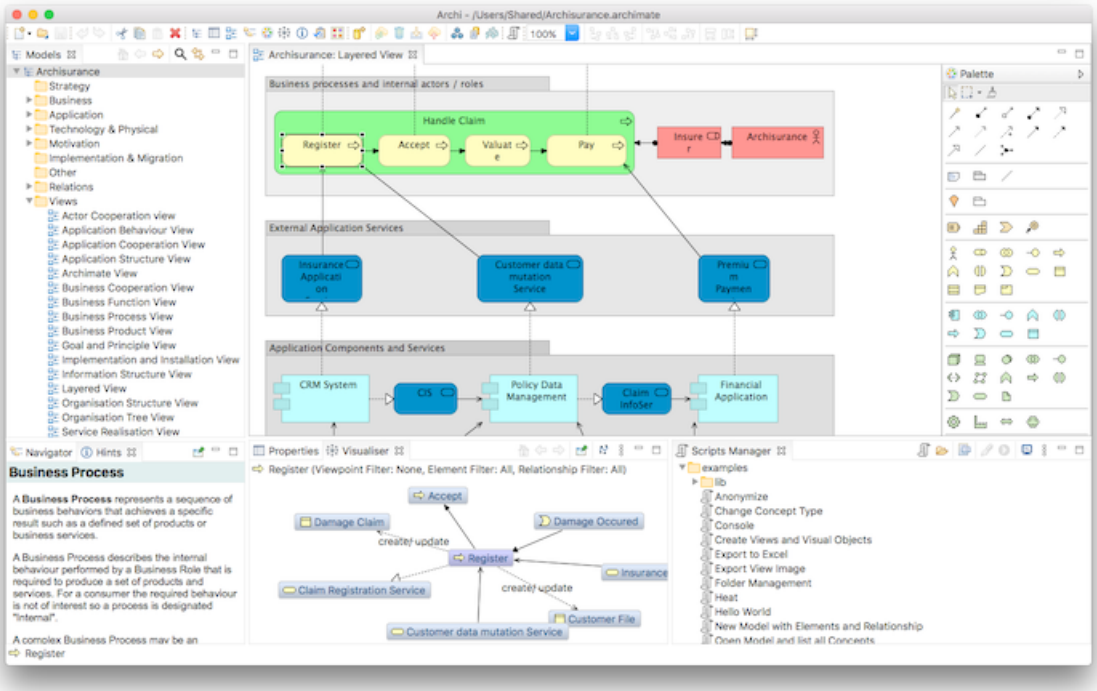
Archi

ArchiMate Modelling Tool



User Guide

Version 5.11.0

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Introduction

Archi® is an open source, cross-platform tool to create ArchiMate® models.

The Archi® modelling toolkit is targeted toward all levels of Enterprise Architects and Modellers. It provides a low cost to entry solution to users who may be making their first steps in the ArchiMate modelling language, or who are looking for an open source, cross-platform ArchiMate modelling tool for their company or institution and wish to engage with the language within a TOGAF® or other Enterprise Architecture framework.

Since its introduction, Archi has been widely adopted for real-world use in the commercial and educational sectors and is used by major global companies and consultants. It is the *de facto* open source ArchiMate modelling tool.

The ArchiMate® modelling language is an open and independent Enterprise Architecture standard that supports the description, analysis and visualization of architecture within and across business domains.

ArchiMate is one of the open standards hosted by The Open Group® and is fully aligned with TOGAF®.

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Thanks to:

- Jean-Baptiste Sarrodie for co-leading the Archi project, contributing features, code, ideas, support, vision, encouragement and much more.
- Andrew Josey and The Open Group for positivity and support.
- All the Archi users, too many to mention, who have supported Archi, contributed ideas and suggestions.

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Installing and Launching Archi

Download the required version from https://www.archimatetool.com

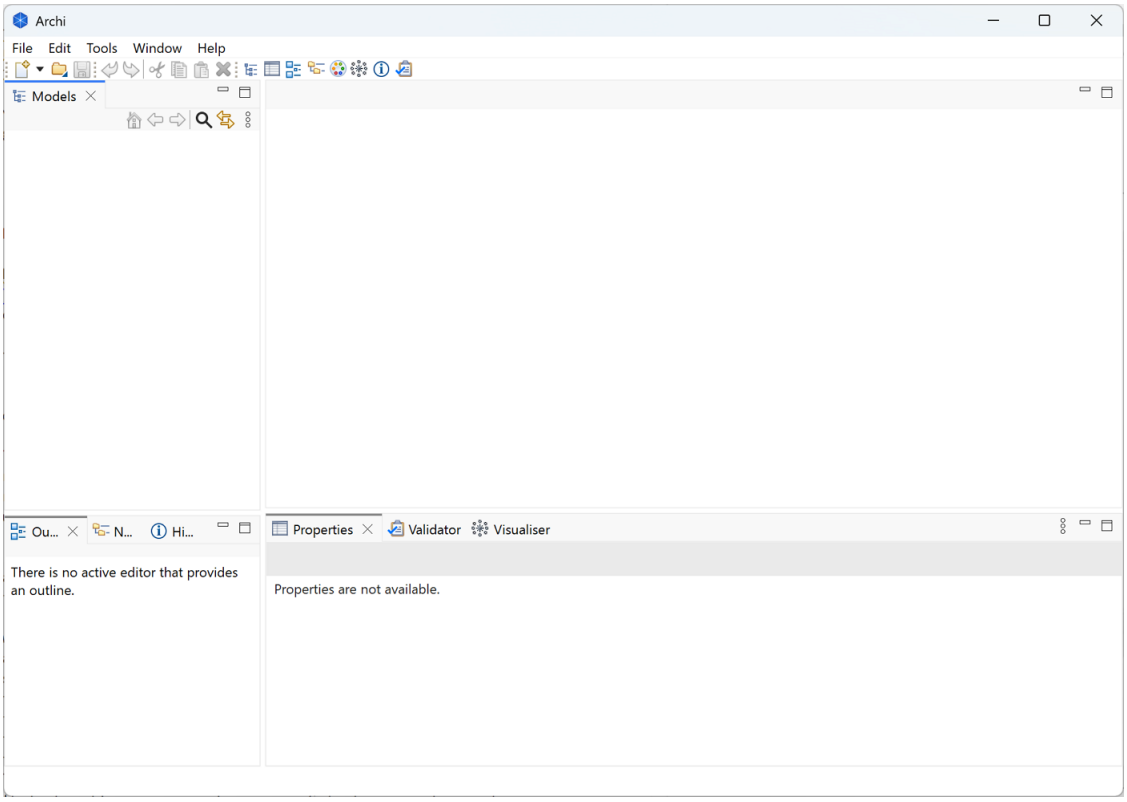
The Windows version has an installer. Run the installer to install Archi to your system. Windows 10 and 11 64-bit is supported. The installer simply copies the program files to the target directory and associates *.archimate files with Archi. An uninstaller is also provided.

You can also install Archi manually with a zip installation. Unzip this file and run either the "Archi" or program file. Also included are some Windows batch files - "RegisterFileAssociation.bat" and "UnregisterFileAssociation.bat". The first of these files will register the *.archimate file extension with Archi in the Windows Registry. The second batch file will unregister the file association.

The Mac and Linux versions are packaged in dmg and tgz files respectively. Simply copy the files in the dmg or tgz download and double-click the "Archi" application file to launch the program.

Launching Archi

The new, blank Archi workspace looks like the following:



The Default Archi Workspace

The workspace is divided into the following sub-windows:

- The **Models** Tree window. By default this is positioned at the top left and labelled "Models". This is where one or more ArchiMate models can be viewed as a tree structure.
- The **Properties** window. This displays the properties for a selected object. The properties for the selected object can be edited here.
- The **Outline** window. This window displays the contents of an ArchiMate diagram (View) in miniature as a navigation tool for the selected diagram (View).
- The **Navigator** window. This window displays the selected model concept and all of its relationships with other model concepts. It is used to navigate between connected concepts via their relationships and is used in conjunction with the Models Tree window.
- The **Palette** window. When opened will display a single window for the drawing Palette used in Views.
- The **Visualiser** window. This window displays the selected model concept and all of its relationships with other model concepts in a graphical way. It is the graphical equivalent of the Navigator.
- The **Hints** window. This displays short textual hints for the selected object. For example, selecting an ArchiMate "Business Actor" diagram element displays a short summary of that object's meaning and purpose. Selecting an item or hovering over an item, in the diagram's palette also displays a hint in the window.
- The **Validator** window. This provides hints and tips to improve your model.

These sub-windows can be re-arranged by dragging them into new positions, or by dragging them out of the main application window to become detached from the main window.

The various windows may be shown or hidden by selecting the appropriate menu items from the "Window" menu on the main menu bar or from the buttons on the toolbar:



The Windows Toolbar

To reset the Archi window workspace to its default layout, select "**Reset Window Layout**" from the "Window" menu from the main menu.

You can hide or show the main toolbar by selecting "Hide/Show Toolbar" from the "Window" menu from the main menu.

Working in Archi

Windows and Tabs

The main editing area for Views is in the central-right portion of the application. Windows and tabs can be dragged and dropped to be re-arranged as you wish. You can even detach some windows so that they "float".



Layout messed up? Don't panic!
If ever you wish to reset the layout of application windows and tabs back to their defaults, choose "Reset Window Layout" from the main "Window" menu. You can also reset Archi to its default settings from the "Reset Archi to Defaults..." menu item under the "Help" menu.

Undo/Redo (contextual per model)

Full Undo and Redo commands are available for every action that is performed by the user in Archi.



Undo and Redo commands are contextual depending on the selected model in the Model Tree or a View. Clicking onto a View or the Model Tree will enable the command if an action has been performed for that model.

Cheat Sheets

Cheat sheets can help guide the user through a series of steps in order to achieve some overall goal. Some steps can be performed by the cheat sheet, and some are described so that the user can manually complete the step. Cheat sheets are available from the main "Help" menu. Currently, Archi ships with two Cheat sheets - "Create a Map View" and "Create a New Model".

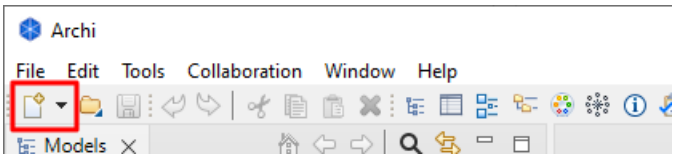
Getting Help

Contextual and full help is available from the main "Help" menu. On Windows the "F1" key will invoke contextual help.

Creating a New ArchiMate Model

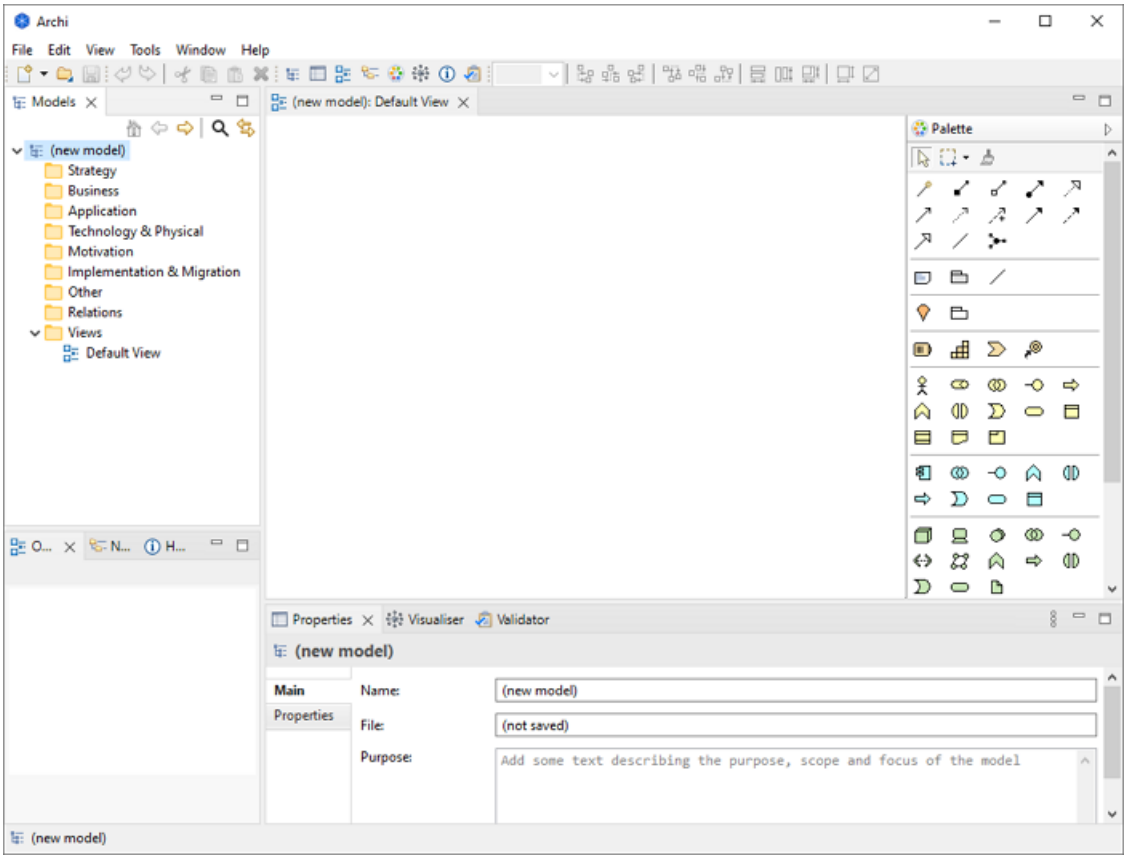
To create a new, blank ArchiMate model in Archi do the following:

Select "**Empty Model**" from the main "**File->New**" menu or from the button on the main toolbar:



The "New" button

A model entitled "(new model)" will be created and visible in the **Models** Tree window with the "Default View" open with a blank drawing canvas and palette:



The default Archi workspace with a new model created

Note that the model is named by default "(new model)". You may change this by renaming it directly in the Model Tree or selecting it in the Model Tree and editing the name in the Properties Window. You may also add a "Purpose" here in the Properties Window describing the purpose and aims of the model.

Note also that one "View" has automatically been created for the model and named "*Default View*" and is placed in the "Views" folder in the Model Tree. If the View is not open (i.e. visible with blank drawing canvas and palette) you can open it by double-clicking on it in the Model Tree. Doing so will open the View (diagram) editor to the right. If you wish to rename the View, simply select it on the Model Tree and edit the name in the Properties Window.

The **Models** window can display more than one Model Tree which means that you can work on more than one model at the same time.

The asterisk that appears on a model in the Tree when changes have been made indicates that this model was changed, but that the changes have not yet been saved.

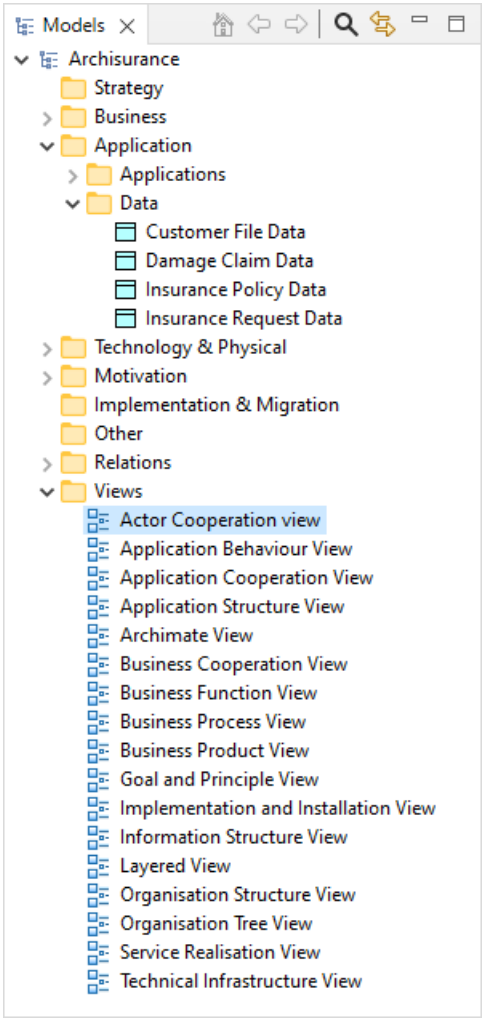
The Model Tree

An ArchiMate model consists of a number of ArchiMate concepts belonging to the different layers and domains. For example, a "Business Object" belongs to the "Business" layer and an "Application Component" belongs to the Application layer.

Each concept in the model can connect to one or more other concepts via one or more relationships (connections) according to the rules of ArchiMate.

It is beyond the scope of this guide to explain these concepts and their relationships. For more information refer to the ArchiMate Specification)

An ArchiMate model consists of configurations of these concepts connected to each other via the various relationships. An ArchiMate model is represented in Archi in the "Models" window as a tree structure organised into folders:

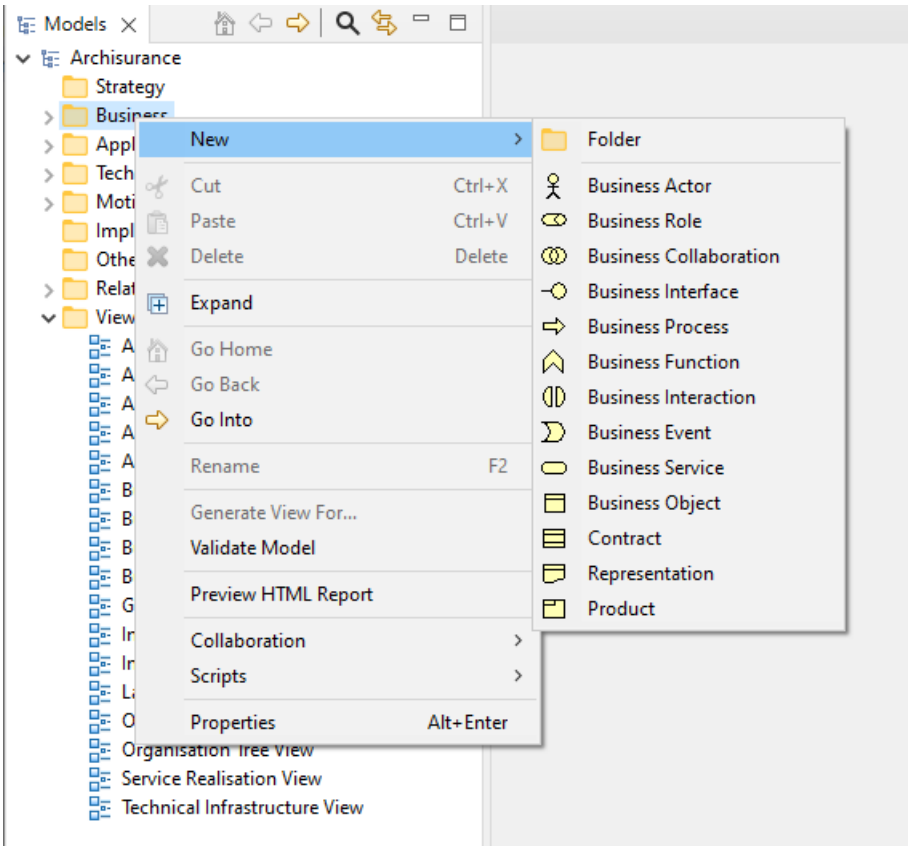


The Model Tree window showing an example model

Each ArchiMate concept is placed into its appropriate folder in the Model Tree.

Adding Elements Directly to the Model Tree

To add new ArchiMate elements directly to the Model Tree, select one of the folders, "Business", "Application", "Technology" or "Connectors" and right-click. A "New" menu item allows you to add new elements to the tree:



Adding a new element directly to the Model Tree

When the element is added to the Model Tree, the focus is given to the element and you can provide a new name for it.

Note that it is not possible to add relationships directly to the Model Tree as these can only be added by drawing them in the View (diagram) editor window.

Specialized Elements in the "New" menu

If you have created Specialized Elements these will show in the "New" right-click menu, at the bottom of the list of elements, to enable you to quickly add specialized elements to a model like any other element. This can be enabled or disabled in Preferences.

Folders and Organisation

A model in Archi is organised into a folder structure representing the ArchiMate layers and the concepts' relationships. A new model comprises the following top level folders:

Strategy	Contains elements from the "Strategy" domain and any user-created sub-folders
Business	Contains elements from the "Business" layer and any user-created sub-folders
Application	Contains elements from the "Application" layer and any user-created sub-folders
Technology & Physical	Contains elements from the "Technology" layer and "Physical" elements and any user-created sub-folders
Motivation	Contains elements from the "Motivation" domain and any user-created sub-folders
Implementation & Migration	Contains elements from the "Implementation & Migration" domain and any user-created sub-folders
Other	Contains the Location, Grouping, and Junction type elements and any user-created sub-folders
Relations	Contains relationships between concepts as they are created in Views (diagrams) and any user-created sub-folders
Views	Contains links to Views (diagrams)

ArchiMate elements can be created and deleted directly in the Model Tree (see Adding Elements Directly to the Model Tree) or are automatically added to the appropriate type folder as objects are drawn onto the canvas of a View (see Adding New Elements to the View from the Palette). All concepts in a folder are automatically sorted alphabetically.

User Sub-Folders

User sub-folders can be created under the main top-level folders. This allows you to organise the concepts in any way you wish. To add a new sub-folder to the Model Tree, select a top-level folder (or a user-created sub-folder), and right-click. A "New" menu item allows you to add a new sub-folder to the tree.

Note that a sub-folder can only contain concepts of the same type as the topmost parent folder. For example, only "Business" type concepts can be created in the "Business" folder and any of its sub-folders.

You can also drag and drop concepts and sub-folders within the same folder branch, but not across folders of different types.

To rename a sub-folder in the Model Tree choose "Rename" from the main Edit menu or from the right-click context menu.

Working in the Model Tree

Generally, you can add, delete, duplicate, move, and rename concepts and Views in the Model Tree. You can also create folders under the main folder groupings in order to group concepts together.

Drag and drop

Objects are managed with drag and drop in folders. Note that you cannot move concepts from one main folder type to another. For example, Business concepts can only be in the "Business" folder or one of its sub-folders, and relationships can only be in the "Relations" folder or one of its sub-folders.

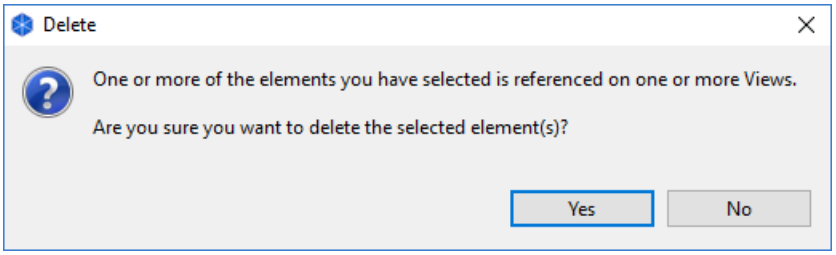
Cut and Paste

In addition to drag and drop you can cut and paste objects between folders. After selecting objects in the tree select "Cut" and, after selecting the target folder, select "Paste" to move the objects.

Deleting Objects from the Model Tree

To delete one or more objects in the Model Tree select them and choose "Delete" from the main "Edit" menu or from the main toolbar.

Note that if a concept that you wish to delete appears in one or more Views you will be warned that it is referenced in those Views. **If you then delete the concept from the tree you will also delete it from any Views where it is referenced.**



Warning about deleting a concept

Renaming an Object in the Model Tree

To rename an object in the Model Tree choose "Rename" from the main Edit menu or from the right-click context menu. You can also rename it in the Properties Window.

Duplicating an Element or View in the Model Tree

To duplicate Elements or Views in the Model Tree select "Duplicate" from the main "Edit" menu or from the right-click context menu. Note that Duplicate Views contain references to the original concepts copied.

Changing an Object's ArchiMate Concept Type in the Model Tree

An Element or Relation's ArchiMate concept type can be changed in the Model Tree. To change one or more objects' ArchiMate concept type in the Model Tree select the required Elements or Relationships and, from the right-click context menu, select the "Set Concept Type" sub-menu and then select the required ArchiMate concept.

When changing a Relationship type, only valid ArchiMate Relationships for its source and target concepts will be enabled in the context menu.

When changing an Element type, any connected Relationships that would no longer be valid will be changed to Association Relationships. In this case, a confirmation dialog will be shown. An option to add a note in the documentation field of changed Relationships can be enabled in Preferences.

When changing an Element type, if it is changed to a concept belonging to a different ArchiMate layer, it will be moved into the appropriate folder. For example, changing a Business Service to an Application Service will move it from the "Business" folder to the "Application" folder.

Note that changing a concept type will not retain any assigned Specialization, as this will be invalidated.

Editing Properties for an Object in the Model Tree

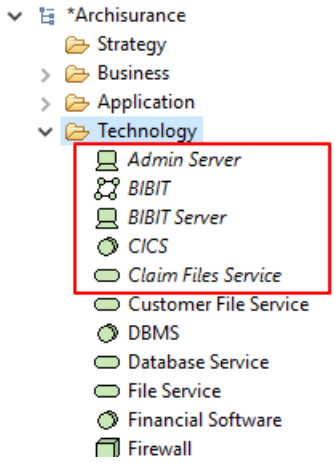
To edit the Properties for a selected object in the Model Tree, select the object in the tree and open the Properties Window either by double-clicking the object or from the main "Window" menu or main toolbar.

Each object in the Model Tree has different properties that can be set or viewed in the Properties Window. For more information see the section, The Properties Window.

Note - some properties can only be edited when the object is selected in a View (for example, the fill colour, font or line width).

Concepts in the Model Tree and Views

Concepts in the Model Tree can be added to any number of diagram Views in the model by dragging them onto the View's canvas (see the section, "Views"). When a concept has been added or used in a View the font used in the Model Tree for that concept is normal. However, if the concept only exists in the Model Tree and is not used in any View it is shown with an *italic* font:

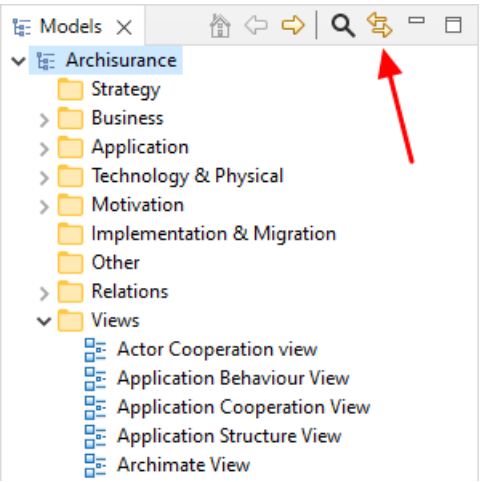


Italic font shows concepts not used in Views

This makes it convenient to see those concepts that may have become redundant and can be deleted.

Synchronising Selections in the Model Tree and a View

When selecting concepts in the Model Tree and in diagram Views it is sometimes useful to synchronise the selection between the concepts in both windows. Clicking the "Link to View" button in the Model Tree window enables or disables synchronising selected concepts between the Model Tree and a diagram:



The "Link to View" button

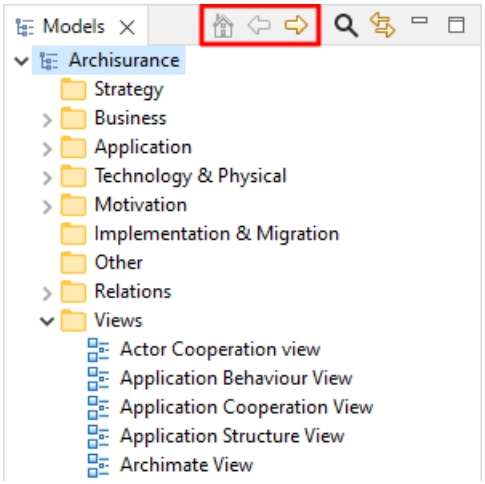
This button is a toggle and can be turned off or on.

Synchronised selection is possible on more than one selected concept.

Note that synchronised selection is only possible if a relevant View is open. Selecting a concept in the Model Tree will not synchronise a selection in a View if that View does not contain that particular concept or concepts.

Drill Down

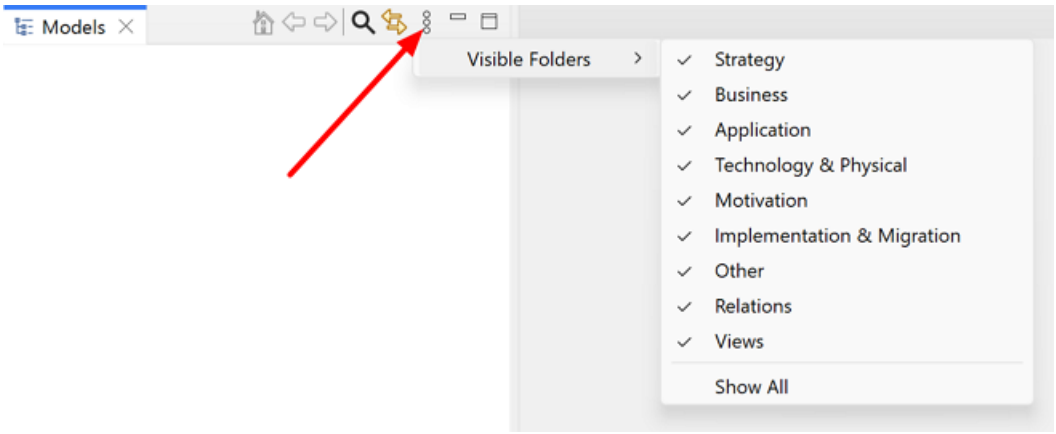
Using the Drill Down buttons, "Home", "Back" and "Go Into", it is possible to "drill into" a model or folder. The path to the currently selected object or folder is shown in the Status Bar.



The "Drill Down" buttons

Hiding Folders

It's possible to hide top-level folders in the Model Tree. A common use case is that the "Relations" folder's contents might get very big and unwieldy. To hide a folder, click the drop-down menu in the Model Tree toolbar and check or uncheck the folder you wish to hide or show in the "Visible Folders" sub-menu. Note that these settings persist between sessions and when closing and re-opening the Model Tree.

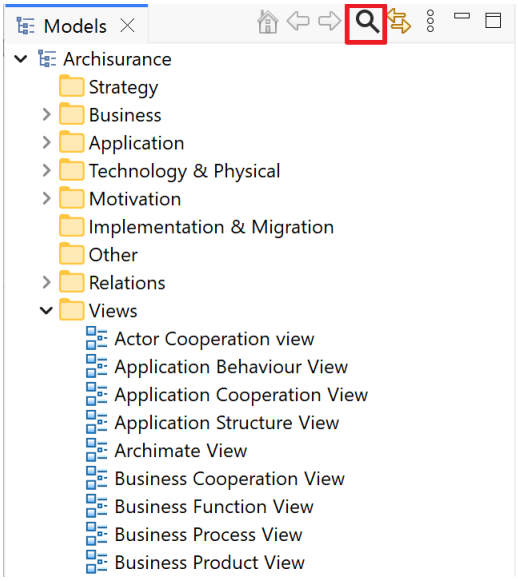


Showing or hiding top-level folders

Searching and Filtering in the Model Tree

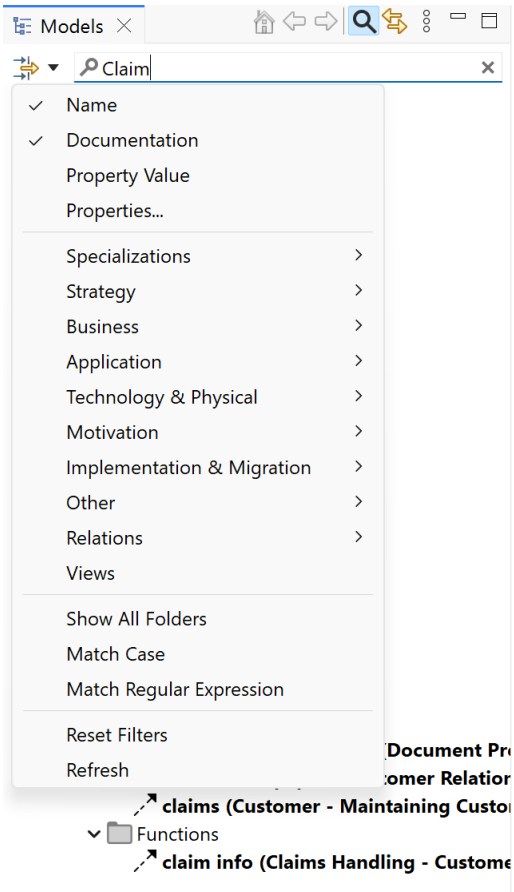
The number of objects in the Model Tree can grow quite considerably as you work on your model. Of course, you may wish to add sub-folders within the main folder structure to help organise these objects. However, finding a particular object in the tree may still prove to be difficult.

In order to search the Model Tree a Search Bar is included in Archi. This is accessed by clicking on the "Search" button on the toolbar of the Model Tree window. Clicking this button reveals the Search Bar:



Click here to open the Search Bar

As you type into the text field of the Search Bar the Model Tree updates to show only those objects that match the search criteria in the Search Bar. By default only the names of the objects are matched to the search string. You can also search on the "Documentation" field of the objects by selecting this in the "Filter Options" drop-down menu in the Search Bar:

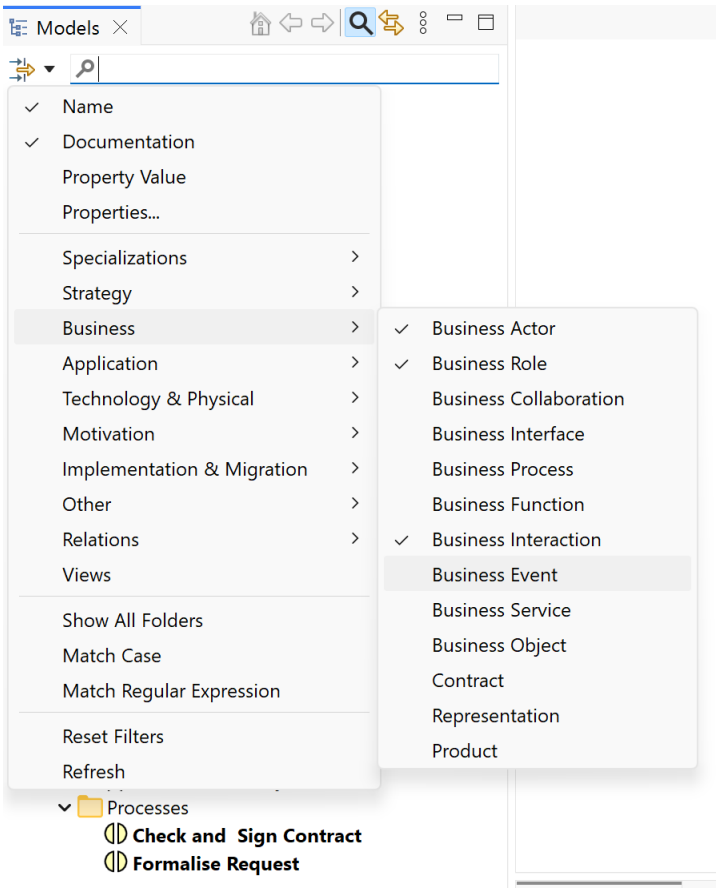


Searching on both "Name" and "Documentation"

To clear the search text click on the icon to the right of the text. To clear these filters, deselect "Name" and/or "Documentation".

Filtering Object Types

To filter certain types of ArchiMate concept you can select the types to include in the filter in the drop-down menu. You can select Specializations, Elements, Relations, and Views:



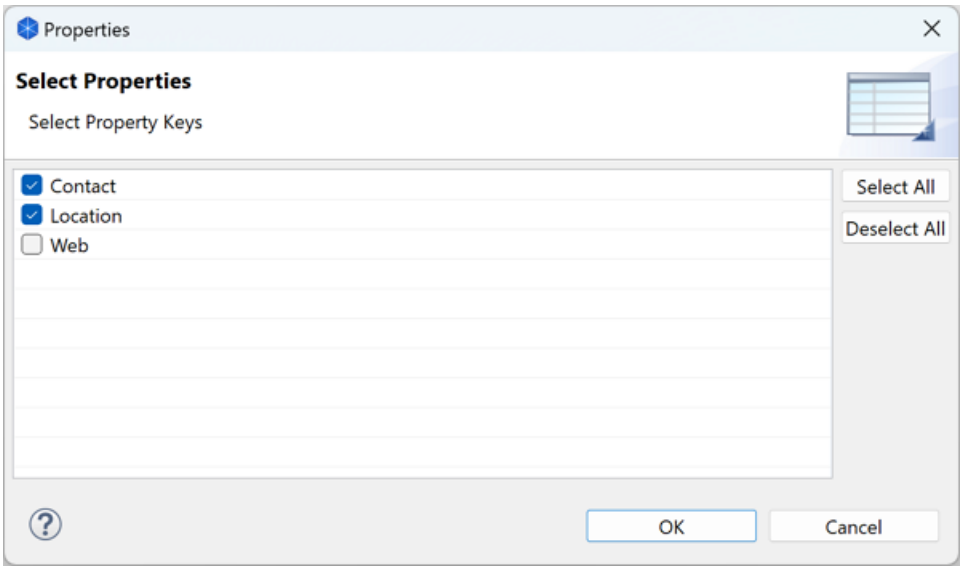
Filtering certain object types

To reset the object-type filter, select the "Reset Filters" menu item.

Filtering User Properties

You can filter on the values of User Properties by selecting the "Property Value" drop-down menu item and adding some text in the text field.

To filter on selected User Properties, select the Property keys to include in the filter by clicking on the "Properties..." menu item and then select the required Property keys in the selection dialog:



Selecting User Property Keys

Filtering Specializations

To filter Specializations of concepts you can select the Specializations to include in the filter in the drop-down menu in the same way as for Object Types. This will reveal all concepts that match the Specializations selected.

Show All Folders

As you refine your search the Model Tree will only show those objects that match your search/ filter criteria (or none at all if no objects match). Thus, folders with no matching child objects are not shown. If however you wish to show these empty folders as you search for objects (you may wish to drag and drop objects to other folders, for example) then you can set this as an option in the filter menu by selecting "Show All Folders".

Match Case

Select this option to match case on the search text.

Match Regular Expression

Select this option to match using regular expressions. If the regular expression is invalid the search text will show in red. Note that the syntax is Java based.

Reset Filters

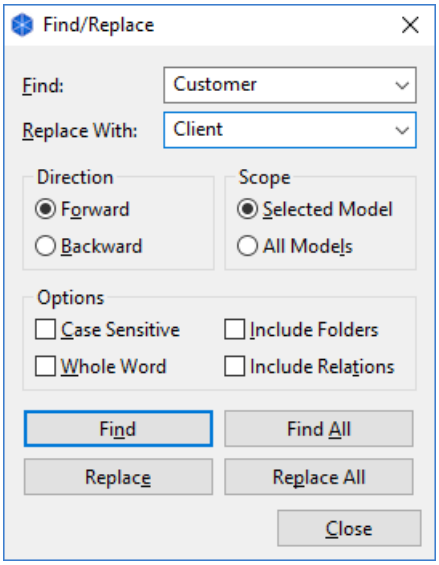
Selecting this menu item will clear all selections for Documentation, Properties, Specializations, Elements, Relations, and Views.

Refresh

Selecting this menu item will refresh the Model Tree when changes to the model have occurred externally.

Find and Replace

It is also possible to find and replace objects in the Model Tree by name.



Find and Replace dialog

Views

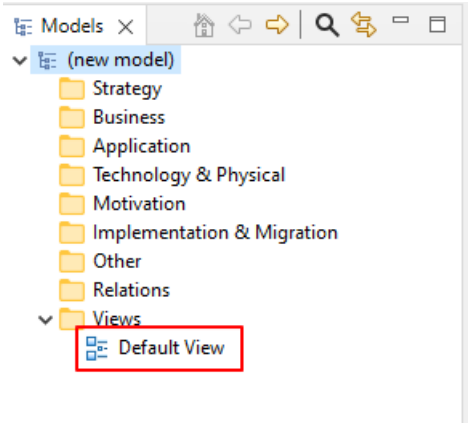
The elements and relationships that constitute an ArchiMate model as represented in the Model Tree can be arranged into one or more "Views" or visual diagrams. Therefore an ArchiMate model can consist of one or more Views where each View can display the model concepts in various configurations. For example, you may wish to only see the Business Layer elements in one View and the model's Application Interface elements in another View. Or you may wish to create a "master" View that acts as a map to all of the other Views in the model.

ArchiMate advocates an approach in which architects and other stakeholders can define their own Views on the enterprise architecture. In this approach, Views are specified by *viewpoints*. Viewpoints define abstractions on the set of models representing the enterprise architecture, each aimed at a particular type of stakeholder and addressing a particular set of concerns. Viewpoints can both be used to view certain aspects in isolation, and for relating two or more aspects.

In Archi a View is unlimited in scope according to the available elements and relations, and it is up to the designer to impose any constraints for a given viewpoint as prescribed by the ArchiMate specification.

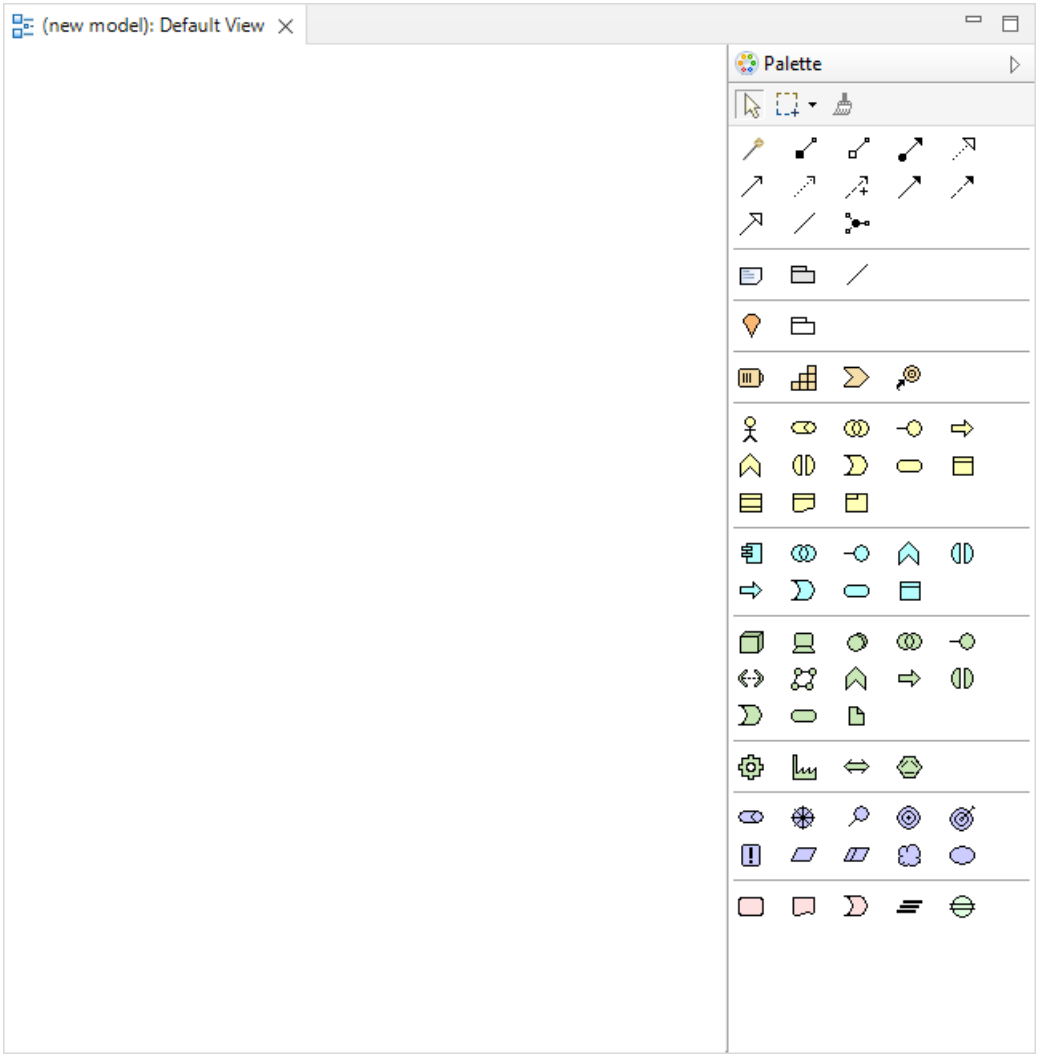
Opening a View

If the model already contains a View it will be visible in the "Views" folder in the Model Tree:



The Default View in the Model Tree

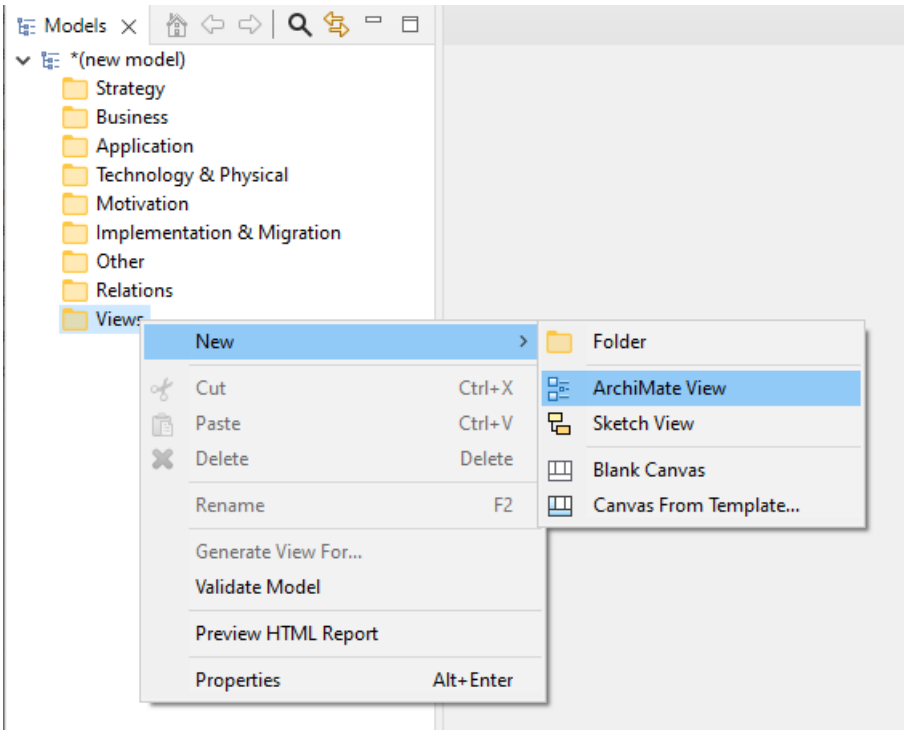
To open and edit the View, double-click it in the Model Tree (or press Ctrl-Shift-O / Command-Shift-O). The View Editor will open showing the editing canvas and palette:



The View Editor showing a blank drawing canvas and palette

Creating a New View

An ArchiMate model usually consists of more than one View. To add a new View to the model, right-click on the "Views" folder in the Model Tree and select "New->ArchiMate View" from the context menu:



Adding a new View to a Model

Once the View has been added to the model it can be opened from the tree by double-clicking on it. Any number of Views can be added to a model and be open at the same time. Views are arranged in tabs in the main editing area of the application window.

