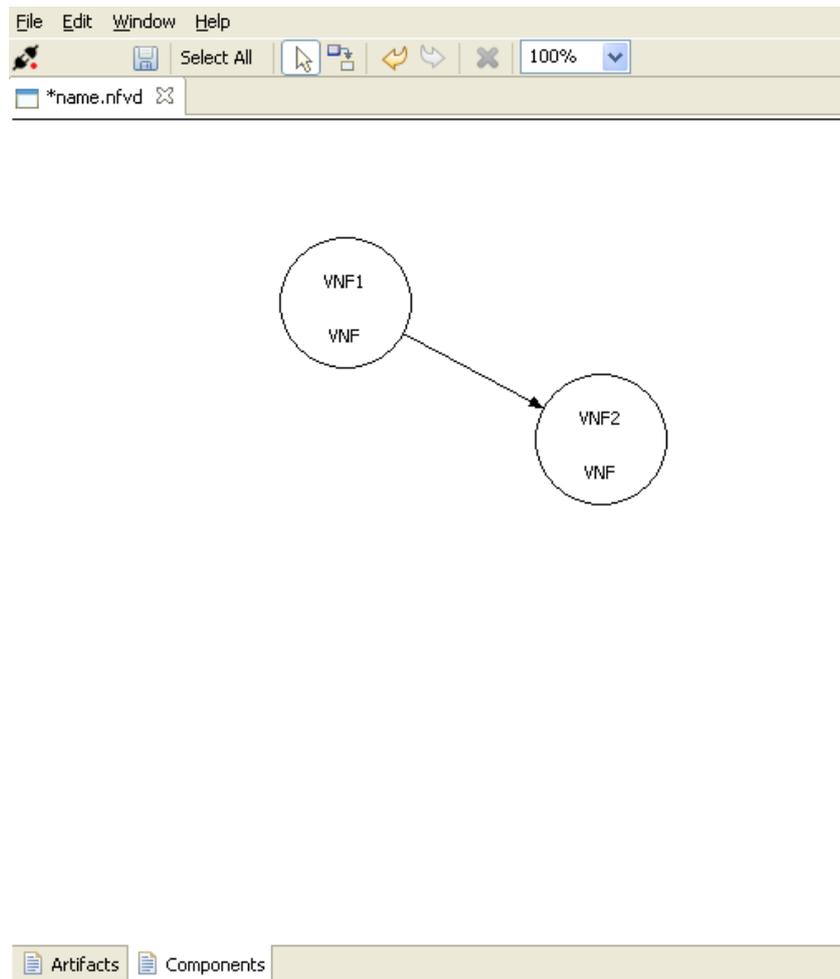


Figure 41: New connection joining the components

You can continue adding more Relationships, or exit the Relationship Creation mode at any time by Clicking on **ESC** key, or by clicking the  button to get back to Selection mode.

4.3 Changing the color of a component or relationship

The color of the currently selected Component/s and Relationship/s can be changed by **right click / Change color...**

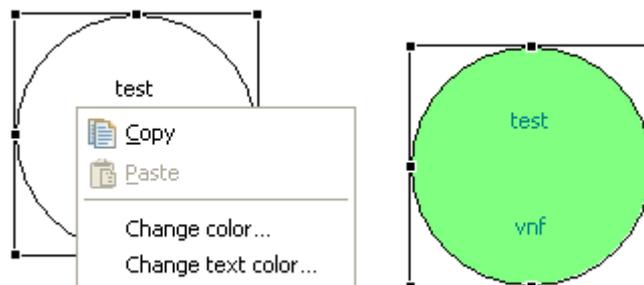


Figure 42: Changing color of a component

4.4 Moving and resizing components

The components can be moved to any location of the editor by drag and drop.

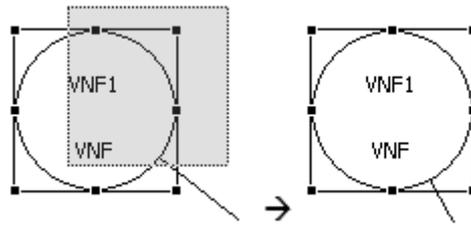


Figure 43: moving a component

The components can be resized by pointing to one of its sizing handles, and dragging the handle.

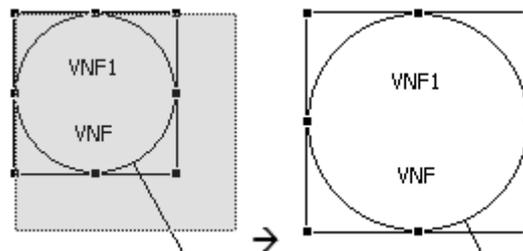


Figure 44: resizing a component

4.5 Selecting components or relationships

If the Selection Mode is active ( button is active), you can select one or more Components or Relationship. There exist multiple possible ways to do it:

- Click on a Component or Relationship to select it.



Figure 45: Select a component or relationship

- Hold **CTRL** key and click on more Components or Relationships to add them to the current selection, or to remove a Component or Relationship from the current selection.

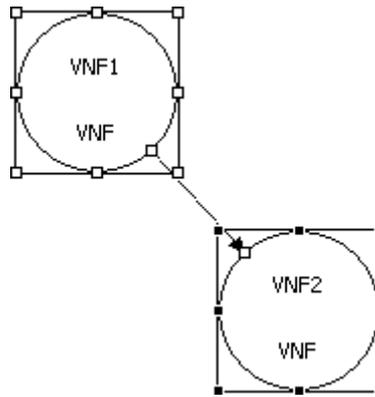


Figure 46: Selecting multiple components and relationship

- You can also select by dragging a rectangle from any empty point of the diagram. This way, the selection will include all the enclosed elements.

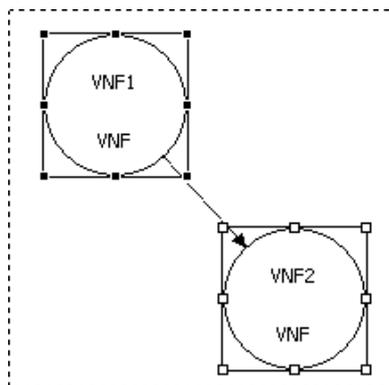


Figure 47: Dragging rectangle from empty point to select components and relationships

- Alternatively, you can click on **Select All** in the Toolbar, or **Edit / Select All** in the menu, to select all the Components and Relationships of the diagram.

4.6 Deleting relationships

To delete the currently selected Relationship/s, Click on **DEL** key, or click  in the Toolbar, or **Edit / Delete** in the Menu.

4.7 Changing the zoom in the editor

The Zoom in the editor can be changed with the Zoom drop-down in the Toolbar.

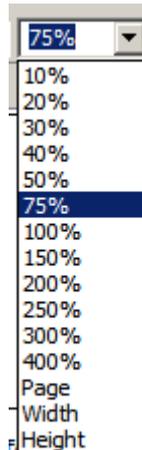


Figure 48: changing zoom in editor

Another way to zoom-in or zoom-out is by holding **CTRL** key and scrolling the **mouse wheel**.

4.8 Predefined components management

There are cases where you may want to reuse groups between diagrams, for example if you want to create a common palette of components. To do this, simply create a new diagram with a group or groups with artifacts and relationships that you want to share.

Next save the diagram and copy it to the resources / components folder on the editor installation folder, then the contents will be available in the components view palette.

You can also use File -> Save as predefined component, the diagram will be saved to the resources / components folder directly.



Figure 49: Saving as predefined component

Just drag the component from the palette to the board and the component will be created along with his member artifacts and relationships.

The editor reads the components from the .nfv files on the resources / components folder, but if you do not need all the components loaded or want to focus only on a few of them, Click On the “Components” button on the toolbar and check / uncheck the desired components on the dialog.

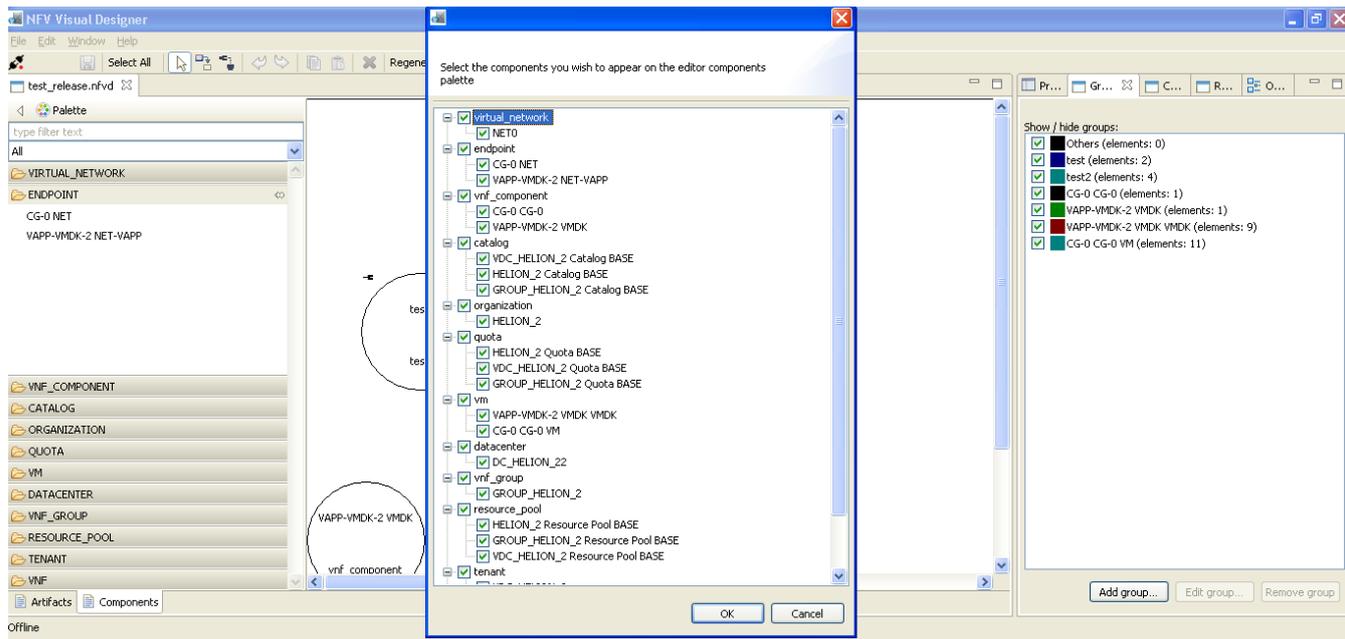


Figure 50: Drag components to editor

4.9 Components properties

Some artifact properties can also be edited from the components view. If you select a component and switch to the properties view, a list with all the member artifacts will appear. Expand the desired artifact to see their categories, the categories that have any attribute with a restriction with the field "type" not empty, will appear expanded by default

If the restriction type is "user-input", then the value is editable, if the restriction type is "display", the value is read-only. When the restriction type is "user-input", and the restriction have values on it, then the value on the properties section will change from open text to combo box.

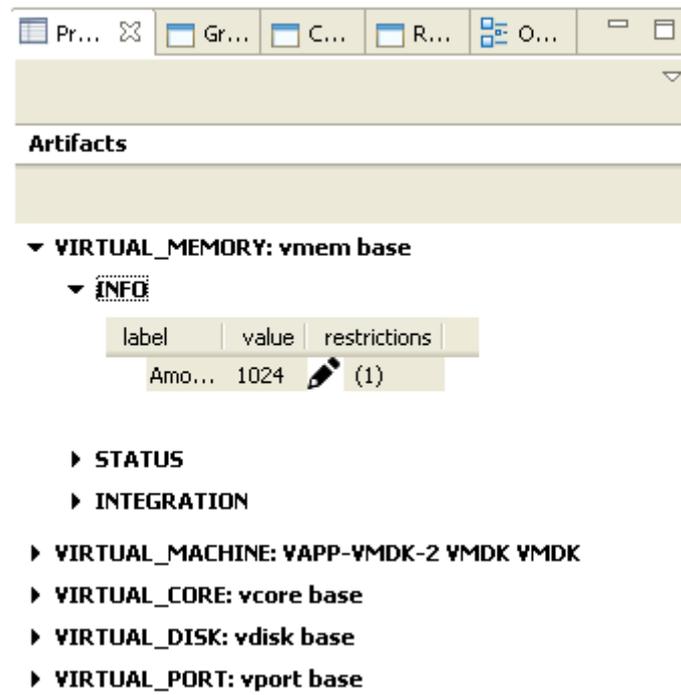


Figure 51: Component properties

Chapter 5 Connectors

5.1 Overview

Connectors establish the Artifacts that will be entry points between groups with the allowed relationship to connect them.

5.2 Creating, editing or deleting a connector

First go to the components tab, select the component that will hold the connector and then click on the **Connectors** tab on the panel on the right of the editor. (The Connectors panel can be resized or dragged to another position).

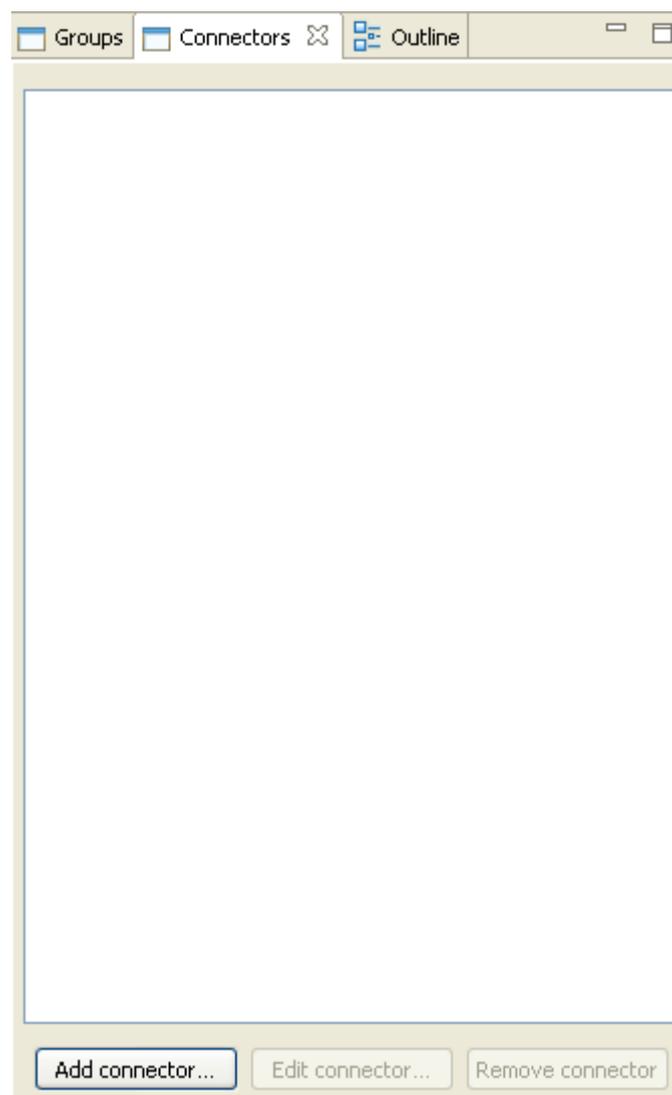


Figure 52: connector tab

To add new connectors, click **Add connector...** and complete the attributes of the connector.