Working with Views

Once a View has been opened you may now "draw" on the canvas, adding and creating new ArchiMate elements, connections (relationships) and annotations (notes). As you add figures to the canvas from the palette, the corresponding ArchiMate elements and relationships are added to the ArchiMate model and are visible in the Model Tree.

You also add existing concepts to the View by dragging and dropping them from the Model Tree into the View. You can add new elements to the Model Tree (see Adding Elements Directly to the Model Tree) and then drag them to any number of Views in the model. Thus, elements and relations can appear in more than one View, each occurrence referencing the same concept in the Model. Thus, if you change the name of the model concept it will change for all occurrences in all Views.

Navigating a View

Panning

If you select the first selection tool from the Palette, click somewhere on the View to give it the focus and then hold the Space bar down the cursor will change to a hand and you can pan the View. You can also pan around the View by holding down the middle mouse button.

Using the Keyboard Instead of the Mouse in a View

It is possible to move and resize selected objects in a View by using the computer keyboard instead of a mouse. To move an object, press the period key (".") once to reveal the MOVE cursor. Then use the Arrow keys, followed by the ENTER key to commit the move. To resize the object, press the period key (".") until the RESIZE cursor appears at the desired resize handle. Press the ENTER key to commit the resize.

Automatic Scrolling in a View

Sometimes you may find that a concept is outside the area of the View area and you wish to draw a new connection between one concept and another concept outside of the View area (the scrollbars would normally need to be used). To do so, simply click on the source concept after selecting the connection tool and then hover the mouse at the edge of the Viewport. After a short pause, the View will automatically scroll.

Zooming a View

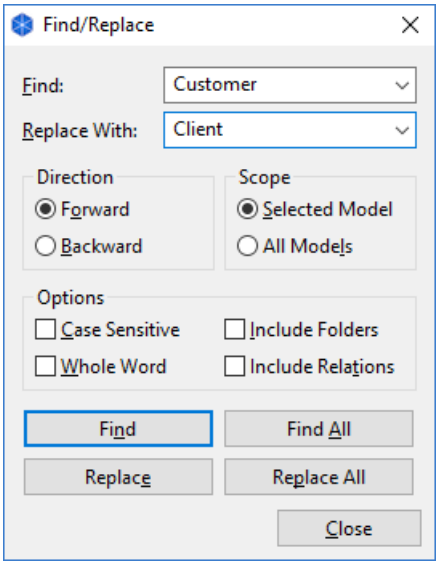
You can zoom in and out of a View in a number of different ways:

- From the main "View" menu
- By using the assigned shortcut keys
- By using the Zoom combo box on the main toolbar.
- By holding the Ctrl key down ("Command" key on Mac) and using the mouse scroll wheel

Used in combination with the Outline View you can easily navigate around large diagrams.

Find and Replace

It is also possible to find and replace concepts in a View by name.



Find and Replace dialog

The Palette

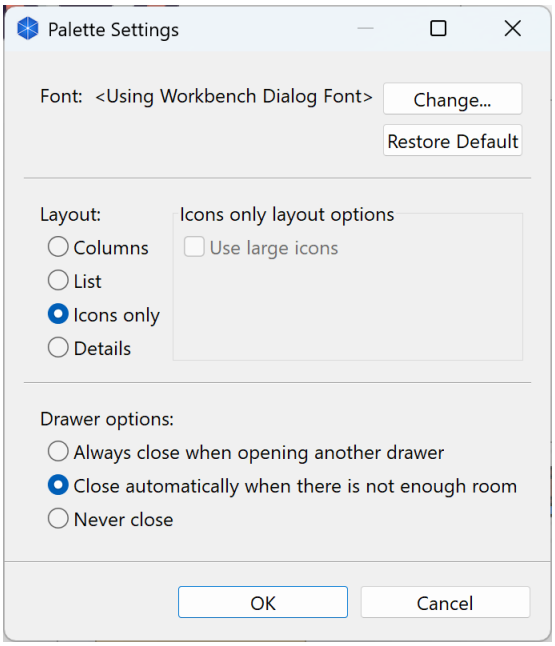
The palette contains the drawing tools, and elements and relationships that can be added to a View. It is an area that is attached to a View.



The Palette in a View

To create new elements and relationships in a View select the required object tool on the palette and either click or drag it onto the canvas area. Once the figure has been added to the canvas you can resize and re-position it by the usual drag actions.

You can configure how the Palette displays items by right-clicking on the Palette and choosing "Settings..."

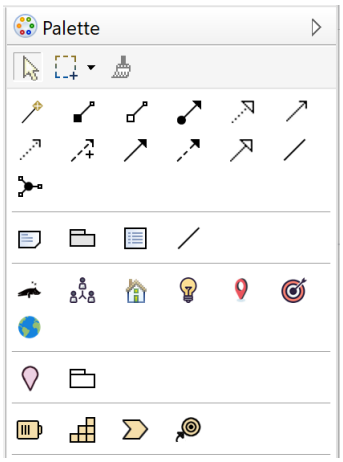


Palette Settings

> **Can't see the palette? Don't panic!**
> If you can't see the palette in a View it may be closed. If this is the case, open it by clicking the "Show Palette" triangle button at the top-right of the View window.

Specialized Concepts in the Palette

If you have created Specialized Concepts these will be present in the Palette to enable you to quickly add specialized concepts to a View like any other concept. This can be enabled or disabled in Preferences



Specialized Concepts in the Palette

The Detached Palette

By default, each View has its own attached Palette. It is also possible to have a single, detachable Palette that you can drag and dock to any position in the application window. To do this, click on the "Palette" button on the main toolbar:



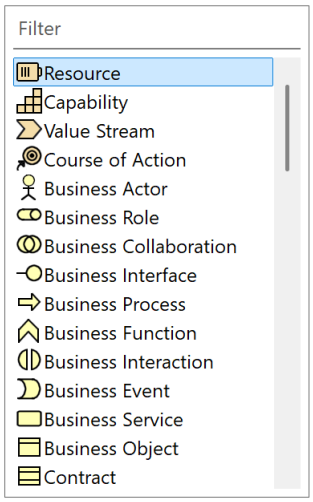
The "Palette" button on the main toolbar

Clicking this button detaches the Palette from the View and creates a Palette window. You can drag and dock this window to anywhere in the application space.

Closing the Palette window re-attaches it to any open Views.

The Quick Add Popup

You can also add elements to an ArchiMate View using the **Quick Add** popup. To open it, use the keyboard shortcut (the default is Shift+A). The new element will be added as a child of the element underneath the mouse cursor (if it is a container type) or else added to the diagram.



The Quick Add Popup

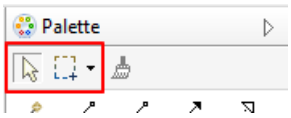
Type in the filter box to search for an element (the wildcards "*" and "?" are permitted), then press Enter or double-click to add it at the cursor's location.

If the ArchiMate View has a Viewpoint, the elements shown in the popup will be those that are allowed for the Viewpoint. This is the same as the setting "Hide disallowed concepts from the Palette." in Diagram Preferences.

The Alt-click shortcut can be disabled in Diagram Preferences if preferred and the shortcut key combination can be set in Keys Preferences.

Palette Selection Tools

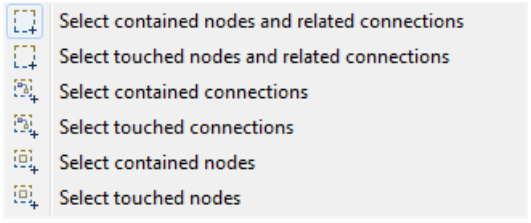
There are two selection tools available in the Palette. These are used to select the objects in a diagram in various ways.



The selection tools in the Palette

The first tool (selection tool) is primarily used to select elements (boxes). When dragging a marquee area around elements and connections with this tool, *only* the elements (boxes) will be selected.

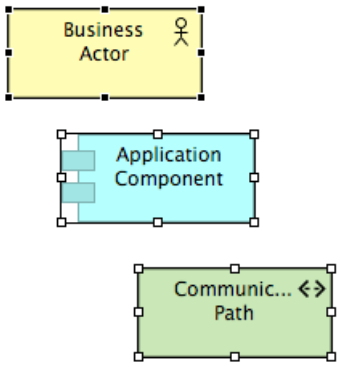
The second tool (marquee tool) is activated by a drop-down button and is used to select *both* elements and connections in various ways:



The selection tool options

You can add elements or connections to a selection with the selection tool by holding down the Ctrl key and clicking on the element or connection. The same operation can be used to remove an element or connection from a selection.

When several elements or connections are selected, one will be marked with dark handles. This is called the primary selection.



Three elements selected, topmost is the primary selection

The primary selection is used with the alignment tools. You can change which element or connection is the primary selection with the selection tool by holding down the Shift key and clicking the element or connection you wish to make the primary selection.

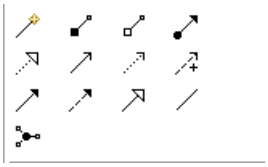
> **Tip: Pan the View using the selection tool.**
> If you select the first selection tool from the Palette, click somewhere on the View to give it the focus and then hold the Space bar down the cursor will change to a hand and you can pan the View. You can also pan around the View using the middle mouse button.

Palette Creation Tools

Apart from the Selection Tools there are other tools available on the Palette used to create new ArchiMate concepts, Notes, Groups and Relations between concepts (connections). To add a new element to the canvas select one and drag it onto or click onto the canvas.

Relations

There are several types of ArchiMate relation and a Junction element.



The Relations Creation Tools in the Palette

The first tool is the Magic Connector, used for drawing connections. This is followed by creation tools for ArchiMate relations and a Junction element.

Note, Group, Legend and Connection

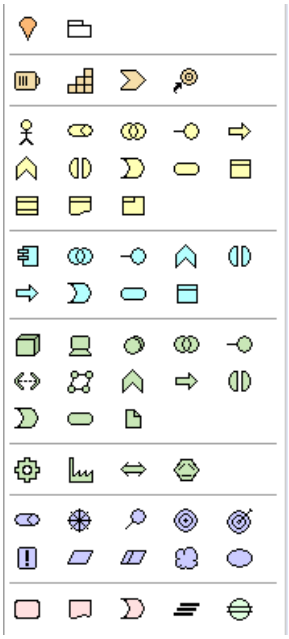
Used for adding a Note, a Group, a Legend, or a Connection to a View.



Note, Group, Legend and Connection Creation Tools

ArchiMate Elements

These are divided into areas corresponding to the "Other", Business", "Application", "Technology", "Physical", "Motivation", and "Implementation & Migration" ArchiMate concept groupings:



The ArchiMate Element Creation tools

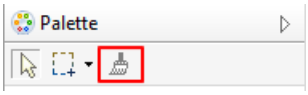
Note that a sub-set of these elements will only be available if the current View is restricted to a given Viewpoint.

> **Tip: Hold the shift key when selecting a palette tool or double-click to keep it selected.**
> By default, once an element or connection has been drawn on the canvas the default selection tool (arrow) is re-selected on the palette. If you wish to keep the current palette tool selected hold the "Shift" key down when you select it or double-click on it. A single click will clear this option.

The Format Painter

The Format Painter is a tool on the Palette toolbar that allows you to quickly copy the visual formatting of one object and paste it to others in a View. Instead of having to manually apply the font, font colour, text alignment, and other formatting to each new object in a View, you can quickly copy all of the formatting attributes by using one toolbar button.

The Format Painter tool is at the top of the Palette:



The Format Painter tool

To copy and paste formatting in View:

1. Select the Format Painter tool from the Palette. Initially it will appear grey, indicating that it is "empty" and ready to copy.

2. Click on the source object or connection from which you wish to copy the formatting. The Format Painter tool cursor will change to a darker outline and to the colour of the fill object or connection that is copied. Also, the tool entry on the Palette will appear darker and the tooltip will update to explain this.
3. Now click on the target objects or connections to paste the formatting.
4. To clear the Format Painter so it is ready to copy some more formatting, either double-click on the tool in the Palette or double-click on an empty space on the canvas.

Note that some formatting cannot be copied and pasted from an object to a connection, and vice-versa. You can use the Format Painter tool between different Views. If it is "primed", simply select it from the Palette in another View and paste the formatting to target objects or connections.

Adding New Elements to the View from the Palette

To create and add new elements to the View select the required element on the Palette and either click or drag the new figure onto the canvas area. Once the figure has been added to the canvas you can resize and re-position it by the usual drag actions.

Adding Elements to the View Automatically Adds them to the Model Tree

It is important to understand that adding elements (and relationships) to a View from the palette automatically adds those elements to the Model Tree as well. For example, dragging a "Business Actor" element onto the canvas creates both a figure on the View called "Business Actor" and also a node on the Model Tree with the same name.

Furthermore, if you delete an element in a View the corresponding element in the Model Tree is *not* deleted. This is because the element may be referenced in another View in the model. To delete the element completely you have to delete it in the Model Tree or choose the right-click menu item, "Delete from Model".

You can edit the element's name directly by clicking the text area on a figure. Double-clicking on the figure opens the Properties Window where you may edit the properties of the selected element.

Editing the View's Elements' Properties

The properties for a selected element in a View can be edited in the Properties Window. To open the Properties Window, either double-click the figure or select the figure and open the window from the toolbar or main menu. Each element in the View has different properties that can be set or viewed in the Properties Window. For more information see the section, The Properties Window.

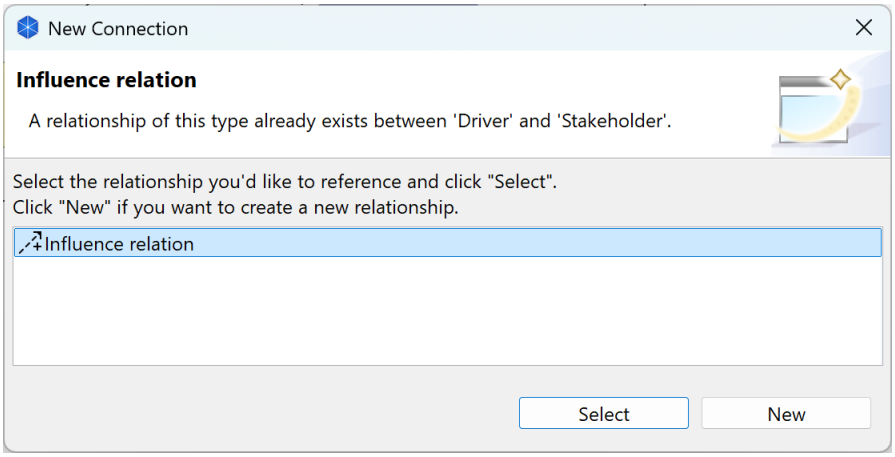
Double-clicking an Element in a View opens the Properties Window, single-clicking on an already selected Element's text field allows you to directly edit the Element's text.

Adding New Relationships (Connections) to the View from the Palette

To add new relationships (connections) to the View select the required connection tool on the Palette and drag from one element on the View to another on the same View.

As with adding elements from the palette, adding a relationship to a View automatically adds it to the Model Tree as well, in the "Relations" folder.

When adding a new connection in a View, if the same type of model relationship already exists between the source and target elements, a dialog box will appear giving you the option to reference that model relationship from the connection, or create a new connection *and* model relationship:

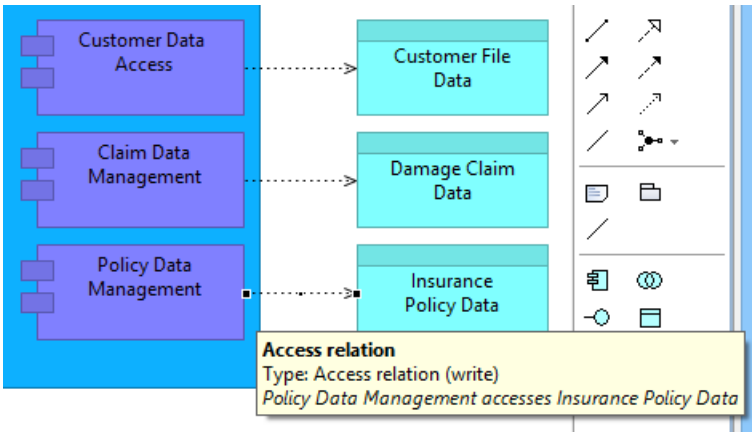


A dialog providing the option of re-using a model relationship.

> **Relationships, Rules and Regulations.**
> ArchiMate elements can connect to other elements by a given set of relationships (connections). Some relationships are allowed, others are not. If a relationship is not allowed the cursor will show as a "Not Allowed" symbol, a circle with a diagonal line. If a relationship is allowed, it will show as a "plug" symbol.

Information about Connections

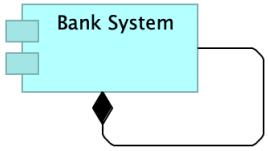
Once a relationship (connection) has been created between elements, some useful information can be revealed when the mouse cursor hovers over the connection to reveal a tooltip. The tooltip displays the relationship's name, its type, and some text that describes the nature of the relationship between the source and target elements.



A tooltip shows useful information when hovering over a connection

Adding Circular Relationships (Connections)

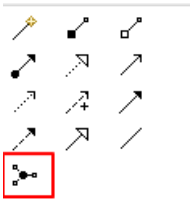
You may add a circular relationship (connection) if you wish. This is a relationship whose target and source element is the same. You can create a connection from an element to itself by selecting the required relationship from the Palette, clicking once on the element and then clicking again on the element:



A circular relationship

Adding a Junction

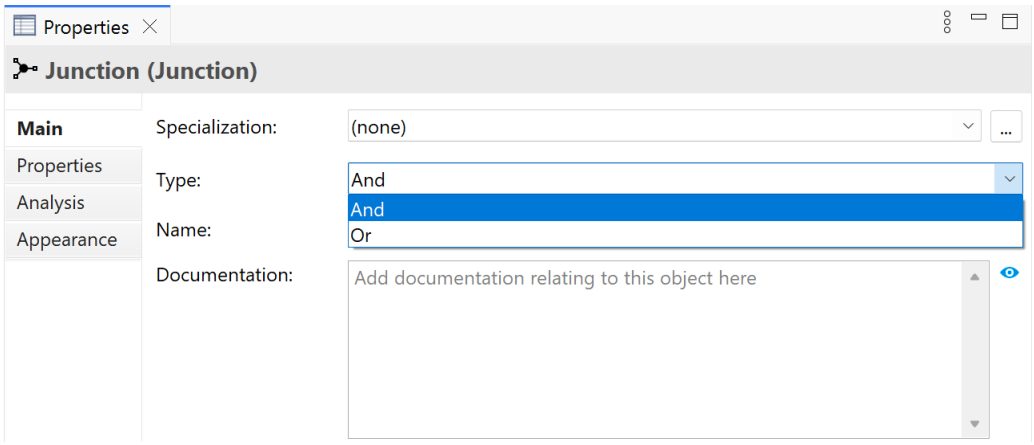
A Junction element can be added from the View's palette in the Relations palette section:



The Junction entry in the Palette

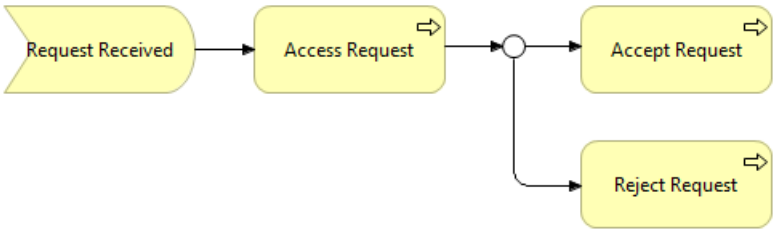
A junction is used in a number of situations to connect relationships of the same type. A junction may have multiple incoming relationships and one outgoing relationship, one incoming relationship and multiple outgoing relationships, or multiple incoming and outgoing relationships (the latter can be considered a shorthand of two subsequent junctions).

There are two types of Junction - "And" and "Or". The type of Junction can be set in the Properties window:



Setting the type of Junction

Junctions appear in the Model tree in the "Other" folder. They can also be added directly to the Model Tree by right-clicking on the "Other" folder and selecting the "New" menu item.

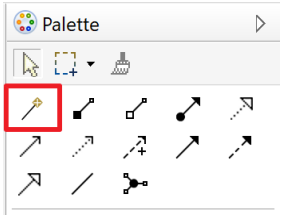


Example of an "Or" type Junction

> Note that Archi does not currently enforce the full ArchiMate rules when connecting junctions. You should ensure that only relationships of the same type are used to connect concepts and junctions. You can check for consistency by using the Validator.

Adding New Relationships and Elements to the View using the Magic Connector

Connecting one element to another in a View depends on whether the relationship is allowed according to the ArchiMate specification. For example, you cannot connect an Assignment relationship from an Application Component to a Business Actor. Unless you are very familiar with the rules governing the relationships in ArchiMate it can be frustrating to find the allowable relationships between one element and another. The "Magic Connector" solves this problem.

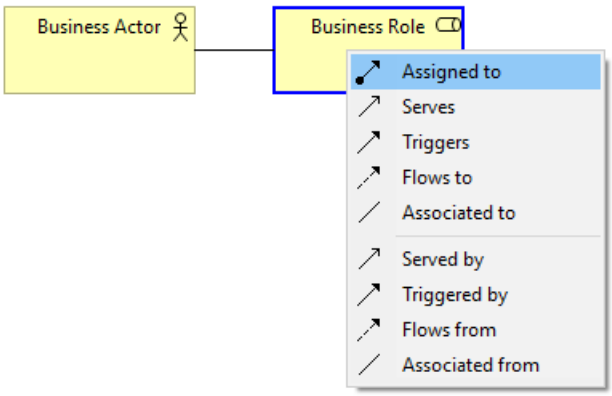


The Magic Connector in the Palette

The Magic Connector has two uses - firstly to create a new allowed connection between one element and another, and secondly to create a new element and an allowed connection between the source element and the newly created element.

To create a connection between a source and a target element using the Magic Connector follow these steps:

1. Select the Magic Connector tool from the palette
2. Click on the source element in the View
3. Click on the target element in the View
4. A popup menu will appear showing the allowable relationships between the two elements. Choose the required type from the menu. It is possible to create a relationship from the source to the target element, and also in reverse from the target to the source element. Both directional options are separated in the popup menu.

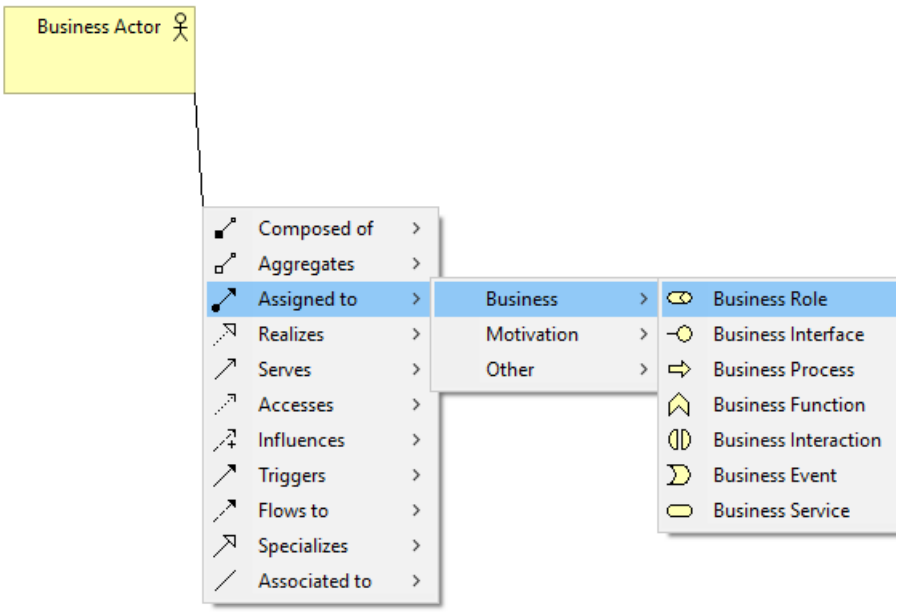


Drawing a connection using the Magic Connector

To create a new element and connection in one operation using the Magic Connector follow these steps:

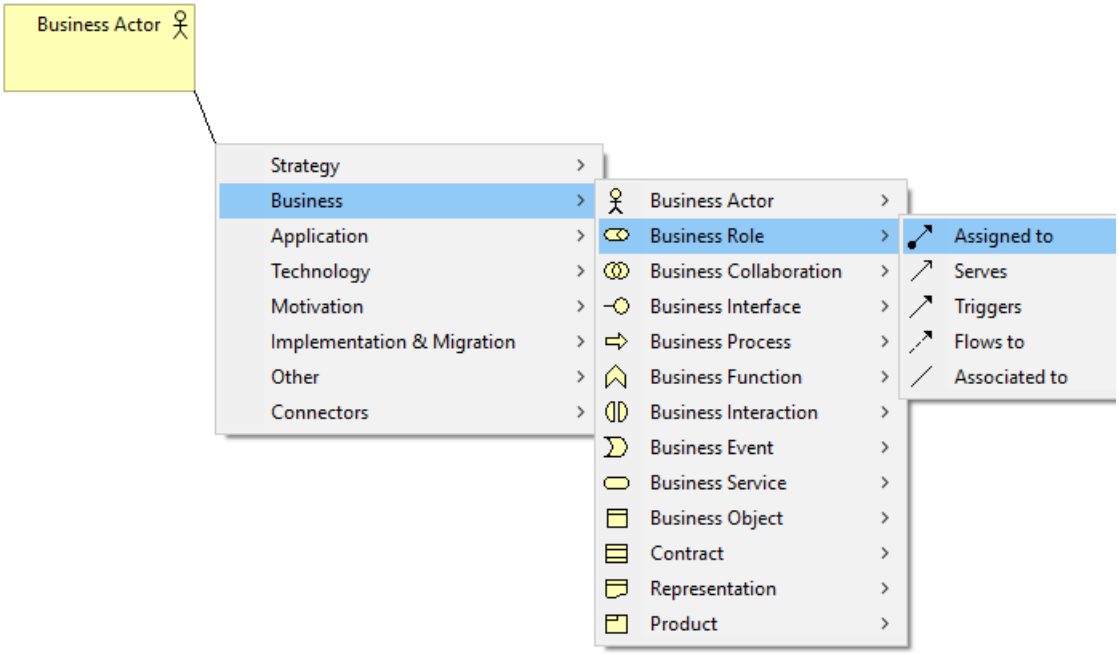
1. Select the Magic Connector tool from the palette
2. Click on the source element
3. Click on a blank area of the View's canvas, or on a Group figure
4. A cascading popup menu will appear showing all allowable elements and relationships between the two. Choose the required element and connection from the menu

In the following example a new Business Role element will be created together with a new Assignment relationship connecting to the original selected Business Actor element.



Using the Magic Connector to create a new element and connection

If you hold down the Ctrl key (or the Command key on Mac) at the same time as clicking on a blank area of the canvas then the Elements will be shown first followed by the Connections in the popup menus (this behaviour can be reversed in Preferences):



Using the Magic Connector to create a new element and connection while holding the Ctrl / Command key

Adding Elements and Relations from the Model Tree to a View

Existing elements and relationships can be added to a View by dragging and dropping them from the Model Tree to a View.

Dragging and dropping a relationship into a View also adds its source and target elements to the View if they are not already present on the View. Any existing elements on the View automatically have all their connections to the dropped element(s) added as well.



When you drag and drop elements from the Model Tree to a View any associated relationships are also added to the view as connections. There may be times when you do not want this to happen, you may simply wish to drag another instance of an element onto the View, for example. In order to do this, on Windows and Linux hold the Ctrl key down, or on Mac hold the Alt key down when dragging and dropping.

Working this way means that you can regard the Model Tree as a repository of elements and relations for the model that can be added to any View within the same model. The same element can be added more than once to a View.



Important! - A model element or relationship can appear multiple times in the same or different Views. You can set its visual appearance individually for each occurrence.

Adding a Note

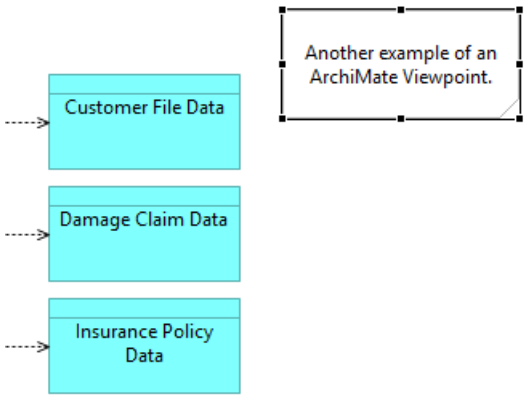
Notes can be added to the View to allow for visual annotations. A note has no semantic meaning in the ArchiMate language.

A Note can be added from the View's Palette:



The Note Palette entry

The following example shows elements annotated with a Note:



Using a Note in a View

A Note's text, font and fill colour can be edited in the Properties Window.

Double-clicking the Note opens the Properties Window, clicking on a selected Note allows you to directly edit the Note's text.

Adding a Note Connection

You can draw a connecting line from and to a Note using the "Note Connection" line tool in the Palette. It has no semantic meaning like the other ArchiMate relationship types. Double-clicking the Note Connection opens the Properties Window.

Adding a Group

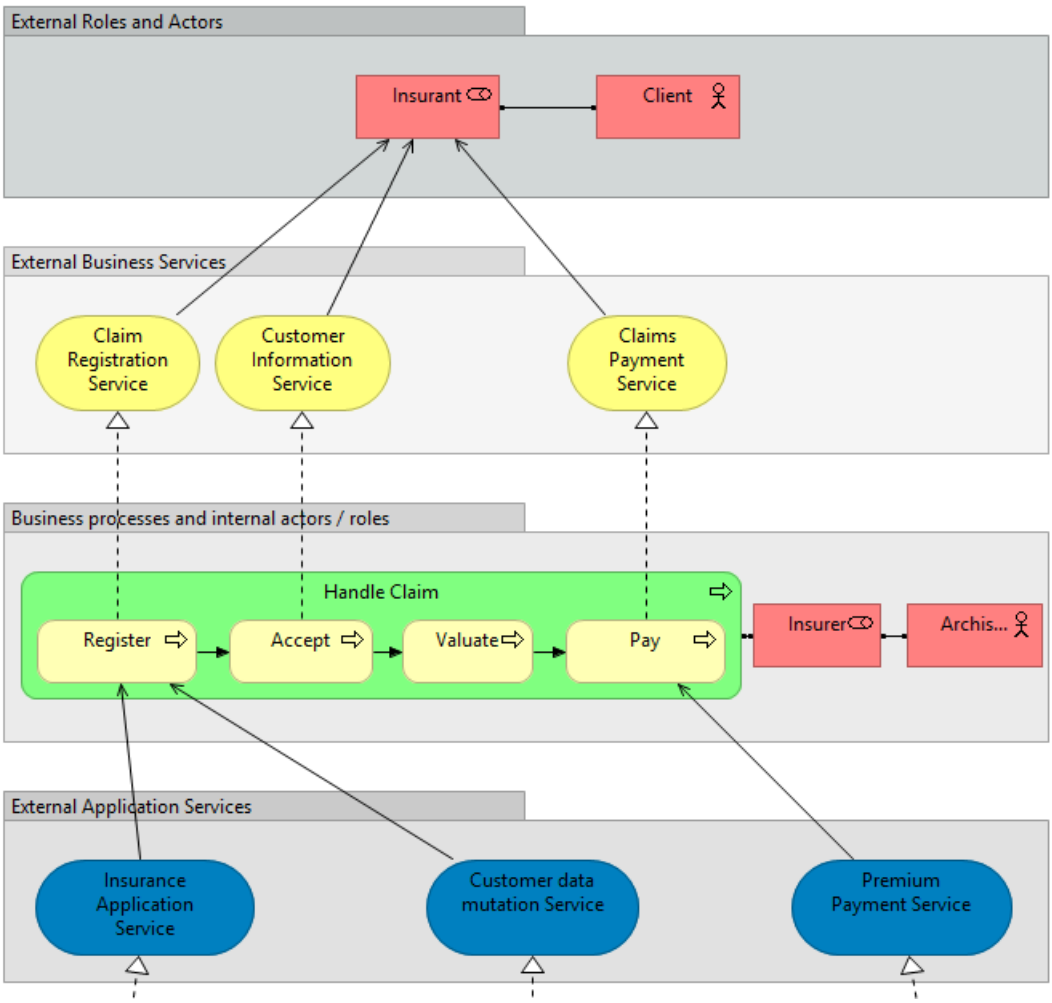
Elements can be grouped together in a View using a Group container type. Note that this is not the same as an ArchiMate Grouping Element, and that it has no semantic meaning other than being a visual collection of elements.

A Group can be added from the View's Palette:



The Group Palette Entry

The following example shows elements grouped together using the Group element to indicate the various layers in the model:



Example of Groups

A Group's name, font and fill colour can be edited in the Properties Window.

Double-clicking a Group opens the Properties Window, clicking on the Group's text field allows you to directly edit the Group's text.

Adding a Legend

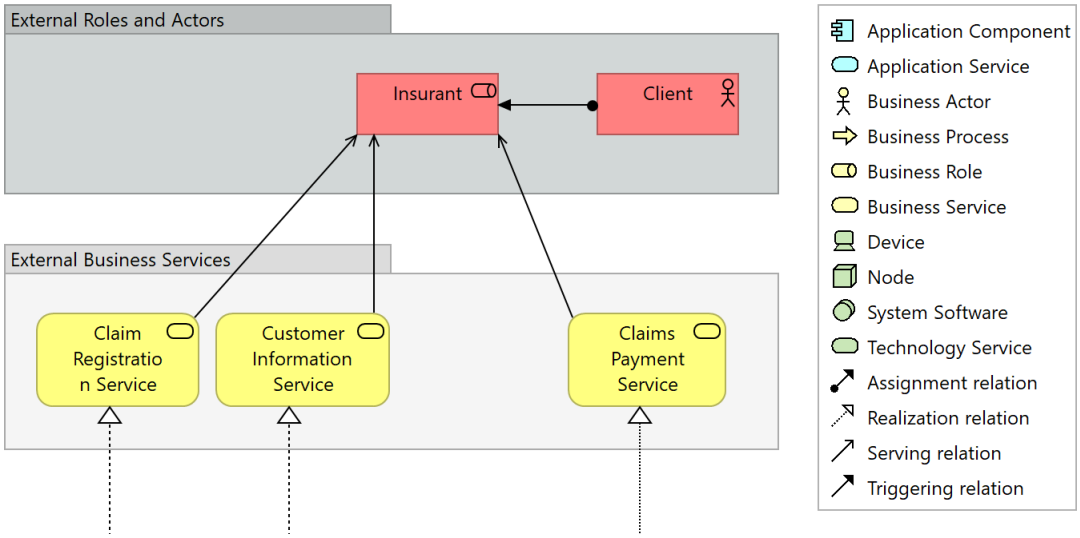
A legend can be included in an ArchiMate View to show all icons and names of the concepts within it. This legend automatically updates whenever concepts are added or removed from the View.

A legend is added from an ArchiMate View's Palette:



The Legend Palette Entry

The following example shows a legend in an ArchiMate View that lists all the concepts present, including their icons and names:



A Legend in an ArchiMate View

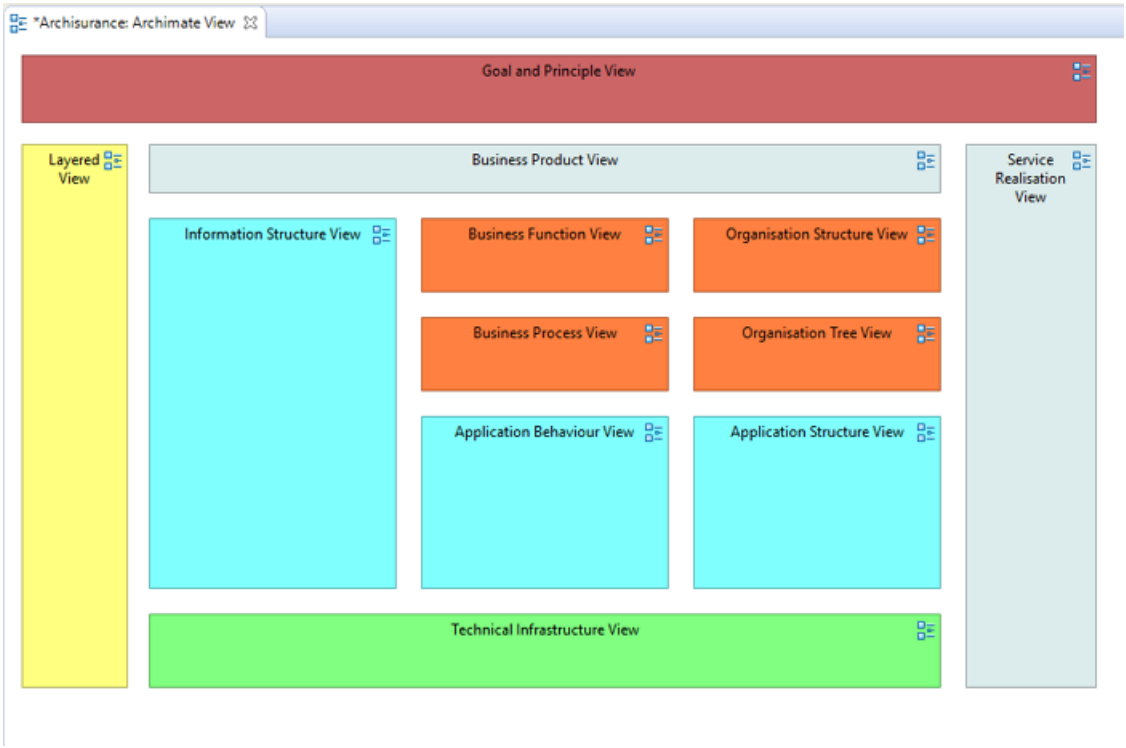
Some important points about legends:

- You can set the default name for each concept displayed in a legend in Preferences.
- A legend's properties can be set in the Properties Window.
- A legend can be set to its optimal size by selecting "Default Size" from the toolbar or main "View->Position" menu item. See Alignment Tools, Guides and the Grid.
- A legend figure is actually a Note figure re-purposed as a legend figure. This means that it will appear as a blank note when opened in older versions of Archi that don't support legends. In this case, the name of the note will be "Legend".

Adding a Reference to Another View

A View Reference figure acts as a link to another View from within a View. It's a shortcut that when double-clicked opens the linked View.

To add a View Reference drag a View node from the Tree Model onto the canvas of the target View. Note that you cannot reference the same View from itself. The following screenshot shows how the user has created a "Map" View with View References to all the other Views in the model:



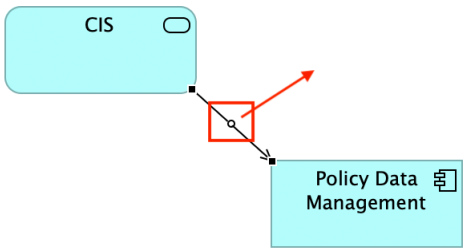
Adding View References to create a "Map" View

The visual properties of the View Reference figure can be set in the Properties Window.

Connection Bend Points

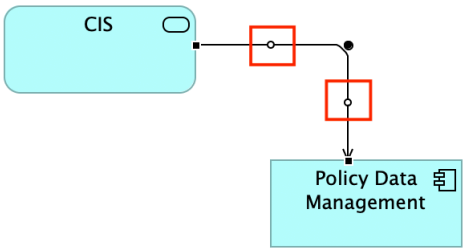
A connection can have any number of bend points so that it can be routed to form bends and deviations in the diagram.

To add a bend point to a connection firstly select it. A bend point creation handle (hollow circle) will appear in the middle of the connection:



A bend point creation handle

Drag the bend point creation handle to the desired position. As you drag the handle two new bend point creation handles are added to the connection and the added bend point now has a solid handle indicating that the bend point exists and you can move or delete it:



The main bend point move handle and two more bend point creation handles appear

You can continue to select and drag these handles to create new bend points or move existing ones. As a new bend point is created, two new creation handles will appear either side of the selected one.

To delete a bend point, select the bend point's handle and drag it so that the connection line becomes straight. Once the connection line is straightened the bend point will disappear.

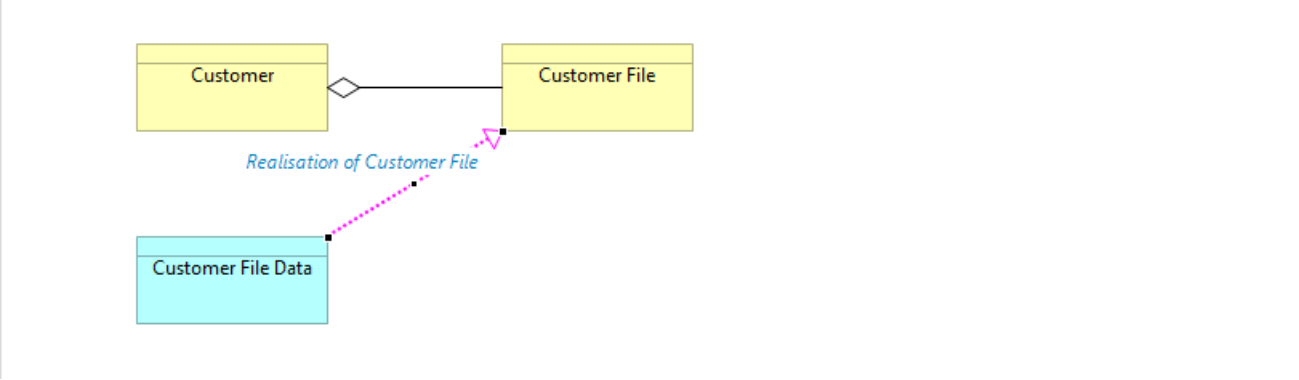
Bend points snap to grid if "Snap to Grid" is turned on in the "View" menu. If you need finer control over placing the bend point you can over-ride this by holding down the Alt key on Windows, Alt/Shift on Linux, or the Ctrl key on Mac.

Note - bend points cannot be added to connections if the Connection Router Type for the View is set to "Manhattan". See here for more details.

Setting the Properties of a Connection

A Connection's (Relationship's) properties can be edited by selecting the connection on the View and opening the Properties Window. See the section, Relationship Connection Appearance Properties, for more information.

Text can be added to a connection (on the "Main" tab) and displayed in one of three positions, and the thickness of the line itself can be set as can the text's font and colour. The following screenshot shows a connection with a medium line width and text showing in the "Target" position with a blue italic font and purple line colour:



A Connection with changed text, text position, line width, and font and line colour

Setting the Connection Router Type for a View

By default, connections are drawn as straight lines from object to object. Bend points can be added to a connection as detailed here. However, it is possible to set the overall connection router type so that the connections route around objects.