First, select from the list one of the Artifacts included in the group, this will filter the list to the same type of Artifacts, then you can select more Artifacts of the same type to include to the connector if you want.

Second, set if the Artifacts will take the Parent or Child role in the relationship.

Third, fill the relationship attributes, each combo box will update dependent on the selected value on the previous ones.

Finally, you can add any optional inclusion or exclusion to the connector.

Click **OK** to confirm.

Connector name:

Type:

Id	Type
<input checked="" type="checkbox"/> Name of the Action-8718d21e-2c13-41d5-9923-4854bba071b1	ACTION:GENERIC

Mode: Parent Child

Relation Options

Type:

Destination:

Status:

Inclusions

Inclusions

Exclusions

Exclusions

Figure 53: Add connector

To edit a connector, select its name and click **Edit connector...** Click **OK** to confirm the changes.

To remove a connector, select its name and click **Remove connector**.

If a component contains any connector, an icon will be show on the editor.

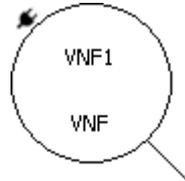


Figure 54: Remove connector

5.3 Creating virtual relation between connectors

These relation types, really connects the artifacts pointed by the connectors based on the connectors information. In order to establish the relation Click On the connectors connection icon on the components editor toolbar.



Figure 55: connection icon

Once the connection tool is active you need to select the source component and the source connector.

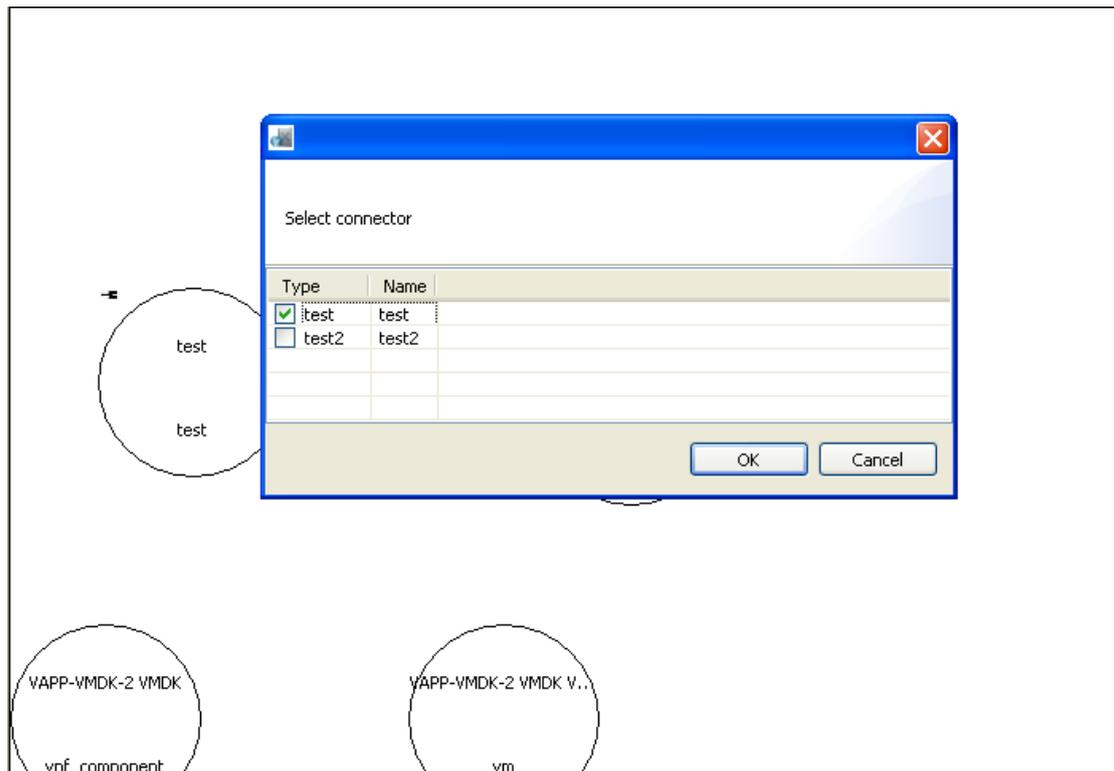


Figure 56: Select connector

Then, select the target component and the target connector, the type of the source and target connectors must be the same. Also if the relation is successful, a new relationship between the source group and the target group will be created, if the relation cannot be established between the groups, the target group will not be highlighted discarding the relationship between connectors.

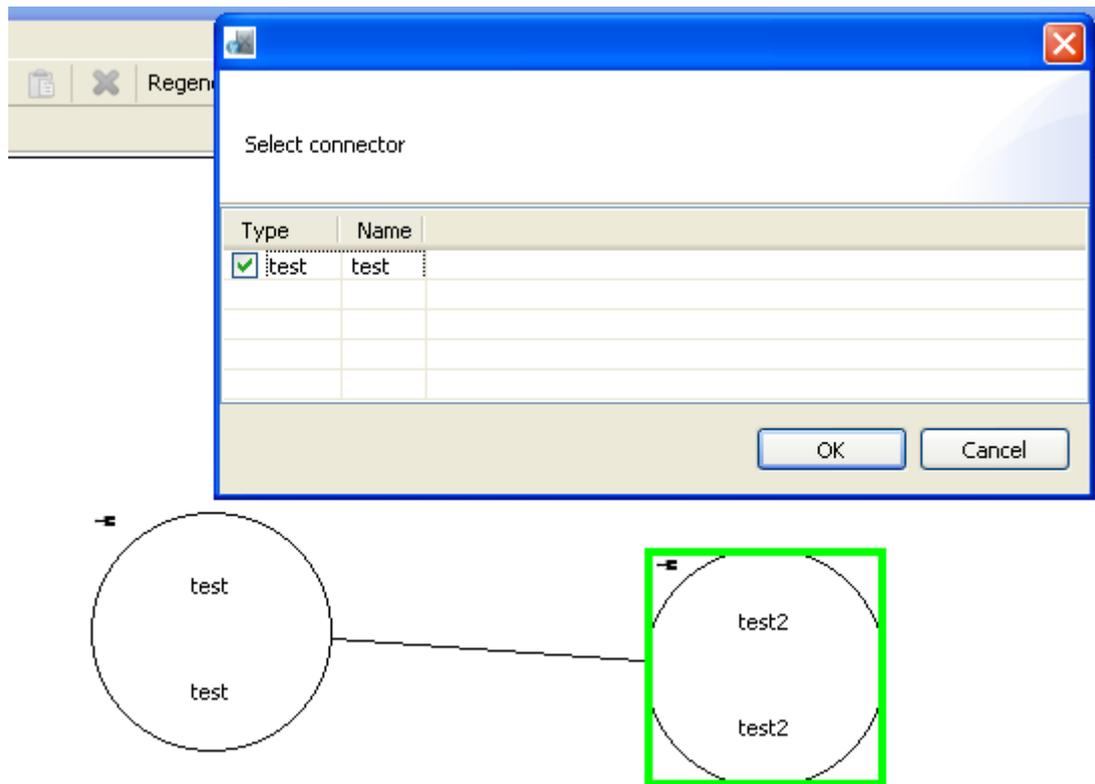


Figure 57: Select target connector and component

If the relation can be established with no errors, a confirmation message will show up. The tool also validates the connector information, the incompatible artifacts will not be connected, and also it will try to not duplicate the relationships.

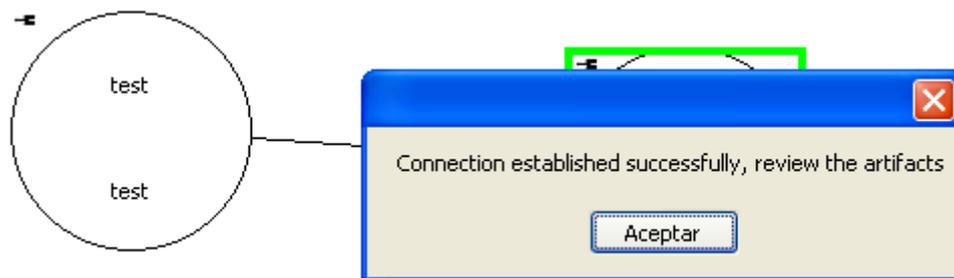


Figure 58: Connection established successfully

Chapter 6 Group relations

6.1 Overview

When a group has child or parent relationship with another group, you may want to define also relations between their member artifacts. This relations help to define the group relationship context or meaning. The relationship information will be stored on the parent group, that is, the relation will be a member of the parent group.

6.2 Creating, editing or deleting a relation

First go to the components tab, select the group relationship that will hold the relation and then click on the **Relations** tab on the panel on the right of the editor. (The Relations panel can be resized or dragged to another position).

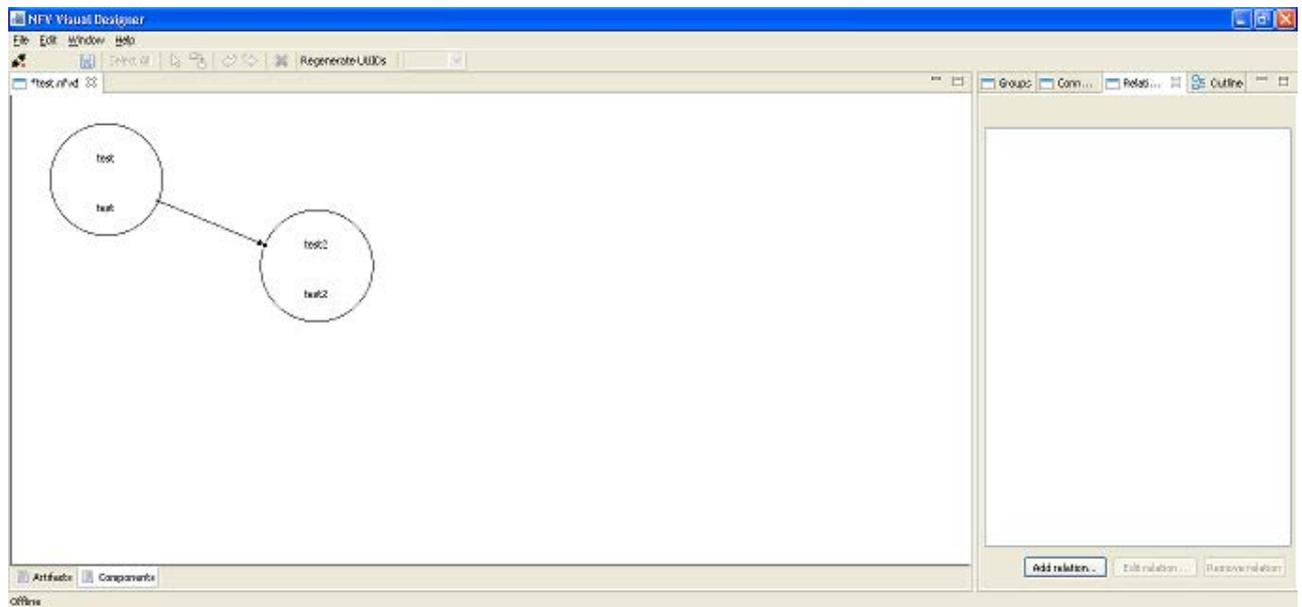


Figure 59: Relationship editor

To add new relations, click **Add relation...** and complete the attributes of the relation.

First, select from the list one of the parent group Artifacts and their role in the relationship (Child or Parent).

Second, select from the list one of the child group Artifacts and their role in the relationship (Child or Parent).

Third, fill the relationship attributes, each combo box will update dependent on the selected value on the previous ones.

Click **OK** to confirm.

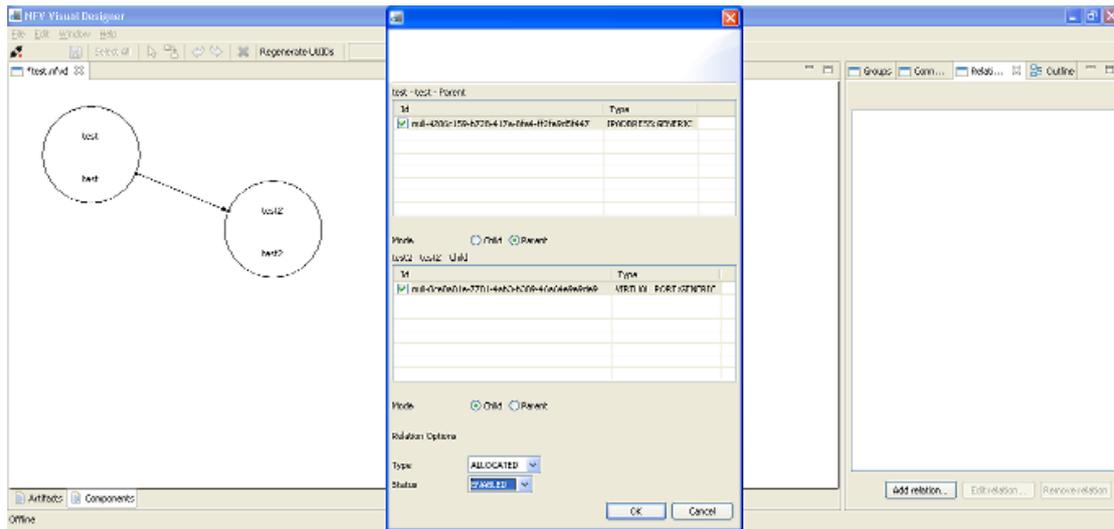


Figure 60: Add relationship

The new relation will appear on the Artifacts tab.

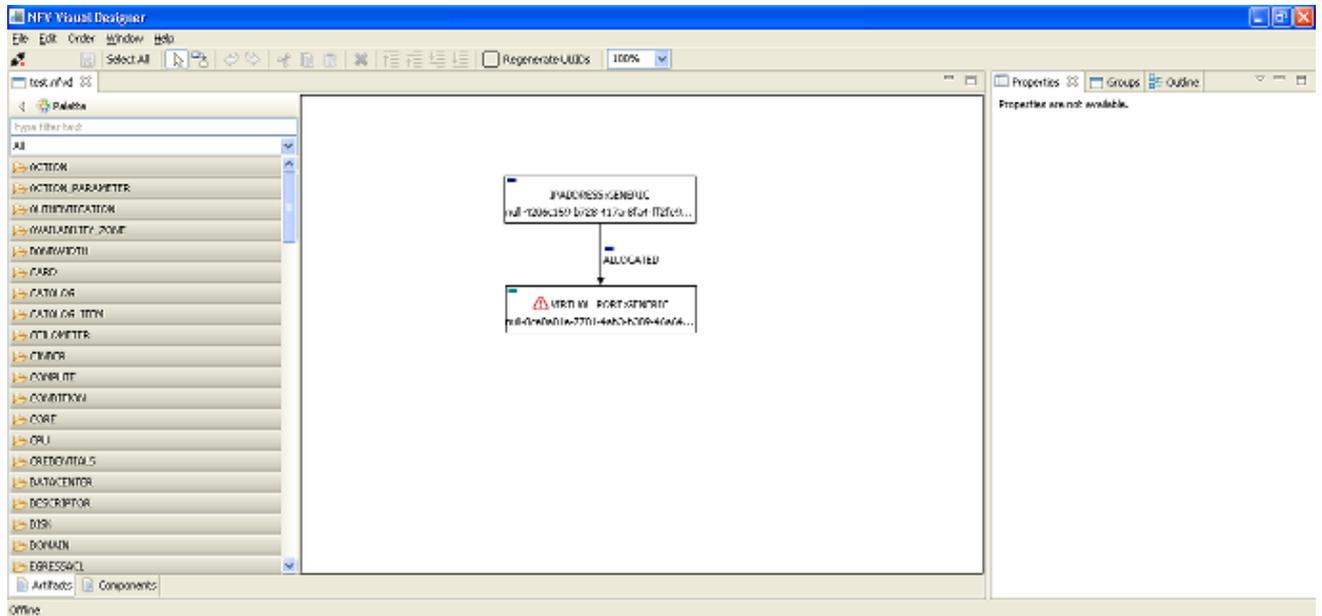


Figure 61: New relationship

To edit a relation, select it from the list and click **Edit relation...** Click **OK** to confirm the changes.

To remove a relation, select it from the list and click **Remove relation.**

Chapter 7 Export/Import

7.1 Exporting a diagram to V2 or other XML

To export a diagram:

Click **File / Export...** in the Menu bar.



Figure 62: Export NFV Diagram to XML

Select **Export NFV Diagram to xml** and Click on **Next >**.

At this point, if it exists any Artifact or Relationship with any mandatory value empty, there will appear a Warning window reminding that we should complete these values. Nevertheless, we can continue the export anyway.

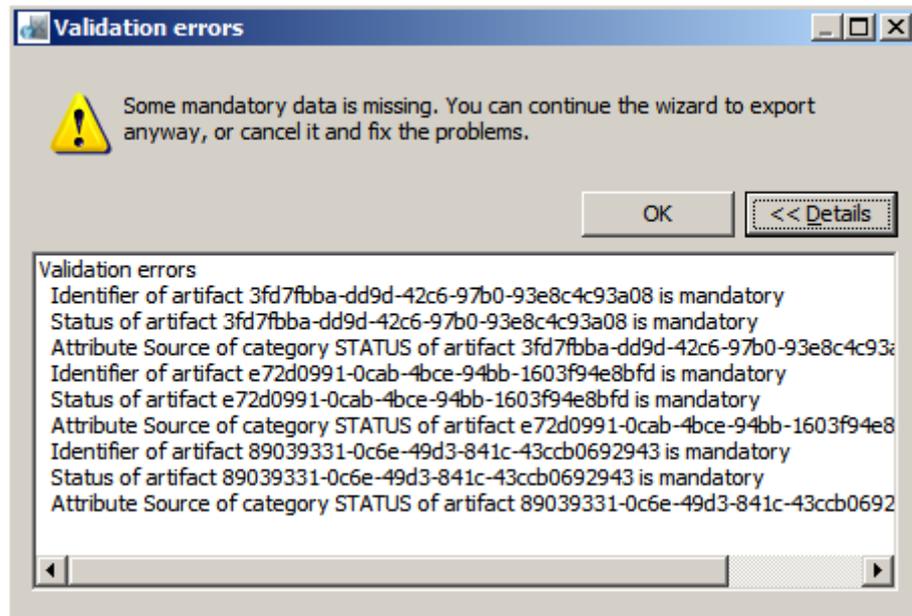


Figure 63: Validation error while exporting NFV Diagram to XML

The destination file page appears.

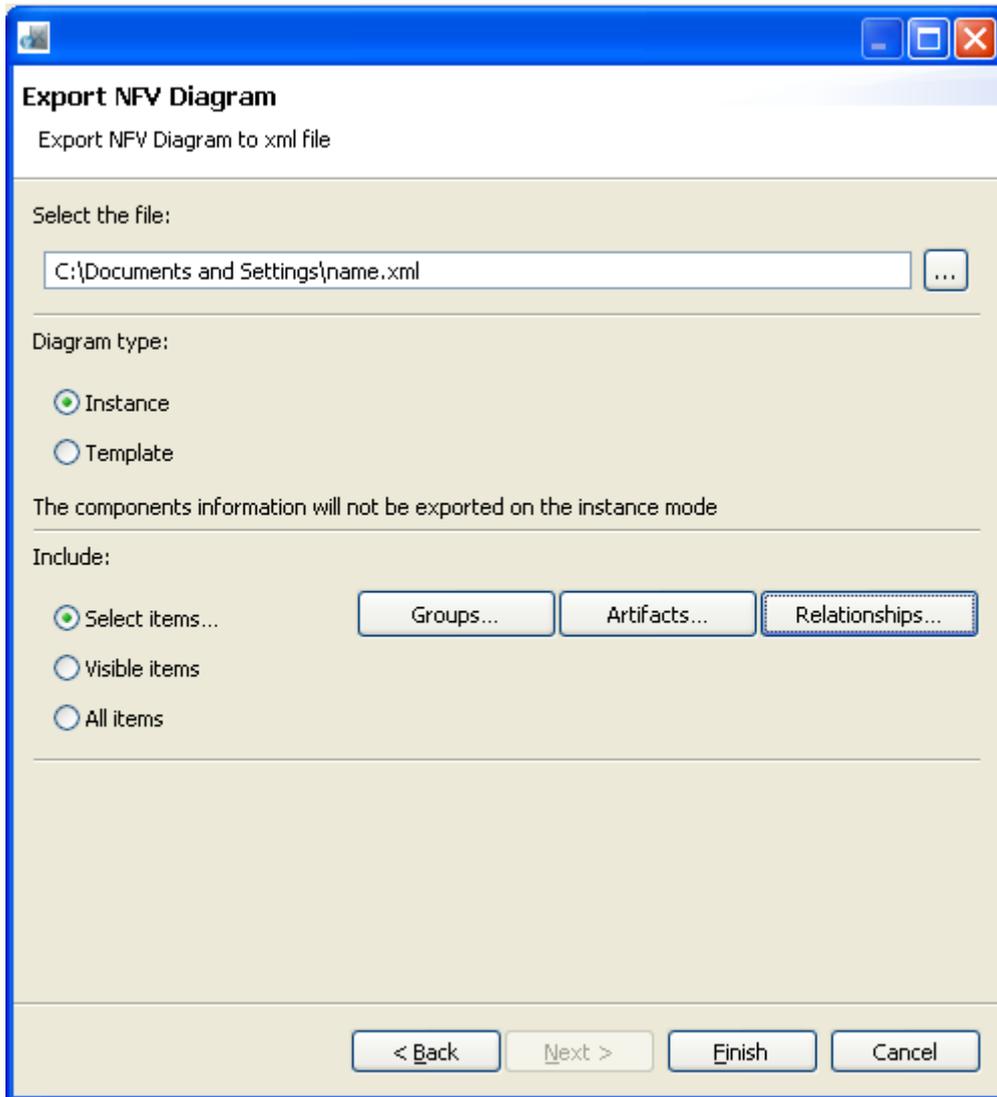


Figure 64: Provide XML name to export to

Click on ... and select the folder where the new file will be created.

Replace the suggested name with your preferred name. (Maintaining the .xml extension).

Select the diagram type (Instance or Template).

Select the export option:

- Select items, items filter by the groups, artifacts and relations.
- Visible items, only items marked as visible on the editor
- All items, export all.

Select items is the default option with all the items selected by default.

Click On **Finish**.

The diagram will be exported and a confirmation window will appear.



Figure 65: Successful export to XML

7.2 Importing a diagram from a V2 or other XML file

To import an existing xml file:

Click **File / Import...** in the Menu bar. The import wizard appears.

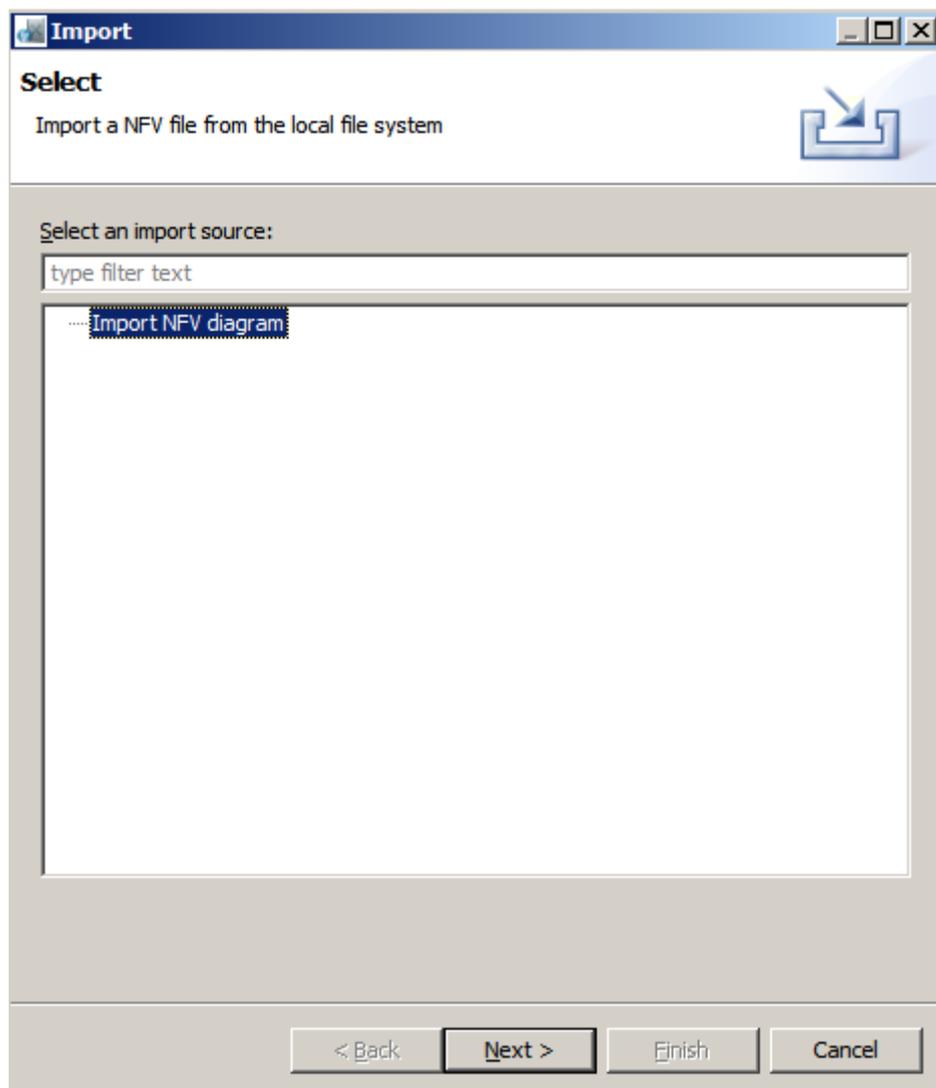


Figure 66: Import NFV Diagram

Select **Import NFV Diagram** and Click on **Next >**.

The file selection page appears.

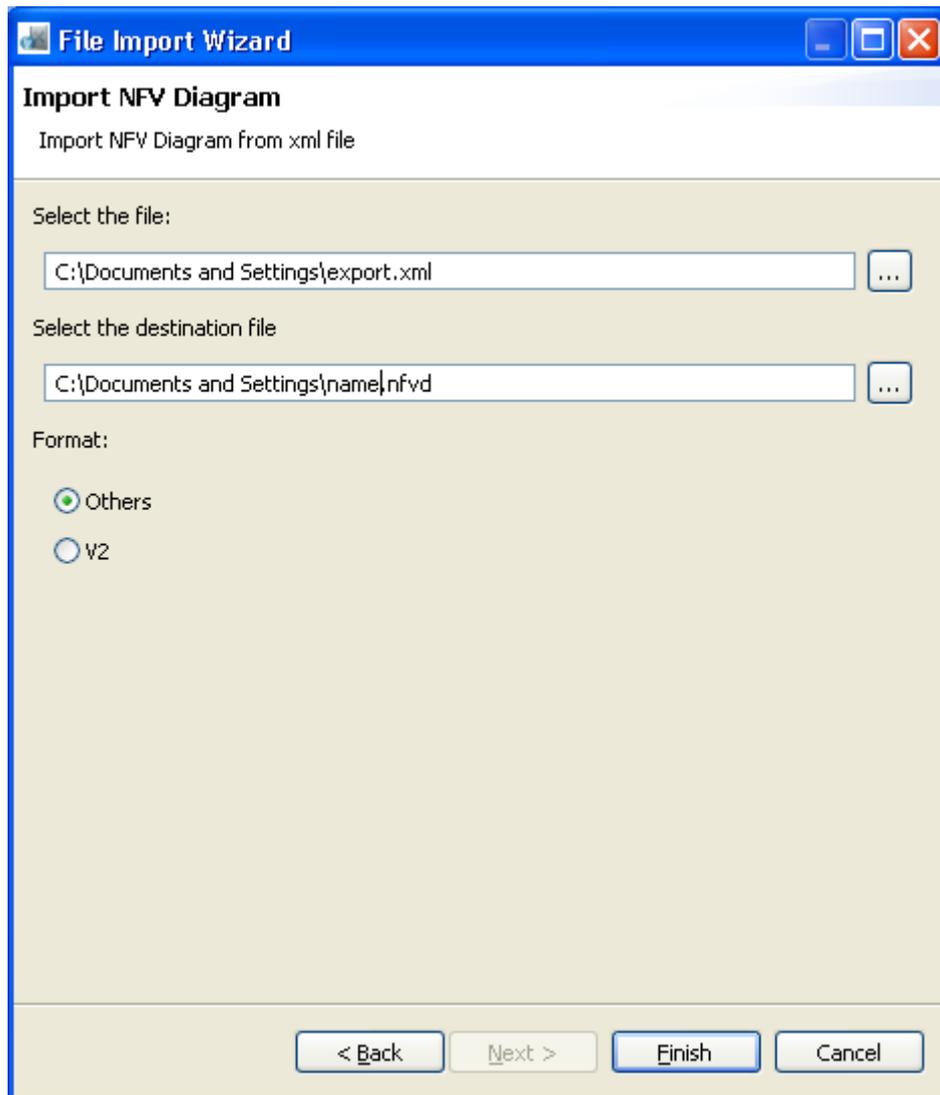


Figure 67: Select XML file to import

Click On the ... button next to the first field and select the file to import.

Click On the ... button next to the second field and select the folder where the new file will be created.

Replace the suggested name with your preferred name. (Maintaining the .nfvd extension).

Select the xml format (V2 or Others).

Click On **Finish**.

The diagram will be imported and opened in the editor.