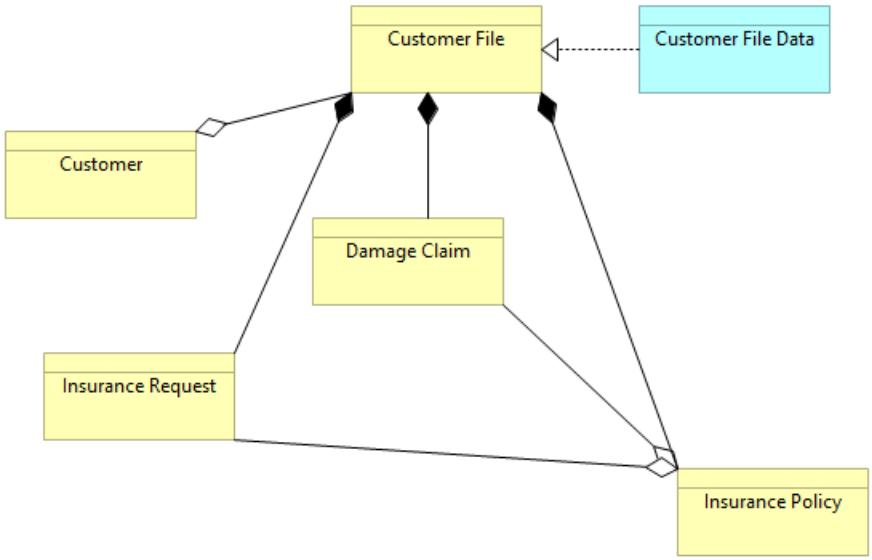
The connection router type can be set either from the main "View->Connection Router" menu or by right-clicking on a View or from the "Appearance" tab in the Properties Window when the View canvas is selected.

> Apart from the view specific settings, the global setting Use orthogonal connection anchors from the Connection Preferences tab can be used to change the way connections are drawn.

The available router types are as follows:

Manual

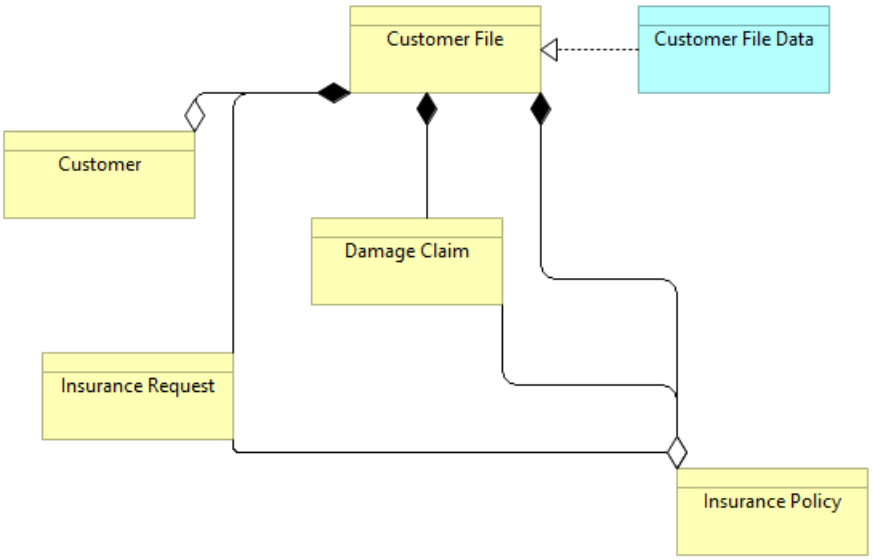
Connections are drawn in straight lines. Bend points can be added by the user.



Manual Router

Manhattan

Connections are routed orthogonally. Bend points *cannot* be added by the user.

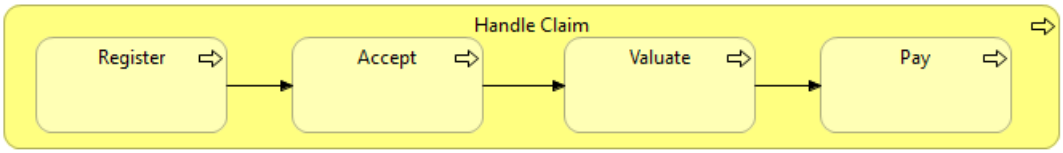


Manhattan Router

Container Elements and Nested Element Relationships

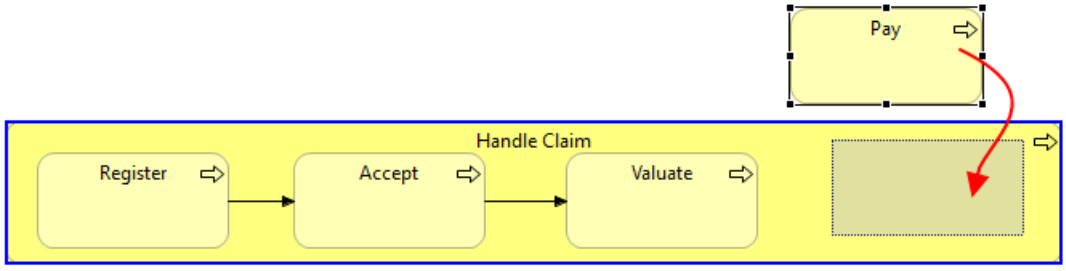
Each graphical element (except for notes and junctions) can act as a container element for other elements. Dragging and dropping an element inside of another element means that it becomes a child of the parent element. This is useful to represent containment type relationships such as Composition, Aggregation, and Association or for convenient grouping.

In the following screenshot the elements "Register", "Accept", "Valuate" and "Pay" are child elements of the parent "Handle Claim Process" element:



Child elements contained by a parent element

While dragging elements into or over other elements a visual cue is provided to indicate that the dragged element will be moved into the parent (container) element. This is a blue highlight around the target element as the element is dragged over it:



A Child Element being Dragged into a Container Element. The Container highlighted in blue

Creating, Showing and Hiding Relationships between Nested Parent/Child Elements

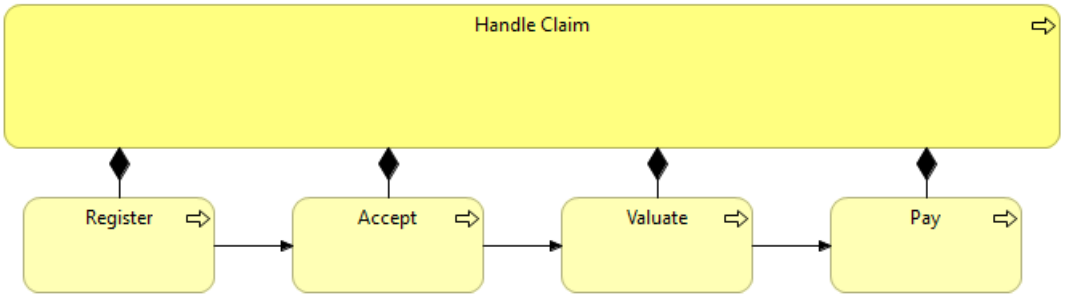
The ArchiMate specification states that some relationships may also be expressed by nesting the model elements. That is to say, an explicit connection need not be drawn between the parent and child elements but that it may be represented as a container nesting of elements.

Archi supports this convention with **Automatic Relationship Management** (ARM). This system ensures that relationships are automatically created and hidden between qualifying parent/child elements. The system can be configured to suit the user's needs. See Preferences to configure the ARM.

The best way to explain the **Automatic Relationship Management** system (ARM) is by an example.

Example - Nested sub-processes in a Composite relationship

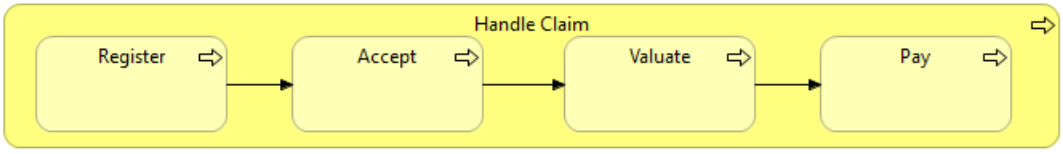
Suppose the user has a Business Process element named "Handle Claim Process" that will act as a container element ("parent") for four sub-processes, "Register", "Accept", "Valuate" and "Pay". The relationship between the parent process and the sub-processes would normally be expressed as four Composition relationships. These can be drawn conventionally using connecting lines as follows:



Composition relationship between parent and child processes

However, this is visually not as clear as if the sub-processes were placed inside of the container parent process.

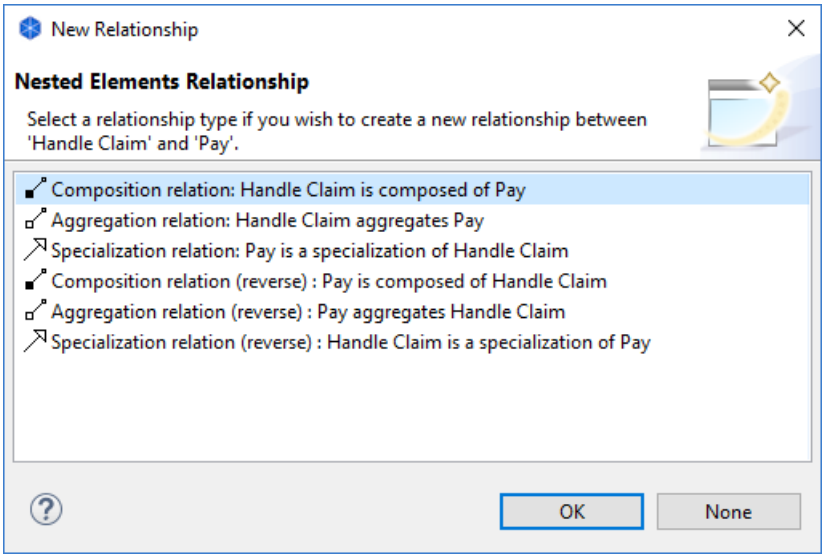
We can solve this problem by enabling the ARM system in Preferences. This ensures that when the sub-processes are placed in the parent element the connections are hidden in the View, but are still present in the actual semantic model. Dragging the child elements in and out of the parent element hides and shows the explicit relationships. The hidden connections are "implicit" connections.



The Connections now hidden from the View

Adding new elements to a parent element

Adding new elements to a parent element in a View from the Palette or dragging and dropping from the Model Tree results in a dialog box asking if a new relationship should be created between the parent and child elements:



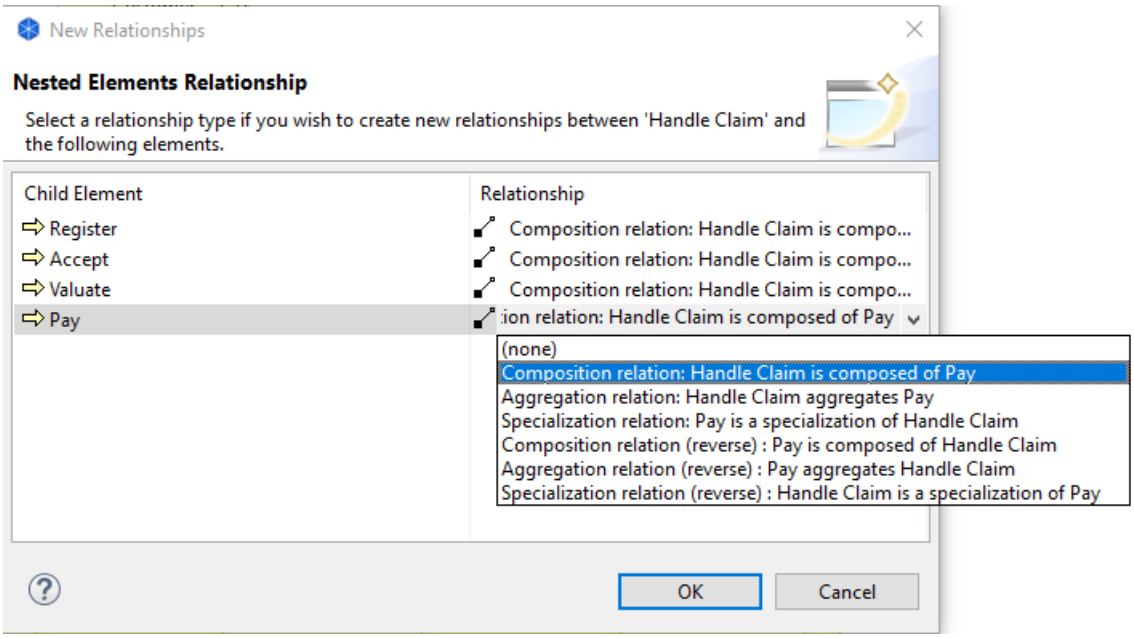
Dialog to create a new nested relationship

Note that the dialog will only display valid relationships between the parent and child elements, and only those that are specified in Preferences. Valid relations between the child and parent elements can also be selected. These are shown as "(reverse)".

If you do not wish to create a new relationship, select "None".

Moving existing elements to a parent element

If more than one element is moved (drag and drop operation) to a parent element in a View or is dragged and dropped from the Model Tree onto a parent element, and there are no existing preferred relationships between the parent and the child elements then a dialog box is displayed offering to create new relationships between the parent element and the child elements. You can choose a different type of relationship for each child element:

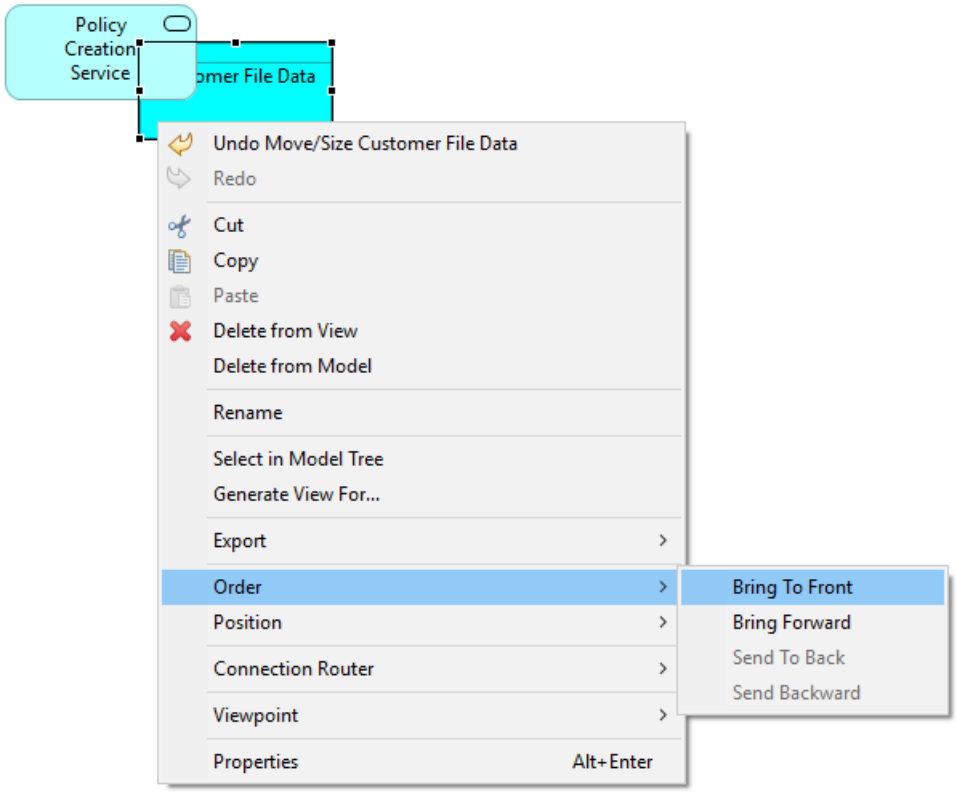


Dialog for creating more than one relationship

If you do not wish to create a new relationship for an element, select "(none)" from the drop-down combo box. To select the same type of relationship in the drop-down combo-box, hold down the Ctrl / Command key and select.

Setting the Order of Overlapping Elements

Overlapping elements in a View can be brought to the front or back, or brought forward or sent back. This is also known as the "Z" order. This is achieved by selecting the element in a View and right-clicking to invoke the "Order" menu items. These same menu items are also available from the main "View" menu.



Changing the order of overlapping elements

Selecting Elements in a View

Diagram elements and connections may be selected in the view by clicking on them with the selection tool or the marquee tool. For more information about these tools see Palette Selection Tools.

Copying and Pasting Elements in a View

Diagram elements may be cut, copied and pasted in Views. There are, however, certain constraints on how this works:

- If an element is pasted into a View *from the same model* where the element *already exists in that View* then a new model element and a new diagram element are created for the View. The new element is a copy of the original. Any connections are also newly created as copies.
- If an element is pasted in a View *from the same model* where the element *does not already exist* then a new diagram element is created for the View and the original model element is referenced. This is equivalent to dragging the element from the Model Tree into the View. Any connections are also referenced.

If an element is pasted into a View *from a different model* then a new model element and a new diagram element are created for the View. The new element is a copy of the original. Any connections are also newly created as copies.

If you choose the "Paste Special" menu option, instead of "Paste" then you can change this behaviour such that references to copied elements are created rather than new elements. You can set the behaviour for this feature in Preferences.



If you copy some diagram elements and then click on the View before pasting, the copied elements will be pasted at the point where you clicked.

Copy As Image to Clipboard

A View (diagram) can be copied as an image to the system clipboard. This is available from the "Copy As Image To Clipboard" menu command from the main "Edit" menu or by right-clicking on a View and selecting the menu item from the contextual menu. This menu command is only available if a View is open and selected. The shortcut key combination is Ctrl-Shift-C (Command key on Mac). Once the View is copied to the system clipboard it can be pasted into other applications such as word processing and drawing tools.

Deleting Elements and Relationships (Connections) in a View

Selected elements and/or connections in a View can be deleted from the View by choosing the "Delete from View" menu item from the main "Edit" menu, from the main toolbar or from the right-click menu. *Note - this action deletes the selected objects from the View not from the model.*

Delete from Model

This menu item is available from the main "Edit" menu or when right-clicking an element or relationship in a View. The selected elements and/or relationships are deleted from the model itself and any Views that reference those elements. This is the equivalent of selecting the elements in the Model Tree and choosing "Delete".

Delete from View (keep children)

This menu item is available from the main "Edit" menu or when right-clicking an object in a View. It allows you to delete the selected objects but retain the object's child objects. Child objects are re-parented to the selected object's immediate parent. *Note - this action deletes the selected objects from the View not from the model.*

Delete Bendpoints

This menu item is available from the main "Edit" menu or when right-clicking one or more connections in a View. It allows you to delete all bend-points for any selected connections. If a connection has no bend-points the menu item is not available.

Invert Connection Direction

This menu item is available when right-clicking a relationship in a View. If allowed by ArchiMate's relationship rules all selected relationships' source and target ends are inverted, or reversed. This is applied to all instances of the selected relationship(s) in all Views.

Changing an Object's ArchiMate Concept Type in a View

An Element or Relation's ArchiMate concept type can be changed in a View. To change one or more objects' ArchiMate concept type in a View select the required Elements or Relationships and, from the right-click context menu, select the "Set Concept Type" sub-menu and then select the required ArchiMate concept.

For more information, see Changing an Object's ArchiMate Concept Type in the Model Tree.

Select in Model Tree

This menu item is available when right-clicking an element or relationship in a View. It will select the corresponding model element in the Model Tree.

Select Objects of Same Type

This menu item is available when right-clicking one or more elements or relationships in a View. It will select all objects of the same type as the selected objects in the current View.

Alignment Tools, Guides and the Grid

In order to facilitate the drawing of pleasing diagrams, various alignment tools are provided. These are available from the main "View->Position" menu item, from the main toolbar or by right-clicking on the diagram's canvas area to select the "Position" menu items. These are as follows:

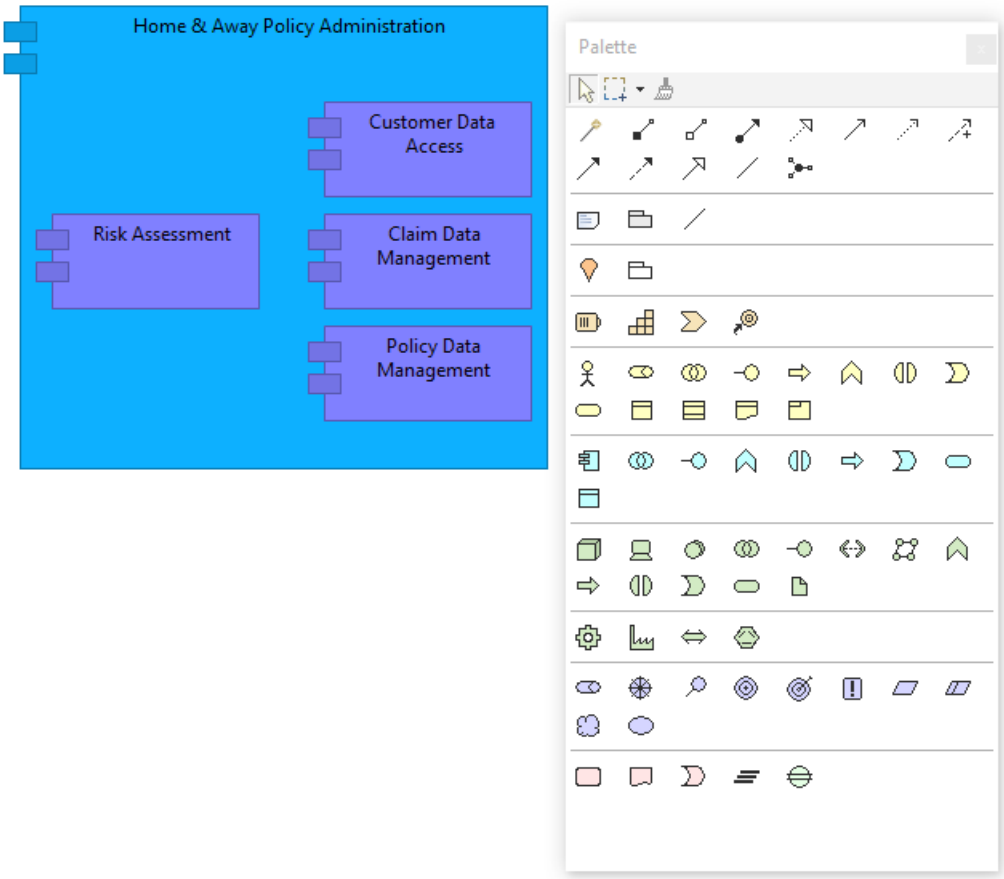
Zoom in / Zoom out / Actual Size:	Zoom in and out of the diagram. This is also available on the toolbar as a combo box. You can also Zoom in and out by holding the Ctrl key and scrolling the mouse wheel.

Snap to Grid:	Snaps elements to the Grid whether it is visible or not. (Grid spacing can be set in Preferences.)
Grid Visible:	Toggles the visibility of the Grid. (Grid spacing can be set in Preferences.)
Snap to Alignment Guides:	These are blue alignment guides (lines) that appear when objects are dragged in a diagram. They assist in lining the edges and centres of objects.
Align Left:	When two or more objects are selected align on the left edge of the primary selection.
Align Center:	When two or more objects are selected align centrally horizontally to the primary selection.
Align Right:	When two or more objects are selected align on the right edge of the primary selection.
Align Top:	When two or more objects are selected align on the top edge of the primary selection.
Align Middle:	When two or more objects are selected align centrally vertically to the primary selection.
Align Bottom:	When two or more objects are selected align on the bottom edge of the primary selection.
Match Width:	When two or more objects are selected match the width of the objects to the primary selection.
Match Height:	When two or more objects are selected match the height of the objects to the primary selection.
Match Size:	When two or more objects are selected match the height and width of the objects to the primary selection.
Default Size:	Set the selected object to its default size. If disabled then the object is already set to its default size.

For information about the primary selection see Palette Selection Tools.

Showing a View in Full Screen Mode

On Windows and Linux, a View can be displayed and edited in Full Screen mode (this is not available on the macOS version of Archi since macOS has its own full screen support). This can be useful to maximise the View for presentation purposes. To do so select a View and press the F11 key, or choose the "Full Screen" menu item from the main "View" menu. The View will be maximised:



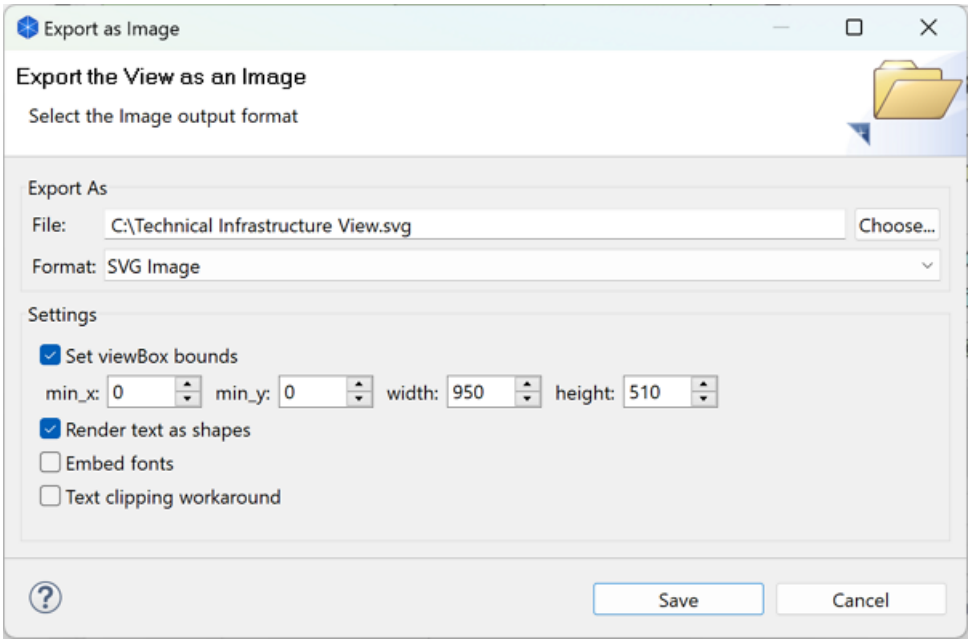
A View in Full Screen mode

The Floating Palette window can be closed when it has the focus with the Escape key, or by clicking its close button. Right-clicking on the View in Full Screen mode invokes a context menu where the Palette may be shown if it is not currently visible.

Export View As Image

A View (diagram) can be exported as an image file to disk. This is available from the "Export View As Image..." menu command from the main "File->Export" menu or by right-clicking on a View and selecting the menu item from the contextual menu. This menu command is only available if a View is open and selected.

Available formats are BMP, JPG, PNG, PDF and SVG. The first three formats can be exported at scaled ranging from 25% to 400%.



Exporting a View as an image

SVG and PDF formats have more options:

Set viewBox bounds:	This will determine the size and positioning of the SVG image.
Render text as shapes:	If this is checked, fonts are rendered as shapes. This is usually the preferred option. If this option is unchecked you may also need to check the "Embed fonts" option.
Embed fonts:	If this is checked, fonts are embedded in the SVF or PDF document.
Text clipping workaround:	Some fonts on some platforms might appear clipped in the SVG or PDF document. If this happens check this option when exporting. Note that the font will appear slightly smaller in the document.

Viewpoints

The ArchiMate Specification states that "Viewpoints are a means to focus on particular aspects and layers of the architecture. These aspects and layers are determined by the concerns of a stakeholder with whom communication takes place. What should and should not be visible from a specific Viewpoint is therefore entirely dependent on the argumentation with respect to a stakeholder's concerns."

In practice, a Viewpoint is a sub-set of elements and relationships aimed at a stakeholder. Archi allows you to set the following ArchiMate Viewpoints:

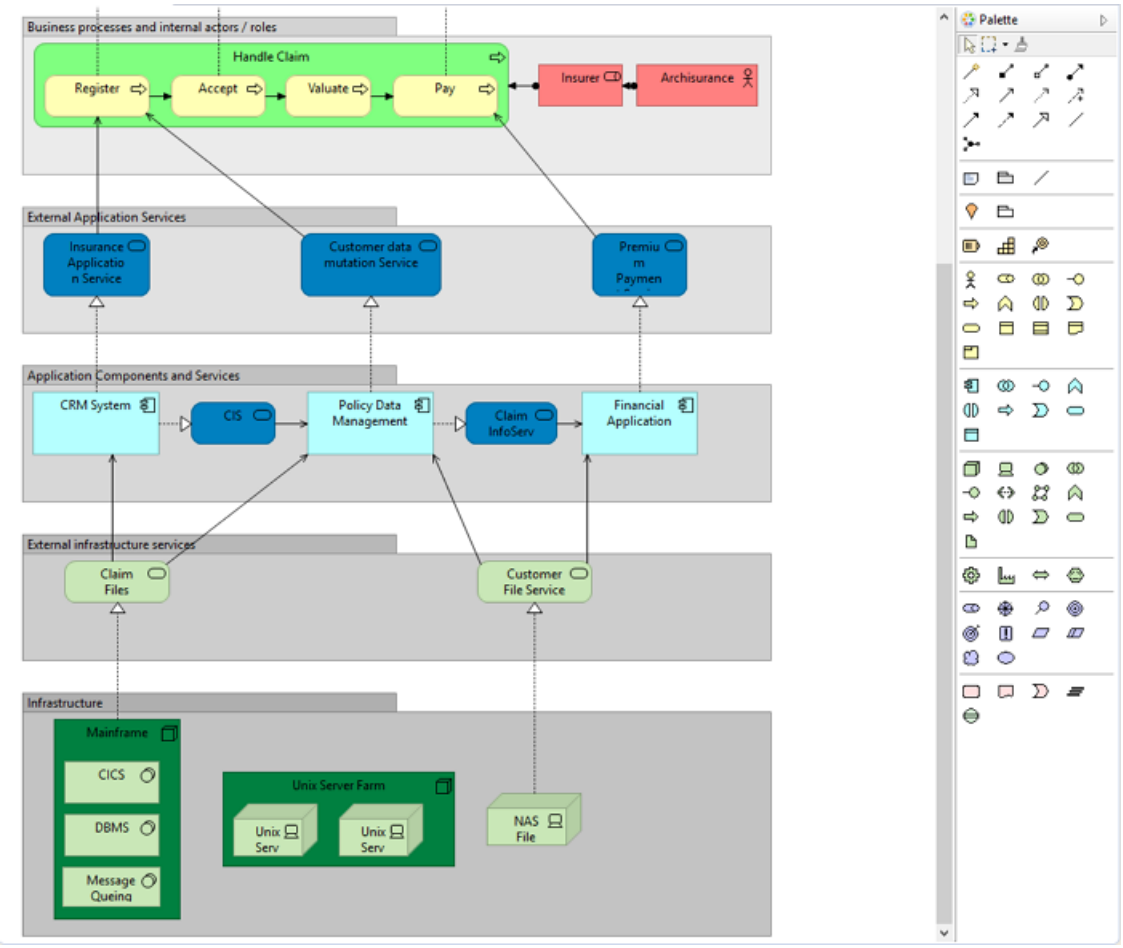
- None
- Application Cooperation
- Application Structure
- Application Usage
- Business Process Cooperation
- Capability Map
- Goal Realization
- Implementation and Deployment
- Implementation and Migration
- Information Structure
- Layered
- Migration
- Motivation
- Organization
- Outcome Realization
- Physical
- Product
- Project
- Requirements Realization
- Resource Map
- Service Realization
- Stakeholder
- Strategy
- Technology
- Technology Usage
- Value Stream

When creating a new View in Archi, the default Viewpoint is set to "None", meaning that all concepts can be added to the View. Setting a Viewpoint on a View means that a sub-set of elements is available to place on the View. Some other ArchiMate authoring tools require you to specify the Viewpoint in advance when creating the View. Unfortunately, this means that you cannot change your mind should you wish to later change the Viewpoint in the View. Archi, however, implements **Dynamic Viewpoints** so that you can change the Viewpoint at any time and those elements that are not permitted for that Viewpoint are "ghosted" out. Dynamic Viewpoints allow you to change your mind. You don't have to decide up-front what the Viewpoint will be. You can experiment with different Viewpoints for the same View. And if you decide to keep the Viewpoint, you can simply remove any disallowed elements from the View.

Setting the Viewpoint

To set the Viewpoint for a View, open the View in the View editor and select the required Viewpoint from the main "View->Viewpoint" menu, or by right-clicking on the View's drawing area and selecting it from the context menu. You can also change the Viewpoint from the View's Properties window.

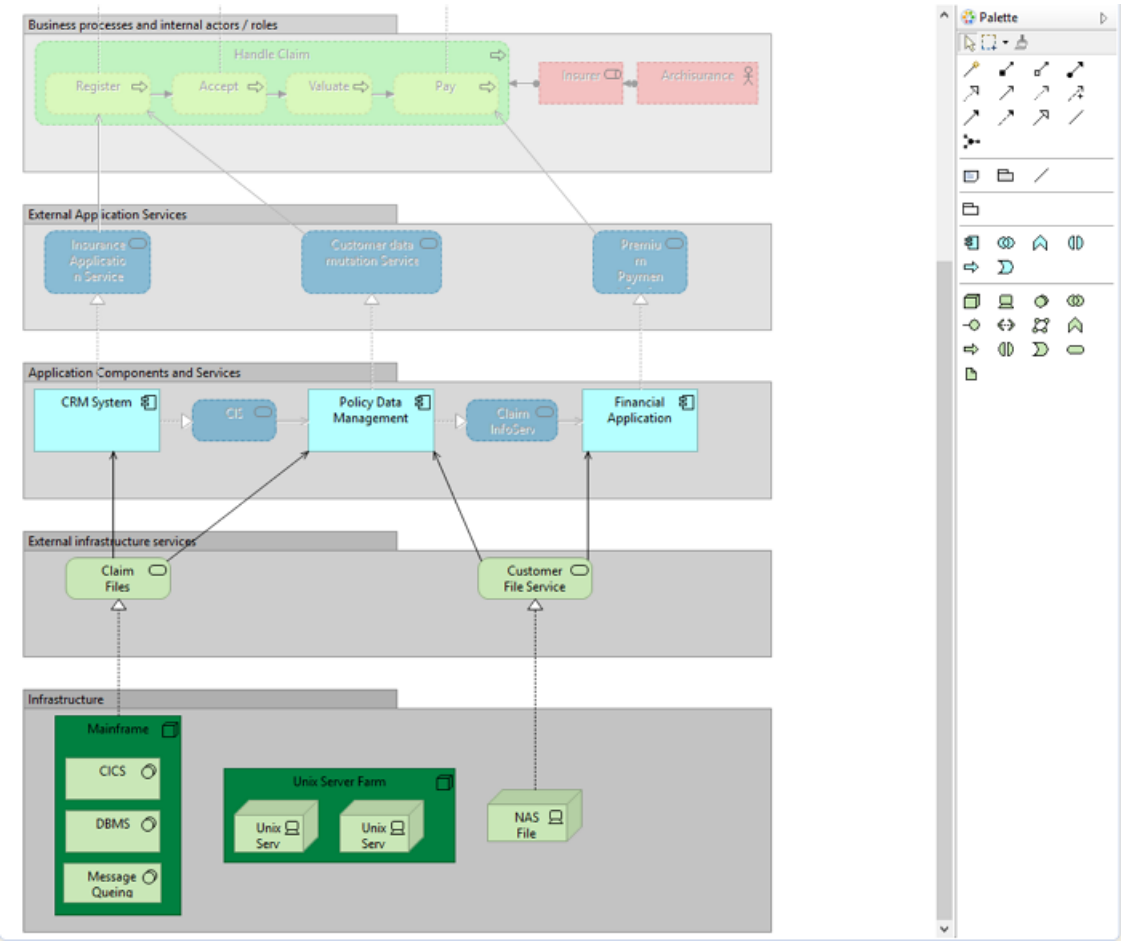
In the following example we start with a View that has the default "None" Viewpoint:



A View with the "None" Viewpoint

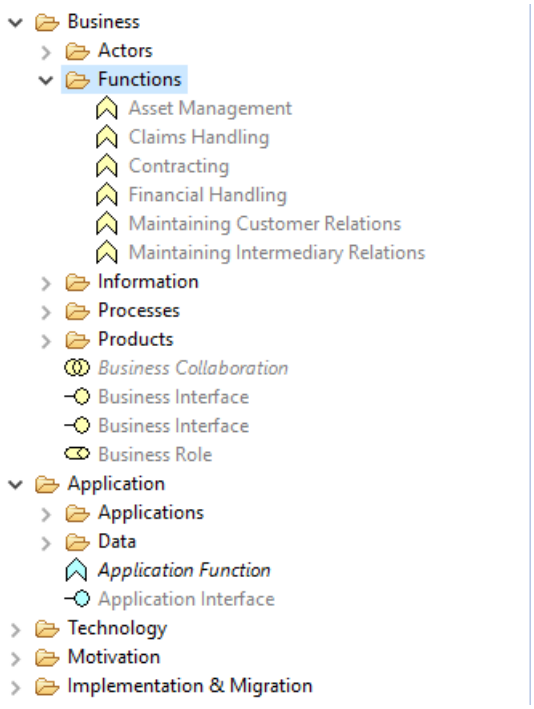
Notice that all elements from all the ArchiMate layers (Business, Application, and Technology) are displayed. Also, the Palette has all elements available.

If we now change the Viewpoint to "Technology Usage" then any elements that do not belong in this Viewpoint are "ghosted" out in the View. Notice, also, that only the elements permitted for the current Viewpoint are available in the Palette, whilst the others are not available:



The same View with the "Technology Usage" Viewpoint

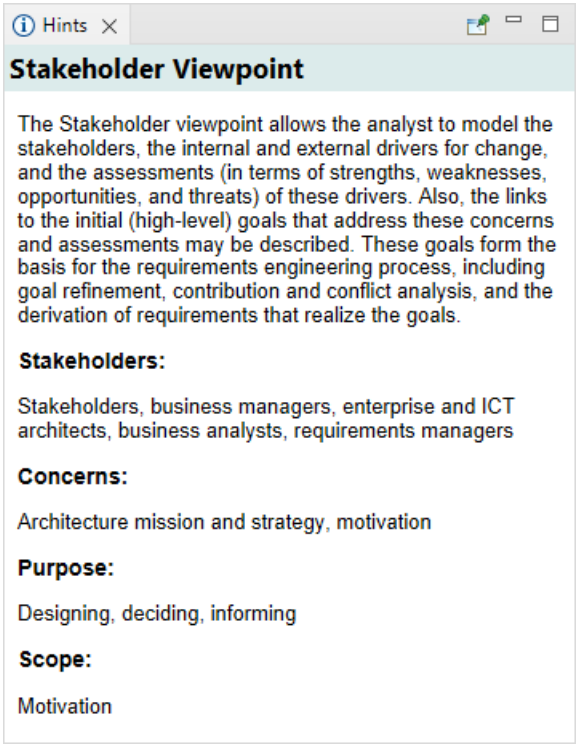
If we look at the elements in the Model Tree we can see that non-permitted elements for the Viewpoint are also greyed out:



Elements not permitted for the Viewpoint are greyed out

We can drag and drop any element from the Model Tree to the View but the resulting element in the View will be greyed out. This means that we can work with the Viewpoint any way we want to but we are reminded at all times of what should and shouldn't be added to the Viewpoint.

If you are unsure of the constraints for a Viewpoint select it then open the Hints Window. A full explanation is available for the Viewpoint:



A Hint for a Viewpoint

The Properties Window

The Properties Window allows you to edit the properties for selected objects in the Model Tree or selected figures or connections in a View. Some properties (for example, the name) are shared between a concept in the Model Tree and its counterpart in a View. Some properties are only relevant for an object in a View (fill colour and font, for example).

To edit the Properties for selected objects in the Model Tree or in a View, select the object(s) and open the Properties Window either by double-clicking the tree node or View object, or from the main "Window" menu or main toolbar.

If selected, the local menu option in the drop-down menu, "Single Column Layout", will show some controls in the Appearance tab in a single column.



Note - some properties are only available when the object is selected in a View (for example, fill colour or line width).

Using Markdown in Text Fields

You can use Markdown (and HTML) for the Documentation of a selected object in the Properties Window and this can be previewed in the same field. To the right of the Documentation field press the toolbar button "Edit" or "View" to toggle between the two modes.

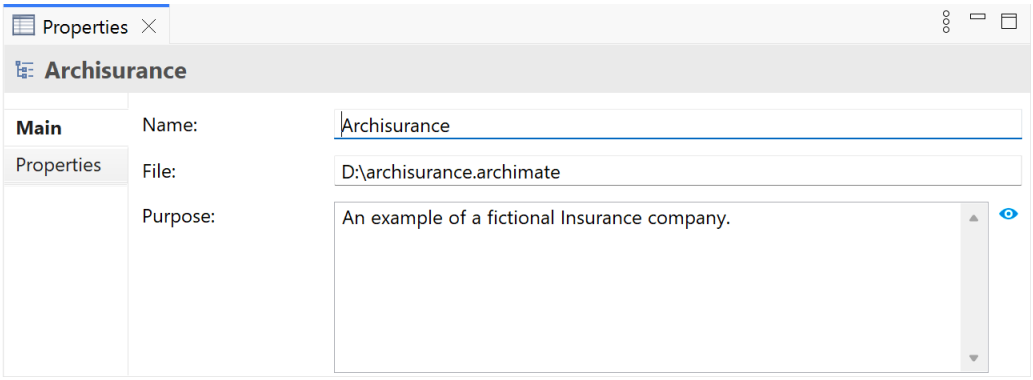
Because Markdown can only be rendered in an embedded browser component some limitations should be noted:

- Markdown is rendered in the Documentation field in "View" mode
- If Markdown is used in a Documentation field and it is referenced using the "${documentation}" label expression it is rendered as simple text in a diagram figure. HTML is not rendered as simple text and is shown "as is".
- Markdown is rendered when exporting a model to a HTML Report but is not rendered in diagram figures. (See the next point).
- Markdown is not rendered in diagram figures. If content that uses it is referenced by a label expression it is rendered as simple text.
- Markdown is not rendered when exporting a model to a Jasper Report. It is rendered as simple text.

Model Properties

Selecting the top level node for a model in the Model Tree means that you can edit or view the following properties in the Properties Window.

The Main Tab



Main Properties for an ArchiMate Model

Name: The name of the model.

File: The file name of the model (read-only).

Purpose: A space to enter the purpose (or documentation) of the model. If Markdown is used it can be previewed by selecting the "View" toolbar button to the right of the documentation field. See Using Markdown in Text Fields for more details.



In the "Purpose" text control, URLs that start with "http://" "https://", "ftps://" or "file:///" will show as a hyperlink. Holding the Ctrl / Command key will change the cursor to a "hand" cursor and you can open the link in a Browser.

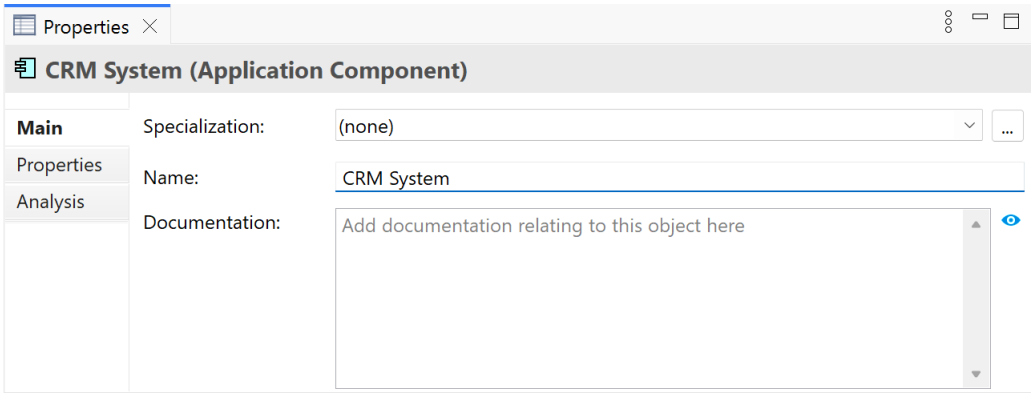
The Properties Tab

For more information about creating and managing User Properties see User Properties.

ArchiMate Element Properties

Selecting an ArchiMate Element in the Model Tree or in a View means that you can edit or view the following model properties in the Properties Window. See Element Appearance Properties for visual properties when the element is selected in a View.

The Main Tab



Main Properties for an ArchiMate Element

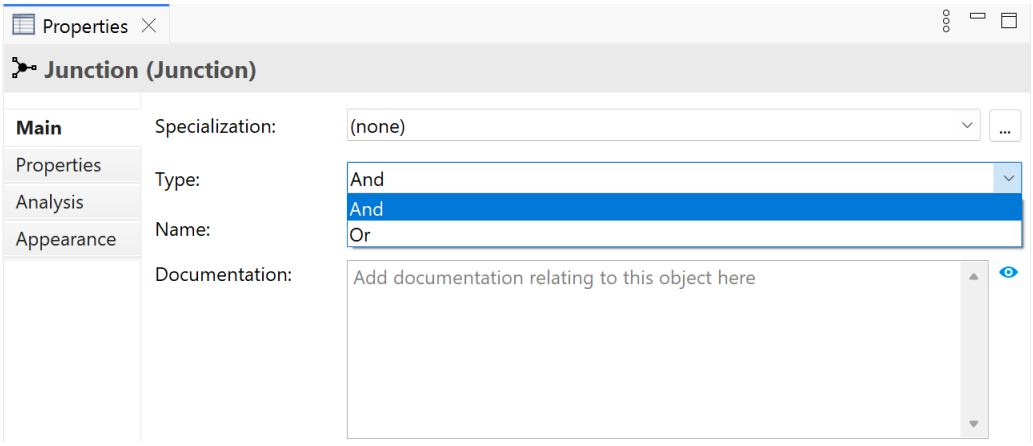
Specialization: Select the Specialization for this ArchiMate Element. The button to the right of the drop-down control will open the Specializations Manager.