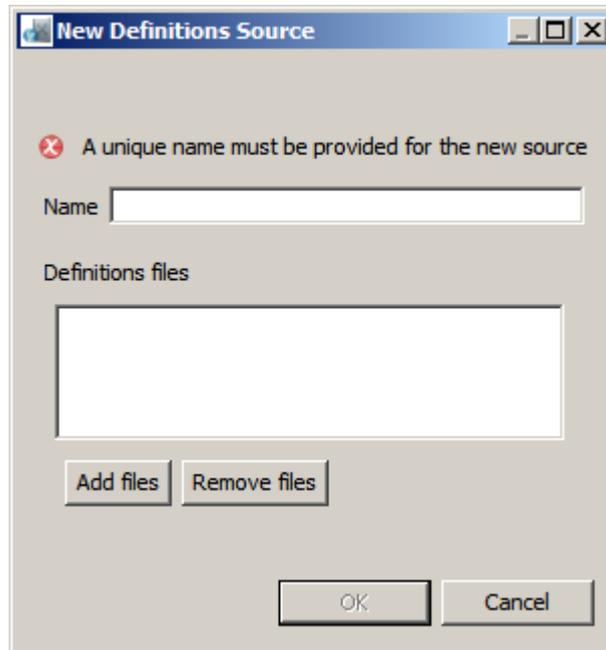


Figure 69: New definitions source

Fill-in the **name**.

Click on **Add files**, and select the xml file with the definition you want to add. You can add one or more Definition files.

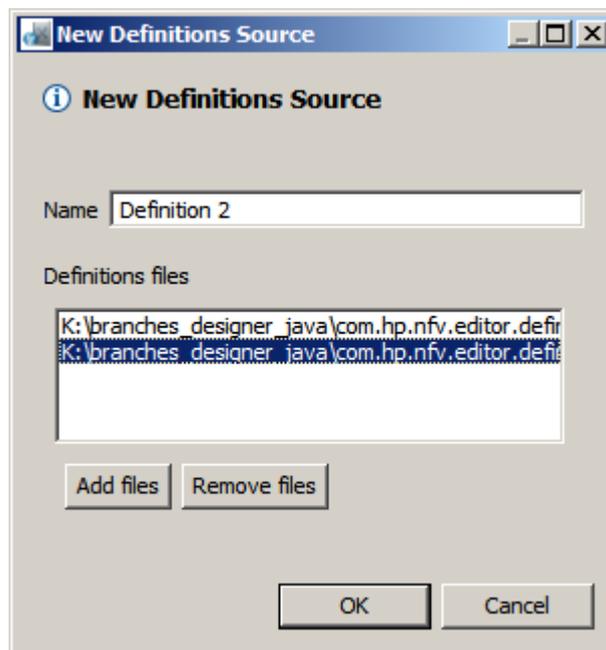


Figure 70: Adding definition files to new definition source

When it's complete, click On **OK**.

The new Definition Source has been added to the editor.

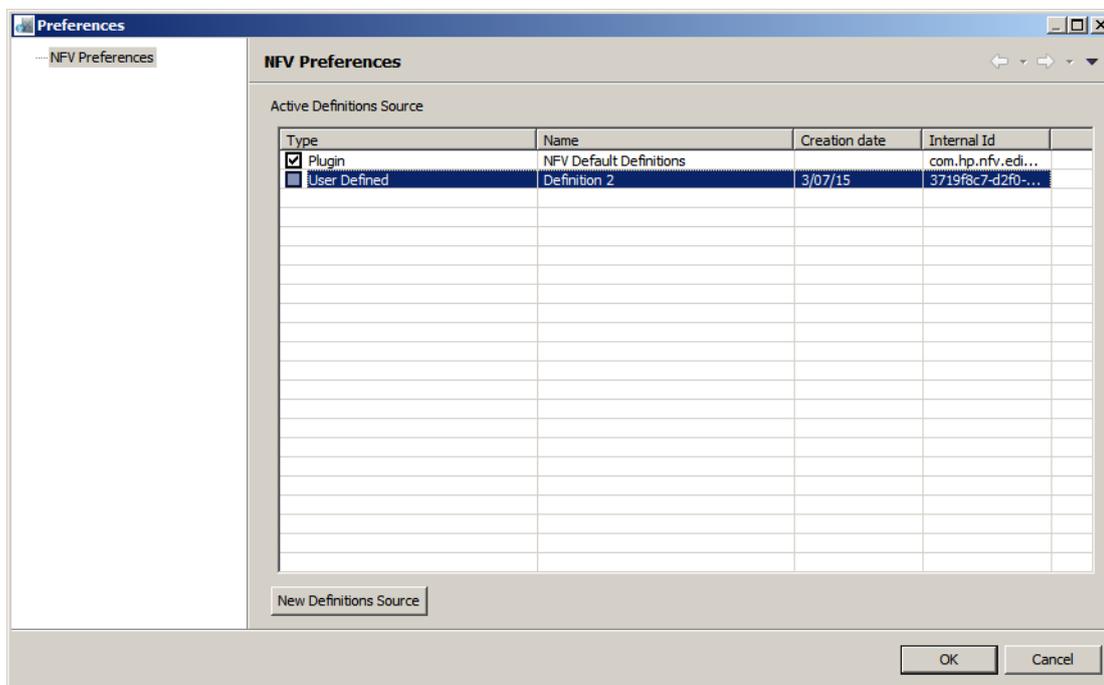


Figure 71: Successful addition of new definition source

8.2 Selecting the active diagram definition

To select the active Definition source, click on **Window / Preferences**, and **select NFV Preferences**.

Use the checkbox to select the preferred Definition Source.

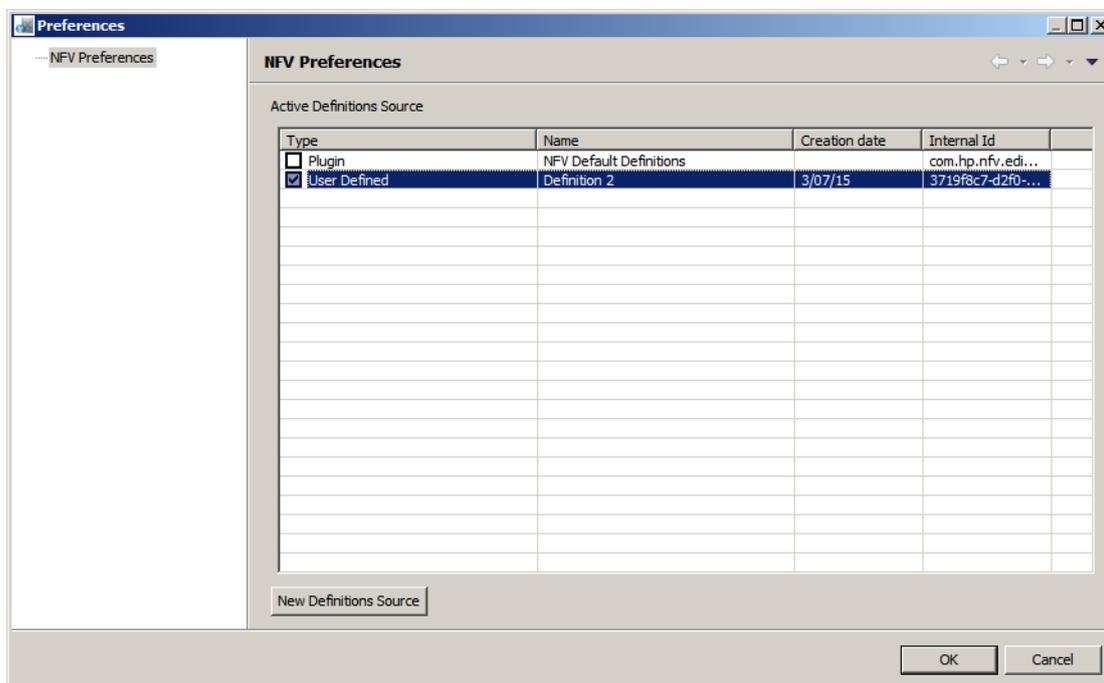


Figure 72: Setting active diagram definition

Click on **OK** to confirm.

8.3 Editing an existing diagram definition

Click on **Window / Preferences**, and select **NFV Preferences**.

8.3.1 Adding new definitions to a definition source

Right-click on the Definition Source you want to remove, and select **Add new definitions**.

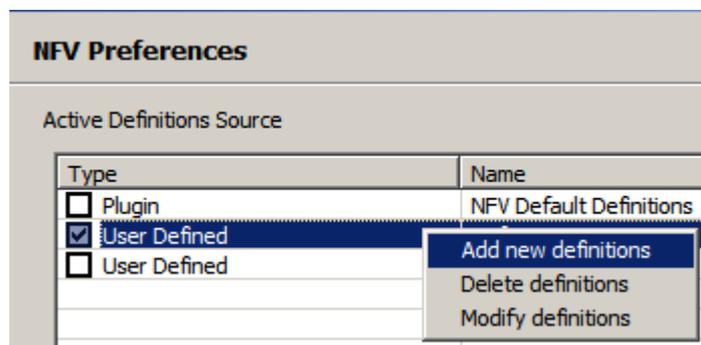


Figure 73: Editing existing diagram definition

Click on the button to select the new definitions file.

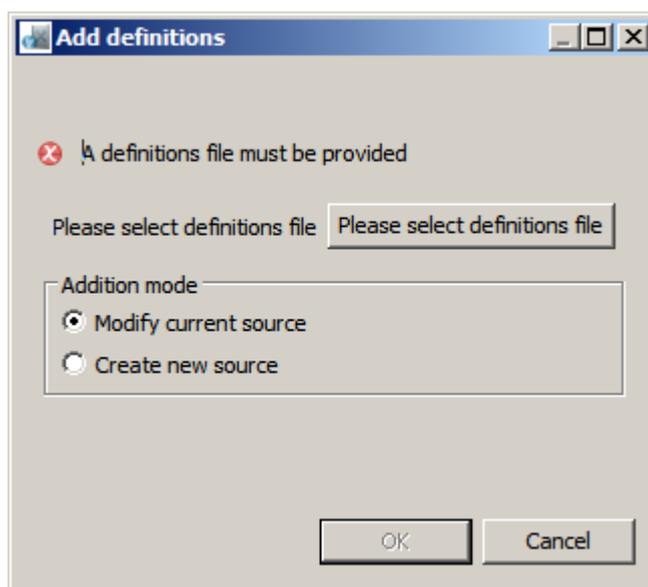


Figure 74: Select definition file

If you select **Modify current source**, the new definition will be added to the selected Definition Source.

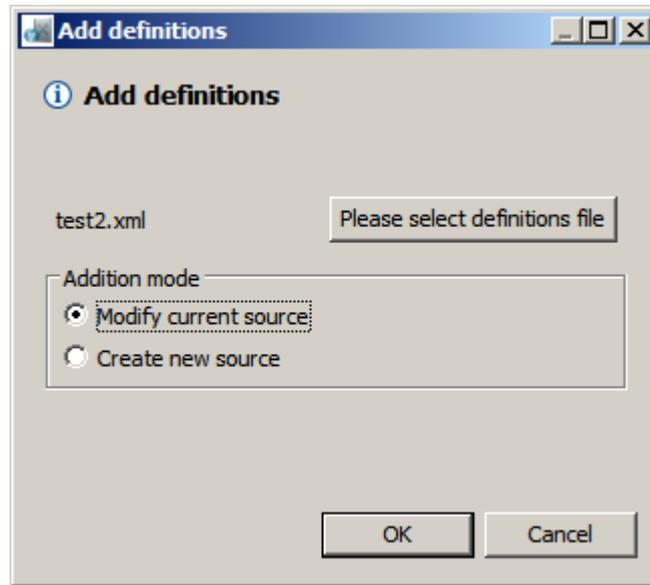


Figure 75: Select modify option

If you select **Create new source**, a new Definition Source will be created based on the selected one, and including this change.

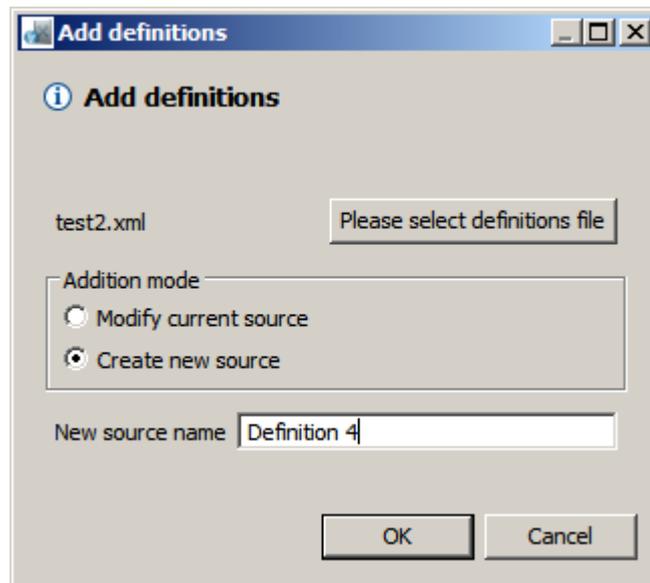


Figure 76: Select create option

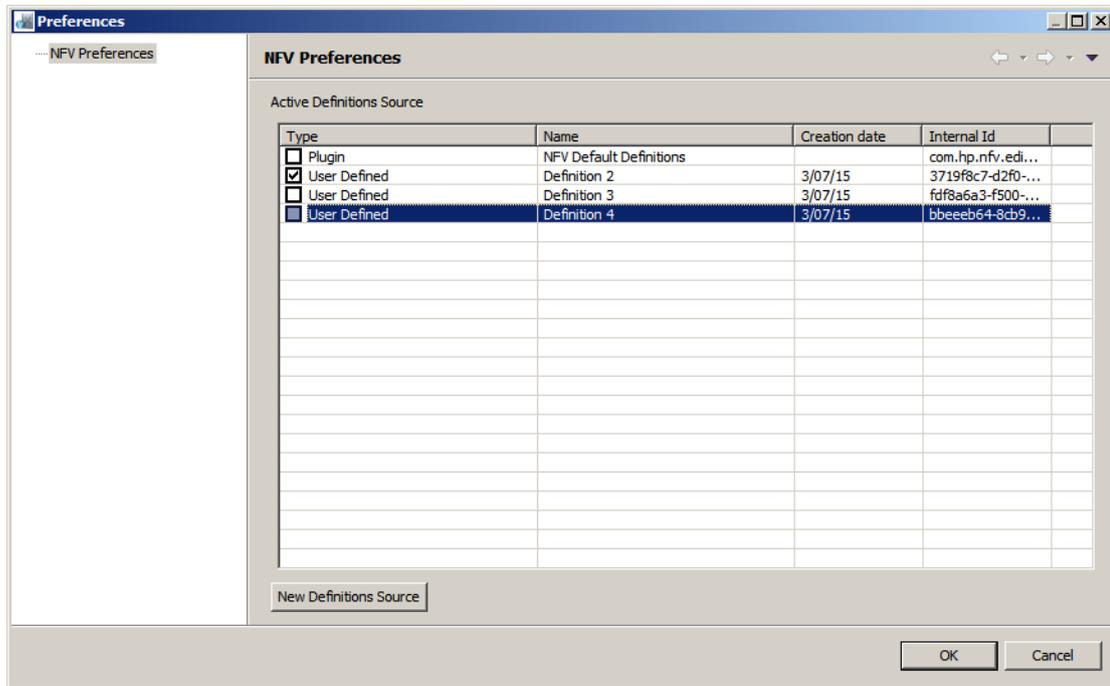


Figure 77: New definition created

Click on **OK** to confirm.