Name: The name of the ArchiMate Element.

Documentation: A space to enter some documentation relating to this Element. If Markdown is used it can be previewed by selecting the "View" toolbar button to the right of the documentation field. See Using Markdown in Text Fields for more details.

> In the "Documentation" text control, URLs that start with "http://" "https://", "ftps://" or "file:///" will show as a hyperlink. Holding the Ctrl / Command key will change the cursor to a "hand" cursor and you can open the link in a Browser.

The **Junction** connector has an additional property for type:



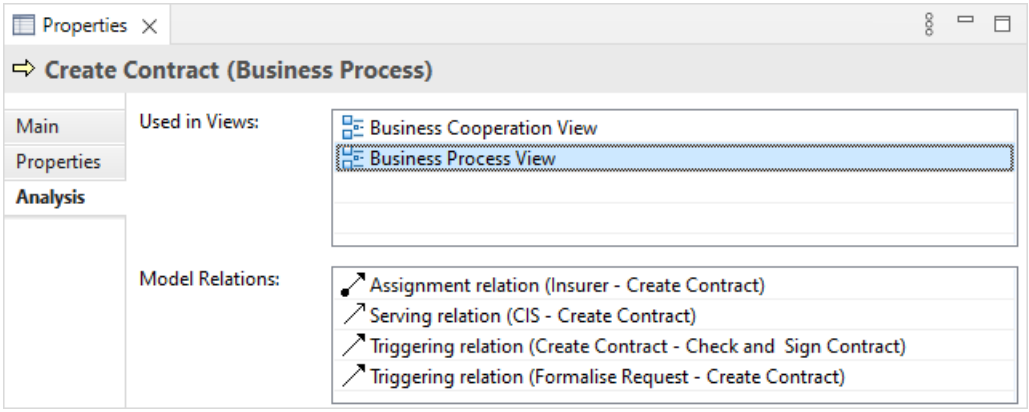
The Junction Type property

Type: Can be set to "And" or "Or". Setting this also changes the element's icon.

The Properties Tab

For more information about creating and managing User Properties see User Properties.

The Analysis Tab



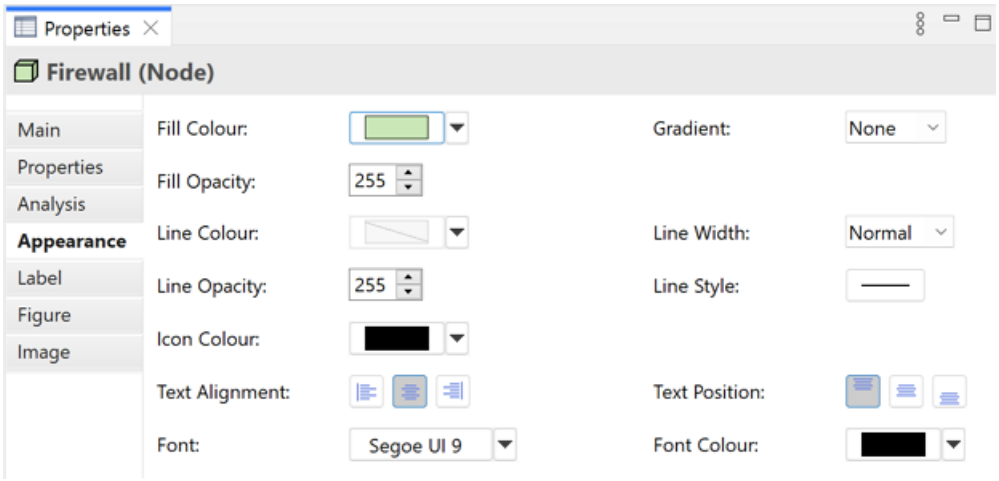
Analysis for an ArchiMate Element

Used in Views:	A table showing the Views (if any) where the element is used (displayed in a diagram). Double-clicking on an entry in the table will open the View and select the object in the diagram.
Model Relations:	A table showing the relationships (if any) to and from the element in the model. Double-clicking on an entry in the table will select the relationship in the Model Tree window if it is open.

ArchiMate Element Appearance Properties

Selecting an ArchiMate Element in a View means that you can edit or view additional visual properties in the Properties Window. Different visual settings can be applied to an element for each separate occurrence in a View. For example, the element "Application Service" may be coloured blue in one View, and grey in another View.

The Appearance Tab



Appearance Properties for an ArchiMate Element in a View

This tab is only available when an element is selected in a View.

Fill Colour: Sets the fill colour. Click on the main part of the button to set the colour. The "Default" drop-down option sets the fill colour to the default setting as set in Preferences.

Gradient: Sets the direction used to draw the gradient fill. Settings are "None", "Top", Left", "Right" and "Bottom". Note - gradients will not show when a diagram is exported in SVG image format.

Fill Opacity: Set the fill opacity. Range from 0-255.

Line Colour: Sets the colour of the line used to draw the object. Click on the main part of the button to set the colour. The "Derive from fill colour" drop-down option sets the line colour based on the fill colour. The "Default" drop-down option sets the line colour to the default colour as set in Preferences. If the "Default" drop-down option is not visible it is because line colours are derived from the element's fill colour, as set in the "Derive from fill colour" drop-down option.

Line Width: Sets the width of the line used to draw the object. Options are "Normal", "Medium" and "Heavy".

Line Opacity: Set the line opacity. Range from 0-255.

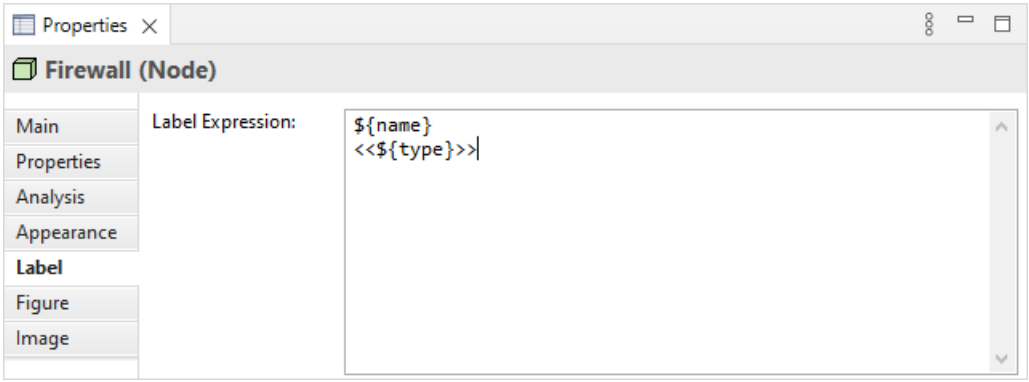
Line Style: Set the line style. Options are "Solid", "Dashed", "Dotted" and "None".

Icon Colour: Sets the colour of the small ArchiMate icon. Click on the main part of the button to set the colour. The "Default" drop-down option sets the line colour to the default setting.

Text Alignment: Align text to Left, Centred or Right.

Text Position:	Position text to Top, Middle or Bottom.
Font:	Sets the font. Click on the main part of the button to set the font. The "Default" drop-down option sets the font to the default setting as set in Preferences.
Font Colour:	Sets the colour of the font. Click on the main part of the button to set the colour. The "Default" drop-down option sets the font colour to its default.

The Label Tab



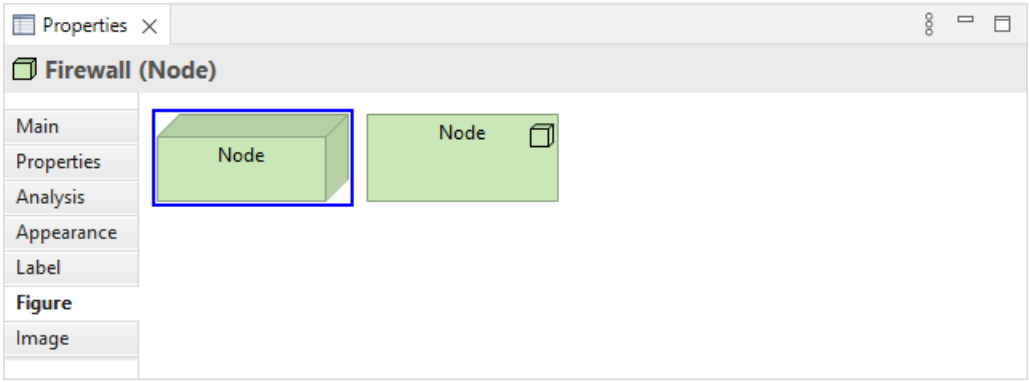
Adding a Label Expression to display in the View

This tab is only available when an element is selected in a View.

By default, an element's name will be displayed in any View in which it appears. Using a label expression per View instance, you can choose what is displayed for the element in the View. For example you may wish to display the element's name and its type. Or you may wish to display the value of one or more of its properties.

For a full list of expression types please refer to the Archi Wiki.

The Figure Tab



Setting the Figure Properties for a Device

Select the figure to use for an ArchiMate element in a View. This tab is only available when an element is selected in a View and only for ArchiMate elements.

The default figure to use when creating new elements can be set in Preferences.

The Image Tab

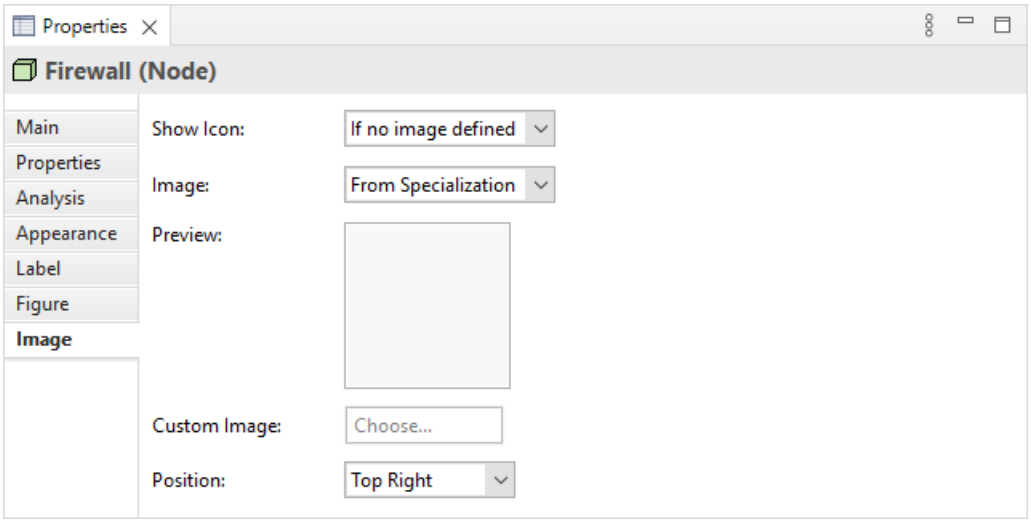


Image Properties for an Element

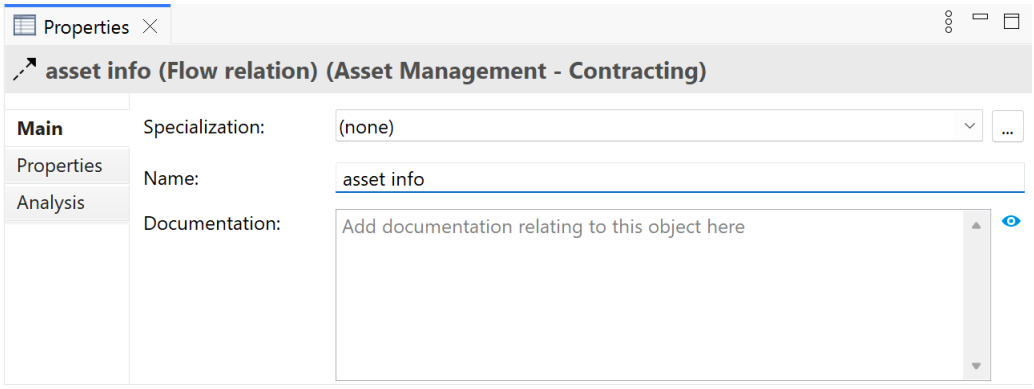
An Image can be displayed for an ArchiMate element in a View either from its Specialization or from a custom image.

Show Icon:	Whether to show the small icon for an ArchiMate figure. Options are "If no image defined", "Always", and "Never".
Image:	Select the source of the image. If the ArchiMate object is a Specialization and you want to display the Specialization's image, choose "From Specialization". Choose "Custom" if you want to display an image not linked to the Specialization.
Preview:	A preview image that shows how the image will appear. Double-clicking the Preview box will launch the Image Chooser dialog window. You can also drag and drop an image file from the desktop onto the Preview box. Note - this is disabled if "From Specialization" is selected.
Custom Image:	Select a custom image for the object or clear the image. See "Adding Images to Objects" for more details. Note - this is disabled if "From Specialization" is selected.
Position:	Sets the position of the image relative to the object.

ArchiMate Relationship Properties

Selecting an ArchiMate Relationship in the Model Tree or in a View means that you can edit or view the following model properties in the Properties Window. See Relationship Connection Appearance Properties for visual properties when the relationship is selected in a View.

The Main Tab



Main Properties for an ArchiMate Relationship

Specialization: Select the Specialization for this ArchiMate Relationship. The button to the right of the drop-down control will open the Specializations Manager.

Name: The name of the ArchiMate Relationship. If present, this will be displayed next to the connection in a View.

Documentation: A space to enter some documentation relating to this Relationship. If Markdown is used it can be previewed by selecting the "View" toolbar button to the right of the documentation field. See Using Markdown in Text Fields for more details.



In the "Documentation" text control, URLs that start with "http://" "https://", "ftps://" or "file:///" will show as a hyperlink. Holding the Ctrl / Command key will change the cursor to a "hand" cursor and you can open the link in a Browser.

The **Association** relationship type has an additional property:

Directed: Can be set to directed or non-directed. Setting this also changes the connection's arrow-head.

The **Access** relationship type has an additional property:

Access Type: Can be set to "Access", "Read", "Write" or "Read/Write". Setting this also changes the connection's arrow-heads.

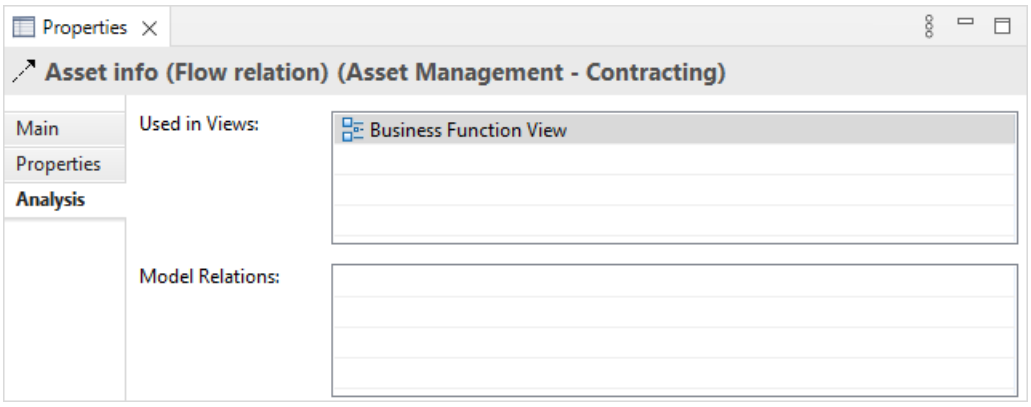
The **Influence** relationship type has an additional property:

Strength: Can be set to an appropriate value such as "+", "++", "+++", "-", "--", "---".

The Properties Tab

For more information about creating and managing User Properties see User Properties.

The Analysis Tab



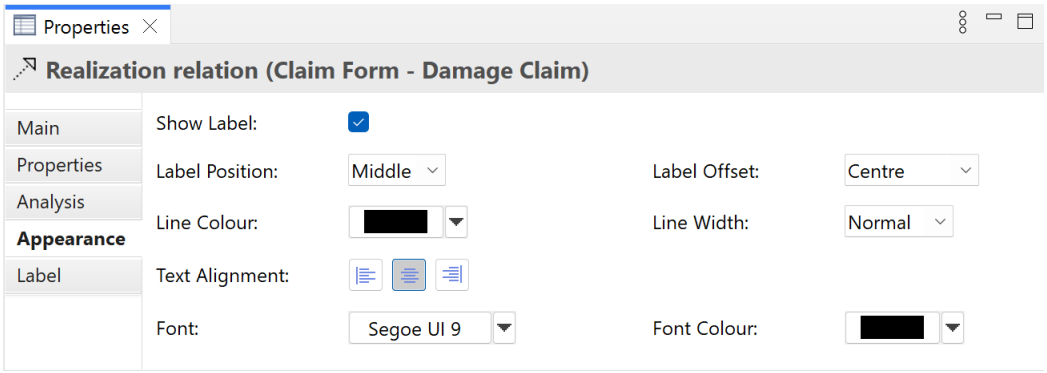
Viewing the "Analysis" Properties for an ArchiMate Relationship

Used in Views:	A table showing the Views (if any) where the relationship is used (displayed in a diagram). Double-clicking on an entry in the table will open the View and select the relationship (connection) in the diagram.
Model Relations:	A table showing the relationships (if any) to and from the relationship in the model. Double-clicking on an entry in the table will select the relationship in the Model Tree window if it is open. Note - if the relationship has no incoming or outgoing relationships, the table will be empty.

Relationship Connection Appearance Properties

Selecting an ArchiMate Relationship in a View means that you can edit or view additional visual properties in the Properties Window. Different visual settings can be applied to a relationship for each separate occurrence in a View. For example, the relationship "Used By" may be coloured black in one View, and blue in another View.

The Appearance Tab

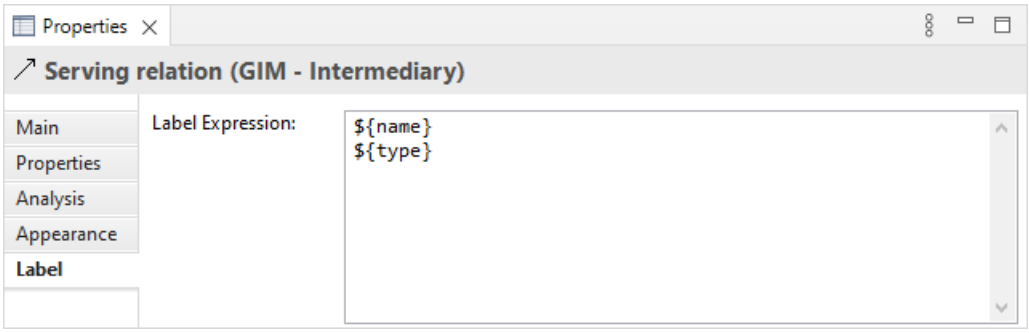


Appearance Properties for a Relationship in a View

This tab is only available when a relationship is selected in a View.

Show Label:	If selected will show the label if the relationship's text is set.
Label Position:	Sets the position of the connection's label. Options are "Source", "Middle" and "Target".
Label Offset:	Sets the relative position of the connection's label if its position is "Middle". Options are "Centre", "North", "South", "East", "West", "North East", "North West", "South East", and "South West".
Line Colour:	Sets the colour of the connection. Click on the main part of the button to set the colour. The "Default" drop-down option sets the line colour to the default setting as set in Preferences.
Line Width:	Sets the width of the connection. Options are "Normal", "Medium" and "Heavy".
Text Alignment:	Align text to Left, Centred or Right.
Font:	Sets the font. Click on the main part of the button to set the font. The "Default" drop-down option sets the font to the default setting as set in Preferences.
Font Colour:	Sets the colour of the font. Click on the main part of the button to set the colour. The "Default" drop-down option sets the font colour to its default.

The Label Tab



Adding a Label Expression to display in the View

This tab is only available when a relationship is selected in a View.

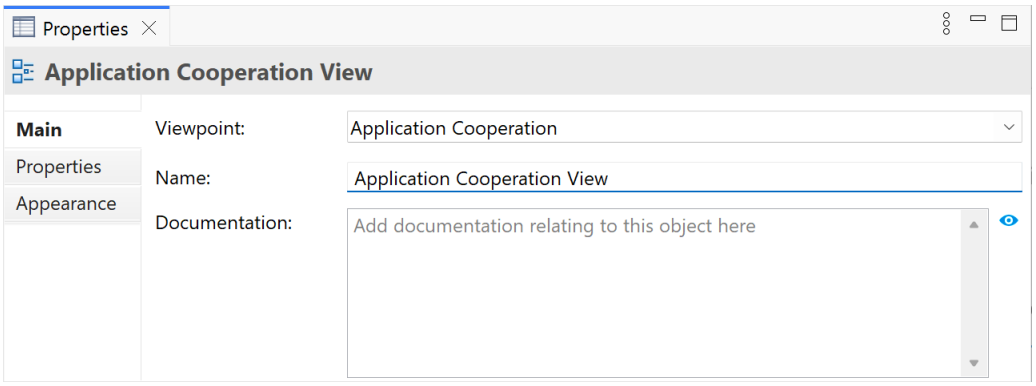
By default, a relationship's name will be displayed in any View in which it appears. Using a label expression per View instance, you can choose what is displayed for the relationship in the View. For example you may wish to display the relationship's name and its type. Or you may wish to display the value of one or more of its properties.

For a full list of expression types please refer to the Archi Wiki.

View Properties

Selecting a View in the Model Tree or when open means that you can edit or view the following properties in the Properties Window.

The Main Tab



Main Properties for a View

Viewpoint:	Select the Viewpoint for the View. For more information see Viewpoints
Name:	The name of the View.
Documentation:	A space to enter some documentation relating to this View. If Markdown is used it can be previewed by selecting the "View" toolbar button to the right of

the documentation field. See Using Markdown in Text Fields for more details.

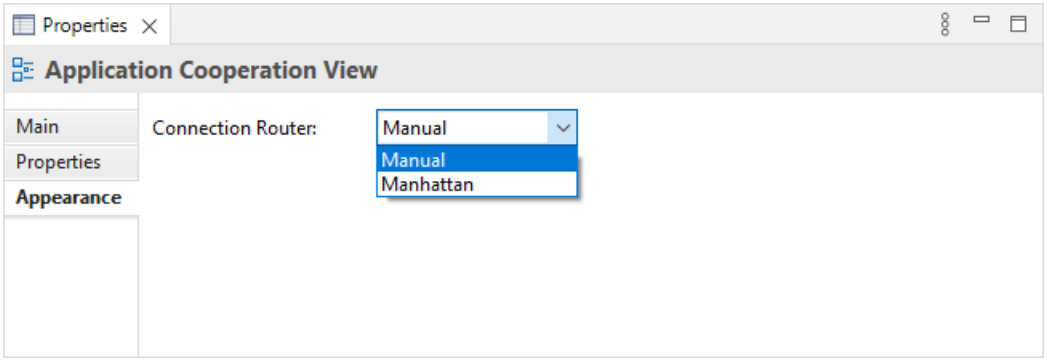


In the "Documentation" text control, URLs that start with "http://" "https://", "ftps://" or "file:///" will show as a hyperlink. Holding the Ctrl / Command key will change the cursor to a "hand" cursor and you can open the link in a Browser.

The Properties Tab

For more information about creating and managing User Properties see User Properties.

The Appearance Tab



Appearance Properties for a View

Connection Router:

Sets the type of connection router for the View. Options are:

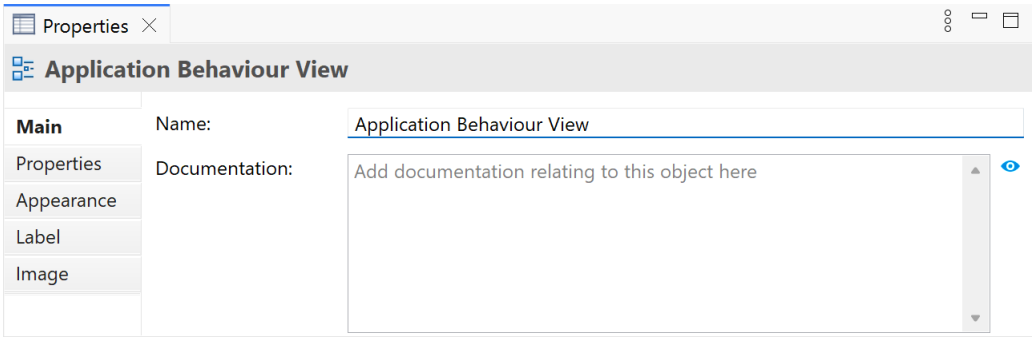
Manual - Straight line
Manhattan - Routes using an orthogonal connector.

For more information see Setting the Connection Router Type for a View.

View Reference Properties

Selecting a View Reference in a View means that you can edit or view the following properties in the Properties Window. Some of these properties relate to the referenced View (Name, Documentation, and Properties) and some relate to the actual graphical node itself (Appearance, Label, and Image).

The Main Tab



Main Properties for a View Reference

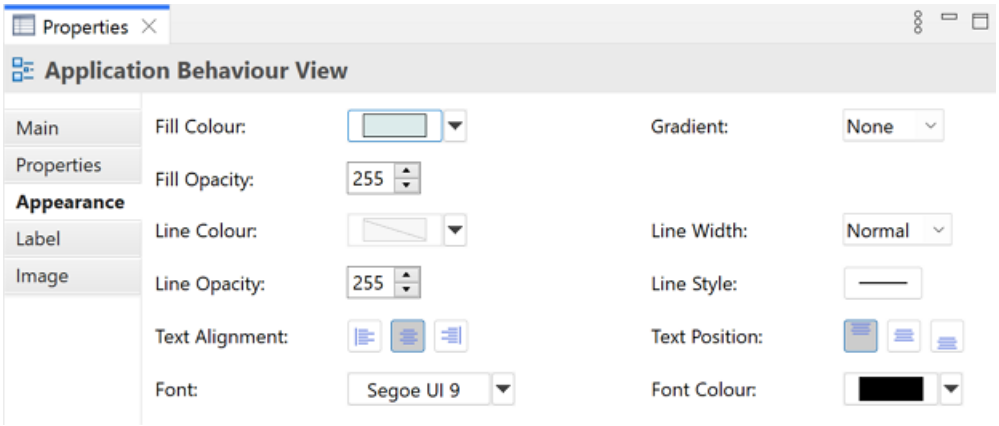
Name: The name of the referenced View.

Documentation: A space to enter some documentation relating to the referenced View. If Markdown is used it can be previewed by selecting the "View" toolbar button to the right of the documentation field. See Using Markdown in Text Fields for more details.

The Properties Tab

Edit Properties for the referenced View. For more information about creating and managing User Properties see User Properties.

The Appearance Tab



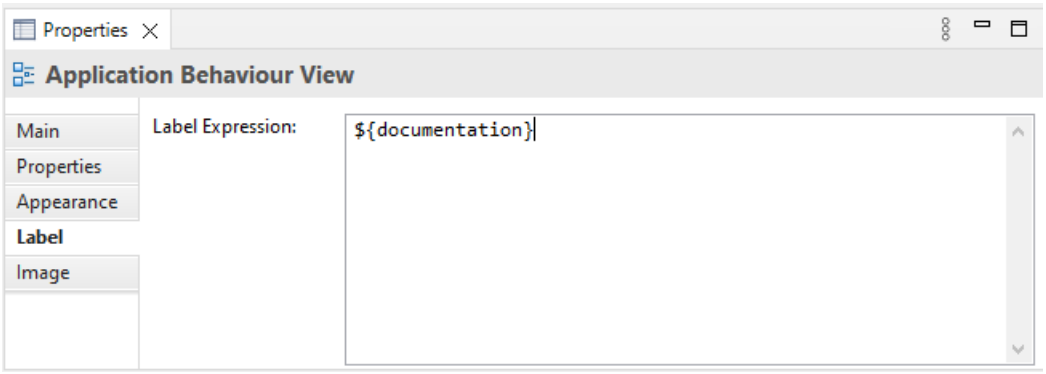
Appearance Properties for a View Reference

Fill Colour: Sets the fill colour. Click on the main part of the button to set the colour. The "Default" drop-down option sets the fill colour to the default setting.

Gradient: Sets the direction used to draw the gradient fill. Settings are "None", "Top", Left", "Right" and "Bottom". Note - gradients will not show when a diagram is exported in SVG image format.

Fill Opacity:	Set the fill opacity. Range from 0-255.
Line Colour:	Sets the colour of the line used to draw the object. Click on the main part of the button to set the colour. The "Derive from fill colour" drop-down option sets the line colour based on the fill colour. The "Default" drop-down option sets the line colour to the default colour as set in Preferences. If the "Default" drop-down option is not visible it is because line colours are derived from the element's fill colour, as set in the "Derive from fill colour" drop-down option.
Line Width:	Sets the width of the line used to draw the object. Options are "Normal", "Medium" and "Heavy".
Line Opacity:	Set the line opacity. Range from 0-255.
Line Style:	Set the line style. Options are "Solid", "Dashed", "Dotted" and "None".
Text Alignment:	Align text to Left, Centred or Right.
Text Position:	Position text to Top, Middle or Bottom.
Font:	Sets the font. Click on the main part of the button to set the font. The "Default" drop-down option sets the font to the default setting as set in Preferences.
Font Colour:	Sets the colour of the font. Click on the main part of the button to set the colour. The "Default" drop-down option sets the font colour to its default.

The Label Tab



Adding a Label Expression to display in the View

By default, a View Reference's name will be displayed in any View in which it appears. Using a label expression per View instance, you can choose what is displayed for the View Reference in the View. For example you may wish to display the View Reference's name and the value of one or more of its properties.

For a full list of expression types please refer to the Archi Wiki.

The Image Tab

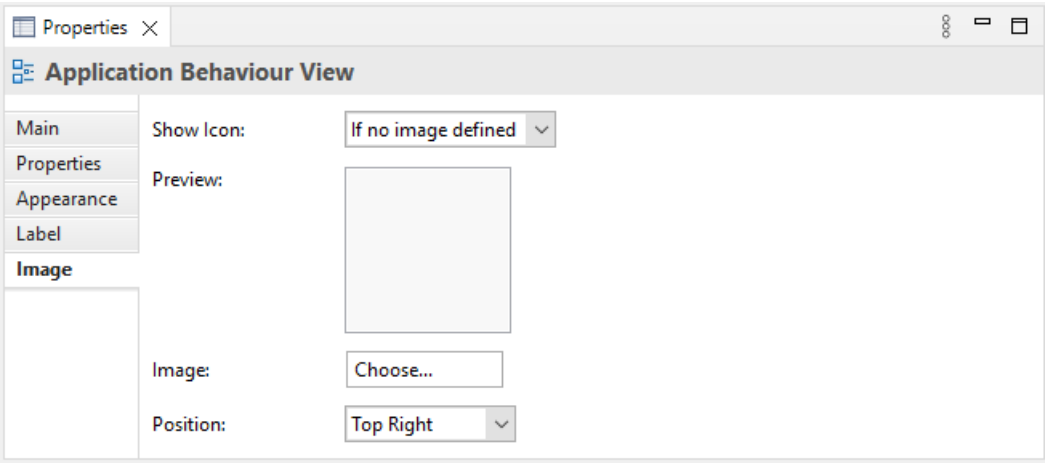


Image Properties for a View Reference

Show Icon: Whether to show the small icon for the figure. Options are "If no image defined", "Always", and "Never".

Preview: A preview image that shows how the image will appear. Double-clicking the Preview box will launch the Image Chooser dialog window. You can also drag and drop an image file from the desktop onto the Preview box.

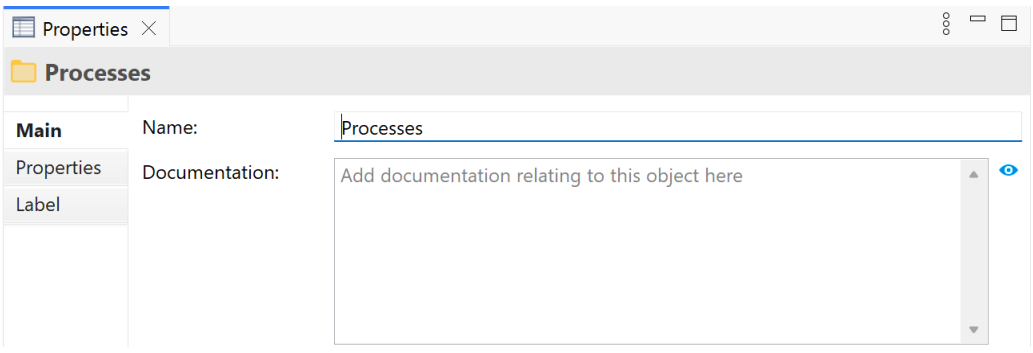
Image: Select an image to use or clear the image. See "Adding Images to Objects" for more details.

Position: Sets the position of the image relative to the object.

Folder Properties

Selecting a user-created folder in the Model Tree means that you can edit or view the following properties in the Properties Window.

The Main Tab



Main Properties for a Folder

Name:	The name of the Folder - this can only be edited for user-created sub-folders.
Documentation:	A space to enter some documentation relating to this Folder. If Markdown is used it can be previewed by selecting the "View" toolbar button to the right of the documentation field. See Using Markdown in Text Fields for more details.

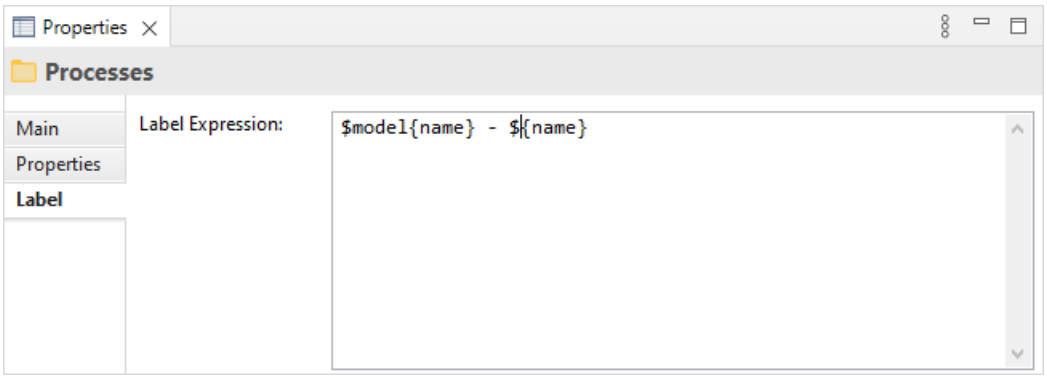


In the "Documentation" text control, URLs that start with "http://" "https://", "ftps://" or "file:///" will show as a hyperlink. Holding the Ctrl / Command key will change the cursor to a "hand" cursor and you can open the link in a Browser.

The Properties Tab

For more information about creating and managing User Properties see User Properties.

The Label Tab



Adding a Label Expression

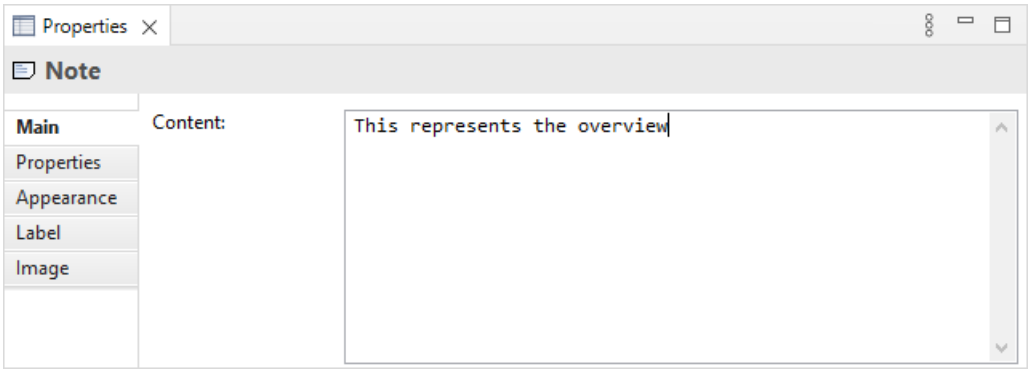
Here you can set how child objects' labels in a folder are displayed in the Model Tree. By default, an object's name will be displayed. Using a label expression, you can choose what is displayed for the element in the Model Tree. For example you may wish to display the element's name and its model. Or you may wish to display the value of one or more of its properties. **Note - a label expression for a folder is applied to its child objects, not the folder itself**.

For a full list of expression types please refer to the Archi Wiki.

Note Properties

Selecting a Note in a View means that you can edit or view the following properties in the Properties Window.

The Main Tab



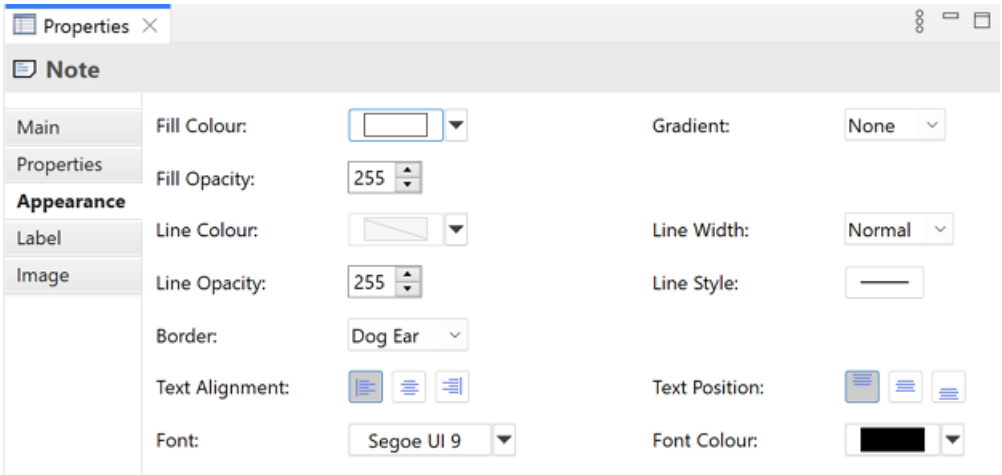
Main Properties for a Note

Content: The textual content of the Note.

The Properties Tab

For more information about creating and managing User Properties see User Properties.

The Appearance Tab



Appearance Properties for a Note

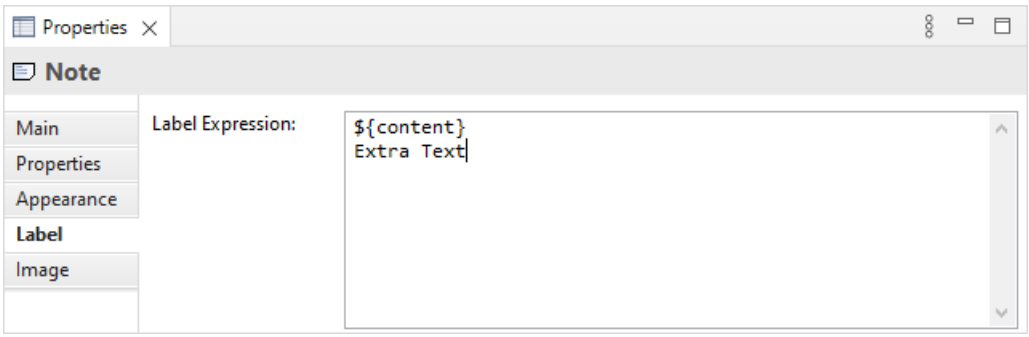
Fill Colour: Sets the fill colour. Click on the main part of the button to set the colour. The "Default" drop-down option sets the fill colour to the default setting as set in Preferences.

Gradient: Sets the direction used to draw the gradient fill. Settings are "None", "Top", Left", "Right" and "Bottom". Note - gradients will not show when a diagram is exported in SVG image format.

Fill Opacity: Set the fill opacity. Range from 0-255.

Line Colour:	Sets the colour of the line used to draw the object. Click on the main part of the button to set the colour. The "Derive from fill colour" drop-down option sets the line colour based on the fill colour. The "Default" drop-down option sets the line colour to the default colour as set in Preferences. If the "Default" drop-down option is not visible it is because line colours are derived from the element's fill colour, as set in the "Derive from fill colour" drop-down option.
Line Width:	Sets the width of the line used to draw the object. Options are "Normal", "Medium" and "Heavy".
Line Opacity:	Set the line opacity. Range from 0-255.
Line Style:	Set the line style. Options are "Solid", "Dashed", "Dotted" and "None".
Border:	Sets the border type. Can be either "Dog Ear", "Rectangle" or "None".
Text Alignment:	Align text to Left, Centred or Right.
Text Position:	Position text to Top, Middle or Bottom.
Font:	Sets the font. Click on the main part of the button to set the font. The "Default" drop-down option sets the font to the default setting as set in Preferences.
Font Colour:	Sets the colour of the font. Click on the main part of the button to set the colour. The "Default" drop-down option sets the font colour to its default.

The Label Tab



Adding a Label Expression to display in the View

By default, a Note's text content will be displayed in the View in which it appears. Using a label expression, you can choose what is displayed for the Note. For example you may wish to display the Note's content and one or more of its properties.

For a full list of expression types please refer to the Archi Wiki.

The Image Tab

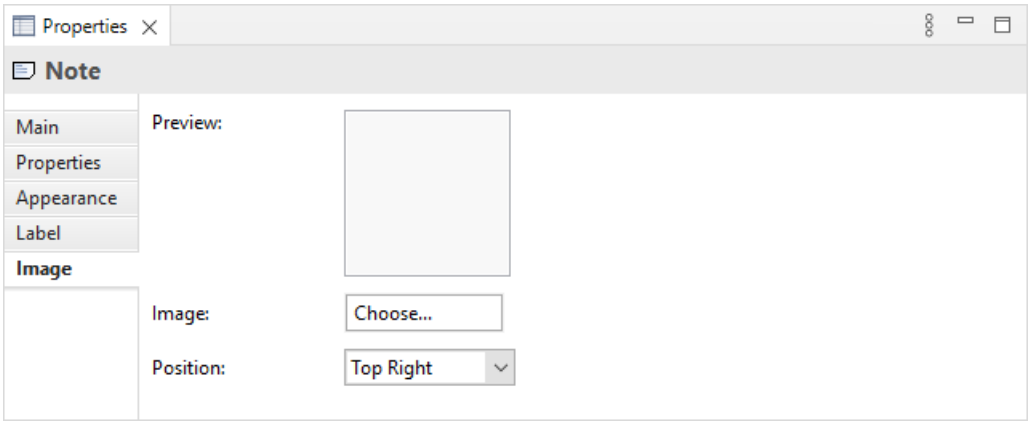


Image Properties for a Note

Preview: A preview image that shows how the image will appear. Double-clicking the Preview box will launch the Image Chooser dialog window. You can also drag and drop an image file from the desktop onto the Preview box.

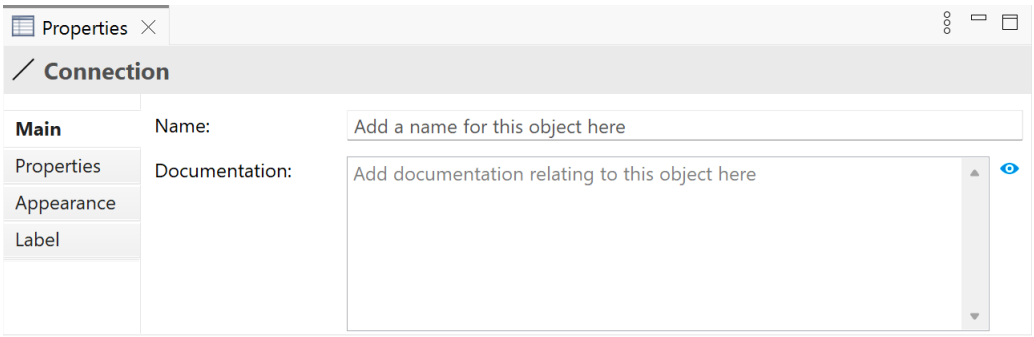
Image: Select an image to use or clear the image. See "Adding Images to Objects" for more details.

Position: Sets the position of the image relative to the object.

Connection Properties

Selecting a Connection in a View means that you can edit or view its properties in the Properties Window.

The Main Tab



Main Properties for a Connection

Name: The name of the Connection. If present this will appear next to the connection on the View.

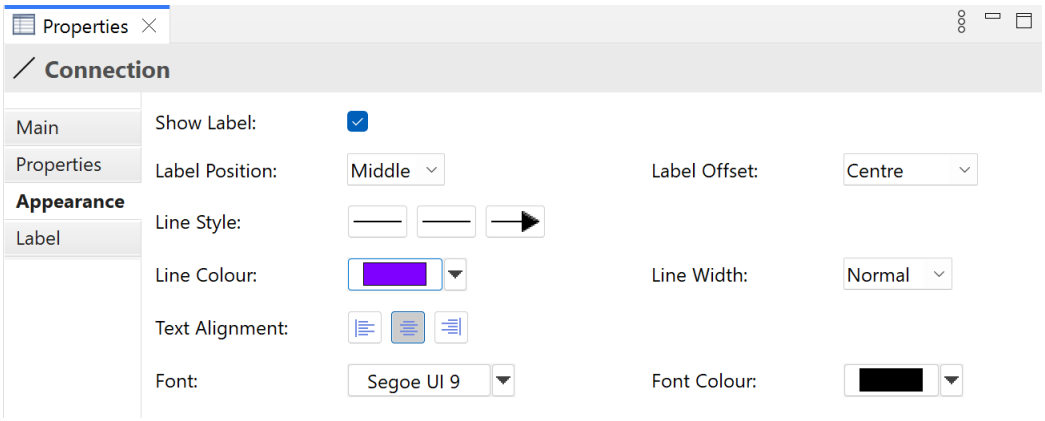
Documentation: A space to enter some documentation relating to this Connection. If Markdown is used it can be previewed by selecting the "View" toolbar button

to the right of the documentation field. See Using Markdown in Text Fields for more details.

The Properties Tab

For more information about creating and managing User Properties see User Properties.

The Appearance Tab



Appearance Properties for a Connection

Show Label: If selected will show the label if the connection's text is set.

Label Position: Sets the position of the connection's label. Options are "Source", "Middle" and "Target".

Label Offset: Sets the relative position of the connection's label if its position is "Middle". Options are "Centre", "North", "South", "East", "West", "North East", "North West", "South East", and "South West".

Line Style: Sets the connection line's source and target head types and main line style.

Line Colour: Sets the colour of the connection. Click on the main part of the button to set the colour. The "Default" drop-down option sets the line colour to the default setting as set in Preferences.

Line Width: Sets the width of the connection. Options are "Normal", "Medium" and "Heavy".

Text Alignment: Align text to Left, Centred or Right.

Font: Sets the font. Click on the main part of the button to set the font. The "Default" drop-down option sets the font to the default setting as set in Preferences.

Font Colour: Sets the colour of the font. Click on the main part of the button to set the colour. The "Default" drop-down option sets the font colour to the default setting as set in Preferences.

The Label Tab

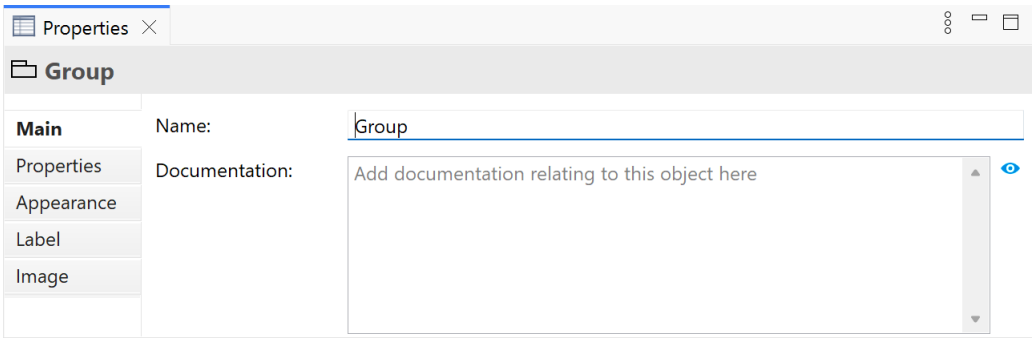
By default, a connection's name will be displayed in the View in which it appears. Using a label expression, you can choose what is displayed for the connection. For example you may wish to display the connection's name and one or more of its properties.

For a full list of expression types please refer to the Archi Wiki.

Group Properties

Selecting a Group in a View means that you can edit or view the following properties in the Properties Window.

The Main Tab



Main Properties for a Group

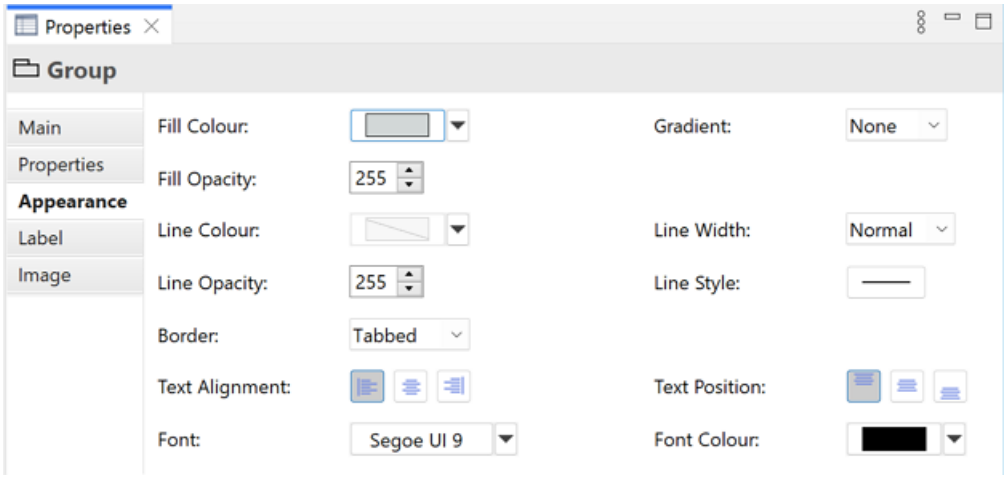
Name: The name of the Group.

Documentation: A space to enter some documentation relating to this Group. If Markdown is used it can be previewed by selecting the "View" toolbar button to the right of the documentation field. See Using Markdown in Text Fields for more details.

The Properties Tab

For more information about creating and managing User Properties see User Properties.

The Appearance Tab



Appearance Properties for a Group

Fill Colour: Sets the fill colour. Click on the main part of the button to set the colour. The "Default" drop-down option sets the fill colour to the default setting as set in Preferences.

Gradient: Sets the direction used to draw the gradient fill. Settings are "None", "Top", Left", "Right" and "Bottom". Note - gradients will not show when a diagram is exported in SVG image format.

Fill Opacity: Set the fill opacity. Range from 0-255.

Line Colour: Sets the colour of the line used to draw the object. Click on the main part of the button to set the colour. The "Derive from fill colour" drop-down option sets the line colour based on the fill colour. The "Default" drop-down option sets the line colour to the default colour as set in Preferences. If the "Default" drop-down option is not visible it is because line colours are derived from the element's fill colour, as set in the "Derive from fill colour" drop-down option.

Line Width: Sets the width of the line used to draw the object. Options are "Normal", "Medium" and "Heavy".

Line Opacity: Set the line opacity. Range from 0-255.

Line Style: Set the line style. Options are "Solid", "Dashed", "Dotted" and "None".

Border: Sets the border type. Can be either "Tabbed" or "Rectangle".

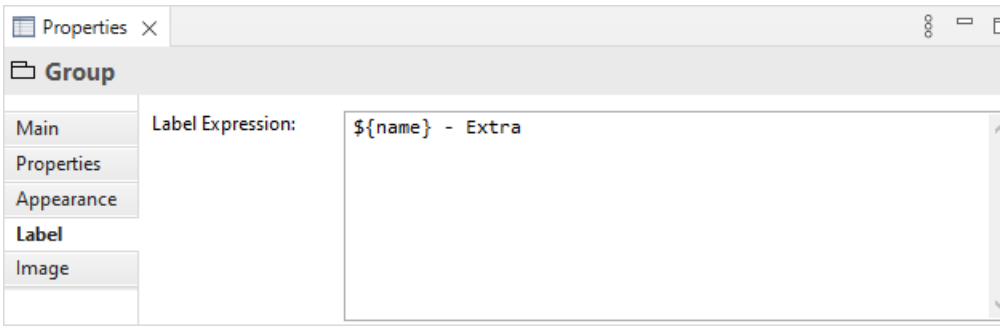
Text Alignment: Align text to Left, Centred or Right.

Text Position: Position text to Top, Middle or Bottom.

Font: Sets the font. Click on the main part of the button to set the font. The "Default" drop-down option sets the font to the default setting as set in Preferences.

Font Colour: Sets the colour of the font. Click on the main part of the button to set the colour. The "Default" drop-down option sets the font colour to its default.

The Label Tab



Adding a Label Expression to display in the View

By default, a Group's name will be displayed in the View in which it appears. Using a label expression, you can choose what is displayed for the Group. For example you may wish to display the Group's name and one or more of its properties.

For a full list of expression types please refer to the Archi Wiki.

The Image Tab

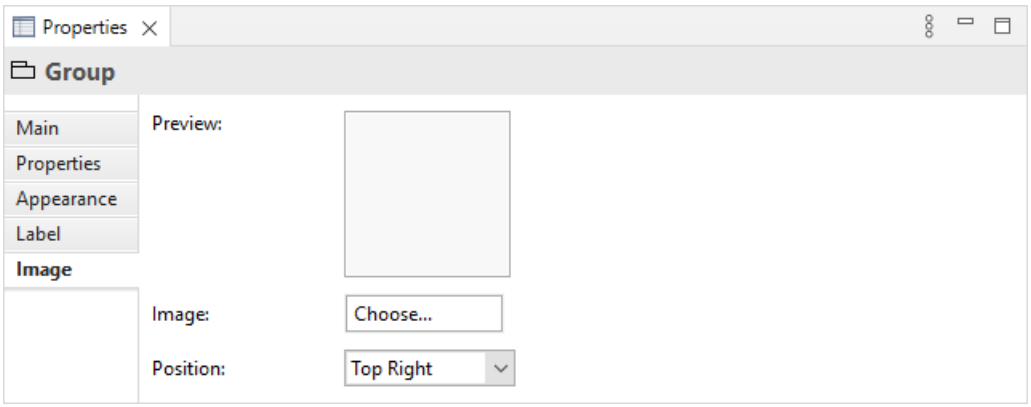


Image Properties for a Group

Preview: A preview image that shows how the image will appear. Double-clicking the Preview box will launch the Image Chooser dialog window. You can also drag and drop an image file from the desktop onto the Preview box.

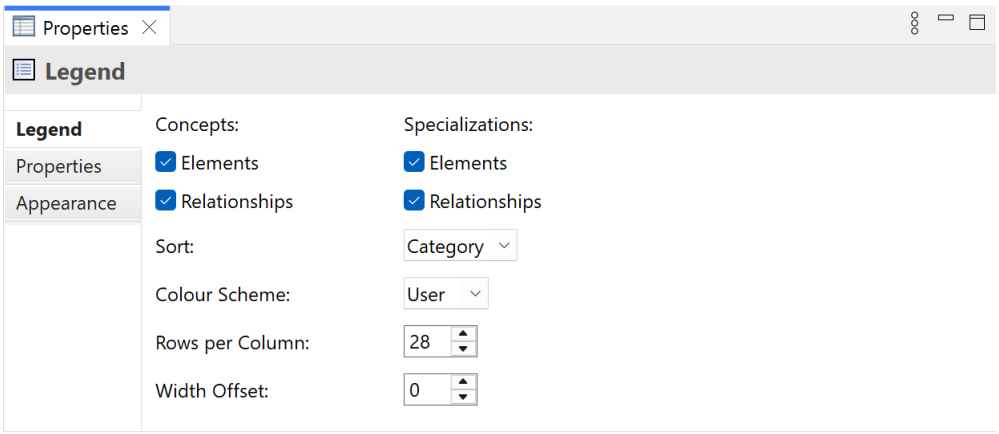
Image: Select an image to use or clear the image. See "Adding Images to Objects" for more details.

Position: Sets the position of the image relative to the object.

Legend Properties

Selecting a Legend in a View means that you can edit or view the following properties in the Properties Window.

The Legend Tab



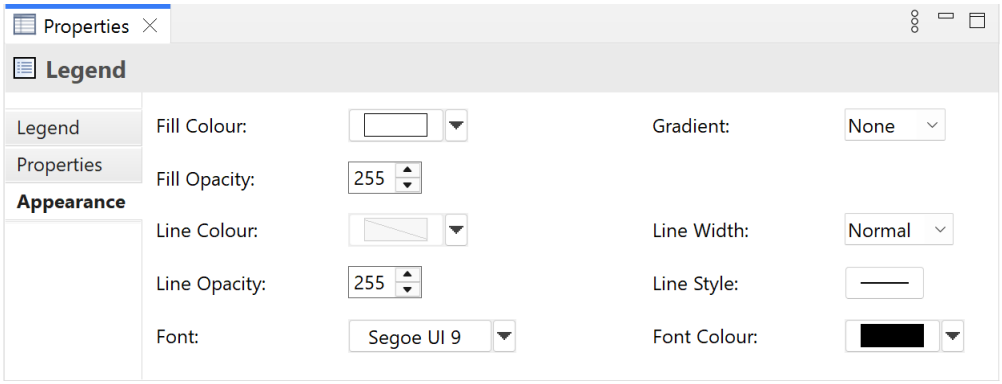
Properties for a Legend

Concepts:	Select whether to display elements or relationships, or both.
Specializations:	Select whether to display specialized elements or relationships, or both.
Sort:	Select which sort method to use for the legend. Options are "Name" to sort by concept name (grouped into Elements and Relations) and "Category" to sort by concept type (Strategy, Business, Application, etc) and then by name. The default sort method for new legends can be set in Preferences.
Colour Scheme:	Select which colour scheme to use for the legend's icons. Options are "None" for no colours, "Core" for the in-built ArchiMate colours, and "User" for the user fill colours defined in Preferences. Note that the user colours are stored in your local preferences and not saved in the model itself. The default colour scheme for new legends can be set in Preferences.
Rows per Column:	How many rows are displayed per column. The default rows per column for new legends can be set in Preferences.
Width Offset:	Adjust the width of each column by an offset. This might be necessary when using certain fonts.

The Properties Tab

For more information about creating and managing User Properties see User Properties.

The Appearance Tab



Appearance Properties for a Legend

Fill Colour: Sets the fill colour. Click on the main part of the button to set the colour. The "Default" drop-down option sets the fill colour to the default setting as set in Preferences.

Gradient: Sets the direction used to draw the gradient fill. Settings are "None", "Top", Left", "Right" and "Bottom". Note - gradients will not show when a diagram is exported in SVG image format.

Fill Opacity: Set the fill opacity. Range from 0-255.

Line Colour: Sets the colour of the line used to draw the object. Click on the main part of the button to set the colour. The "Derive from fill colour" drop-down option sets the line colour based on the fill colour. The "Default" drop-down option sets the line colour to the default colour as set in Preferences. If the "Default" drop-down option is not visible it is because line colours are derived from the element's fill colour, as set in the "Derive from fill colour" drop-down option.

Line Width: Sets the width of the line used to draw the object. Options are "Normal", "Medium" and "Heavy".

Line Opacity: Set the line opacity. Range from 0-255.

Line Style: Set the line style. Options are "Solid", "Dashed", "Dotted" and "None".

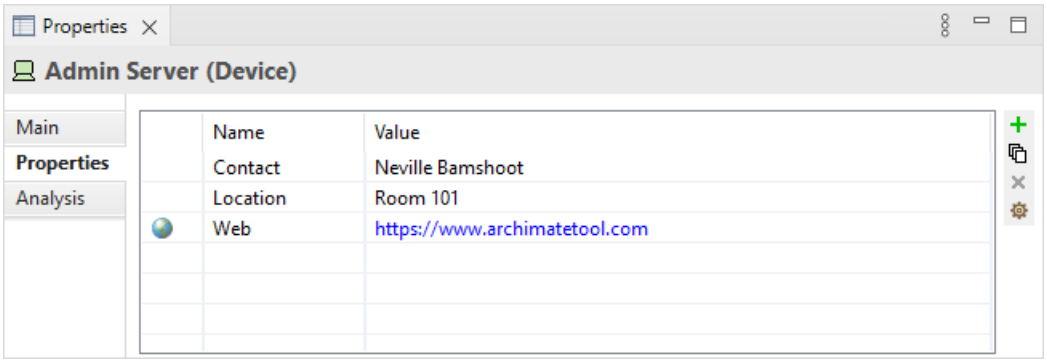
Font: Sets the font. Click on the main part of the button to set the font. The "Default" drop-down option sets the font to the default setting as set in Preferences.

Font Colour: Sets the colour of the font. Click on the main part of the button to set the colour. The "Default" drop-down option sets the font colour to its default.

User Properties

User Properties can be created and managed from the Properties tab in the Properties Window.

The Properties Tab



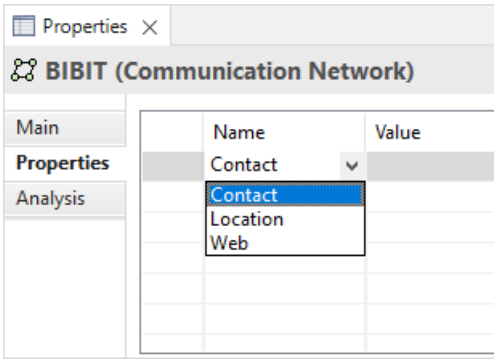
User Properties

This tab allows you to add arbitrary user properties, or attributes, to a concept, model, folder, view, or object. For example you might want to add information such as "Cost", "Location", "Duration", "Time", "Link" and so on. Properties are stored as name/value pairs. Properties with the same name may appear more than once in the model or object. Values are entered as free text.

If the value of a Property starts with "http://", "https://", "file://", or "ftp://" it will show in blue to denote a hyperlink and an icon will be displayed in the left column. Double-clicking on the icon will open the link in a Browser.

To Add a New User Property entry:

1. Click on the "New" toolbar button to the right of the Properties table, or select "New" from the right-click menu, or double-click in an empty area on the table
2. Edit the Property's name in the table cell. If there are existing Properties in the Model you can select one of these instead from the combo box in the table cell



3. Edit the Property's value in the "Value" cell. If there are existing Properties with the given Property name elsewhere in the Model you can select one of the values instead from the combo box in the cell editor

To Change an Existing User Property Name to a New or Existing Name:

1. Click on the Property Name cell in the Properties table and type in the new name
2. If there are existing Properties in the Model you can select one of these instead from the

combo box in the cell editor

To Remove a Property Entry:

1. Select the Property entry or entries you wish to remove
2. Click on the "Remove" toolbar button to the right of the Properties table, or select "Remove" from the right-click menu

> **Note:** Adding a new Property to an object in the Properties window means that it becomes available as a re-usable Property for all objects in the same model that have User Properties. Removing a Property in the Properties window only removes it from the selected object. If it is used in other objects it is still available.

To Re-order Property Entries by Drag and Drop:

1. Select the Property entry or entries in the Properties table you wish to re-order
2. Drag and Drop the entries in the in the Properties table to re-arrange them

To Sort the Property Names:

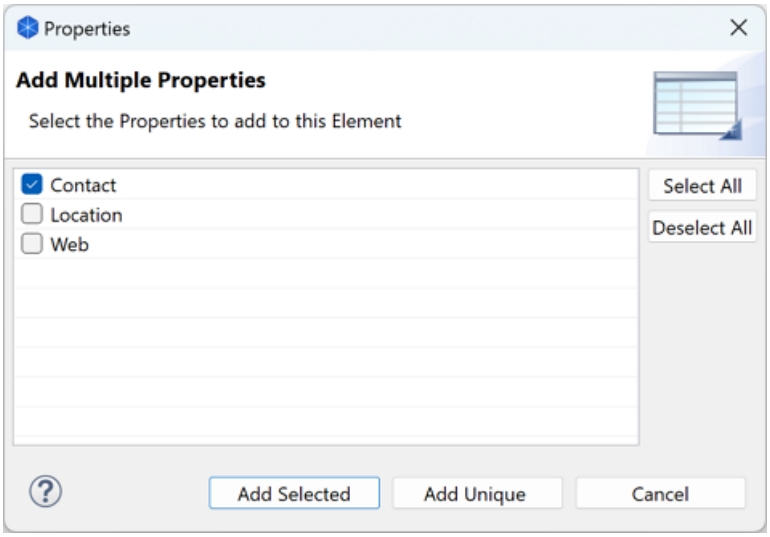
1. Click on the "Name" table column header
2. The Property Names will be sorted alphabetically

To Add a Hyperlink Property Entry:

1. Select the Property entry in the Properties table you wish to use as a hyperlink
2. Edit the value so that it contains a URL that starts with "http://", "https://" or "ftp://"
3. Double-click the icon in the left column to open the link in a Browser

To Add New Property Entries using Existing Property Names:

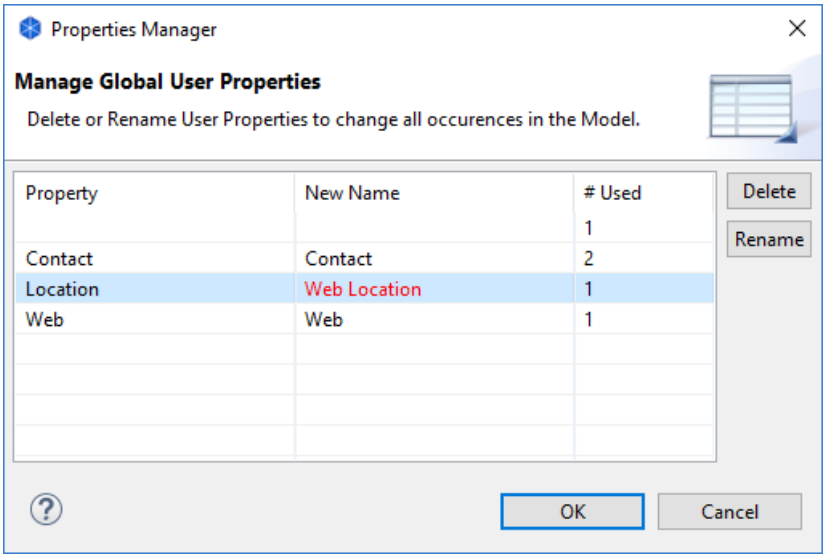
1. Click on the "New Multiple..." toolbar button to the right of the Properties table, or select "New Multiple..." from the right-click menu
2. Select the Properties you wish to add from the dialog



3. Press "Add Selected" if you want to add all selected Properties regardless of whether they already exist in the target. Press "Add Unique" if you want to add all selected Properties that don't already exist in the target.

To Manage and View User Properties Globally:

1. Click on the "Manage" toolbar button to the right of the Properties table, or select "Manage" from the right-click menu
2. The "Properties Manager" dialog appears showing all used Property keys in the Model globally and the number of times they have been used:



3. You can Delete Properties here. All occurrences of the Property and its declared Values will be deleted from all objects that use it
4. You can Rename Properties by editing the name in the "New Name" column. All occurrences of the Property Name will be renamed in all objects that use it

Multi-selection of objects

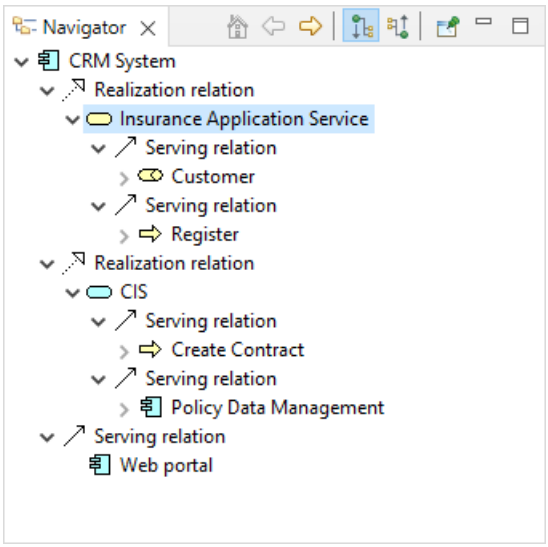
You can add, remove and modify Properties for more than one object by selecting multiple objects in the Models Tree or a View. If more than object is selected only Properties with the same Property Name are displayed in the table. If the values for these Properties are different, "(multiple values) is displayed." Note that drag and drop re-ordering and sorting are not available with multi-selection.

The Navigator Window

The Navigator window displays the currently selected model concept and all of its relationships with other concepts. It is used to display and allow navigation between connected concepts via their relationships and is used in conjunction with the Model Tree window and Views.

The Model Tree acts as a "flat" repository for all the elements, relationships and Views in a model. Views are graphical configurations of those concepts. However, the Navigator is able to show all of a concept's relationships at the model level regardless of how they are presented in a View.

To use the Navigator window, select any element or relationship in the Model Tree or in a View. The Navigator tree will update to reflect the current selection. The tree shows the "root" selected concept and any relationships that stem from it and any "target" concepts from those relationships:

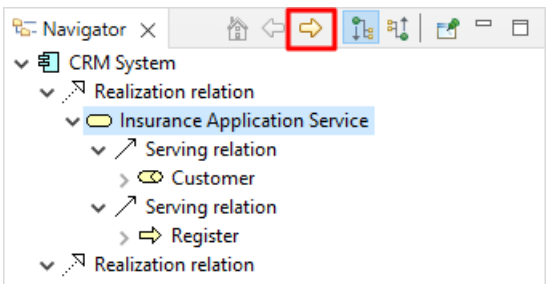


The Navigator Window

In the above screenshot the user has selected the element "CRM System". There are three Realisation relationships between the selected element and the three elements "Customer Administration Service", "Insurance Application Service", and "CIS". From these three elements further relationships are shown between them and their target concepts.

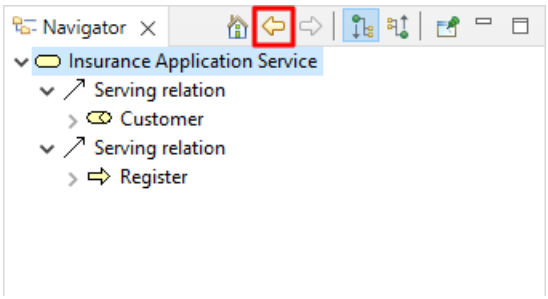
It is possible, therefore, to "drill down" into the Navigator tree and traverse from concept to concept following it and its child relationships from source to target.

A selected sub-concept can become the "root" concept by either double-clicking on it in the tree or by clicking on the "Go Into" button on the window's toolbar:



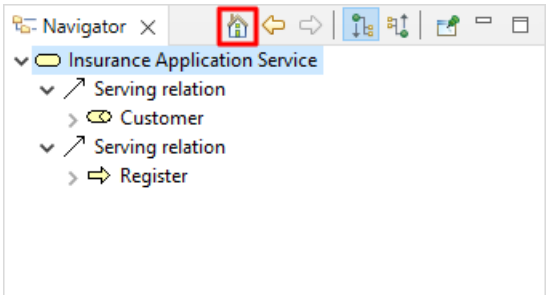
The "Go Into" Button

Conversely, clicking the "Back" button takes you back to the previously selected concept:



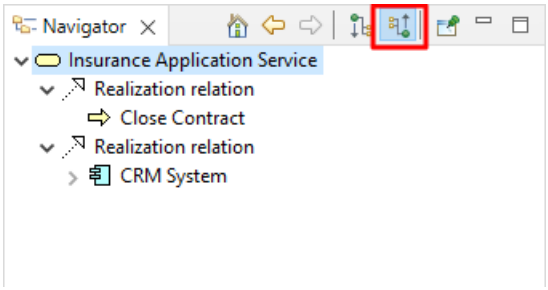
The "Back" button

The "Home" button takes you back to the main root concept that was originally selected:



The "Home" button

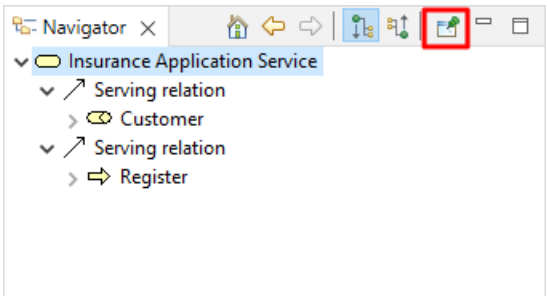
By default, the Navigator shows relationships that flow from the source to the target concept. It is possible to reverse this to show the concept's relations that flow from the target to the source by clicking on the "Show source relations" button on the window's toolbar:



Show source relations mode

In the above screenshot the element "CRM System" is the target of the two "Used By" relationships. So the flow is from "Mainframe" to "Claim Files Service" to "CRM System", and from "NAS File Server" to "Customer File Service" to "CRM System".

The selected concept can be pinned if required by selecting the pin button in the Navigator window:

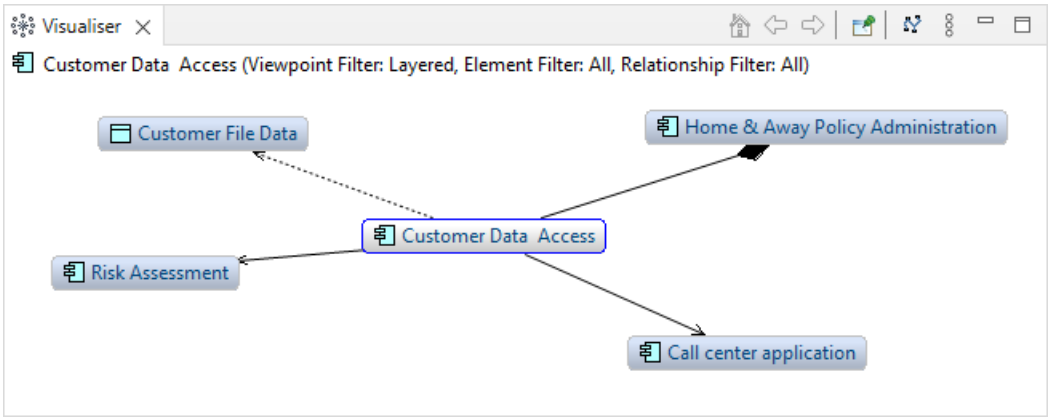


The "pin" button

It is also possible to drag and drop any selected elements and/or relationships from the Navigator Tree to a View, in exactly the same way as dragging from the Model Tree to a View (see Adding Elements and Relations from the Model Tree to a View)

The Visualiser Window

The Visualiser window displays the selected model concept and all of its relationships with other model concepts in a graphical way. It is the graphical equivalent of the Navigator. Selecting an element or relationship in the Model Tree, the Navigator or in a Diagram View will update the selection in the Visualiser.



The Visualiser Window

To use the Visualiser, select any element or relationship in the Model Tree, the Navigator, or in a View. The Visualiser will update to reflect the current selection. The Visualiser highlights the selected concept and shows all relationships and any connected elements. Double-clicking on one of the connected elements allows you to "Go Into" to the element so that it is the focal central concept, and all of its relationships and connected concepts are displayed. You can also "Go Into" an element from the toolbar in the Visualiser window, and also select "Back" to return to the previous element. Select "Home" on the toolbar to return to the first selected concept.

Options

Visualiser options are available from the Visualiser's toolbar " ⋮ " menu item or the right-click context menu.

Depth

The Visualiser will display the selected concept's connected concepts to a default depth of one level (immediate connections). To change the depth level of how far the connections are calculated, select the Depth level from the drop-down menu in the Visualiser window:

Viewpoint Filter

You can filter the displayed elements in the Visualiser from the "Viewpoint Filter" menu. This will display only those elements that are permissible in the given Viewpoint. To view all elements select the "None" Viewpoint. For more information see the Viewpoints section.

Element Filter

You can filter the displayed type of element in the Visualiser from the "Element Filter" menu. This will display only the selected element type. To view all element types select the "All" option.

Relationship Filter

You can filter the displayed relationship in the Visualiser from the "Relationship Filter" menu. This will display only the selected relationship type. To view all relationship types select the "All" option.

Direction

This menu item allows you to set whether relationships incoming and outgoing relationships and their connected elements are displayed. Options are "Both", "Incoming" and "Outgoing". "Incoming" shows all incoming relationships, "Outgoing" shows outgoing relationships, while "Both" shows both incoming and outgoing relationships. This is similar to the functionality in the Navigator.

Manhattan Router

If this is checked connections are routed orthogonally rather than in straight lines.

Other Options

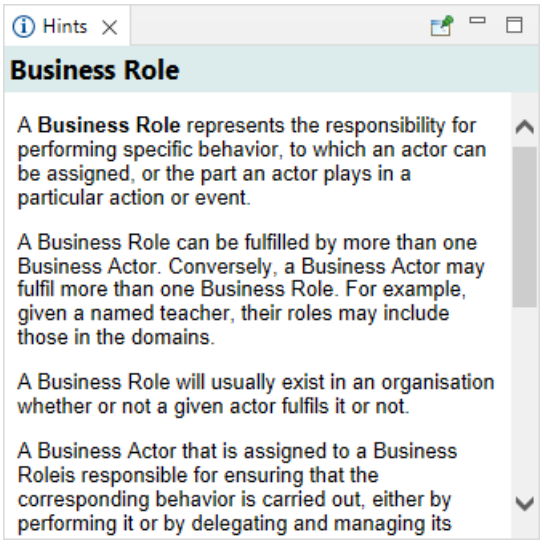
The first time a focused concept is displayed in the Visualiser window it is laid out with a default layout. If you wish to re-layout, you can click the "Layout" button on the toolbar in the Visualiser window.

You can save the contents of the Visualiser as an image to file, or copy the image to the system clipboard from the context menu.

The Hints Window

The Hints window shows a hint for the selected object or palette entry. It can be useful to provide basic information about the purpose of the concepts and viewpoints in a model.

The selected hint can be pinned by selecting the pin button in the Hints window.



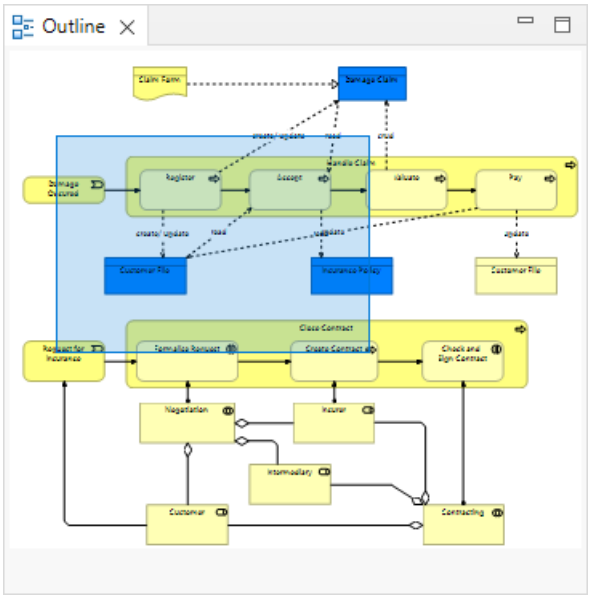
The Hints Window

The Outline Window

The Outline window acts as a miniature viewport onto the selected diagram View in order to aid in navigation if the diagram is too large to fit in the window.

To open or close the Outline window, choose the option from the main "Window" menu or from the main toolbar.

If the View that is being edited is too large to fit into the application's window then a navigation pane will appear in the Outline window. Dragging this navigation pane will scroll the objects into view in the drawing canvas.



The Outline Window

Tools

The following features are available from the main "Tools" menu.

Generate a View from Elements

Properties Manager

Specializations Manager

The Validator

Preview HTML Report

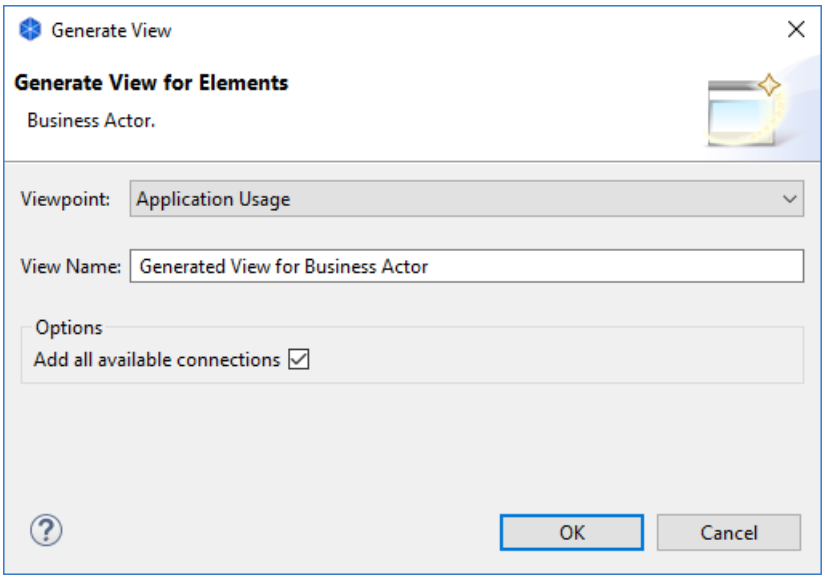
Generate a View from Elements

You can generate a new diagram View from selected ArchiMate element(s). Selected ArchiMate element(s) then become the focus of a newly generated View. Any ArchiMate elements that are related to the selected elements are also added to the generated View together with any connections.

This feature allows you to quickly create a new View and Viewpoint specifically for one or more related ArchiMate elements.

To generate a new View from selected element(s):

1. Ensure that you have selected one or more ArchiMate elements in the Models Tree or in a diagram View.
2. Select the option "Generate View For..." from the right-click context menu, or from the main "Tools" menu.
3. In the dialog window select the target Viewpoint for the generated View. The list of available Viewpoints is determined by the selected element(s) and whether they are permitted in a Viewpoint. Note also that elements that are related to the selected element(s) that are not permitted in the target Viewpoint will not be included in the generated View. If you want to include all related elements in the target View, or if you are not sure, choose the "None" Viewpoint. You can change the Viewpoint later if you wish.
4. If you wish, change the name of the generated View.
5. Optionally check "Add all available connections". If this option is checked, *all* connections between elements are added to the generated View. If unchecked, only connections that are directly related to the selected element(s) are added to the generated View.
6. Click OK

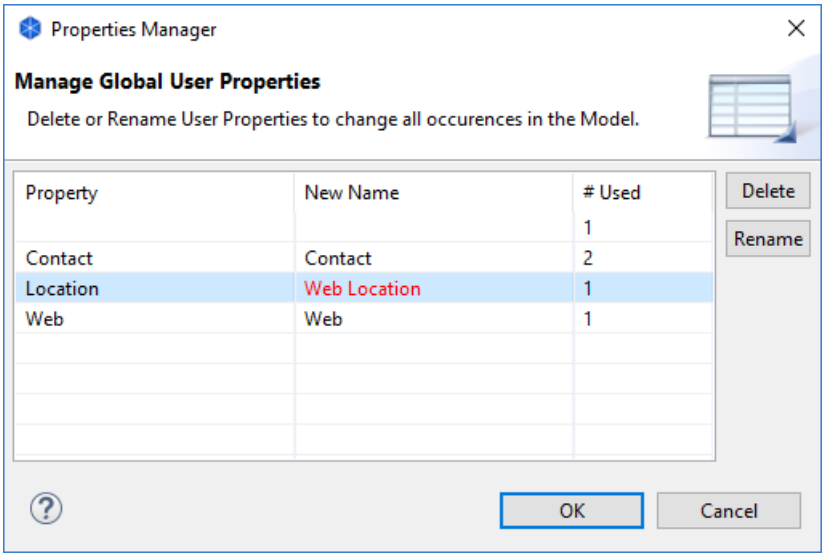


Generate View Dialog

A new View will be created containing the selected element(s) and their connections.

Properties Manager

The Properties Manager can be accessed from the "Tools" menu as well as from the Properties tab. For more information about the Properties Manager see User Properties.



Specializations Manager

The Specializations Manager allows you to create, modify and delete specializations of ArchiMate concepts.

Background

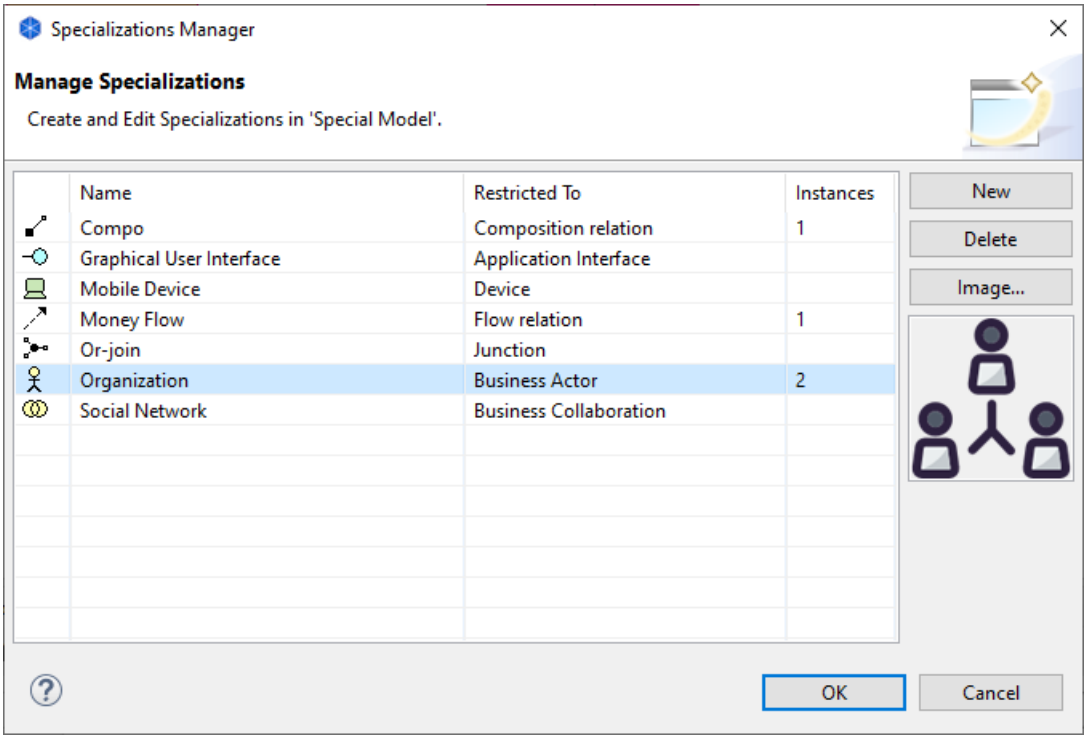
The ArchiMate specification describes the use of specialization of elements and relationships:

> "Specialization is a simple and powerful way to define new elements or relationships based on the existing ones. Specialized elements inherit the properties of their generalized elements... Also, new graphical notation could be introduced for a specialized concept, but preferably with a resemblance to the notation of the generalized concept; e.g., by adding an icon or other graphical marker, or changing the existing icon. A specialized element or relationship strongly resembles a stereotype as it is used in UML. The stereotype notation with angled brackets may also be used to denote a specialized concept."

For more information see Language Customization Mechanisms.

Using the Specializations Manager

The Specializations Manager is available from the main "Tools" menu and by clicking the "..." button to the right of an object's Specialization in the Properties Window.



The Specializations Manager

Creating a new Specialization

To create a new specialization, click the "New" button or double-click in the table. Provide a name and select the concept type that the specialization will be restricted to. Note that you cannot have more than one specialization with the same name and concept type. If the specialization is used in a model, the number of instances is displayed in the "Instances" column.

Deleting a Specialization

To delete one or more specializations, select them in the table and click the "Delete" button. Any concepts that reference the deleted specialization will no longer reference it.

Adding or removing an image for a Specialization

Element specializations (except Junction) can also be associated with an image which will be displayed when the specialization Element is used in a View. Select an image for the object or clear the image from the "Image..." button or by double-clicking in the image preview box. See "Adding Images to Objects" for more details.

Applying a Specialization to an ArchiMate concept

A Specialization can be applied to a concept by selecting it in its Properties Window.

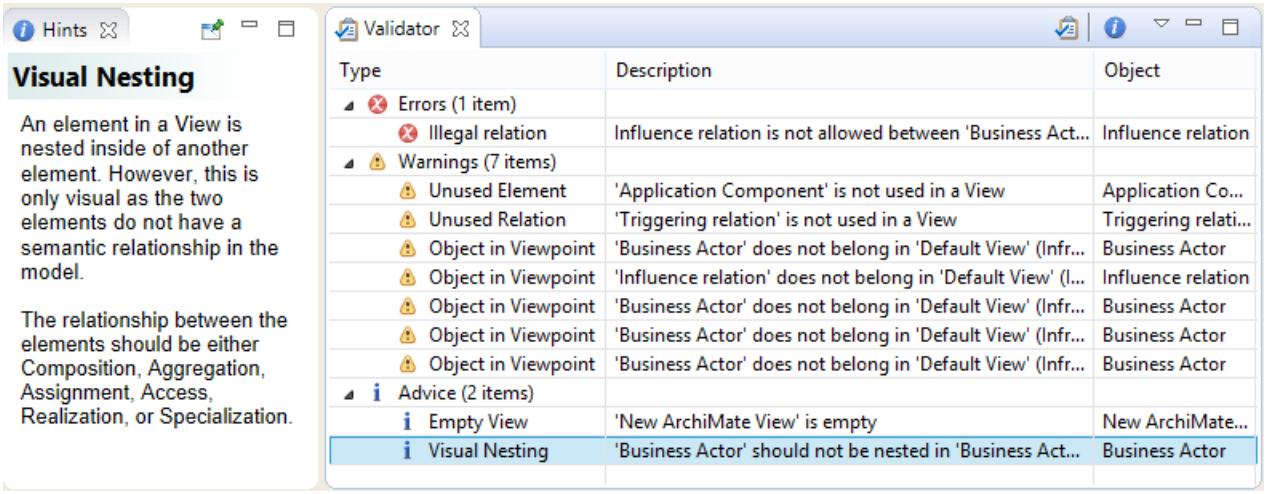
The Validator

The Validator offers advice and warnings on the integrity of an ArchiMate model. It can highlight the following issues:

- Empty Views (Views without diagram objects)
- Invalid Relations (possible if importing from another format)
- Invalid nested elements (visual nesting without a relationship or relationship present that does not represent nesting)
- Unused elements (not referenced in a View)
- Unused relations (not referenced in a View)
- Invalid elements in viewpoints (elements that don't belong in a viewpoint)
- Duplicate element names for the same element type

The Validator window can be opened from the main "Tools" menu, from the main toolbar, or from the main "Window" menu.