8.3.2 Deleting definitions from a definition source

Right-click on the Definition Source you want to remove, and select **Delete definitions**.

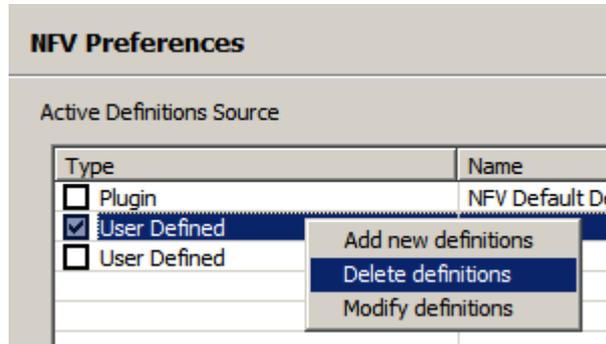


Figure 78: Delete definition

A window showing the tree of elements (Artifacts and Relationships) of the selected definition will appear.

Select the element you want to delete.

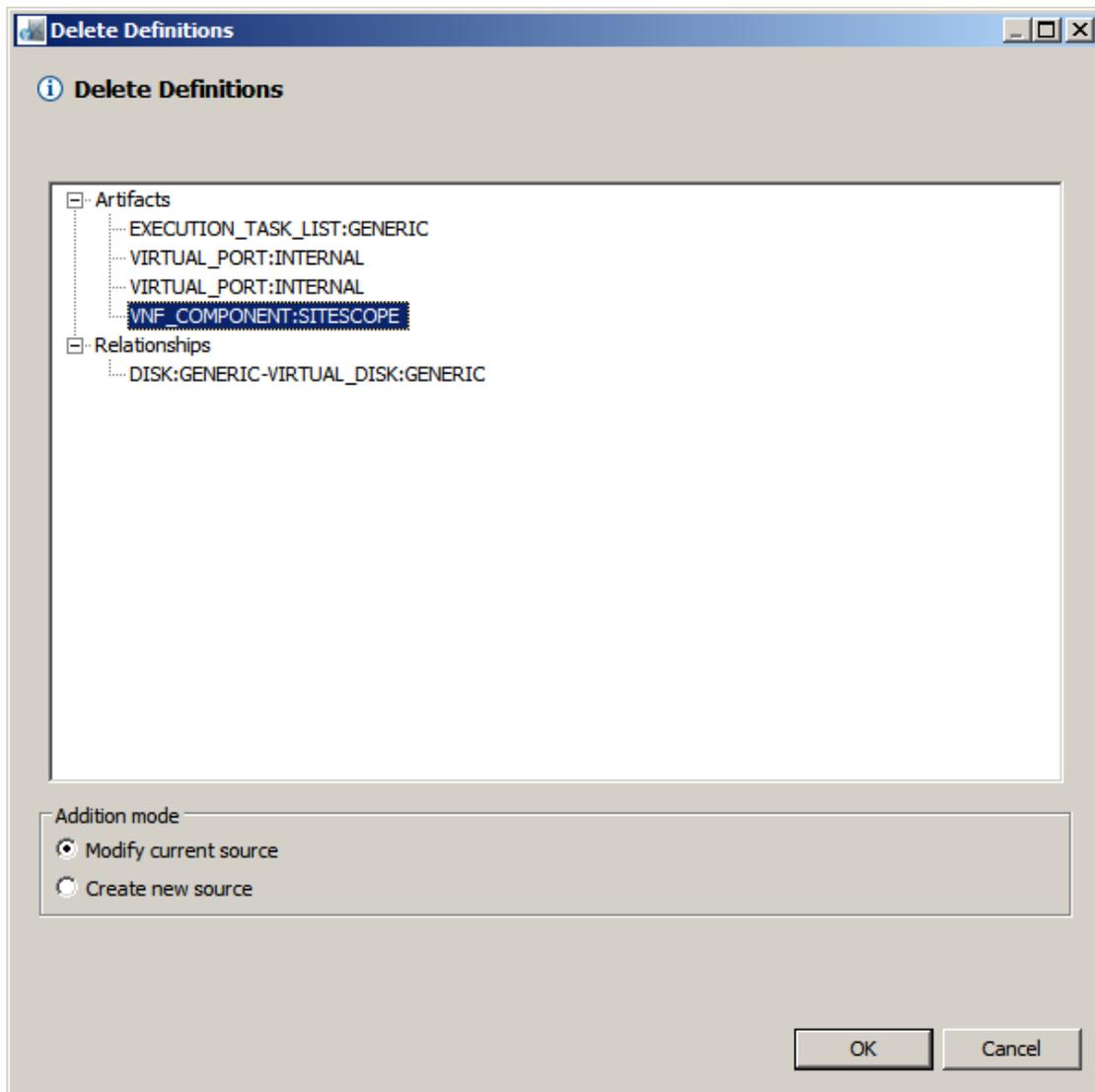


Figure 79: Select definitions to delete

If you select **Modify current source**, the selected element will be removed from the selected Definition Source.

If you select **Create new source**, a new Definition Source will be created based on the selected one, and including this change.

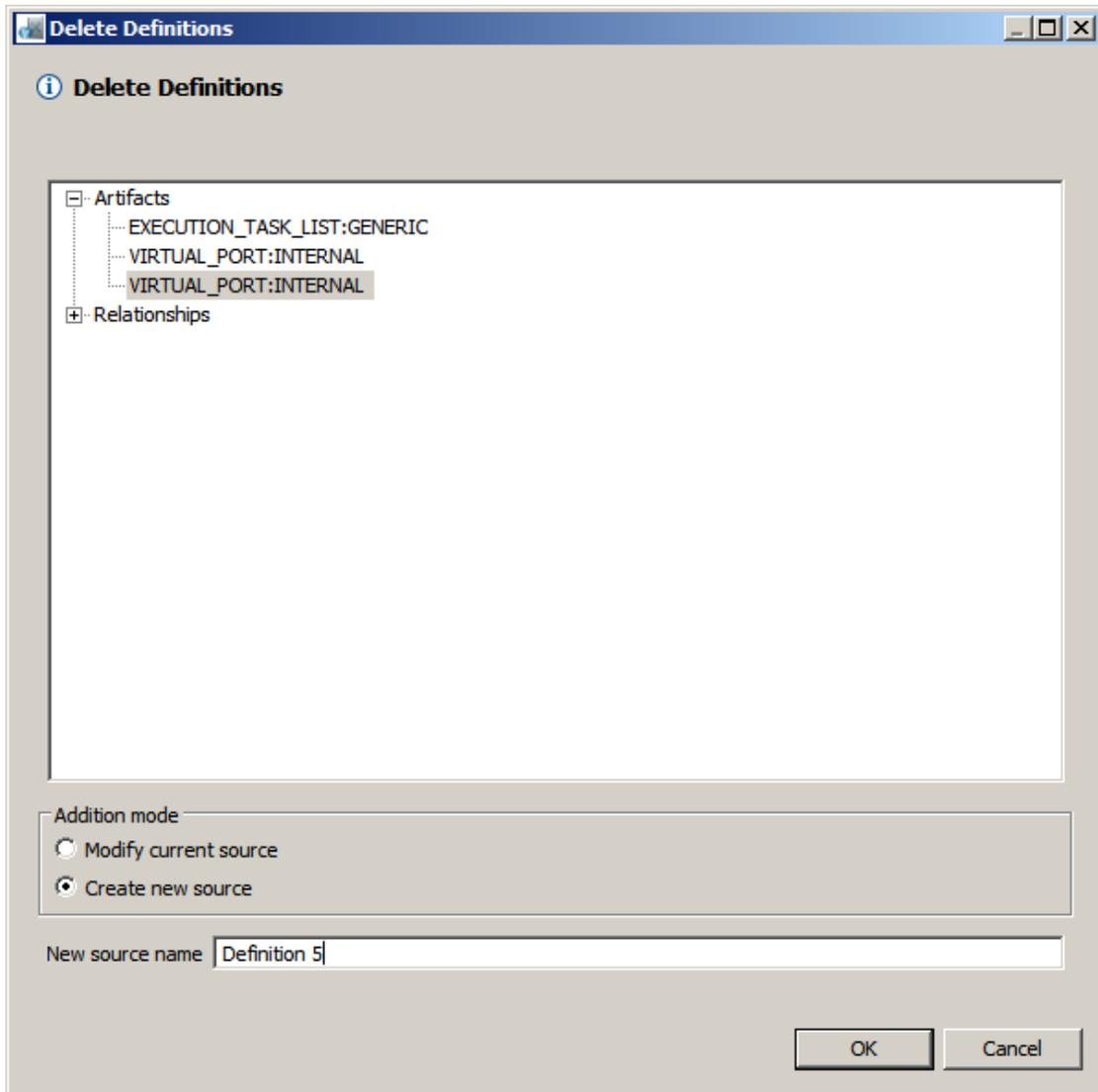


Figure 80: Modify or create definition

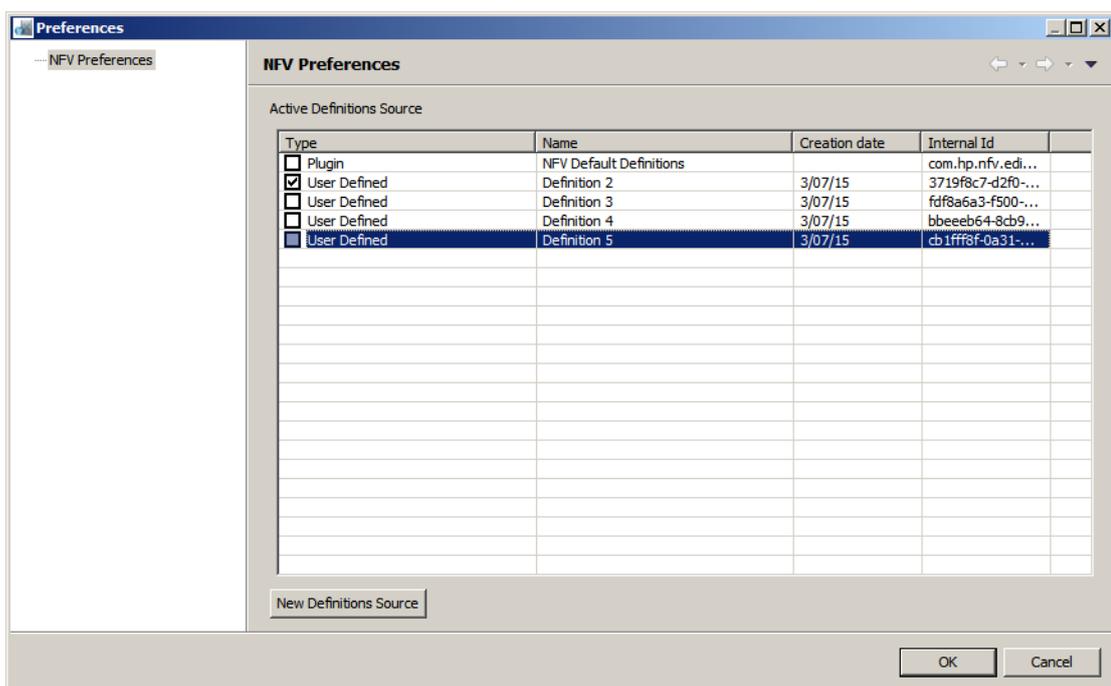


Figure 81: New definition added

Click on **OK** to confirm.

8.3.3 Modifying definitions from a Definition Source

Right-click on the Definition Source you want to remove, and select **Modify definitions**.

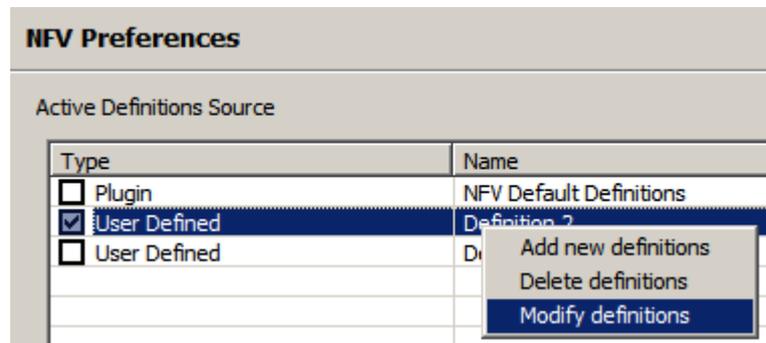


Figure 82: Modify definition

A window showing the tree of elements (Artifacts and Relationships) of the selected definition will appear.

Double click on the element you want to delete.

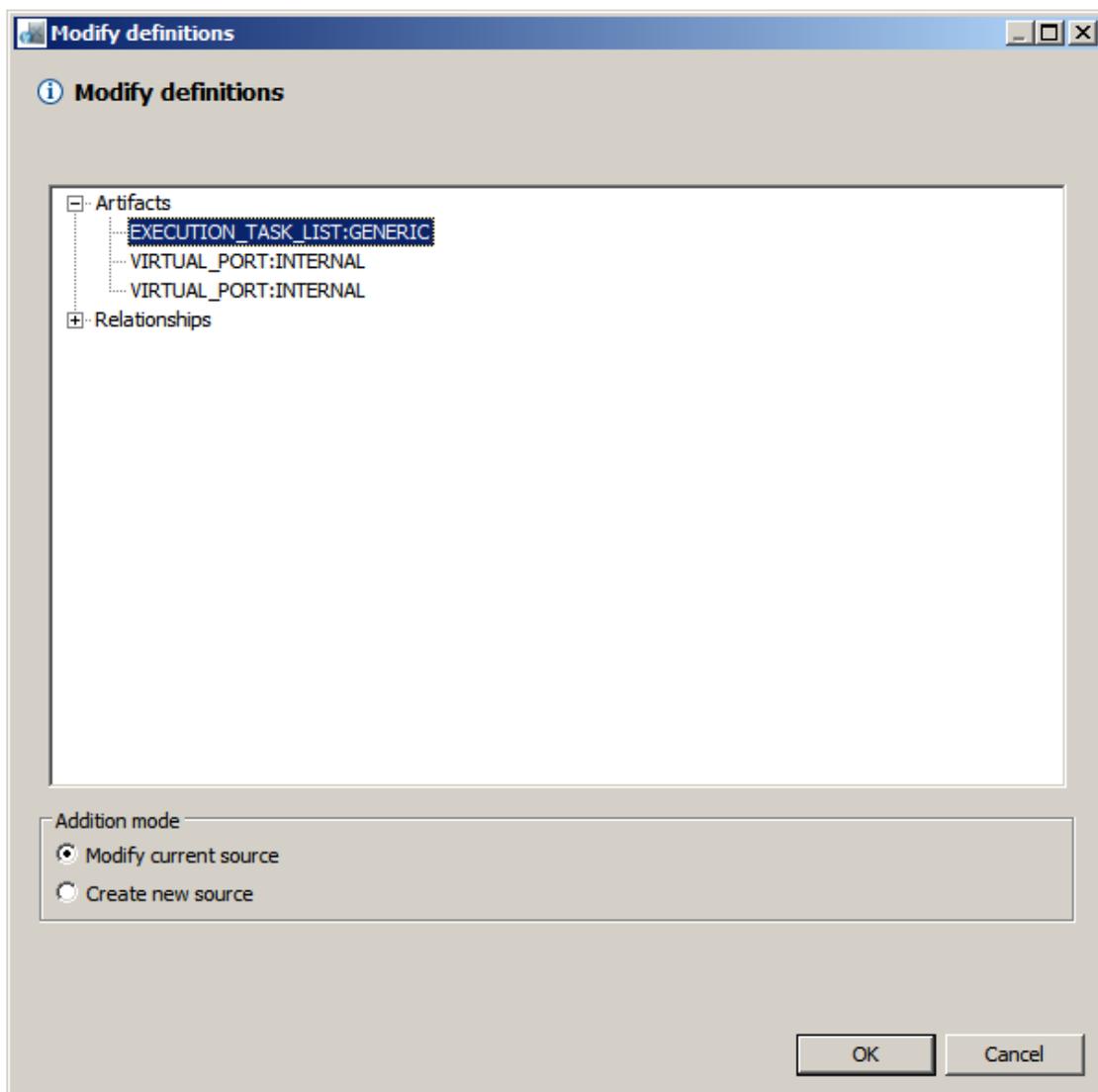


Figure 83: Select definitions to modify

Type the changes in the xml.

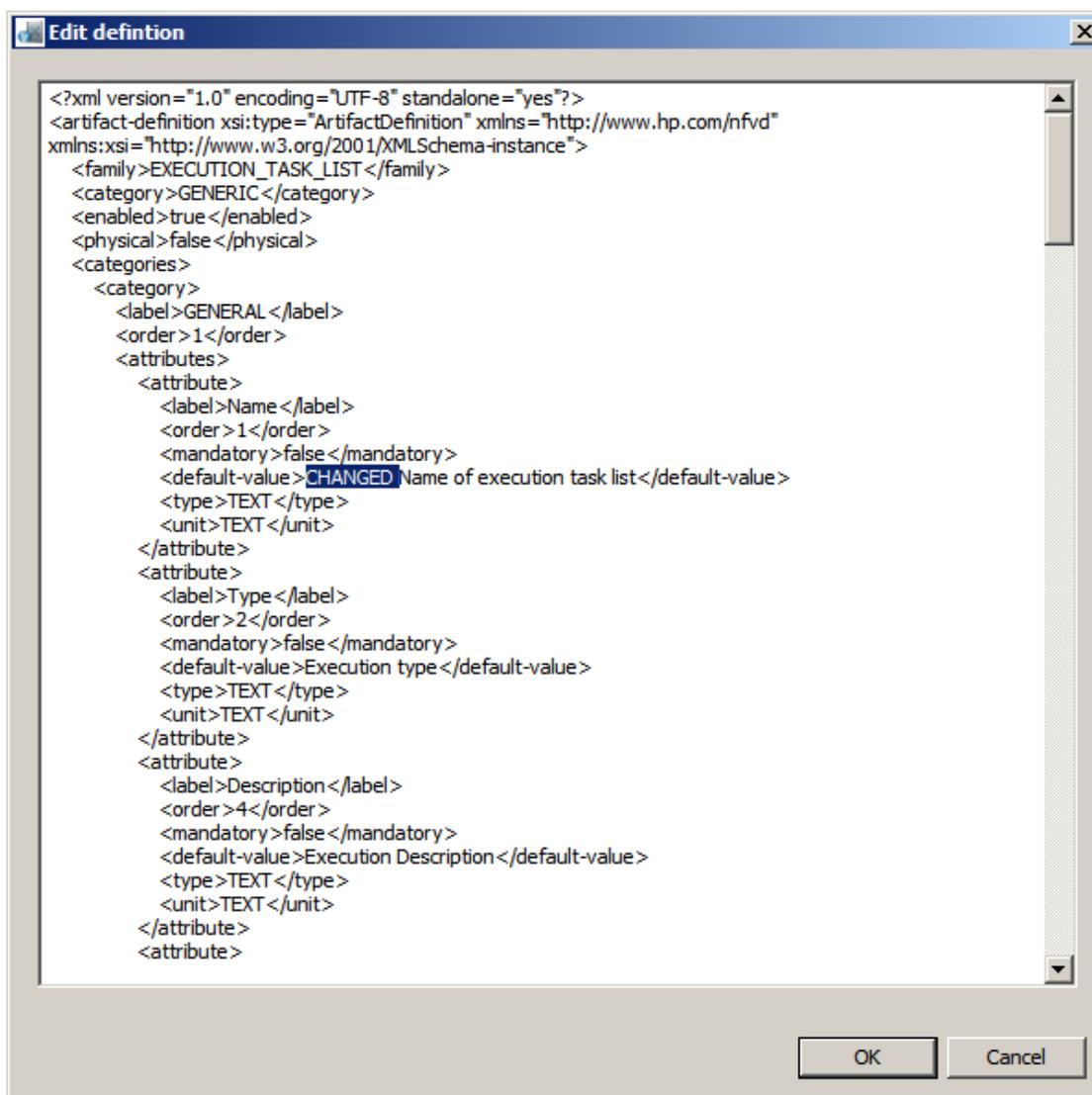


Figure 84: Edit definition XML

Click on **OK** to confirm the changes.

If you select **Modify current source**, the selected Definition Source will be updated with the modification.

If you select **Create new source**, a new Definition Source will be created based on the selected one, and including this modification.

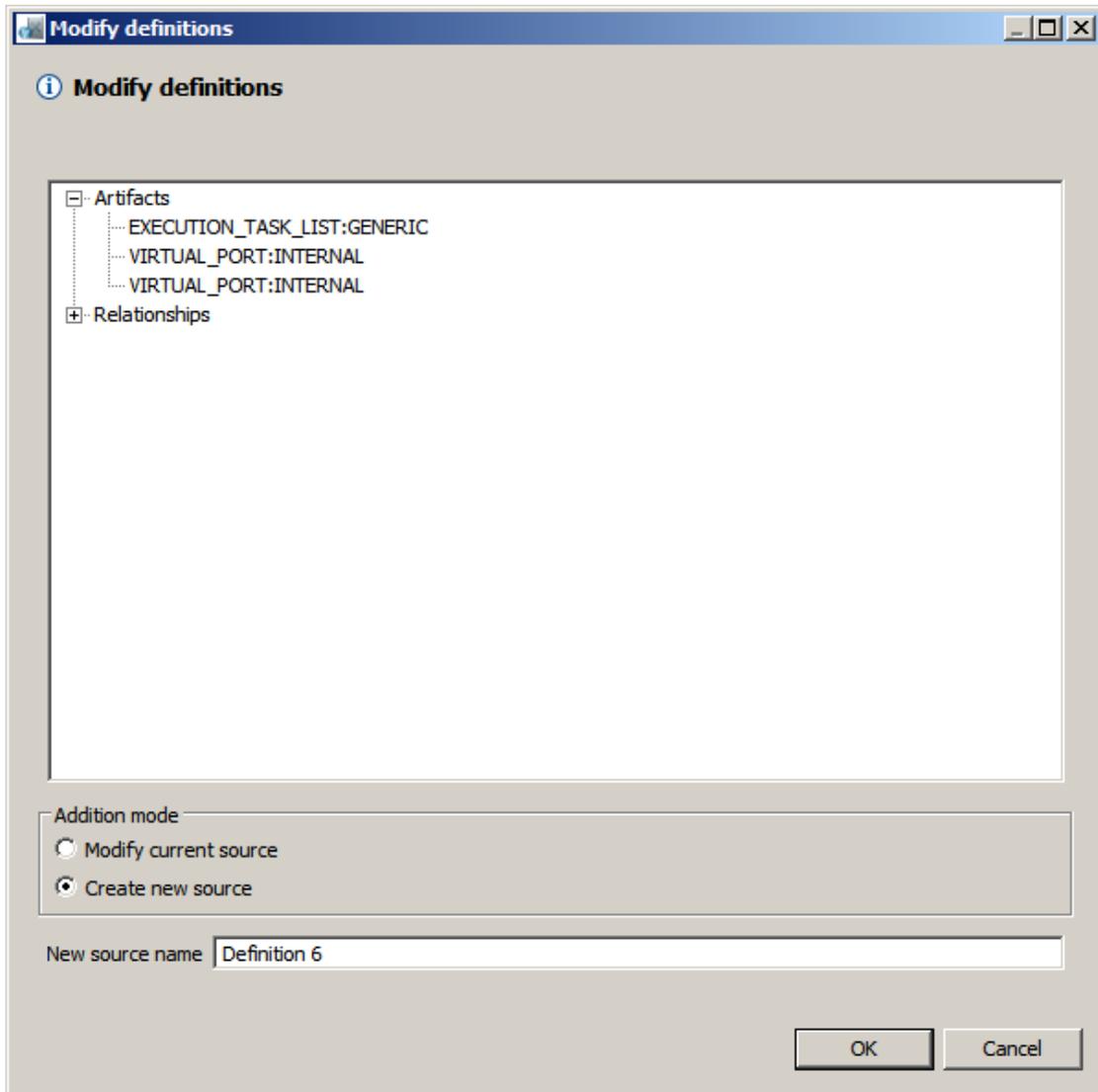


Figure 85: Create or modify definition

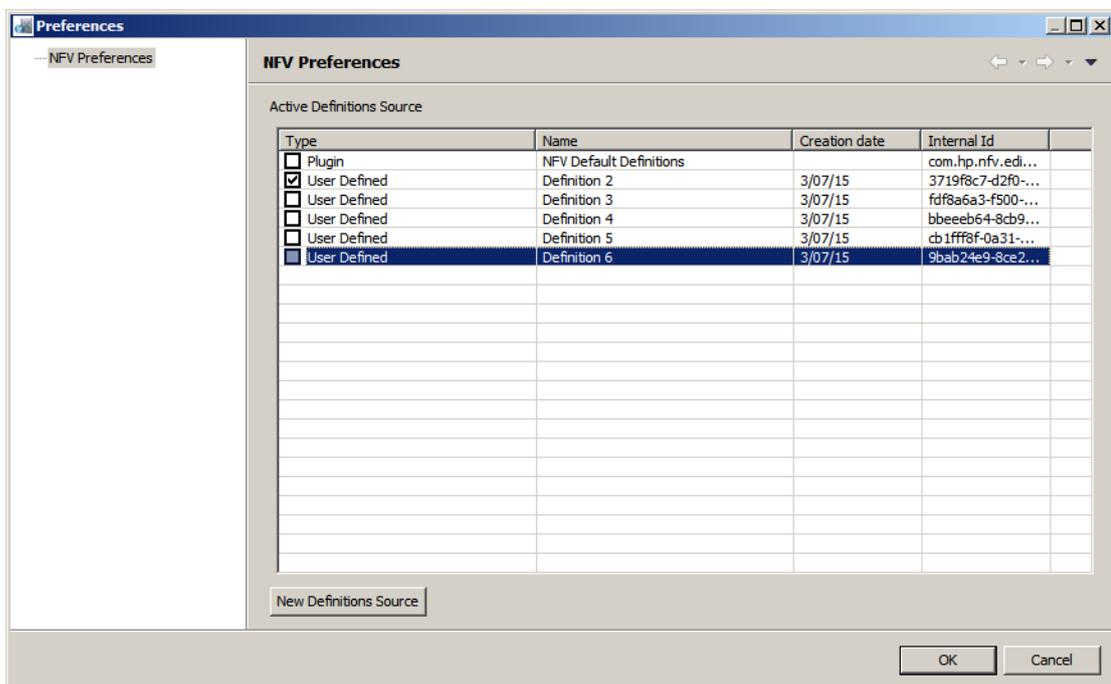


Figure 86: New definition added

Click on **OK** to confirm.

8.4 Removing an existing diagram definition

Click on **Window / Preferences**, and select **NFV Preferences**.

Right-click on the Definition Source you want to remove, and select **Delete**.

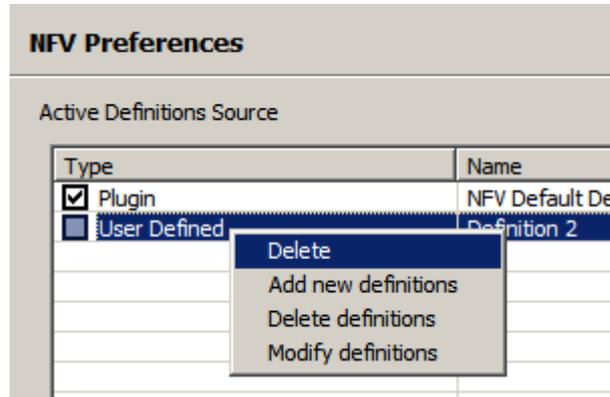


Figure 87: Select definition to delete

(NOTE: you can't remove the Default or the Active Definition Source).

Click on **OK** to confirm.

Chapter 9 Definitions editor

Plus the definitions edition capabilities on the preferences page, you can use the more visual friendly definitions editor for your edition tasks. To access the editor just follow Window -> Definitions Editor.

9.1 Modify definitions

First select a definition source from the list and wait definitions to load. Once the definitions are loaded on the list, select the definition type on the combo box, the options are Artifact or Relationship, after that, you can search the definition on the list or use the textbox filters allowed for that definition type.

To modify the selected definition just change values on the properties or categories table and save the definition as a normal file. Keep in mind that you cannot modify the default editor definitions, if you want to modify it, use “Save As” instead of “Save”, this will create a new definitions source.