To validate a model, ensure that the model has the focus by selecting it in the Models Tree or selecting one of the model's Views. Then either select "Validate Model" from the "Tools" menu, or from right-clicking in the Models Tree, or in the Validator window itself.

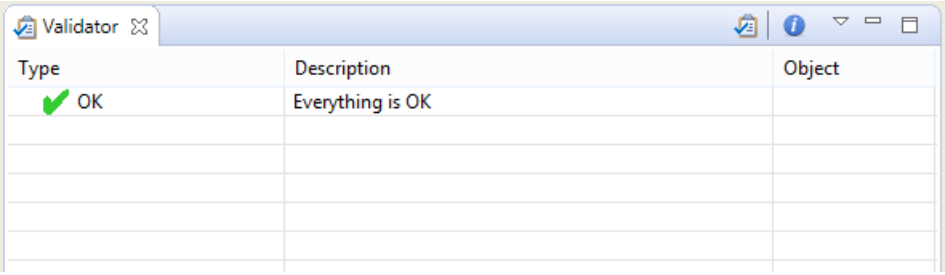


The Validator showing tips

Double-clicking on an issue, or selecting the right-click menu item "Reveal Object" in the Validator window, will reveal the affected object in either the Models tree or a View.

To show an explanatory hint about the issue, ensure the Hints window is open, or select the right-click menu item "Show Explanation Hint".

Once all issues have been fixed in the model the Validator will indicate that everything is OK:



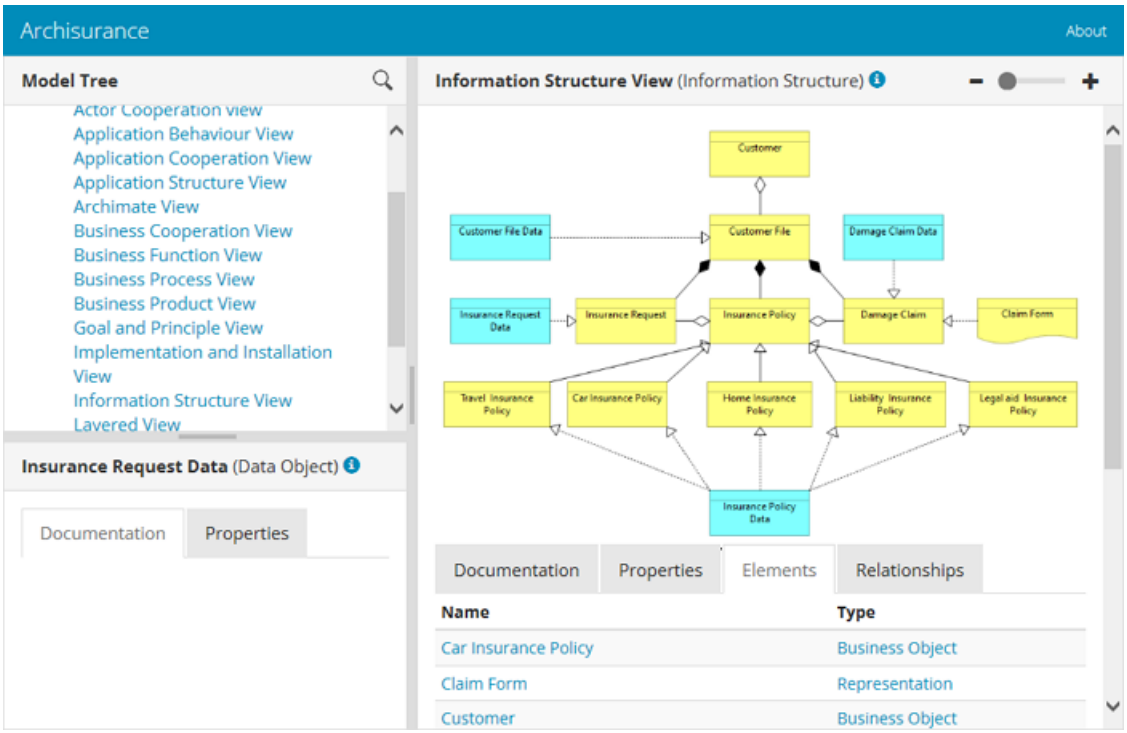
The Validator is happy

Preferences

Each of the validation rules can be enabled or disabled in Preferences.

Preview HTML Report

The Preview HTML Report allows you to view a generated HTML report of the currently selected model in a tab within Archi itself. The ability to save the HTML report is available from the File->Report menu. For more information see HTML Reports



Preview HTML Report

The Preview HTML Report allows you to view a generated HTML report in a tab within Archi itself.

Opening, Saving and Printing

Opening an Existing Model

To open an existing ArchiMate model that has been created in Archi, choose the "Open..." menu item from the main "File" menu or from the main toolbar. If the model is already open in Archi, this command has no effect.

You can also drag an ".archimate" file from the desktop onto the Model Tree window to open it.

The Windows and Mac versions of Archi support opening the application from the desktop by opening files with the ".archimate" file extension.

Saving a Model

A model can be saved to disk from the "Save" menu item available from the main "File" menu or from the main toolbar. If the model has not been previously saved you will be prompted for a file name.

The "Save As..." menu command allow you to save the model with a different name.

Closing a Model in the Model Tree

It is possible to have more than one ArchiMate model open at the same time in the Model Tree. You may wish to close one or model so that it does not appear in the Model Tree. This is achieved by right-clicking the model in the Model tree and selecting the "Close Model" menu item or selecting the "Close Model" menu item from the main "File" menu. Closing a model does not delete the model and it may be re-opened in Archi at any time from the "Open" command. If the model has been modified you may be prompted to save it before closing it.

Printing A View (Diagram)

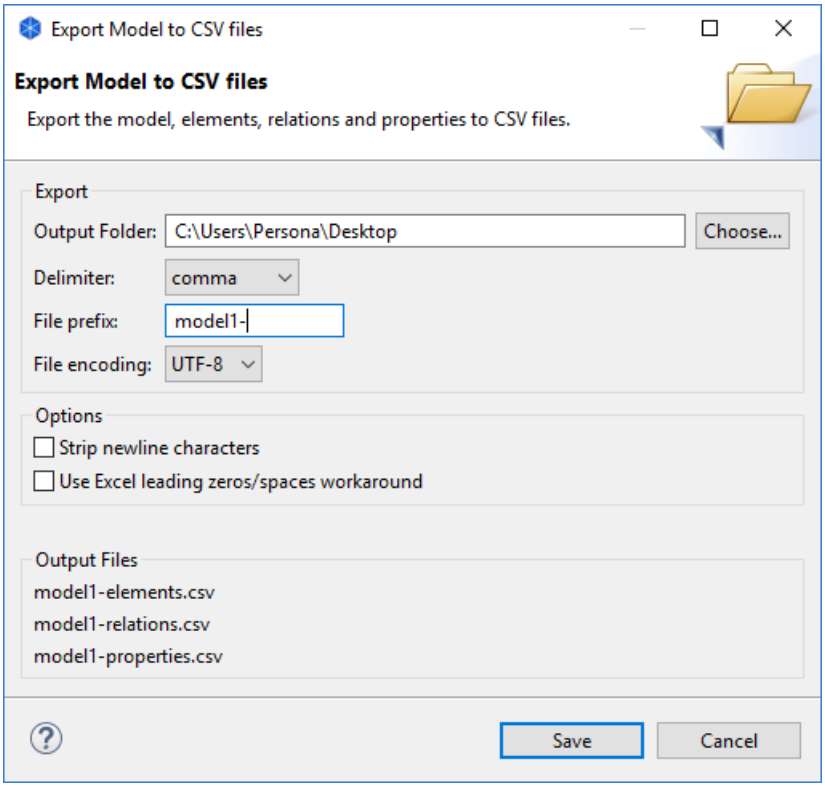
A View (diagram) can be printed to a connected printer. This is available from the "Print..." menu command in the main "File" menu. This menu command is only available if a View is open.

Exporting and Importing the Model in CSV Format

Export Model To CSV

You can export a model's data to CSV format (Comma Separated Values). The data is exported in three different files - "elements.csv", "relations.csv" and "properties.csv". All data objects are identified by unique identifiers so that a property will reference an element or relation in the other files.

This option is available from the "Export Model To CSV..." menu item from the main "File->Export" menu. Once a model is selected in the Model Tree or in a View this menu item is enabled.



Exporting the model to CSV

Export Options

Output Folder

Select the folder for the output files.

Delimiter

Select the CSV field delimiter character - comma, semicolon, or tab.

File prefix

Provide an optional prefix to add to the file names. For example, "MyModel-" will change the file names to "MyModel-elements.csv", "MyModel-relations.csv", and "MyModel-properties.csv".

File encoding
Select the file encoding to use - ANSI, UTF-8 or UTF-8 BOM. Some programs prefer one or the other file encoding. For example, MS Excel prefers the "UTF-8 BOM" encoding if Unicode characters are present in the CSV file.

Strip newline characters
If selected will remove all newline characters from multi-line text such as documentation.

Excel compatible
If selected will surround text starting with a zero or space with quote marks so that the data imports correctly into Excel. Also, any text field that starts with a "=", "+", "-", or "@" character will be prefixed with a space so that Excel does not interpret it as a formula.

Importing CSV Data into a Model

Import file format

You can import CSV data into an existing model. The CSV files need to be in the format as described below. Element and relationship IDs are optional if you are creating new concepts, but you need to provide an ID for an element or relationship if it is referenced by another concept or property. If providing an ID then it needs to be unique to the file using alpha-numeric characters, for example - "id1", "8fe456d", "actor3". The ID may be that of an existing concept if the CSV file has been exported, edited and re-imported. If an ID is not provided, a blank field "" should be present. In this case, an ID will be generated on import.

When importing CSV data into an existing model you can provide just one or all three files (elements, relations, properties). Usually you will provide all three files. The format of the file names is as follows:

"xxx-elements.csv"
"xxx-relations.csv"
"xxx-properties.csv"

The prefix ("xxx") is optional but must be the same for all three files if used. All three file names need to match - for example: "myname-elements.csv", "myname-relations.csv" and "myname-properties.csv". At the very least, the filenames need to contain the ".csv" extension and the names end with "elements", "relations" or "properties".



The best way to understand the required format for each file is to export an Archi model to CSV format, and open the exported files in a text editor.

Format for elements.csv file

The first row is the "header" row and is as follows:

```
"ID","Type","Name","Documentation","Specialization"
```

This is followed by one or more rows of data. For example:

```
"ID","Type","Name","Documentation","Specialization"
"id-275af0e8c76","BusinessActor","Archisurance","This is the company",""
"id-1800f4e23cb","ApplicationComponent","Web portal","","Portal"
```

ID	The unique identifier of the element. This is required if it is referenced in the relations.csv and properties.csv files.
Type	Type of element. For example, "BusinessActor", "ApplicationComponent".
Name	The name of the element
Documentation	The documentation of the element. Can be empty.
Specialization	The name of the Specialization of the element. Can be empty.

Format for relations.csv file

The first row is the "header" row and is as follows:

```
"ID","Type","Name","Documentation","Source","Target","Specialization"
```

This is followed by one or more rows of data. For example:

```
"ID","Type","Name","Documentation","Source","Target","Specialization"
"id-275af0e8c76","AccessRelationship","","","id-275af0e8c76","id-1800f4e23cb",""
"id-4f5af4b8c74","AssignmentRelationship","","","id-3755f0e8c76","id-2800f4e23ca",
```

ID	The unique identifier of the element. This is required if it is referenced in the relations.csv and properties.csv files.
Type	Type of relationship. For example, "AccessRelationship", "AssignmentRelationship".
Name	The name of the relationship
Documentation	The documentation of the relationship. Can be empty.
Source	The ID of the source concept of the relationship. This can be the ID of a concept in the elements.csv or relations.csv file or an existing concept in the model that this will be imported into.
target	The ID of the target concept of the relationship. This can be the ID of a concept in the elements.csv or relations.csv file or an existing concept in the model that this will be imported into.
Specialization	The name of the Specialization of the relationship. Can be empty.

Format for properties.csv file

The first row is the "header" row and is as follows:

```
"ID","Key","Value"
```

This is followed by one or more rows of data. For example:

```
"ID","Key","Value"
"id-275af0e8c76","Cost","34"
"id-275af0e8c76","Location","Office"
```

ID	The ID of the concept that this property belongs to. This can be the ID of a concept in the elements.csv or relations.csv file or an existing concept in the model that this will be imported into. Can appear more than once if there are several properties for the same concept.
Key	The name of the property
Value	The value of the property

Special keys and values can be used for some concepts:

AssociationRelationship - key of "Directed" and value of "false" or "true"
AccessRelationship - key of "Access_Type" and value of "Write", "Read" "Access", or "ReadWrite"
InfluenceRelationship - key of "Influence_Strength" and value of any string
Junction - key of "Junction_Type" and value of "And" of "Or"

Importing

When importing the CSV file(s) into Archi you can select any of the three CSV files in the Import dialog box. If there are corresponding "*.csv" files then these file(s) will be automatically imported at the same time.

If you don't want to import CSV data into an existing working model you can simply create a new empty model, select it, and import into that. This is effectively the equivalent of "New Model from CSV".

Importing, updating and merging

It is also possible to merge/update the CSV data into an existing model by exporting the model to CSV files, editing them and re-importing. If a model concept or property already exists as denoted by its ID, and the CSV row entry contains different data to that in the model it is updated. For example, a Business Actor with id "9240f5bf", named "BA1", and no documentation can be updated with a row entry as follows:

"ID","Type","Name","Documentation", "Specialization"
"9240f5bf","BusinessActor","New Name","Additional Documentation", "Specialization Name"

Or you could add new properties to concepts by editing the properties CSV file and referencing existing concept IDs with new property entries.

These are the rules when importing CSV data into a model:

- If an imported concept or property does not exist in the target model it is created and added to the model.
- If an imported concept or property exists in the target model (identified by the ID field) its fields are updated with any new values in the CSV file, or ignored if all the fields are the same.
- If a concept or property is not present in the CSV file (or has been deleted from an exported CSV file), then that concept or property is not updated or deleted in the target model. This ensures that you can update or add a sub-set of objects. Concepts and properties are added or updated, never deleted.
- If you change either of the "Source" or "Target" identifiers for a relationship in the "relations" CSV file to another existing concept's identifier these are updated in the target model.
- You cannot change the concept "Type" field in an existing CSV file or use invalid concept types.

Importing one or more CSV files

You can import just one or two CSV files into an existing model. If you import just an "elements.csv" file then only elements will be imported. If you then import a "relations.csv" file that uses the corresponding concept IDs you can import just the relations. The same is true for the "properties.csv" file.

If you are manually creating CSV files make sure you save them using UTF-8 format to preserve all special characters.

Note - it is currently not possible to import and export View diagram information in CSV format.

Importing Another Model into the Current Model

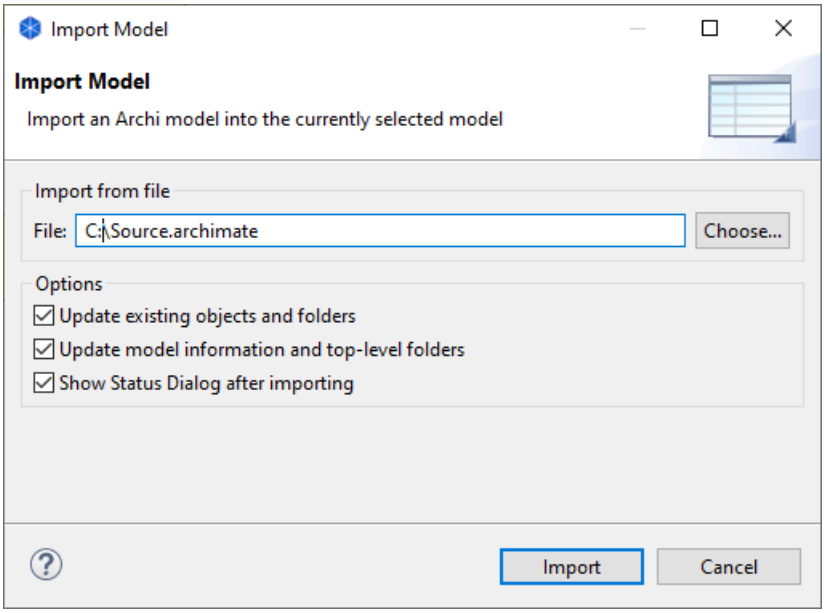
It is possible to import and merge another Archi model into the currently selected model. You can then maintain the imported model as a reference model that you can update separately and re-import as required.

Some things to consider when importing another model:

- Model objects are uniquely referenced by their type and identifier. When importing a model, these are used to match the imported objects to the target objects.
- All User Properties for an object are replaced when importing, there is no merging at this level.
- Some changes in the imported model might affect connections in Views if relationships are changed or deleted. These are reported in the status dialog after import.
- Existing target objects and folders will not be deleted even if these are deleted from the imported model.

Importing another Archi model

To import another Archi model into the currently selected model select "Import an Archi model into the currently selected model" from the main "File" menu. The following dialog will appear:



Importing another model

Import Options

Update existing objects and folders

If this is selected then any existing target objects and folders will be updated when importing.

Update model information and top-level folders

If this is selected then if there are any changes to the model node (Name, Documentation, Properties) these will be updated. If there are changes to any top-level folders (Documentation, Properties) these will also be updated.

Show Status Dialog after importing
If this is selected then a status dialog is shown after importing a model. This will list what was updated or changed.

The Open Group Exchange File Format

The Open Group standard defines a standard file format that supports exchange of ArchiMate models between tools. The scope of the standard is restricted to the elements and the relationships of an ArchiMate model. It excludes features that are vendor-specific, although addresses how these can be accommodated. The exchange file format contains model information including:

- Objects of all ArchiMate concepts with basic attributes (properties)
- Relationship details between objects
- Diagrammatic information

The exchange file format is not intended as a persistent file format for the model itself, it is a mechanism to convey instance data from one tool to another . The data contained in the exchange file format is meant to be processed by an "ArchiMate aware" tool, thus ruling out standalone semantic inference. Once the instance data has been imported into an ArchiMate tool, that tool will probably save it in its own proprietary file format.

Exporting and Settings

To export an Archi model to an Open Exchange Format file, select the menu item "File->Export->Model To Open Exchange File...".

Options

Include Folder Organization
If this is checked then the organisational structure of the model's elements' and relations' folders is included in the exported file.

Validate after export
If this is checked then the exported XML file is validated against the Schema XSD files as a final check.

Copy XSD schema file to target location
If this is checked then the ArchiMate Open Exchange format XSD files are copied to the same location as the output file.

Language code
Sets the two letter language code for string values as defined in ISO 639.

Adding Metadata

You can also include basic Dublin Core Metadata in the XML exchange file.

Each model can be further described by the use of Metadata. This constitutes an optional set of elements that can be used to describe the model itself. The use of metadata to further describe a model can be useful to assert such things as publisher, rights and usage, copyright, and licensing. The Dublin Core Metadata Element Set consists of 15 metadata elements:

Title	A name given to the resource.
Creator	An entity primarily responsible for making the resource.
Subject	The topic of the resource.
Description	An account of the resource.
Publisher	An entity responsible for making the resource available.
Contributor	An entity responsible for making contributions to the resource.
Date	A point or period of time associated with an event in the lifecycle of the resource.
Type	The nature or genre of the resource.
Format	The file format, physical medium, or dimensions of the resource.
Identifier	An unambiguous reference to the resource within a given context.
Source	A related resource from which the described resource is derived.
Language	A language of the resource.
Relation	A related resource.
Coverage	The spatial or temporal topic of the resource, the spatial applicability of the resource, or the jurisdiction under which the resource is relevant.
Rights	Information about rights held in and over the resource.

If all the fields are left blank then no Metadata is included in the exported XML file.

Importing from an Open Exchange XML file

To import an Open Exchange Format file, select the menu item "File->Import->Open Exchange XML Model...". Select and open the required XML file. This will create a new ArchiMate model in the Models Tree.

Reporting

Archi is able to produce two types of reports from ArchiMate models:

HTML Reports

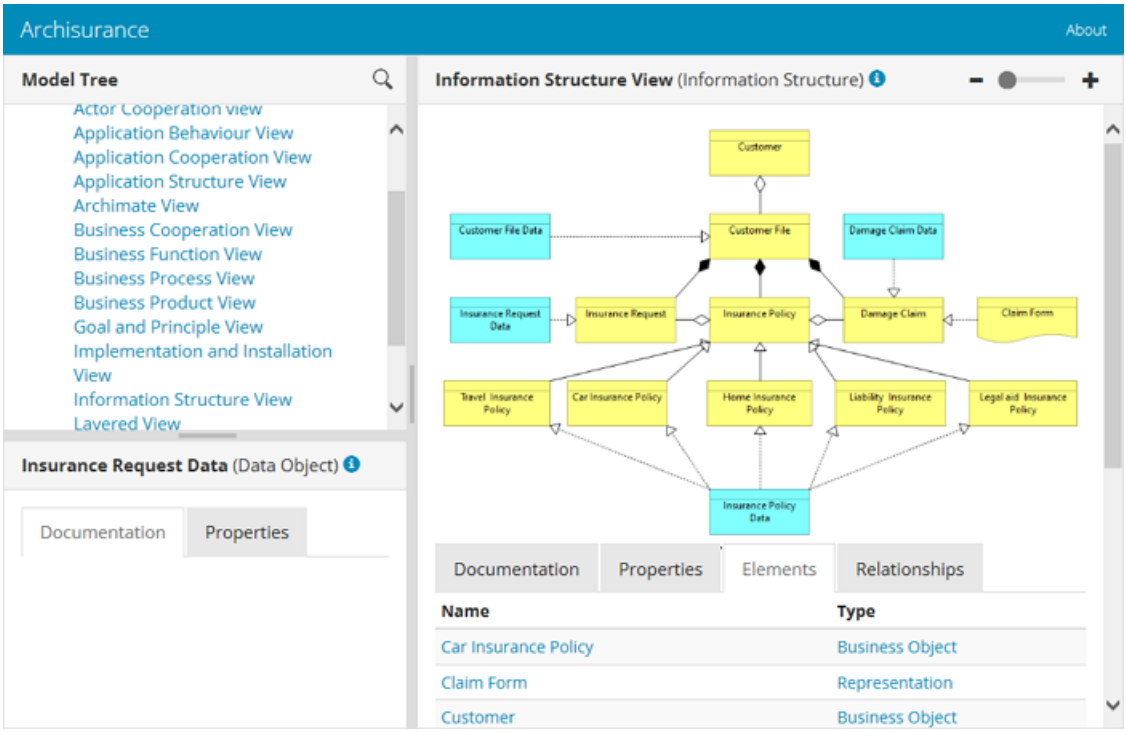
Jasper Reports

HTML Report

Archi supports web-based reporting functionality by means of generating HTML pages containing a model tree, summary tables of the model objects and the Views in a model.

This option is available from the "Report->HTML..." menu item from the main "File" menu. Once a model is selected in the Model Tree or in a View this menu item is enabled. Select a folder to export the model and its Views.

A single HTML page, "index.html" is generated in the chosen output folder, together with supporting files and image files for the Views in the model.



A generated HTML Report

Searching the model

Clicking on the magnify icon at the top of the navigation tree reveals a search box which makes it possible to filter the content of the tree.

Zooming a view

It is possible to zoom the view's diagram by using the zoom slider (or the +/- icons) located on the far right of the view's header.

Masking

Any folder, concept, or view in the model can be hidden from the HTML report by adding a property in the model object named `_hide_from_export_` with a value of true. When hiding a folder, all of its content will be hidden as well.

Note: hidden objects are still exported and accessible by their direct/permanent URL, but they are removed from the navigation tree and the search feature.

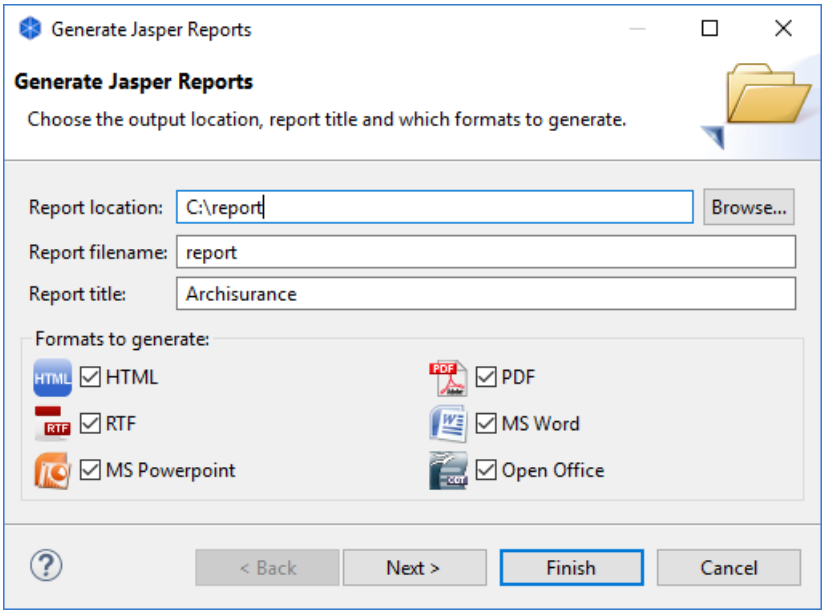
SQL Query

The "Query" tab in the report allows you to query the model contents of the report using SQL. For more information see the Archi Wiki.

Jasper Reports

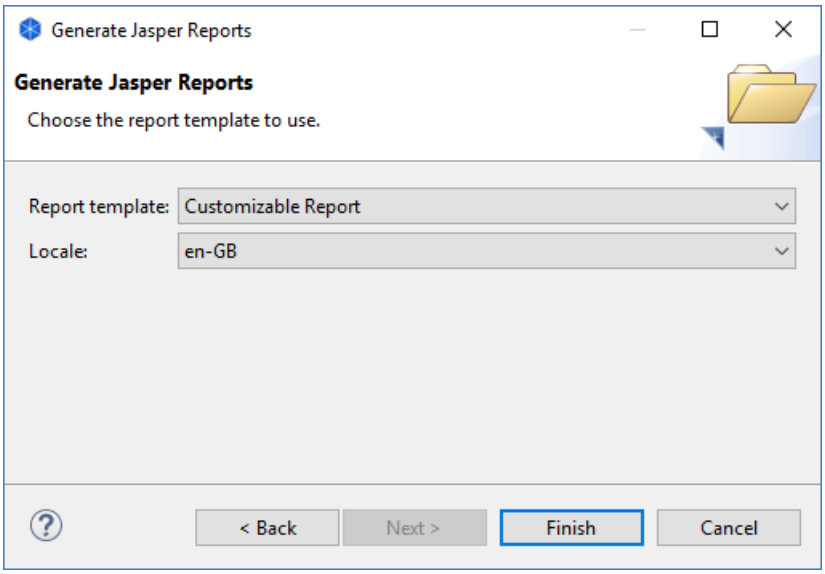
Jasper Reports is the world's most popular Java reporting engine. Combine data sources and produce pixel-perfect documents that can be viewed, printed, or exported into a variety of document formats with this powerful reporting tool. Archi can export models in various formats using Jasper Reports Templates.

This option is available from the "Report->Jasper..." menu item from the main "File" menu. Once a model is selected in the Model Tree or in a View this menu item is enabled. Provide the details in the following wizard page:



Jasper Reports wizard page 1

And then in the next wizard page, choose the report template that you prefer, and also the locale if you have provided localised language strings for the report template:

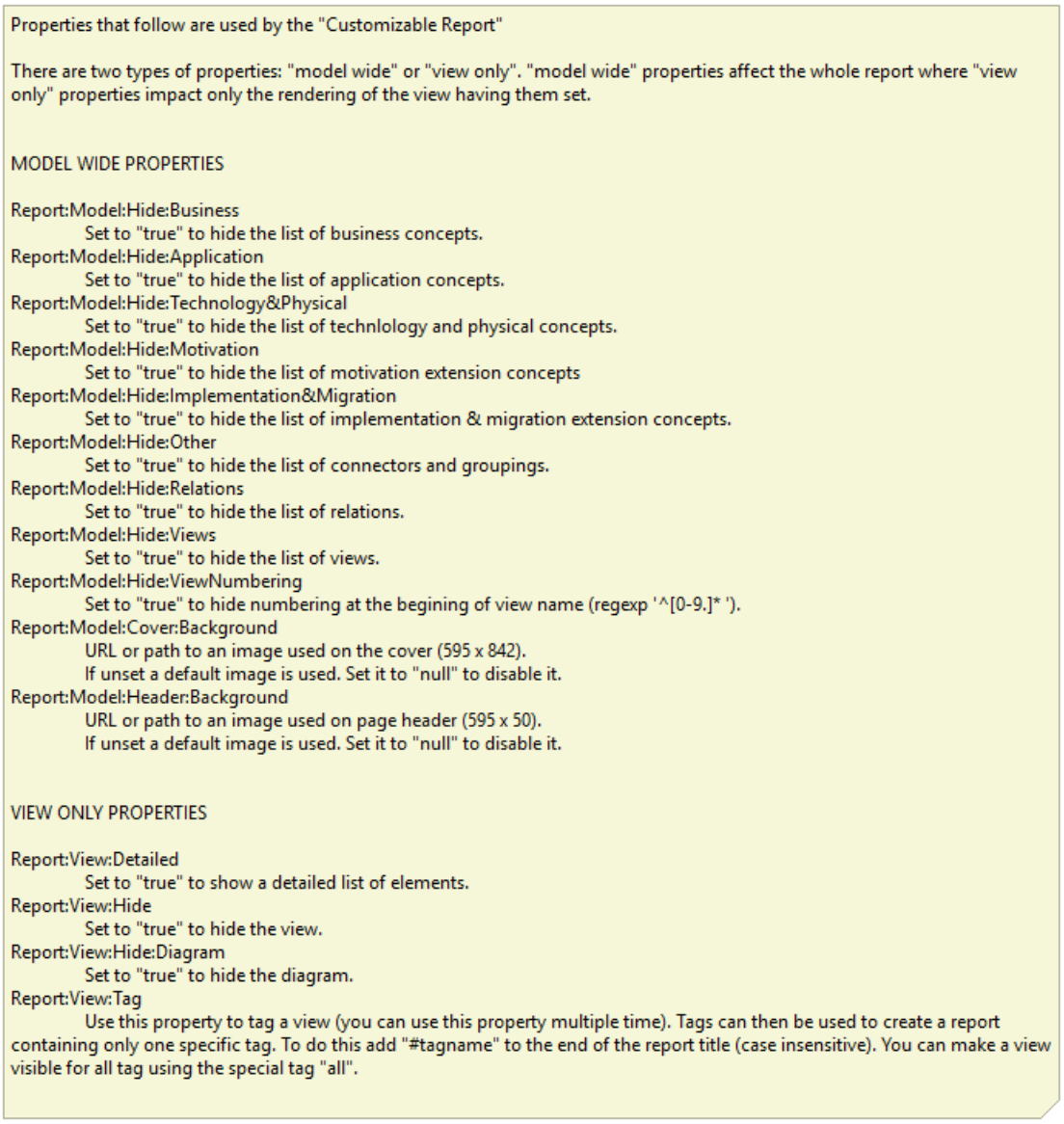


Jasper Reports wizard page 2

Customisable Report

If you choose the "Customizable Report" template when exporting, then you can set various properties for the report's layout if you base your model on the "Customizable Report" model template when creating a new model. See "Creating a New Model from a Template" for more details.

By setting certain properties in the model that is based on the "Customizable Report" model template you can fine tune the output. When you create a new model based on the "Customizable Report" model template there is a View called "_README_" that lists the properties.



Properties that follow are used by the "Customizable Report"

There are two types of properties: "model wide" or "view only". "model wide" properties affect the whole report where "view only" properties impact only the rendering of the view having them set.

MODEL WIDE PROPERTIES

Report:Model:Hide:Business
Set to "true" to hide the list of business concepts.
Report:Model:Hide:Application
Set to "true" to hide the list of application concepts.
Report:Model:Hide:Technology&Physical
Set to "true" to hide the list of technlology and physical concepts.
Report:Model:Hide:Motivation
Set to "true" to hide the list of motivation extension concepts
Report:Model:Hide:Implementation&Migration
Set to "true" to hide the list of implementation & migration extension concepts.
Report:Model:Hide:Other
Set to "true" to hide the list of connectors and groupings.
Report:Model:Hide:Relations
Set to "true" to hide the list of relations.
Report:Model:Hide:Views
Set to "true" to hide the list of views.
Report:Model:Hide:ViewNumbering
Set to "true" to hide numbering at the begining of view name (regexp '^[0-9.]* ').
Report:Model:Cover:Background
URL or path to an image used on the cover (595 x 842).
If unset a default image is used. Set it to "null" to disable it.
Report:Model:Header:Background
URL or path to an image used on page header (595 x 50).
If unset a default image is used. Set it to "null" to disable it.

VIEW ONLY PROPERTIES

Report:View:Detailed
Set to "true" to show a detailed list of elements.
Report:View:Hide
Set to "true" to hide the view.
Report:View:Hide:Diagram
Set to "true" to hide the diagram.
Report:View:Tag
Use this property to tag a view (you can use this property multiple time). Tags can then be used to create a report containing only one specific tag. To do this add "#tagname" to the end of the report title (case insensitive). You can make a view visible for all tag using the special tag "all".

Custom report properties

User Report Templates

If you wish to create your own custom Jasper Report templates you can place these in the folder named "jasper-reports" in the application preference folder. You can change the location of this folder in Preferences. Alternatively, you can manually select a template file ("main.jrxml") from the "Choose..." combo option.

An example folder structure for a custom report:

```
C:\Users\Bagpuss\Application Data\Archi\jasper-reports
                                                |------My Custom Report
                                                              |------main.jrxml
                                                              |------style.jrxt
                                                              |------other files...
```

For more information on creating custom Jasper Reports please refer to the developer section of the Archi website.

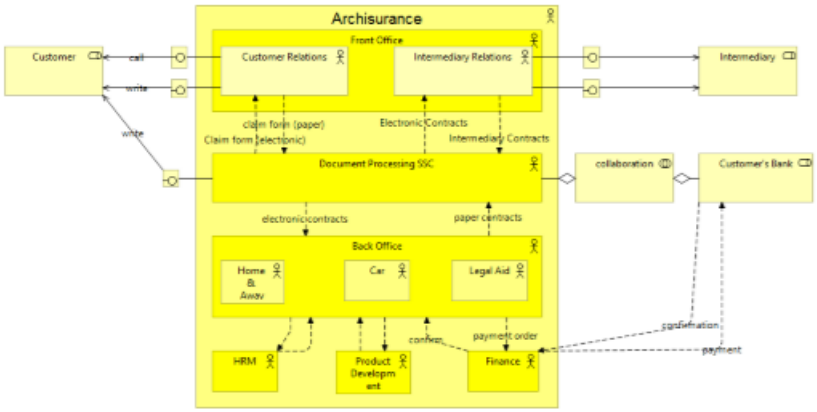
Output

The following is an example of a PDF format report:

Views

Actor Cooperation view

No viewpoint



Elements

Element	Type
Archisurance	Business Actor
Back Office	Business Actor
Car	Business Actor
collaboration	Business Collaboration
Customer	Business Role
Customer Relations	Business Actor
Customer's Bank	Business Role
Document Processing SSC	Business Actor
e-mail	Business Interface
Finance	Business Actor
Front Office	Business Actor
GIM	Business Interface
Home & Away	Business Actor
HRM	Business Actor
Intermediary	Business Role
Intermediary Relations	Business Actor
Legal Aid	Business Actor
mail	Business Interface
phone	Business Interface
phone	Business Interface
Product Development	Business Actor

Part of a Generated Jasper Report in PDF format

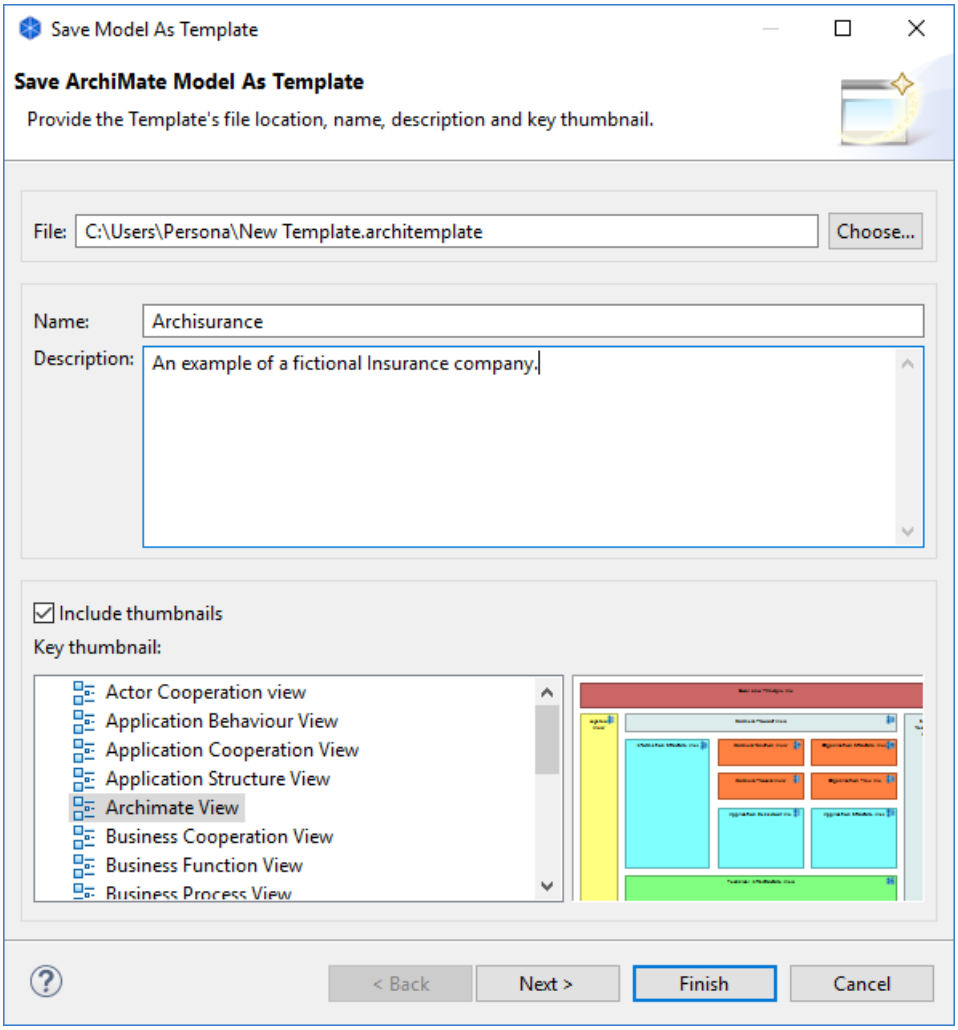
Templates

Archi supports the use of re-usable ArchiMate models, or templates. A template is a model that has been saved in an archive file with the extension "*.architemplate". Further information describing the template and optional thumb-nail images of the model's Views is also contained in the template file. Templates are convenient starting points for creating new models.

Creating a New Template

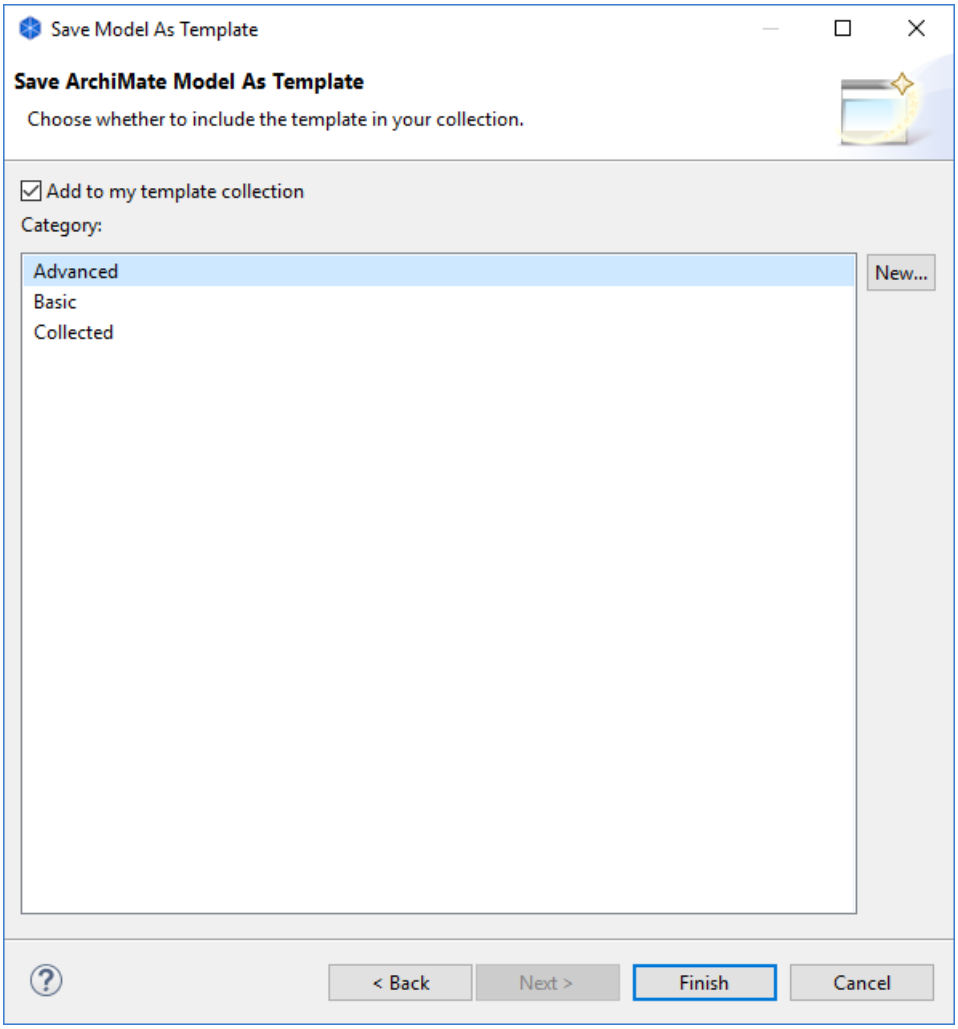
To create a new template follow these steps:

1. Create a new Archi model or open an existing model that you have created and edit it so that it as you want the template to be.
2. Make sure the model you wish to save as a template is open and selected in the Model Tree.
3. Choose the "File->Save As Template..." menu item from the main menu. A wizard will open:



4. In the wizard, provide a file name for the location for the template file, a name for the template (this is different than the name of the model) and a description.

5. Select whether you want to include thumbnail images of the Views in the model template. If you choose to include thumbnails of the Views in the template choose which of the images will be the "key" thumbnail. This will be the first thumbnail image displayed in the "New Model from Template" wizard.
6. Click "Next" to move on to the next page of the wizard:



7. Choose whether you wish to add the template to your collection. Your collection of templates is a list sorted into categories that will be displayed in the "New Model from Template" wizard. If there are no categories available to choose from you can create a new category by clicking on the "New..." button in the wizard.
8. Press "Finish".