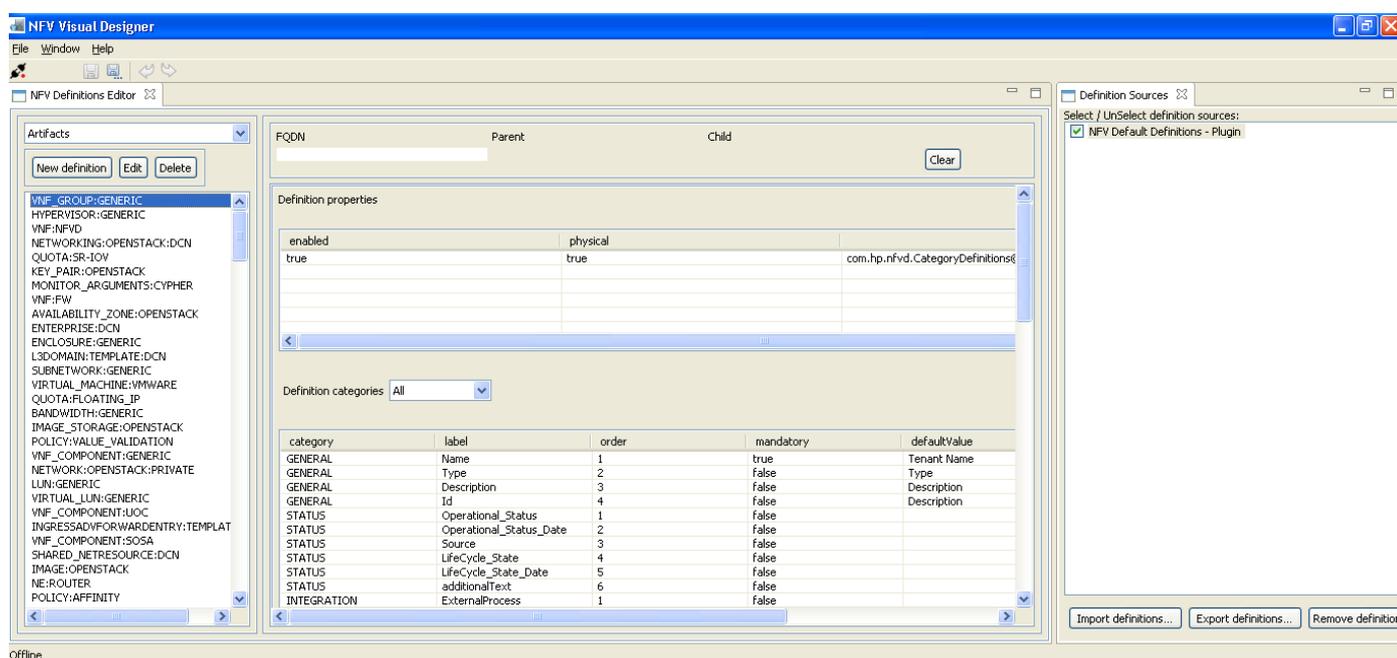


Figure 88: Definitions editor

9.2 Create definitions

Push “New definition” button and select the definition type on the wizard dialog.

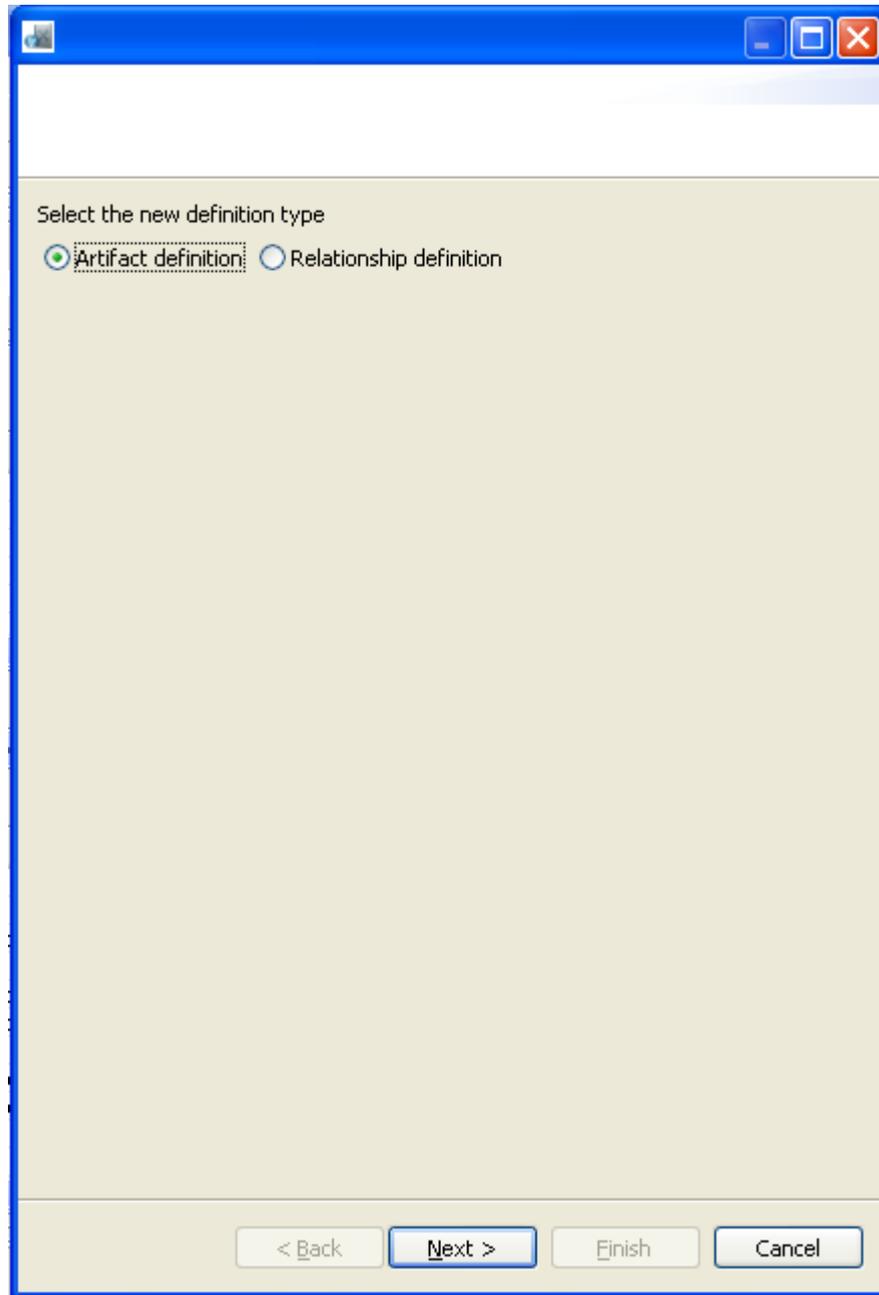


Figure 89: Selecting definition type

Next, fill the definition properties and status in the next page.

The dialog box is titled "Create definition category". It features a blue title bar with standard window controls (minimize, maximize, close). The main area is divided into two sections:

- New category section:** Contains three buttons: "New category", "Edit", and "Remove". Below these is a table with two columns: "Label" and "Order".
- New attribute section:** Contains three buttons: "New attribute", "Edit", and "Remove". Below these is a table with seven columns: "Label", "Order", "Mandatory", "Default value", "Description", "Type", and "Unit".

At the bottom of the dialog, there are four buttons: "< Back", "Next >", "Finish", and "Cancel".

Figure 91: Create definition category

9.3 Edit definitions

In order to edit definitions, select one definition from the list and push the "Edit" button. The edition wizard is the same as the "New definitions" wizard, just follow it and edit the desired values.

Family

Category

Group

Type

Subtype

Version

Enabled

Physical

InternalId

Uri

Label	Visible label	Enabled	
ENABLED	ENABLED	Yes	
DISABLED	DISABLED	Yes	
CHECKED	CHECKED	Yes	
DESIGNED	DESIGNED	Yes	
RESERVED	RESERVED	Yes	
PROVISIONED	PROVISIONED	Yes	
ACTIVE	ACTIVE	Yes	
ERROR	ERROR	Yes	
TERMINATED	TERMINATED	Yes	
INSTANTIATED	INSTANTIATED	Yes	
LOCKED	LOCKED	Yes	

Figure 92: Edit definition

The screenshot shows a software window titled "Definitions editor" with a blue title bar. The main area is divided into two sections. The top section is for managing categories, featuring buttons for "New category", "Edit", and "Remove". Below these buttons is a table with two columns: "Label" and "Order".

Label	Order
GENERAL	1
STATUS	3
INTEGRATION	4

The bottom section is for managing attributes, featuring buttons for "New attribute", "Edit", and "Remove". Below these buttons is a table with seven columns: "Label", "Order", "Mandatory", "Default value", "Description", "Type", and "Unit".

Label	Order	Mandatory	Default value	Description	Type	Unit
Name	1	Yes	Tenant Name		TEXT	TEXT
Type	2	No	Type		TEXT	TEXT
Description	3	No	Description		TEXT	TEXT
Id	4	No	Description		TEXT	TEXT

At the bottom of the window, there are four navigation buttons: "< Back", "Next >", "Finish", and "Cancel".

Figure 93: Edit, add or remove attributes

9.4 Delete definitions

Select the definition from the list and push "Delete" button to delete it from the definitions source.

9.5 Import definitions source

Push the Import definitions button, then the add files button and select the desired .xml definition files.

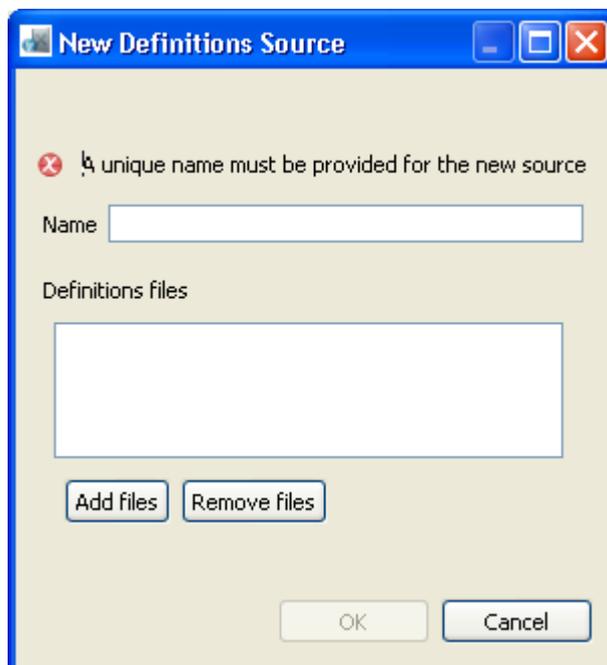


Figure 94: New definitions source

Click On the “Ok” button, a new definitions source will be added into the list.

9.6 Export definitions source

Push Export definitions button, select the output folder and the export type, “Splitted” for one file per definition and “One single file” to merge all definitions in one single file.

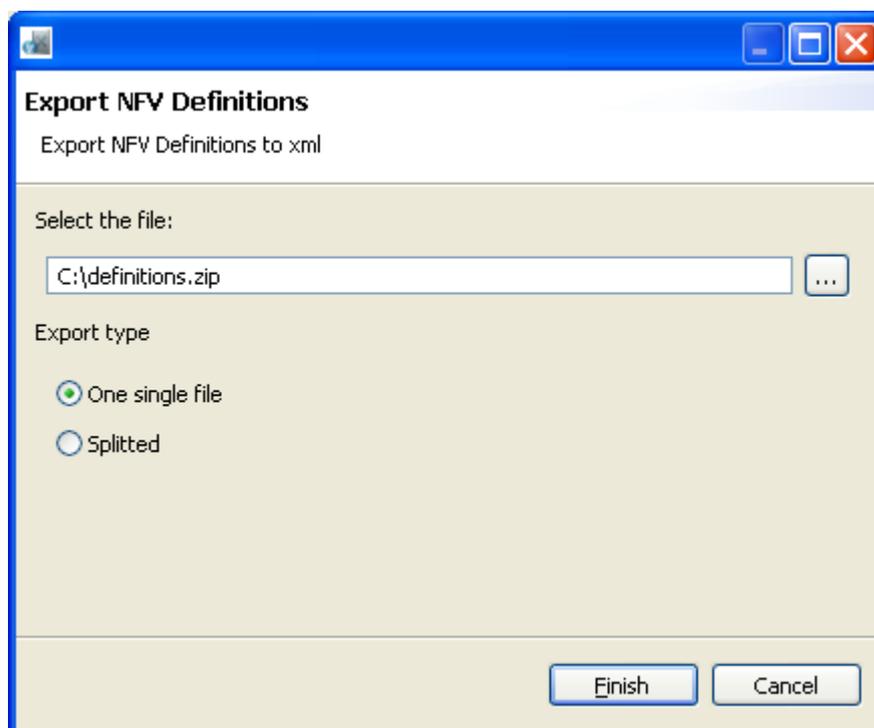


Figure 95: Export definitions source

9.7 Delete definitions source

To delete a definitions source, select one of the list and push the “Remove definitions” button. You cannot delete the default definitions source. Also if the definitions source are active you must switch to another source in order to delete it.

Chapter 10 Preferences

10.1 General section

To open the editor preferences just go to Window -> Preferences and select the NFV Preferences to see the general section settings. To access other sections just expand NFV Preferences and select them.

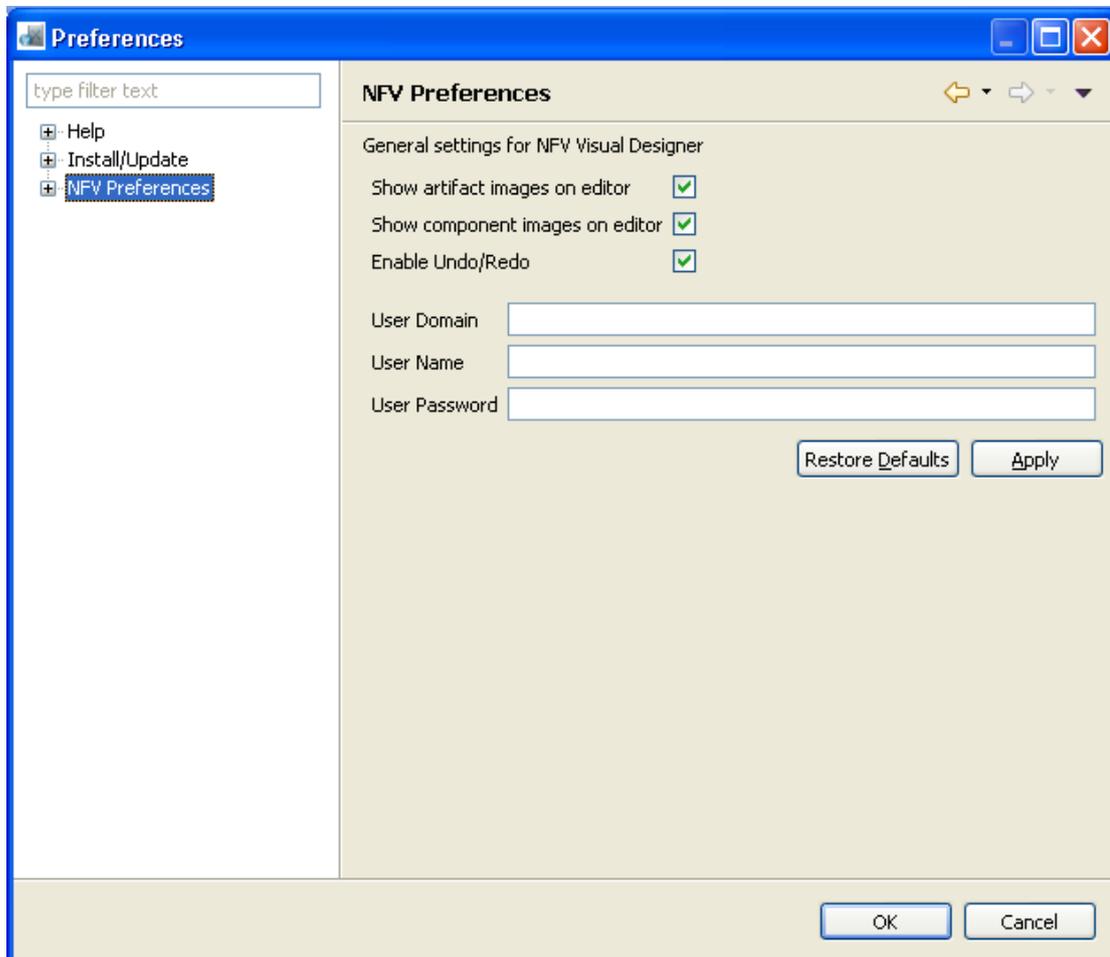


Figure 96: General NFV preferences

The actual available preferences are:

Show artifact images on editor: when enabled, the artifact identifier text gets replaced by the configured artifact image.

Show component images on editor: when enabled, configured component image is shown.

Enable Undo/Redo: improve performance on large diagrams when enabled.

User Domain: domain on which the user has access rights.

User Name: the user name.

User Password: the user password.

You can restore the default values or push **OK** to perform changes.

10.2 Artifacts images

In this section you can configure the Artifacts images. Expands a family and selects from disk the image that will apply for the desired category, you can also set up the family category NFV_DEFAULT, that image will apply for all the categories without image.

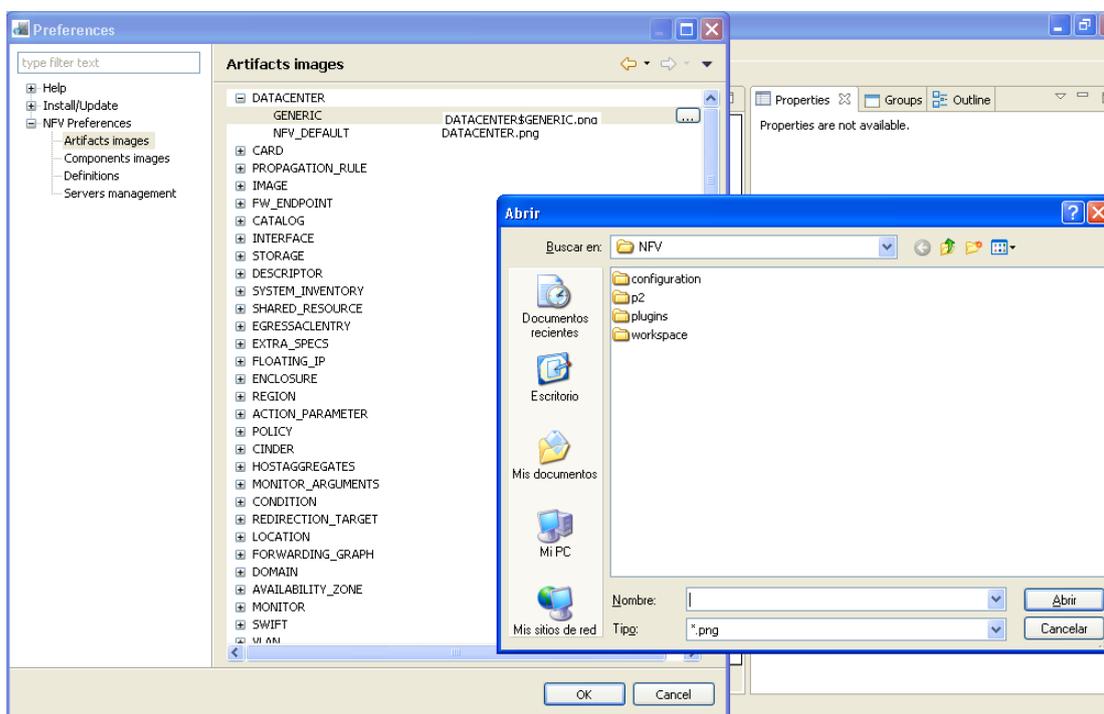


Figure 97: Configure artifacts images

You can restore the default values or push **OK** to perform changes.

10.3 Components images

In this section you can configure images for the groups loaded in the editor, just selects from disk the image that will apply for the desired group.

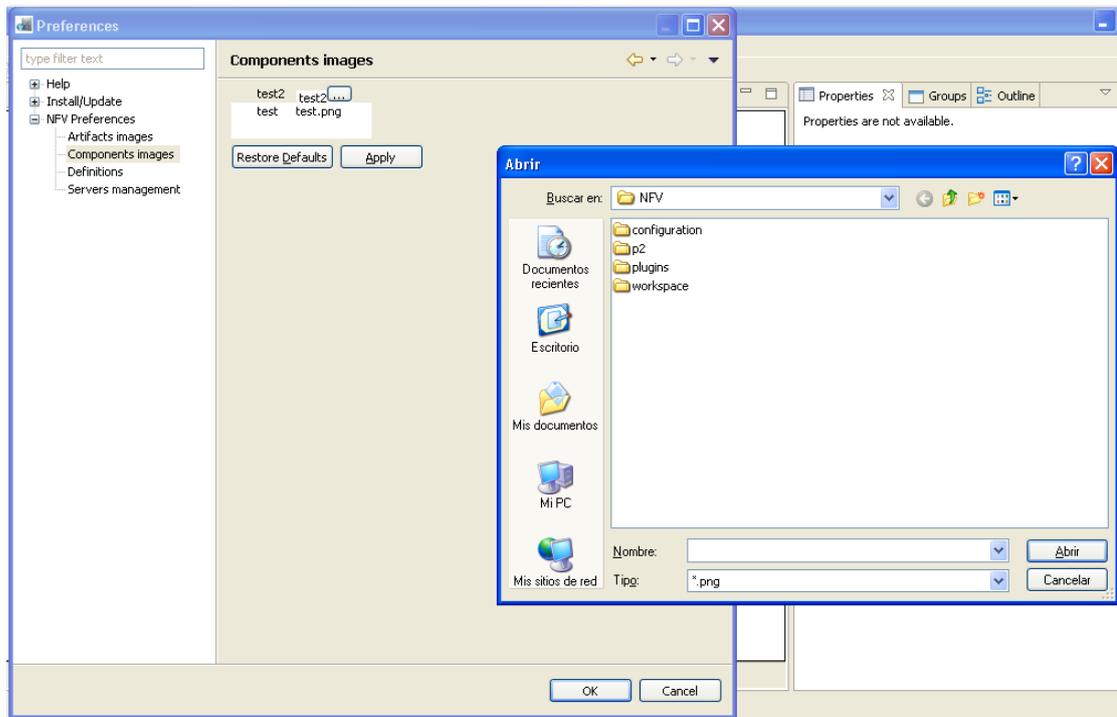


Figure 98: Manage component images

You can restore the default values or push **OK** to perform changes.

10.4 Definitions

Go to section 9 of this manual to read more about how to handle definitions on this preferences section.

10.5 Servers management

In this section you can add, edit or delete server URLs for posterior selection.

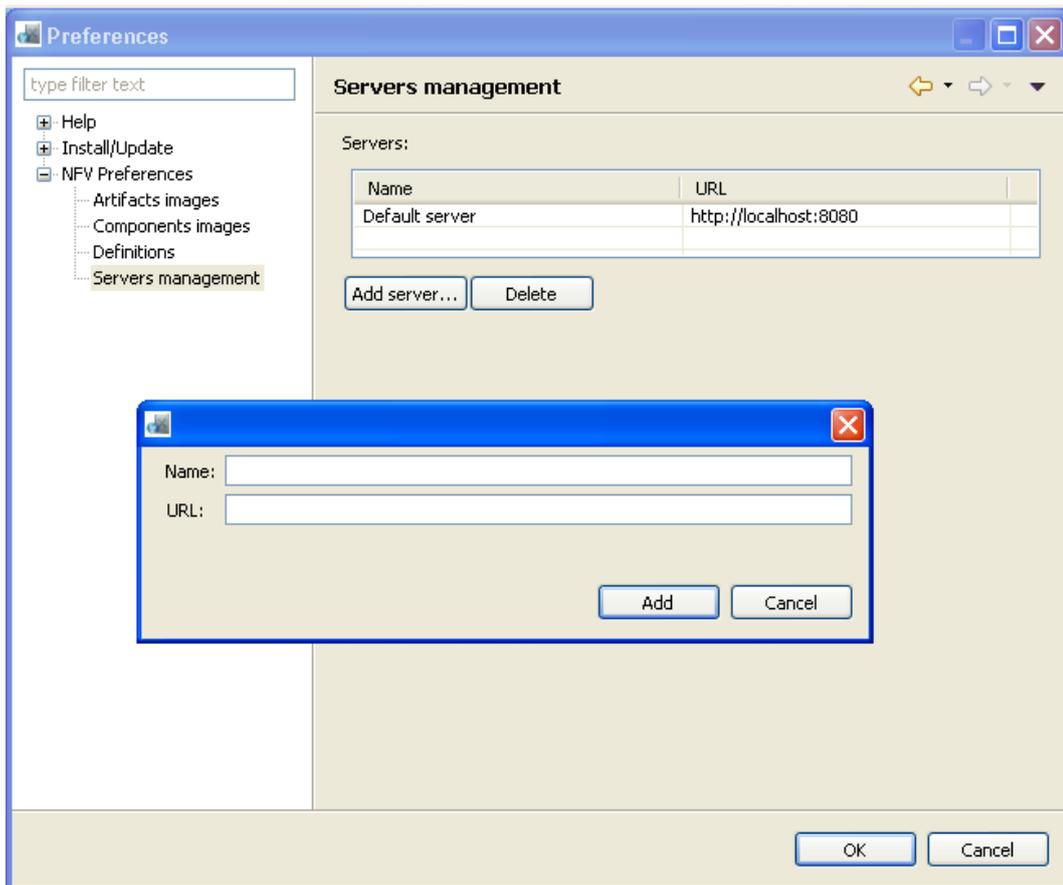


Figure 99: Servers management

You can restore the default values or push **OK** to perform changes.

To change to online mode on the editor and selects one of the servers previously added on the preferences section just click the connect icon on editor toolbar.



Figure 100: connect icon

Then select the server from the list and Click on **OK**.

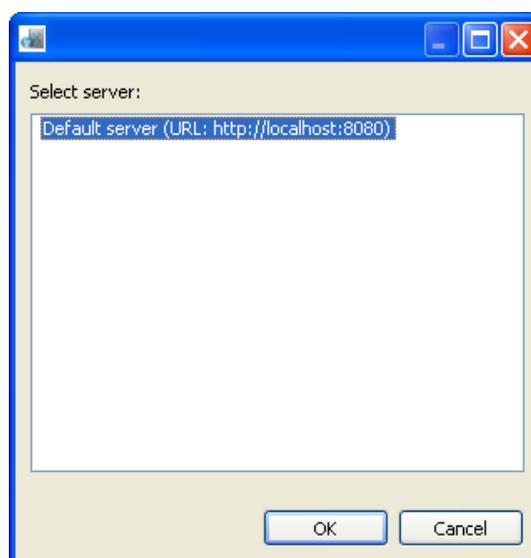


Figure 101: Server selection

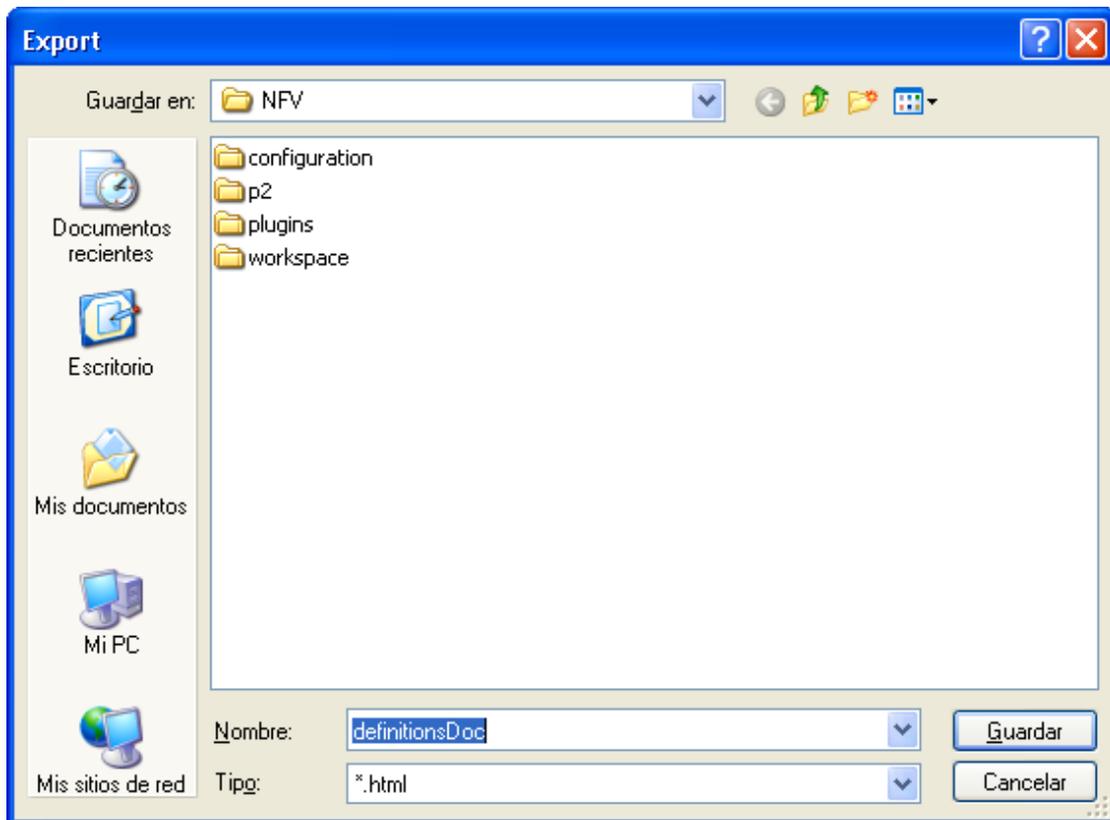


Figure 104: Export documentation

Chapter 12 Validations

12.1 Introduction

Whenever an Artifact or a Relationship has any of its mandatory fields empty, the editor shows a “(*)” mark next to its label in the editor.

If we select an Artifact or Relationship with validation errors, we can see the particular field that requires completion, with another “(*)” mark next to the name of the field.

When an export is being performed, a validation will be done, and if there is any Artifact or Relationship with any mandatory value empty, there will appear a Warning window reminding that we should complete these values. Nevertheless, we can continue the export anyway.

12.1.1 Text on the cover

The cover page contains the document title, subtitle and release / part number / edition information fields. Modify or delete these entries as required. These fields use the built-in title, subtitle and cover release/edition fields respectively. Do not use these styles for other purpose.

12.1.2 Graphics on the cover

The template comes with the standard cover page. Choose the appropriate cover page with the image matching the PDF documentation set or your needs from the HPE cover page gallery of the template.

1. Select the current cover page.
2. Go to the Insert tab of the Ribbon.
3. Open the Cover Page drop-down list and scroll down to the HPE section at the bottom.
4. Choose the appropriate cover page. This replaces the current cover page with the chosen cover page. If the replacement does not happen, any additional cover pages can be deleted manually.