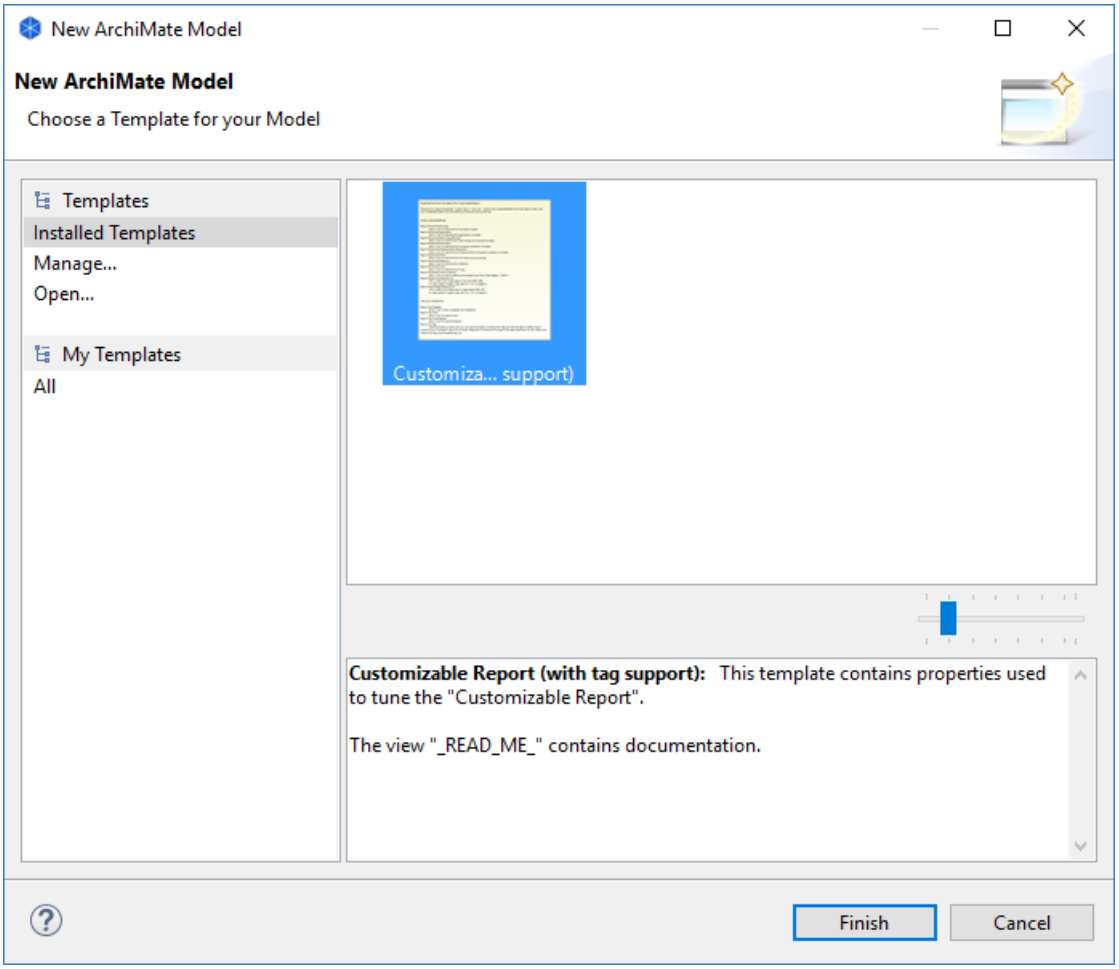
The template will be saved on your file system with an "*.architemplate" extension. You can share this template with other Archi users if you like.

Creating a New Model from a Template

To create a new Model based on an existing template follow these steps:

1. Choose the "File->New->Model From Template..." menu item from the main menu. A

wizard will open:

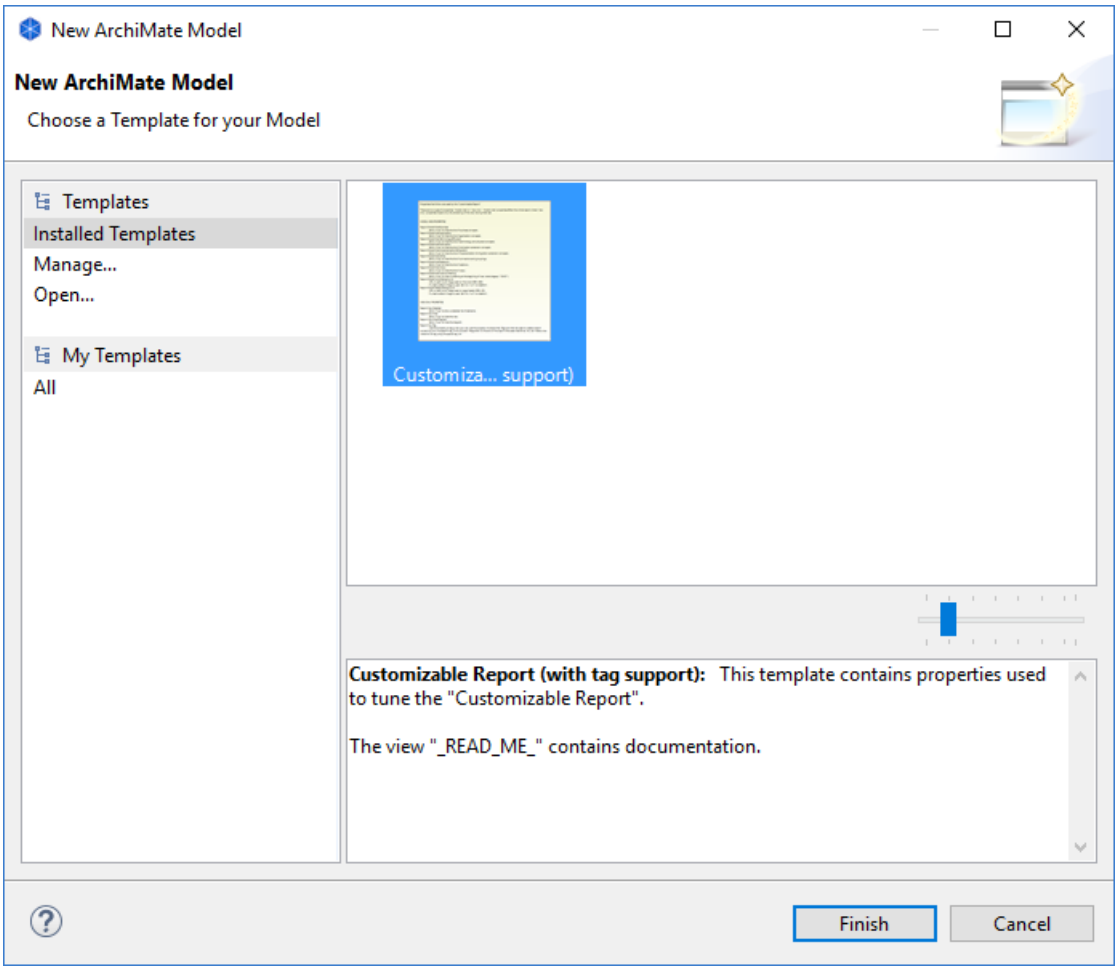


2. Choose the desired template. Some are provided in the "Installed Templates" section while user-created templates are listed in their categories in the "My Templates" section (see "Creating a New Template"). The selected template's name and description are displayed in the Gallery's preview window.
3. You can preview all of the thumbnail images for a template by moving your mouse from side to side across the thumbnail image in the Gallery. You can also resize the images in the Gallery by using the resize slider control.
4. If you wish to open a template from file that is not shown in the wizard select the "Open..." item. A file dialog will allow you to choose a "*.architemplate" template file.
5. Press Finish. A new model is created and added to the Model Tree. The Model's name is prefixed with "(new)".

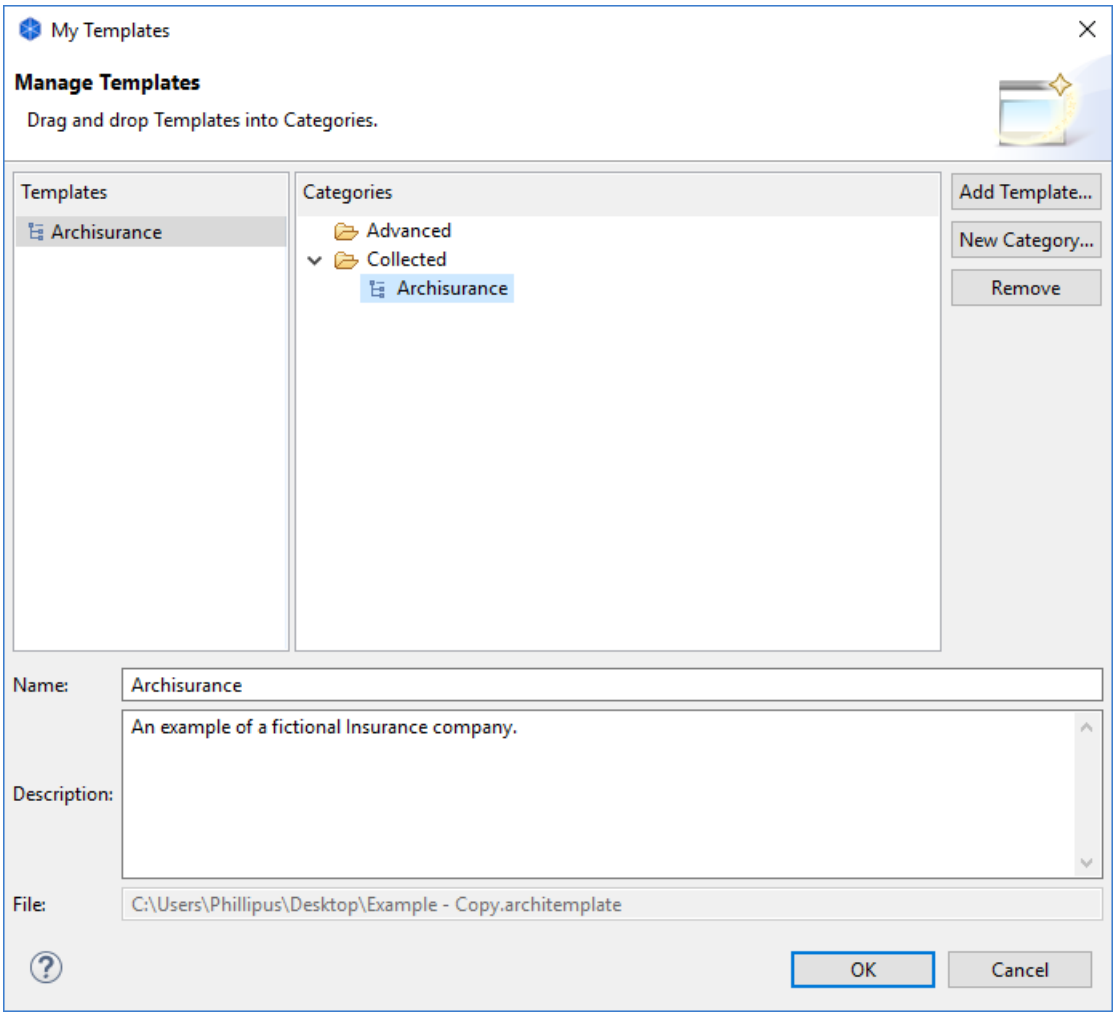
Managing your Templates

You store templates on your file system as "*.architemplate" files. These can be stored anywhere on your local filing system. Archi allows you to create user collections that point to these templates. These are shortcuts to the actual templates. To manage your collection of templates follow these steps:

1. Choose the "File->New->Model From Template..." menu item from the main menu. A wizard will open:



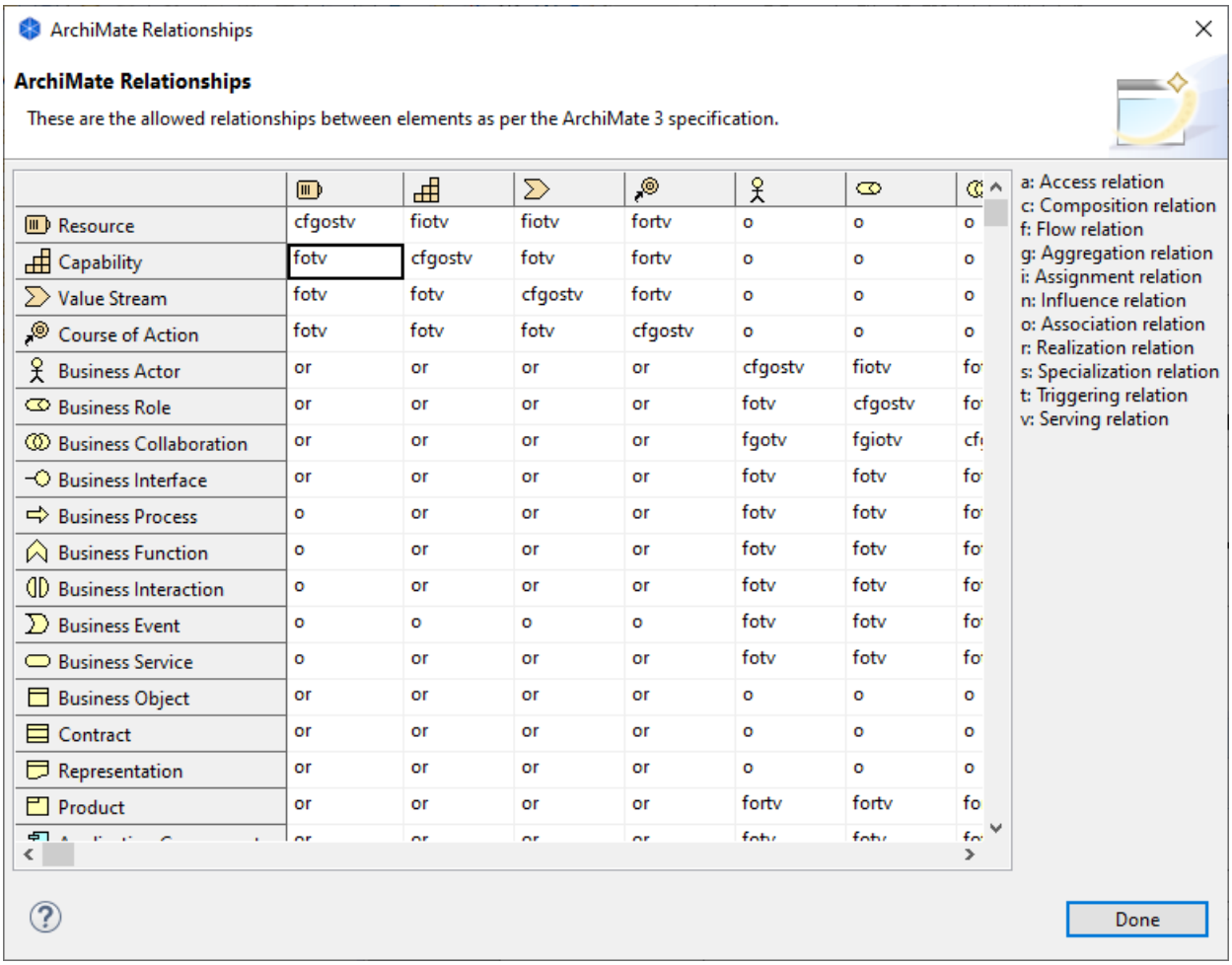
2. Select "Manage..." from the "Templates" section on the left of the wizard. A dialog window will open:



3. This dialog allows you to add, rename and remove new template categories, and also to add templates from file to your collection. You can also edit and change the name and description of each template.
4. To add a template from file, click on the "Add Template..." button. Choose the "*.architemplate" file from the file dialog that appears.
5. To add a new template category, click on the "New Category..." button. Provide a name for the category.
6. To add templates to a category, drag and drop a template entry from the "Templates" table to a category folder in the "Categories" tree. Note that a template can appear in more than one category folder.

Relationships in ArchiMate

You can view all of the legal ArchiMate relationships between entities. You can access this window from the Help | ArchiMate Relationships menu item. These are read-only and for informational purposes only.



	Resource	Capability	Value Stream	Course of Action	Business Actor	Business Role	Business Collaboration	Business Interface	Business Process	Business Function	Business Interaction	Business Event	Business Service	Business Object	Contract	Representation	Product
Resource	cfgostv	fiotv	fiotv	fortv	o	o	o										
Capability	fotv	cfgostv	fotv	fortv	o	o	o										
Value Stream	fotv	fotv	cfgostv	fortv	o	o	o										
Course of Action	fotv	fotv	fotv	cfgostv	o	o	o										
Business Actor	or	or	or	or	cfgostv	fiotv	fo										
Business Role	or	or	or	or	fotv	cfgostv	fo										
Business Collaboration	or	or	or	or	fgotv	fgiotv	cf										
Business Interface	or	or	or	or	fotv	fotv	fo										
Business Process	o	or	or	or	fotv	fotv	fo										
Business Function	o	or	or	or	fotv	fotv	fo										
Business Interaction	o	or	or	or	fotv	fotv	fo										
Business Event	o	o	o	o	fotv	fotv	fo										
Business Service	o	or	or	or	fotv	fotv	fo										
Business Object	or	or	or	or	o	o	o										
Contract	or	or	or	or	o	o	o										
Representation	or	or	or	or	o	o	o										
Product	or	or	or	or	fortv	fortv	fo										

Relationships matrix

The Sketch View

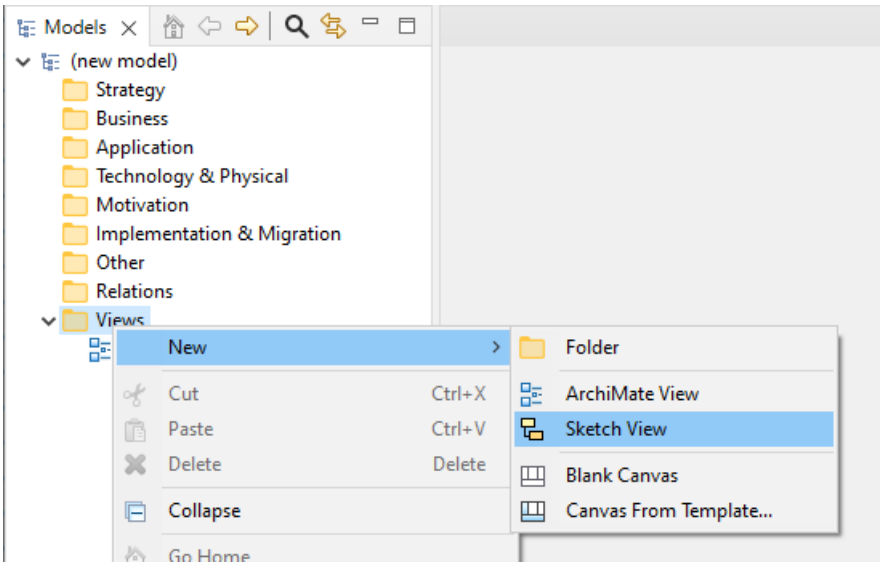
The Sketch View is an experimental feature of Archi. The idea behind the Sketch View is inspired by the ArchiMate specification document defining an "Introductory viewpoint":

> "The Introductory viewpoint forms a subset of the full ArchiMate language using a simplified notation. It is typically used at the start of a design trajectory, when not everything needs to be detailed yet, or to explain the essence of an architecture model to non-architects that require a simpler notation. Another use of this basic, less formal viewpoint is that it tries to avoid the impression that the architectural design is already fixed, an idea that may easily arise when using a more formal, highly structured or detailed visualization. We use a simplified notation for the concepts, and for the relations. All relations except "triggering" and "realization" are denoted by simple lines; "realization" has an arrow in the direction of the realized service; "triggering" is also represented by an arrow." - *ArchiMate Specification 1.0 p.72*

This is in some ways similar to Marc Lankhorst's description of modelling processes using conversation techniques whose aim is to capture the essence of the model:

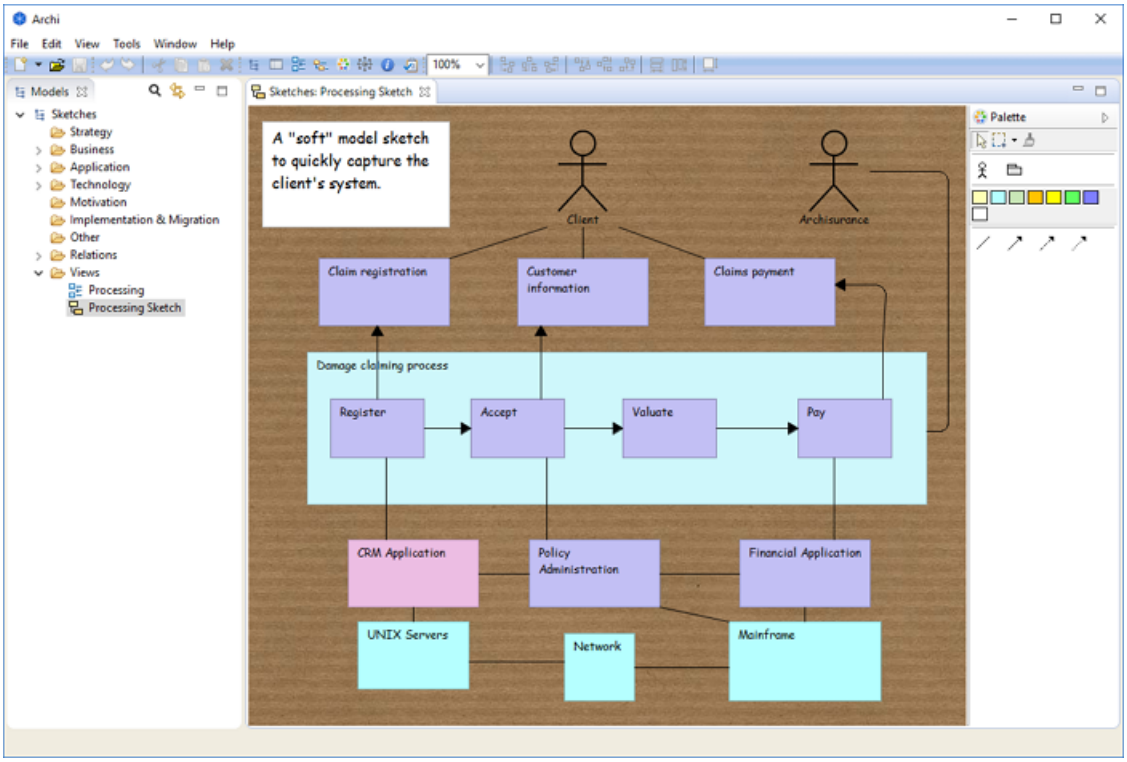
> "In architecture development, we find a number of common conversation techniques where it concerns the communication of architectural models:
>
> - **Brown-paper session:** Structured brainstorm-like group session (up to about 15 people) in which items (keywords or short phrases) are elicited from the individuals in the group in answer to a question such as: 'What are the key functionality issues in our current IT architecture?' Typically, every individual item is written on a small adhesive note ('Post-It'). The items are then collected on a sheet of paper (traditionally of the cheap brown kind) and, by means of an open and creative group process, structured and categorised. This may involve adding, deleting, merging, or changing items. Usually, a mediator or facilitator is involved." - *Marc Lankhorst et al. "Enterprise Architecture at Work", Second Edition, p.82*

In Archi it is possible to create a "Sketch View". To add a new Sketch View to the model, right-click on the "Views" folder in the Model Tree and select "New->Sketch View" from the context menu:



Adding a new "Sketch" View

Once the Sketch View has been added to the model it can be opened from the tree by double-clicking on it. Any number of Views can be added to a model and be open at the same time. Views are arranged in tabs in the main area of the application window.

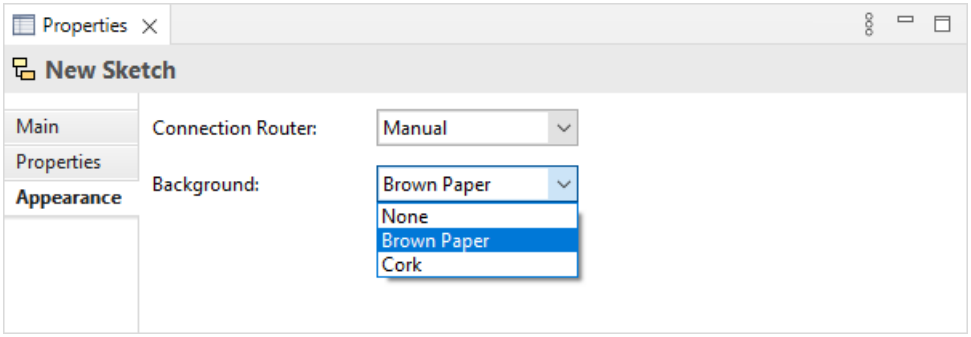


An example Sketch View

You can add new "Stickies" (Post-Its) to the View, an "Actor" figure and three types of connection. There are no rules as to what the relationships or stickies mean. All objects can be edited in the Properties Window. You are free to capture a sketch of your model and then later convert it into a fully constrained ArchiMate model and View.

Double-clicking a Sticky opens the Properties Window, clicking on a selected Sticky allows you to directly edit the Sticky's text.

It is possible to set the default background image in Preferences if you wish, and to set the background for each Sketch view in the "Appearance" tab of the Properties Window:

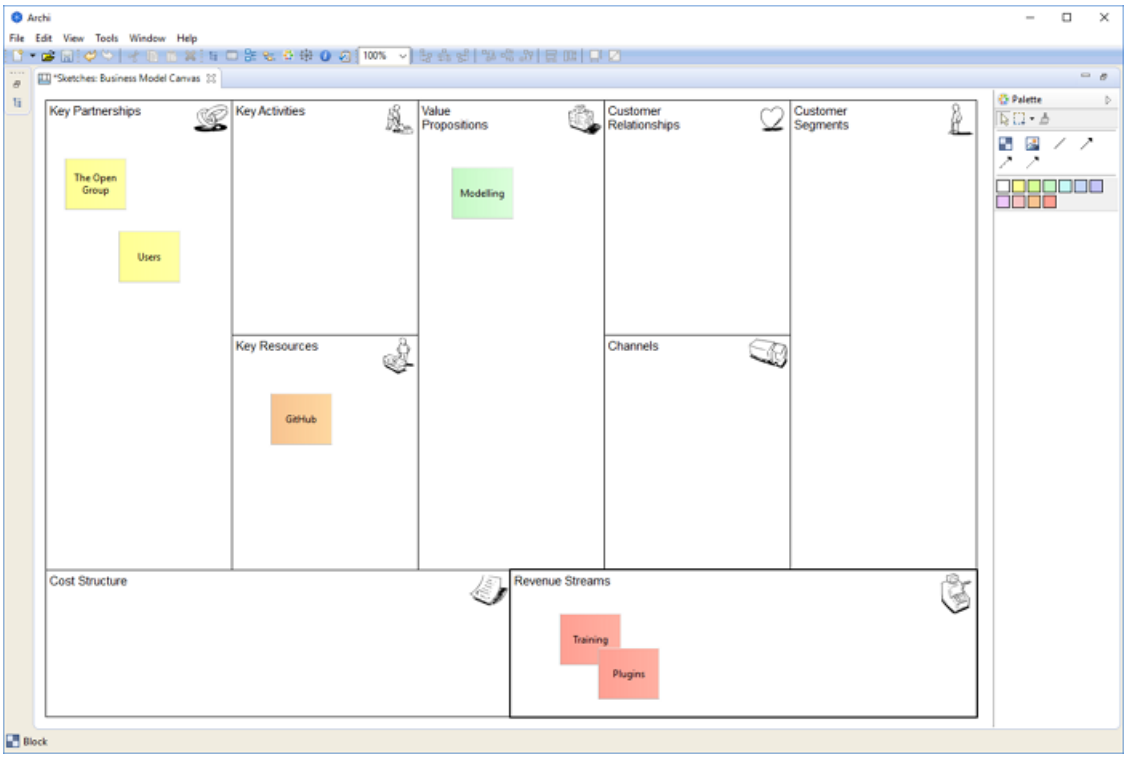


Sketch View background options

Note - the Sketch View will likely be deprecated in future versions. The aim is to combine the Sketch, Canvas and ArchiMate views into one view type.

The Canvas Modelling Toolkit

The Canvas Modelling Toolkit is an extension to Archi somewhat akin to the Sketch View that provides the tools for you to create and edit a "Canvas" such as the Business Model Canvas. With the Canvas Modelling Toolkit you can design and create re-usable Canvas Templates to share with colleagues or simply or you can use it as a pre-design tool to sketch out ideas and models. You can also link to other Views in your model so you could, for example, link from an ArchiMate View to a Business Model Canvas View to provide a Business Plan.



The Business Model Canvas in Archi

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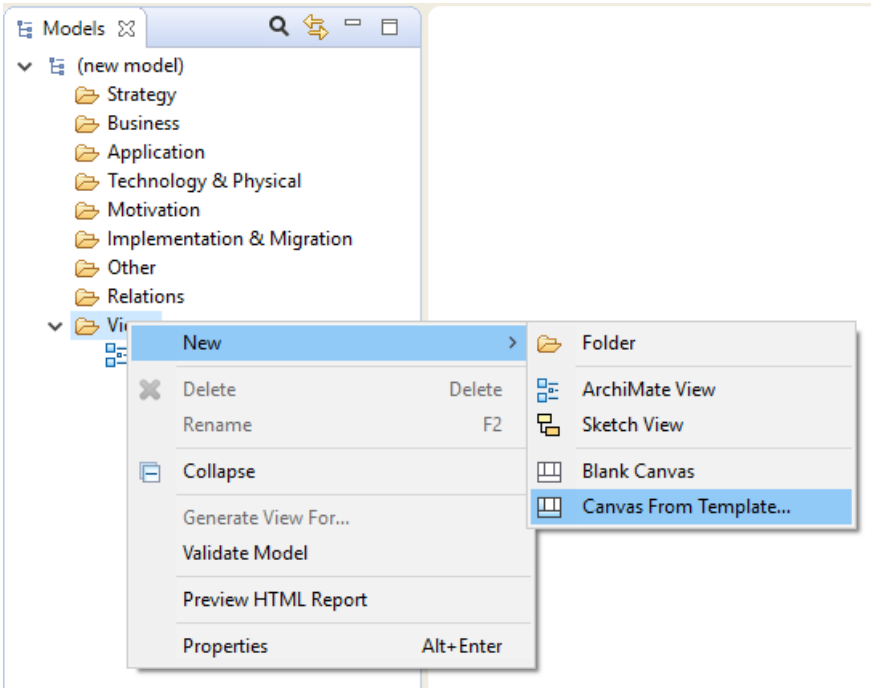
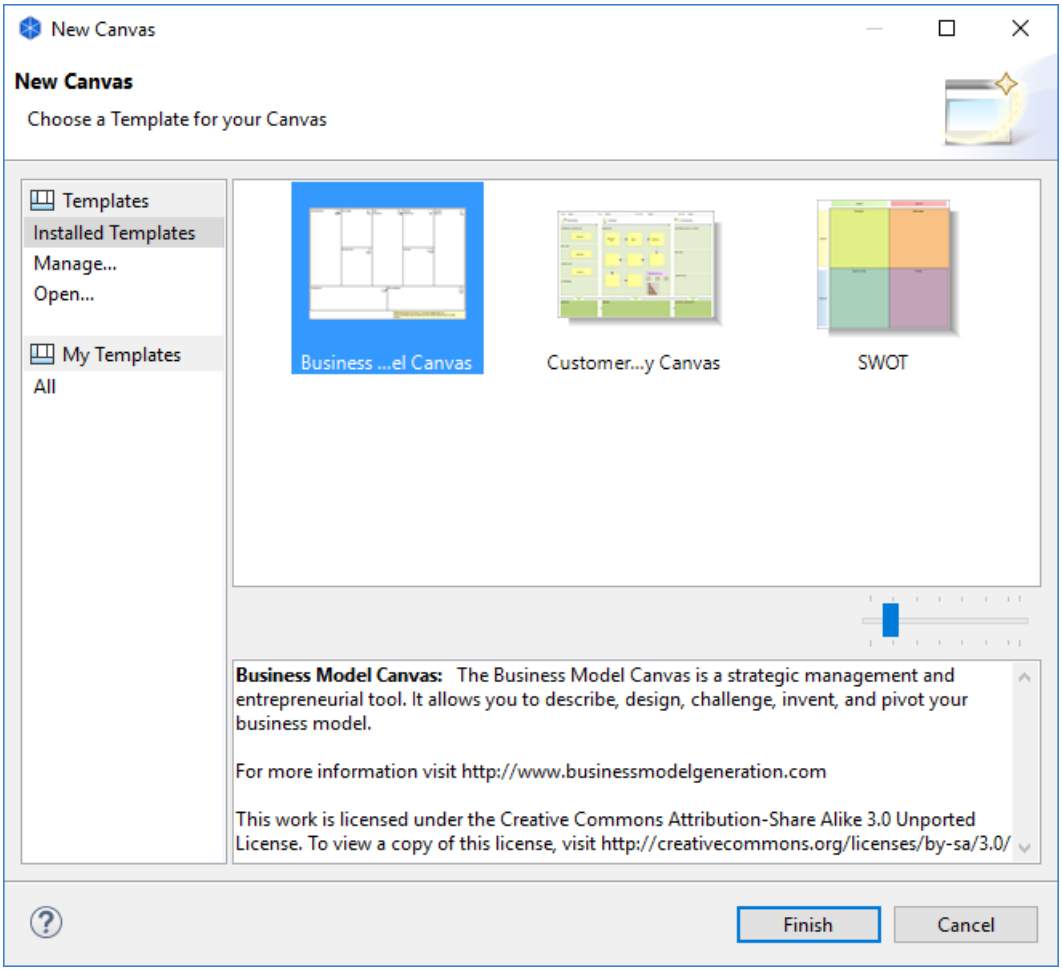
Getting Started

The quickest way to get started with the Canvas Modelling Toolkit is to create a new Canvas based on an existing template. We'll create a new Business Model Canvas.

1. Create a new Empty Model in the Model Tree. See the instructions here for how to do this.
2. Select the "Views" folder on the Model Tree, right-click on it and select "New->Canvas from Template..."

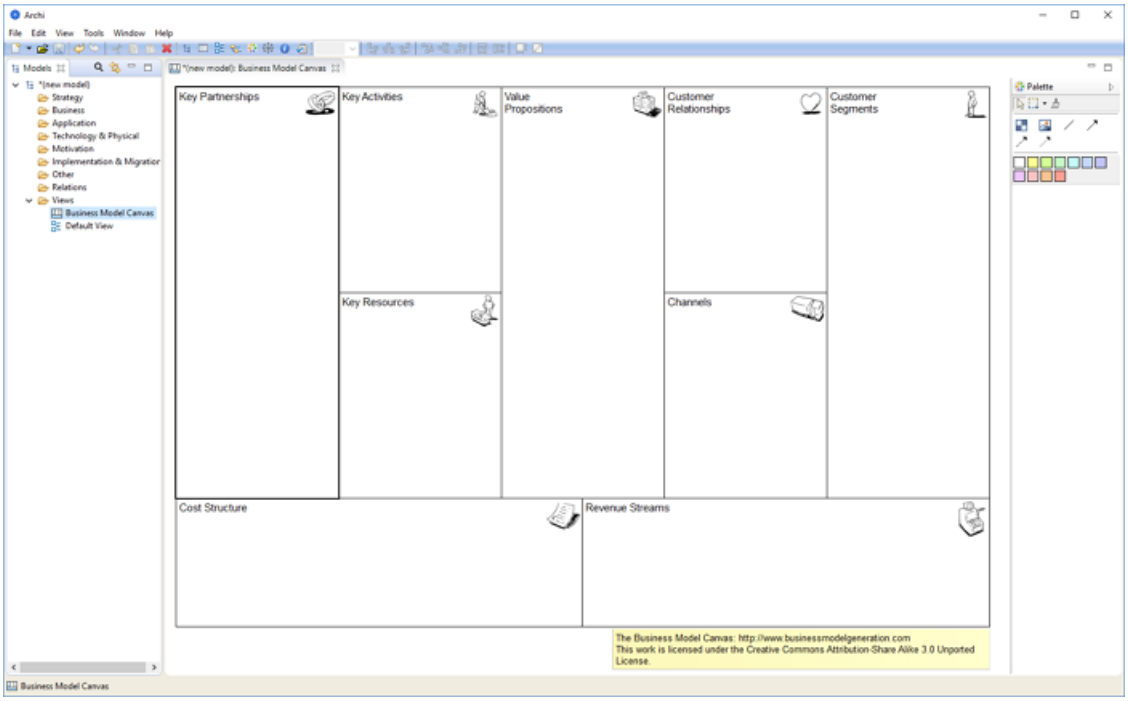


3. A wizard dialog window will open. Select the "Business Model Canvas" template from the templates in the "Installed Templates" section:



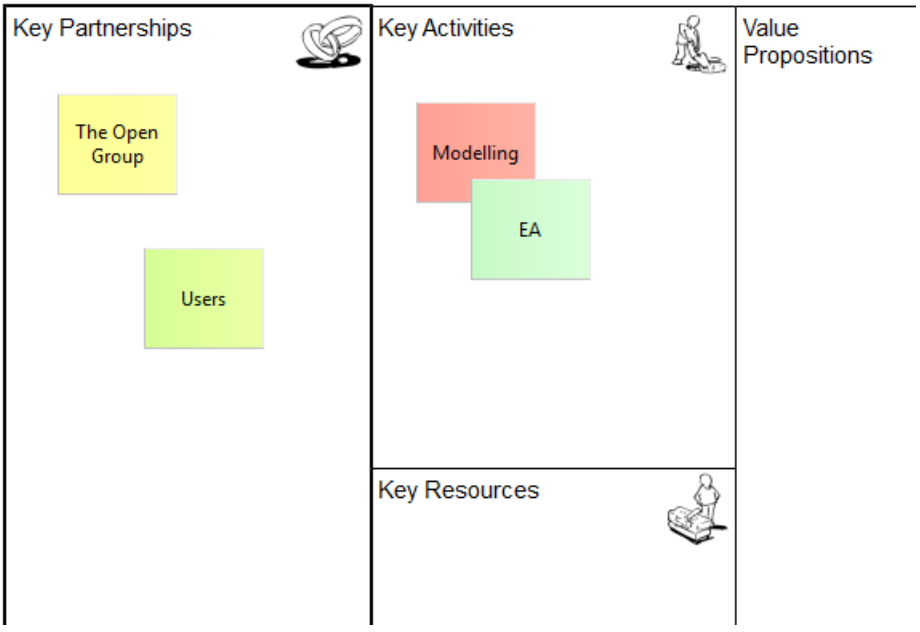
4. Press "Finish". A new "Business Model Canvas" View will appear in the Model Tree

where you can edit the default name. The View itself will be open ready for you to edit:



The Canvas consists of 9 empty "Blocks". Each Block acts as container that can contain "Stickies" and other objects that are added from the Palette. Each Block is currently locked so that you cannot move or resize it. Effectively, the Blocks act as backdrop containers. Each Block also has a textual "hint" associated with it that show in the Hints Window.

Add "Stickies" from the Palette and edit the text in the Sticky to create your Canvas model:



Adding "Stickies" to the Canvas

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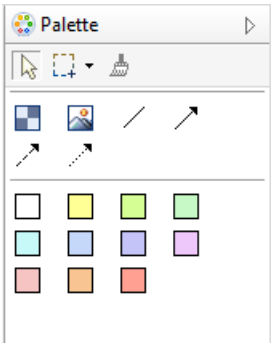
Getting into the Details

The main components and concepts that constitute a Canvas are Blocks, Stickies, Images, Connections, Hints and Locking. A Canvas template typically consists of a number of (locked) Blocks and Images onto which the user can add Stickies, Images, Connections and additional Blocks if required. The following sections will describe each of these concepts in detail starting with a description of the Canvas Palette and an example of constructing an imaginary Canvas.

The Canvas Palette

When working with a Canvas, the Palette presents you with the tools that you need to create these objects.



The Canvas Palette

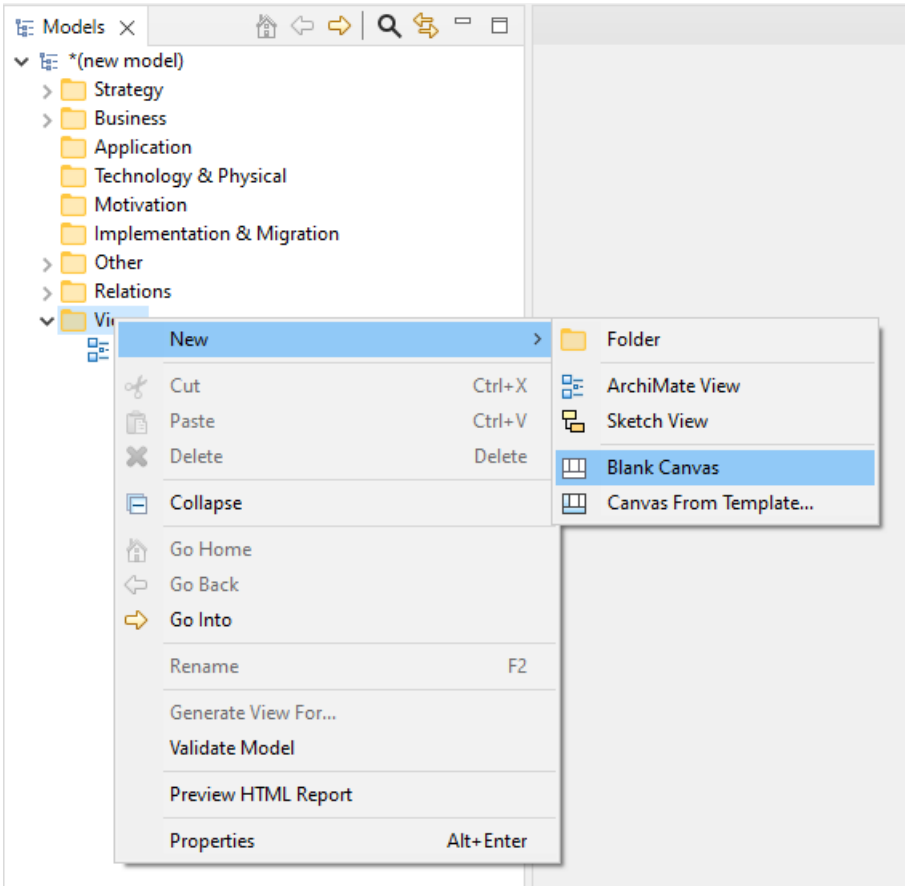
Select a tool in the Palette and draw it onto the Canvas. The coloured squares represent "Stickies". Note that you are not restricted to the provided colours as you can change the colour of the Sticky in the Properties Window. Similarly with the provided Connections, you can change the line and arrow head style of a Connection in its Properties Window.

Constructing a new Canvas - an Example

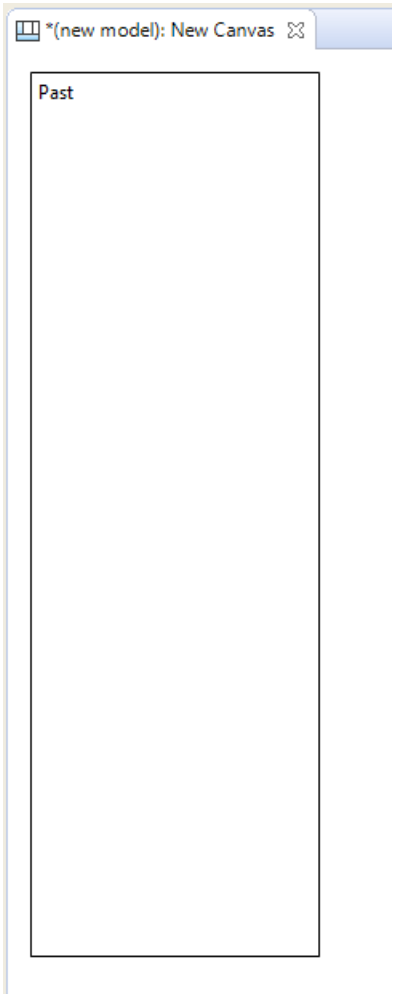
Let's work through the process of constructing our own Canvas based on mapping Past, Present and Future concepts.

Assuming that you have a model selected in the Model Tree follow these steps:

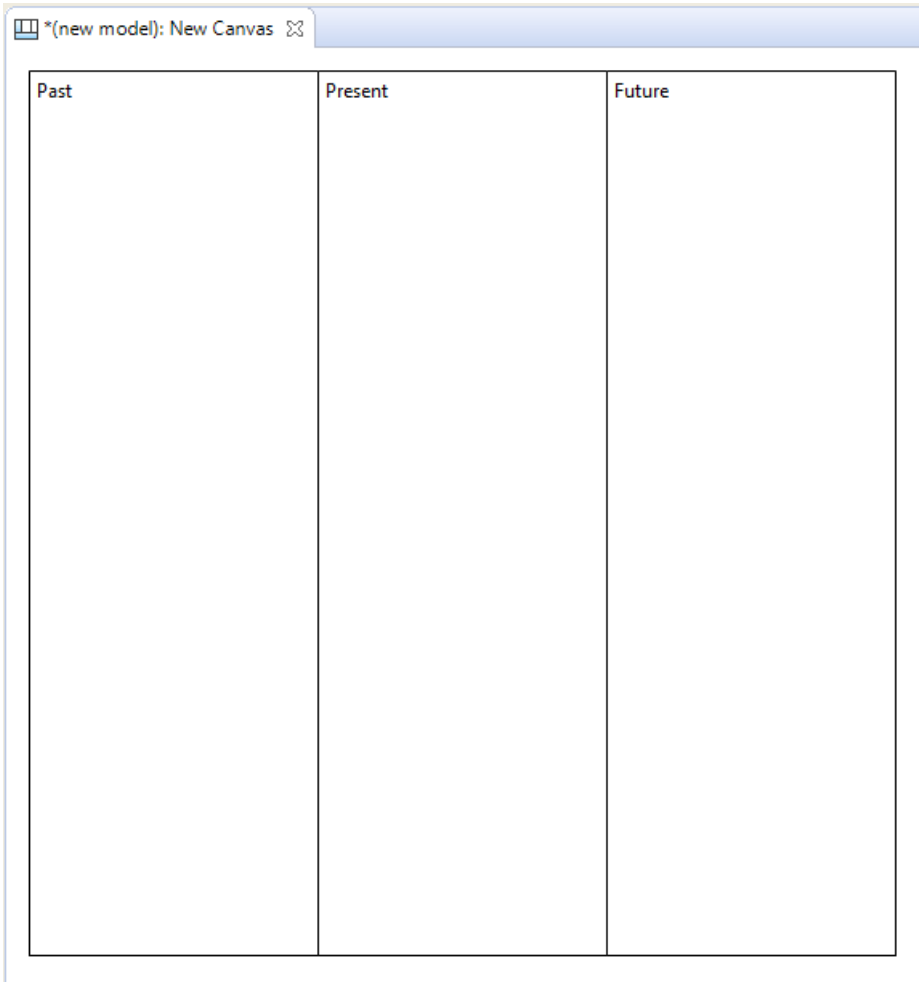
1. Right click on the "Views" folder of your model on the Model Tree and select "New->Blank Canvas":



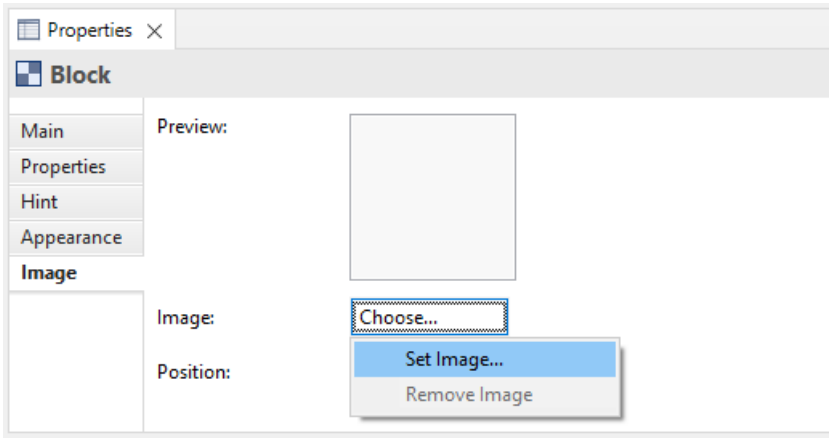
2. The Blank Canvas View will automatically open. You can rename it at this point in the Model Tree if you wish.
3. From the Palette select the Block tool and draw a tall rectangular Block on the Canvas. Edit its text content by clicking on it and changing it to "Past":



4. Create two more Blocks named "Present" and "Future" adding them to the Canvas so that they line up as follows:

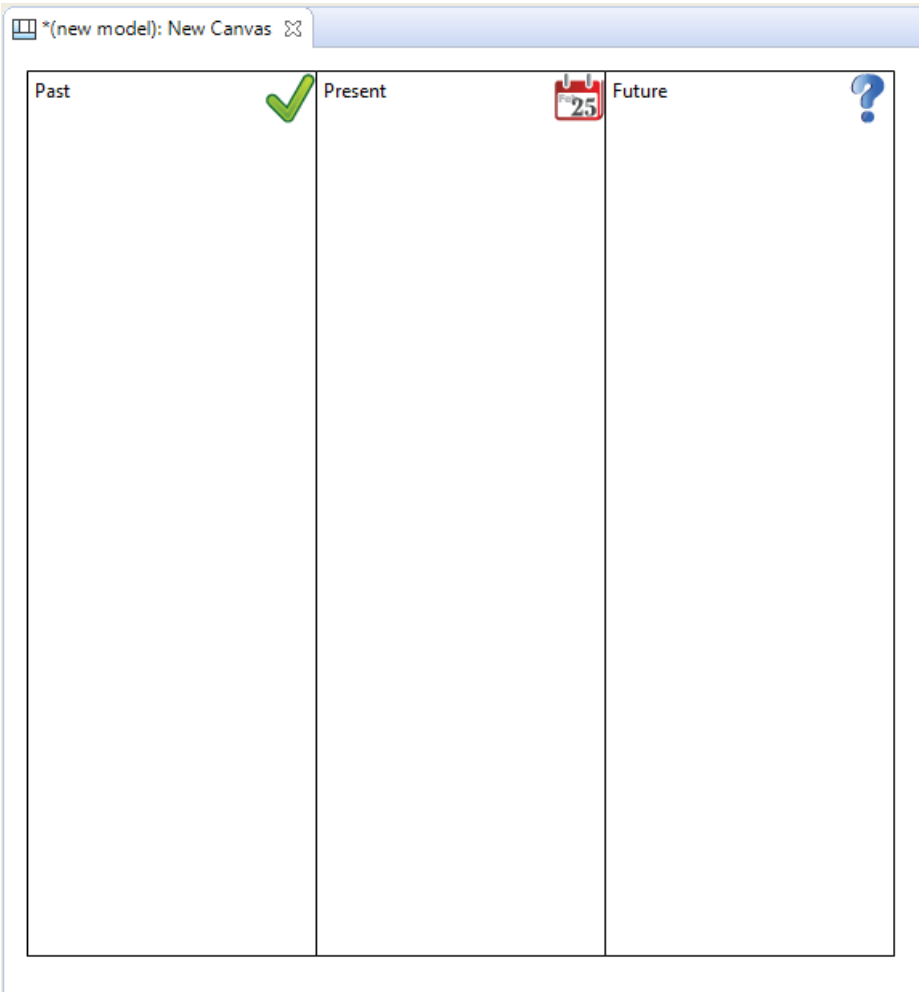


5. Now let's add some icons to these Blocks to make them visually more appealing. Double-click on the first Block to open the Properties Window. In the Properties Window select the "Image" tab. Then select the "Choose..." drop-down box and the "Set Image..." item:

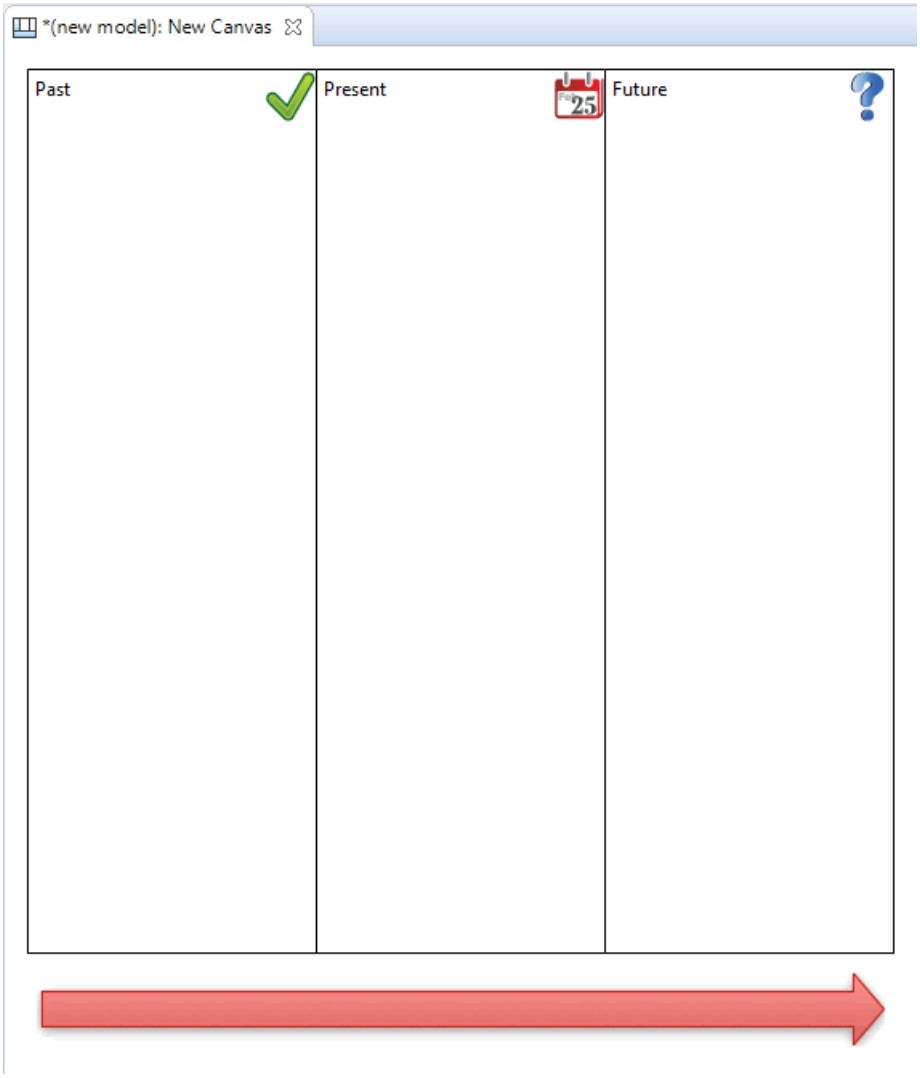


When the "My Images" Image Manager dialog window opens, select the "Open from File..." option and choose an appropriate image from your computer's file system. Do the same for the other Blocks.

6. Here's how it looks so far with the images that we have selected for the three Blocks:



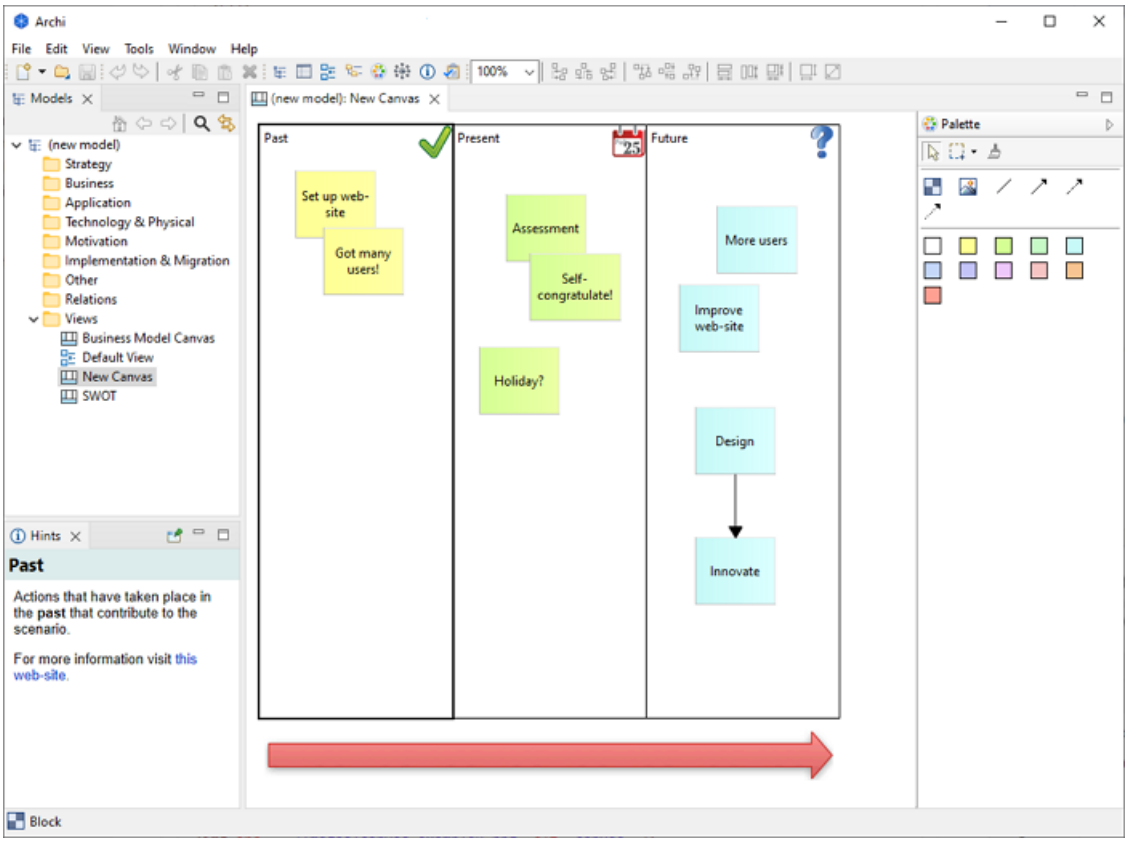
7. Now that we have constructed our three main Blocks we could take this opportunity to change their background colour, their text fonts and positions in the Properties Window. But for now let's add an Image underneath the Blocks. From the Palette select the Image tool and draw a rectangular Image place-holder on the Canvas right underneath the Blocks. Double-click on the Image place-holder to open the Properties Window. In the Properties Window on the "Main" tab select the "Choose..." drop-down box and the "Set Image..." item, as you did before for a Block, and select an appropriate image from your computer's file system. Then from the "Appearance" tab set the border to "None". The Canvas now looks like the following:



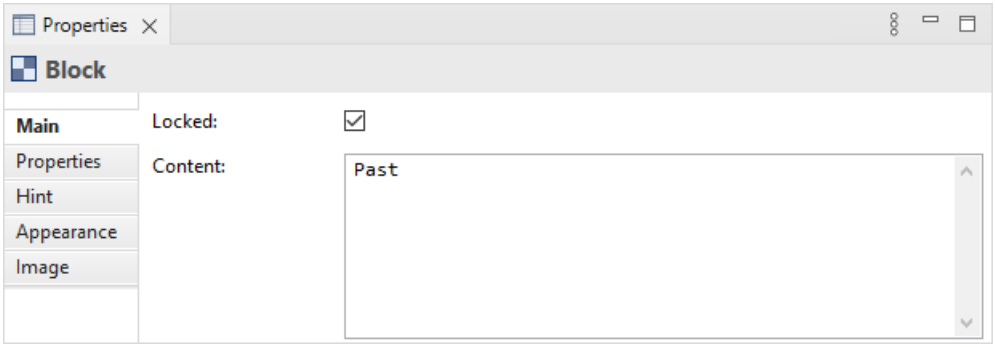
Adding Hints and Locking

For the finishing touches let's add some Hints to the Blocks and then lock them so that we can re-use the Canvas as a Template. Why do we want to add Hints to the Blocks? Well, as with the other objects in Archi models it's extremely helpful to provide a rubric that suggests to the end user the intent of the object and how it can be used in the model. Let's add the hints:

1. First ensure that the Hints Window is open. You can open it from the main "Window" menu.
2. Double-click on the first Block (the "Past" Block) in order to open the Properties Window.
3. In the Properties Window select the "Hint" tab.
4. Type "Past" for the Hint title, and some text for the Hint Content. Note that you can use HTML to mark up your content text. Here's what it looks like now:

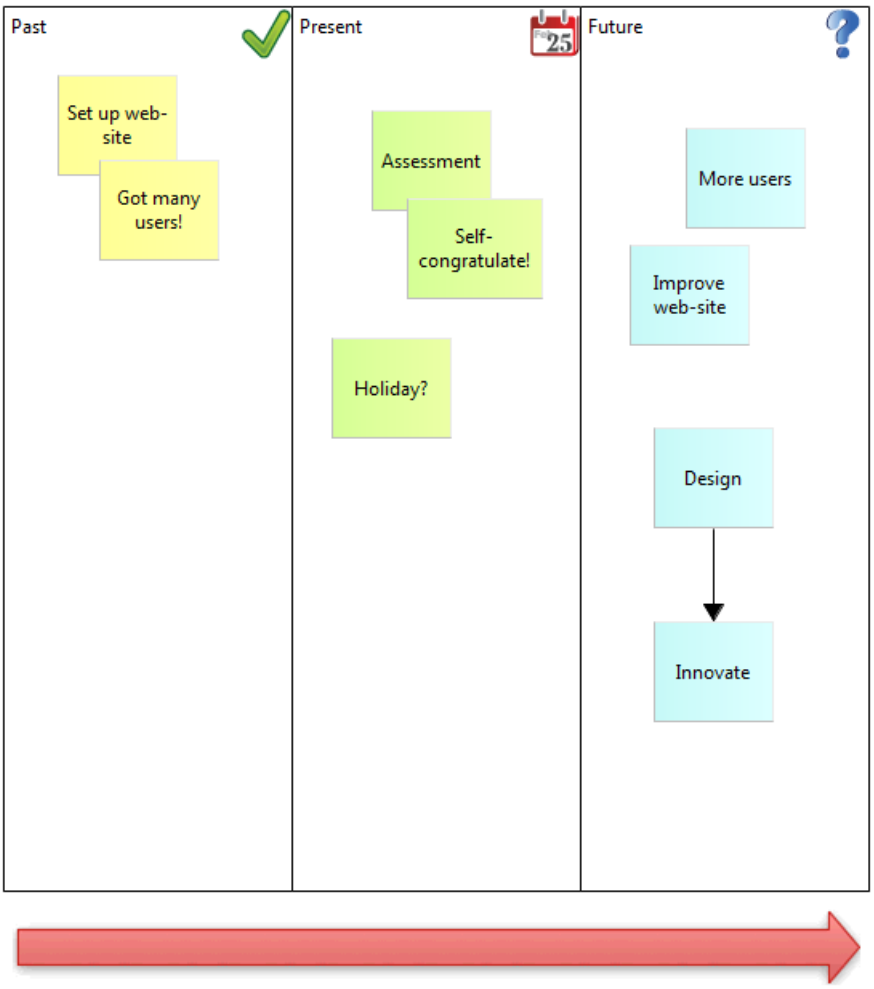


5. Add Hints for the other Blocks.
6. Now let's lock all these objects so that we can use the Canvas. Select each Block and the Image in turn. In the Properties Window tick the "Locked" checkbox:



Now that we have created the Blocks, added an Image, provided the Hints and locked the objects we can save the whole thing as a Canvas Template and then create new instances of the Canvas from the template. See the sections "Saving a Canvas as a Template" and "Creating a New Canvas from a Template" to do this.

Creating a new Canvas instance from the template means we can now start using it for real:



Our imaginary Canvas

For more ideas, look at how the built-in Canvas templates are constructed for further examples. See the section "Creating a New Canvas from a Template".

Archi uses a different file format for "*.archimate" files when adding images.

Normally Archi saves "*.archimate" files as single plain text XML format files. However, when images are used the file format used is a binary archive file (zip format) that contains both the model's XML file and the image files. This is to keep all related files together.

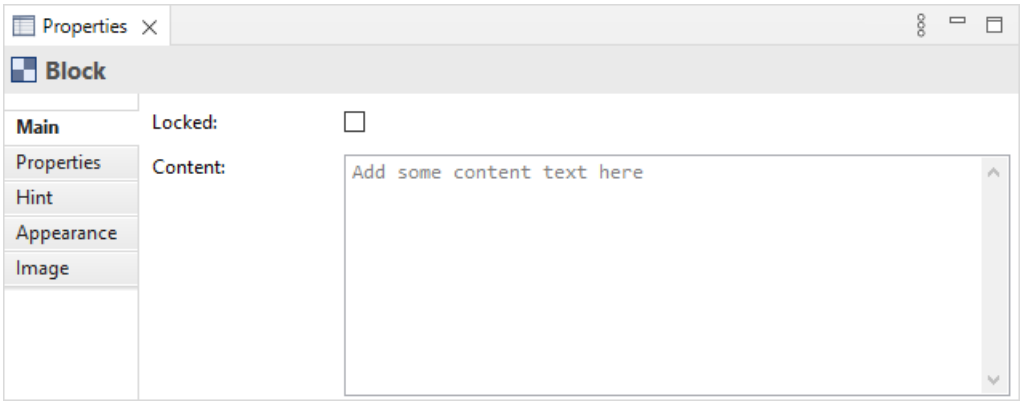
Canvas Block

A Block object is a container area that can contain text and an icon. You can also provide your own Help Hints. You can lock the Block if you want to make it read-only. A typical scenario is to create a number of container Blocks on the Canvas, arrange them into the desired framework, lock them, and then save the Canvas as a template.

Properties

Selecting a Block in a Canvas View means that you can edit or view the following properties in the Properties window.

The Main Tab



Main Properties for a Canvas Block

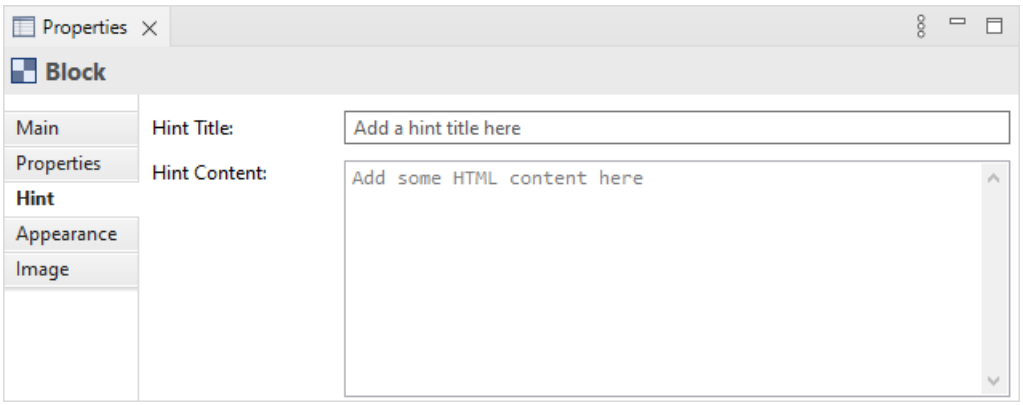
Locked: Selecting this ensures that the Block cannot be moved or edited.

Content: A space to enter some text content for the Block. The text will appear in the Block.

The Properties Tab

For more information about creating and managing User Properties see User Properties.

The Hint Tab

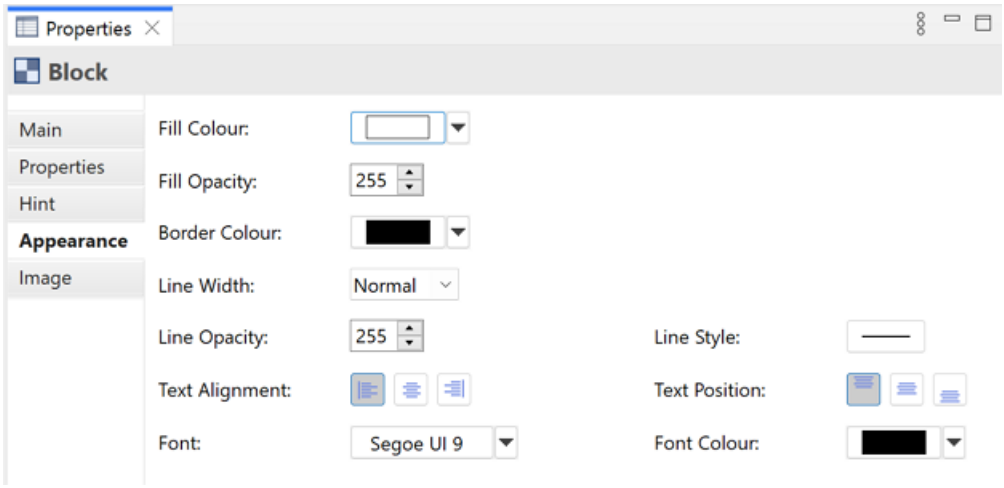


Hint Properties for a Canvas Block

Hint Title: The title of the Hint to be displayed in the Hints window when the Block is selected.

Hint Content:	A space to enter some text content for the Hint to be displayed in the Hints window when the Block is selected.. HTML tags are permitted.

The Appearance Tab



Appearance Properties for a Canvas Block

Fill colour:	Sets the fill colour. Click on the main part of the button to set the colour. The "Default" drop-down option sets the fill colour to the default setting.
Fill Opacity:	Set the fill opacity. Range from 0-255.
Border Colour:	Sets the colour of the border. Click on the main part of the button to set the colour. The "None" drop-down option removes the border from the object.
Line Width:	Sets the width of the line used to draw the object. Options are "Normal", "Medium" and "Heavy".
Line Opacity:	Set the line opacity. Range from 0-255.
Line Style:	Set the line style. Options are "Solid", "Dashed", "Dotted" and "None".
Text Alignment:	Align text to Left, Centred or Right.
Text Position:	Position text to Top, Middle or Bottom.
Font:	Sets the font. Click on the main part of the button to set the font. The "Default" drop-down option sets the font to the default setting as set in Preferences.
Font Colour:	Sets the colour of the font. Click on the main part of the button to set the colour. The "Default" drop-down option sets the font colour to its default.

The Image Tab

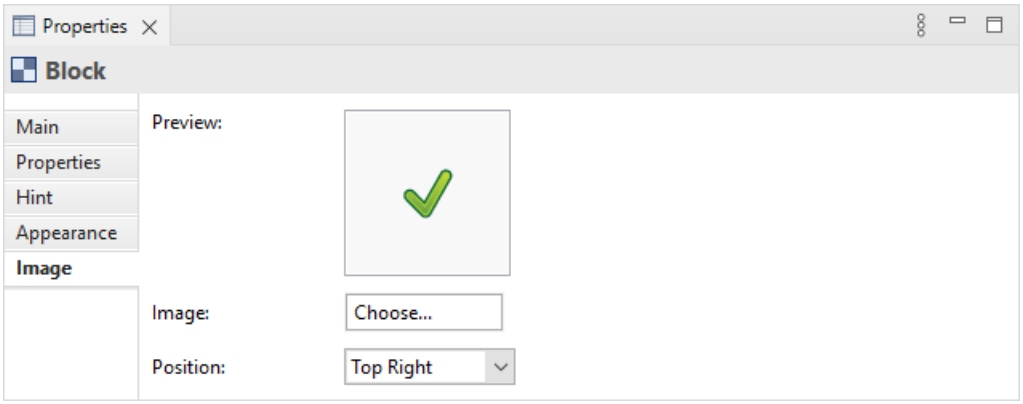


Image Properties for a Canvas Block

Preview:	A preview image that shows how the image will appear. Canvas Block images are resized to a maximum width and height of 100 pixels. Double-clicking the Preview box will launch the Image Chooser dialog window. You can also drag and drop an image file from the desktop onto the Preview box.
Image:	Select an image to use or clear the image. See "Adding Images to Objects" for more details.
Position:	Sets the position of the image relative to the object.

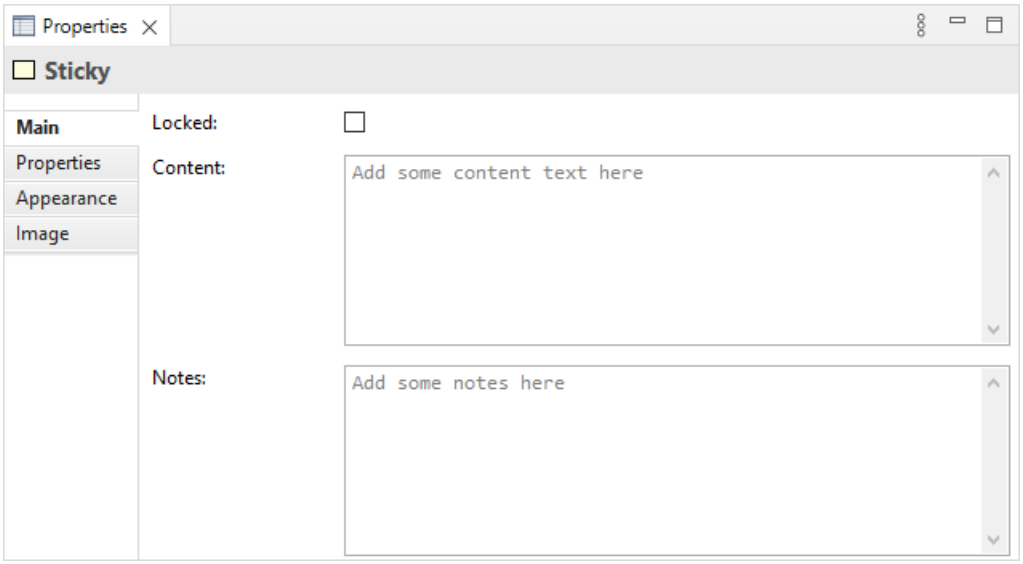
Canvas Sticky

A Sticky object can contain text and an icon. You can lock the Sticky if you want to make it read-only. There are a number of ready-coloured Stickies available in the Palette, but you can always change the colour in the Properties window.

Properties

Selecting a Sticky in a Canvas View means that you can edit or view the following properties in the Properties window.

The Main Tab



Main Properties for a Canvas Sticky

Locked: Selecting this ensures that the Sticky cannot be moved or edited.

Content: A space to enter some text content for the Sticky. The text will appear in the Sticky.

Notes: A space to enter some text notes for the Sticky. Any notes will appear in the tooltip for the Sticky.

The Properties Tab

For more information about creating and managing User Properties see User Properties.

The Appearance Tab



Appearance Properties for a Canvas Sticky

Fill Colour: Sets the fill colour. Click on the main part of the button to set the colour. The "Default" drop-down option sets the fill colour to the default setting.

Fill Opacity: Set the fill opacity. Range from 0-255.

Border Colour: Sets the colour of the border. Click on the main part of the button to set the colour. The "None" drop-down option removes the border from the object.

Line Opacity: Set the line opacity. Range from 0-255.

Text Alignment: Align text to Left, Centred or Right.

Text Position: Position text to Top, Middle or Bottom.

Font: Sets the font. Click on the main part of the button to set the font. The "Default" drop-down option sets the font to the default setting as set in Preferences.

Font Colour: Sets the colour of the font. Click on the main part of the button to set the colour. The "Default" drop-down option sets the font colour to its default.

The Image Tab

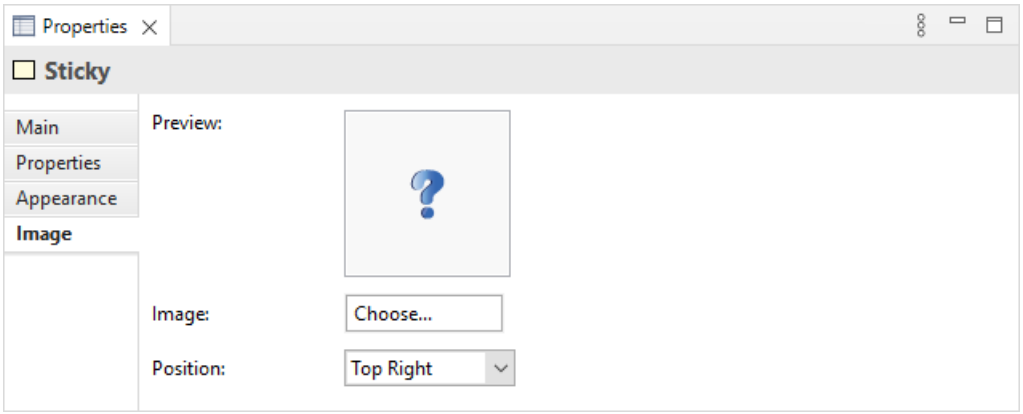


Image Properties for a Canvas Sticky

Preview: A preview image that shows how the image will appear. Canvas Sticky images are resized to a maximum width and height of 100 pixels. Double-clicking the Preview box will launch the Image Chooser dialog window. You can also drag and drop an image file from the desktop onto the Preview box.

Image: Select an image to use or clear the image. See "Adding Images to Objects" for more details.

Position: Sets the position of the image relative to the object.

Canvas Image

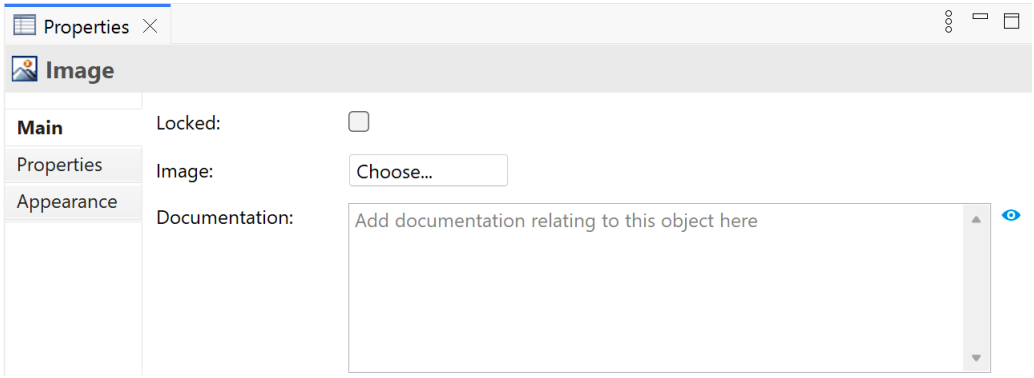
An Image object is a place-holder for an image. You can lock the Image object if you want to make it read-only. Images can be any size but we suggest that you keep them reasonably small so as not to consume too many resources.

> When resizing an image with the mouse you can hold the Shift key at the same time in order to maintain its aspect ratio. Alternatively, you can select the image object and select the "View->Position->Reset Aspect Ratio" menu item (also available on the toolbar).

Properties

Selecting an Image in a Canvas View means that you can edit or view the following properties in the Properties window.

The Main Tab



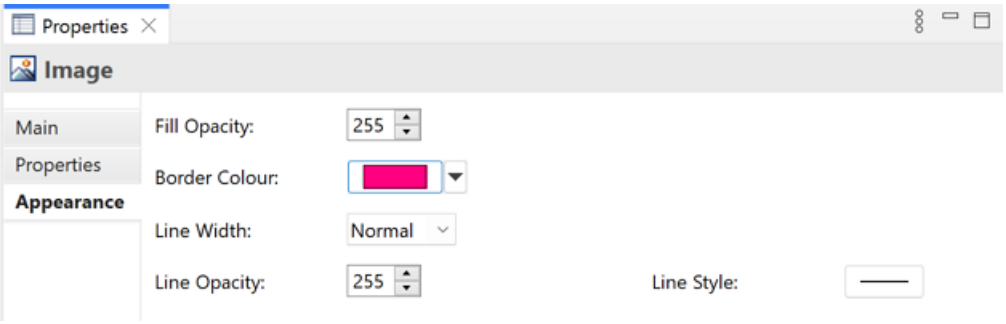
Main Properties for a Canvas Image

Locked:	Selecting this ensures that the Image cannot be moved or edited.
Image:	Select an image to use or clear the image. See "Adding Images to Objects" for more details.
Documentation:	A space to enter some documentation relating to this Image. If Markdown is used it can be previewed by selecting the "View" toolbar button to the right of the documentation field. See Using Markdown in Text Fields for more details.

The Properties Tab

For more information about creating and managing User Properties see User Properties.

The Appearance Tab



Appearance Properties for a Canvas Image

Fill Opacity:	Set the fill opacity. Range from 0-255.
Border Colour:	Sets the colour of the border. Click on the main part of the button to set the colour. The "None" drop-down option removes the border from the object.
Line Width:	Sets the width of the line used to draw the object. Options are "Normal", "Medium" and "Heavy".
Line Opacity:	Set the line opacity. Range from 0-255.
Line Style:	Set the line style. Options are "Solid", "Dashed", "Dotted" and "None".

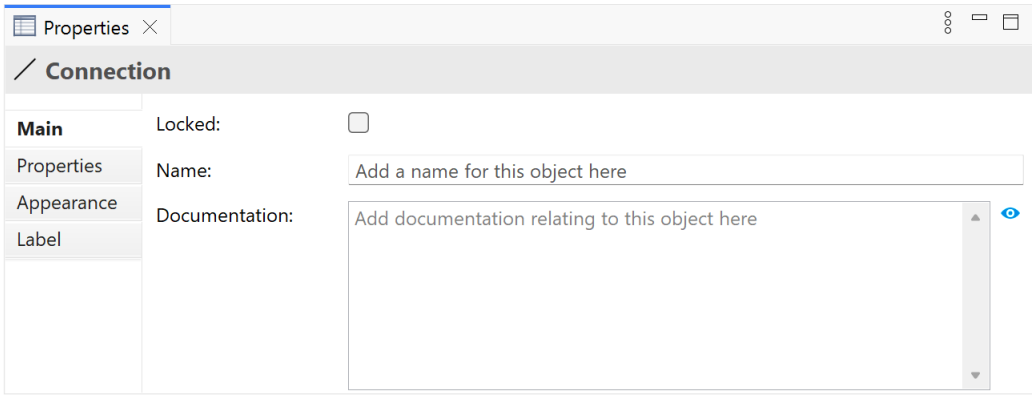
Canvas Connection

A Canvas Connection is a line that you can draw from one Canvas object to another. You can lock the connection if you want to make it read-only.

Properties

Selecting a Connection in a Canvas View means that you can edit or view the following properties in the Properties window.

The Main Tab



Main Properties for a Canvas Connection

Locked: Selecting this ensures that the Connection cannot be moved or edited.

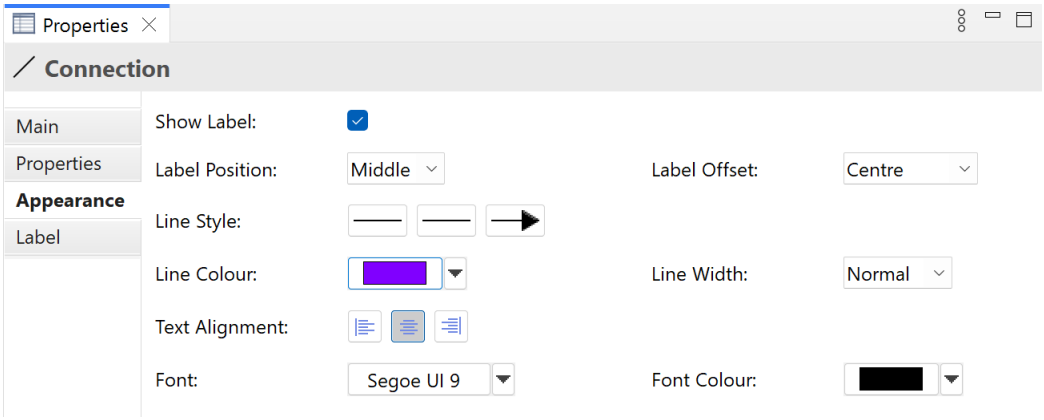
Name: The name of the Connection. If present this will appear next to the Connection on the View.

Documentation: A space to enter some documentation relating to this Connection. If Markdown is used it can be previewed by selecting the "View" toolbar button to the right of the documentation field. See Using Markdown in Text Fields for more details.

The Properties Tab

For more information about creating and managing User Properties see User Properties.

The Appearance Tab



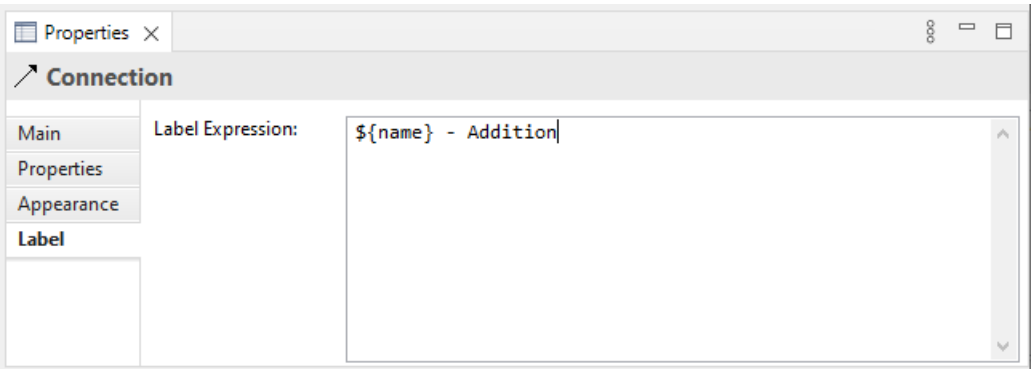
Appearance Properties for a Canvas Connection

Show Label: If selected will show the label if the connection's text is set.

Label Sets the position of the connection's label. Options are "Source", "Middle" and

Position:	"Target".
Label Offset:	Sets the relative position of the connection's label if its position is "Middle". Options are "Centre", "North", "South", "East", "West", "North East", "North West", "South East", and "South West".
Line Style:	Sets the connection line's source and target head types and main line style.
Line Colour:	Sets the colour of the connection. Click on the main part of the button to set the colour. The "Default" drop-down option sets the line colour to the default setting as set in Preferences.
Line Width:	Sets the width of the connection line. Options are "Normal", "Medium" and "Heavy".
Text Alignment:	Align text to Left, Centred or Right.
Font:	Sets the font. Click on the main part of the button to set the font. The "Default" drop-down option sets the font to the default setting as set in Preferences.
Font Colour:	Sets the colour of the font. Click on the main part of the button to set the colour. The "Default" drop-down option sets the font colour to its default.

The Label Tab



Adding a Label Expression to display in the View

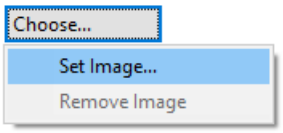
By default, a connection's name will be displayed in any View in which it appears. Using a label expression per View instance, you can choose what is displayed for the connection in the View. For example you may wish to display the connection's name and its type. Or you may wish to display the value of one or more of its properties.

For a full list of expression types please refer to the Archi Wiki.

Adding Images to Objects

ArchiMate objects, Notes, Groups, Canvas Blocks, Image objects and Stickies can contain images. The images in Blocks and Stickies are resized to a maximum width and height of 100 pixels when the image position is not set to "Fill". Images can be any size but we suggest that you keep them reasonably small so as not to consume too much memory.

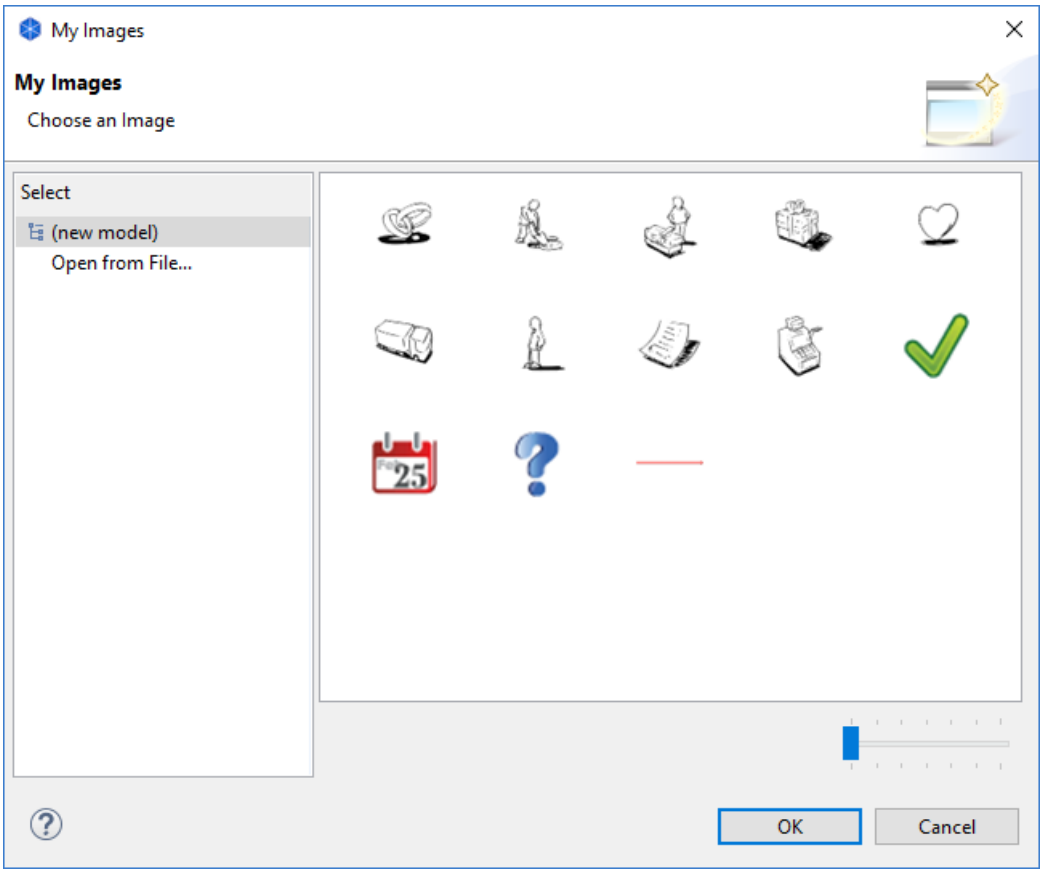
To add an image to one of these objects, open the Properties window and select the object. Double-clicking the object will also open the Properties window. Find the Image tab in the Properties window and select the Image Chooser with the "Image Choose..." button:



Selecting the Image Chooser from the Properties window

Note - In order to set an image for an ArchiMate object you must first ensure that "Custom " is selected in the Image source dropdown.

This will open the "My Images" Image Chooser dialog window:



The Image Chooser dialog window

All images that are contained in any loaded models are displayed in the Chooser so that you can re-use them. If you want to open an image file from your computer select the "Open from File..." option.



In Canvas Views, you can drag and drop Image files from the desktop to the Canvas.

Supported image formats

Supported image formats are PNG, JPG, JPEG, GIF, TIF, TIFF, BMP, ICO and SVG.

SVG Support

Note that SVG image support is available only in Archi 5.10.0 and later versions, and it is not backward compatible with earlier versions of Archi. If you are using SVG images in a model ensure that all users who share the model are using Archi 5.10.0 or later.

Opening a model from a coArchi or coArchi2 repository that contains SVG images in an earlier version of Archi, and then re-saving it, can result in the loss of those SVG images from the model.

Additionally, when exporting a View (diagram) as an SVG image, any figures that incorporate SVG images will be rendered as raster images. This can result in poor quality when figures containing SVG images are resized larger than their native size (scaled up).

For the best results, use SVG images with a large native width and height, and ensure that figures display them at their original size, or, if resizing is necessary, scale them down rather than up.

Removing an image from an object

To remove an image from an object select the "Remove Image" option from the Image Chooser.



Archi uses a different file format for "*.archimate" files when adding images.

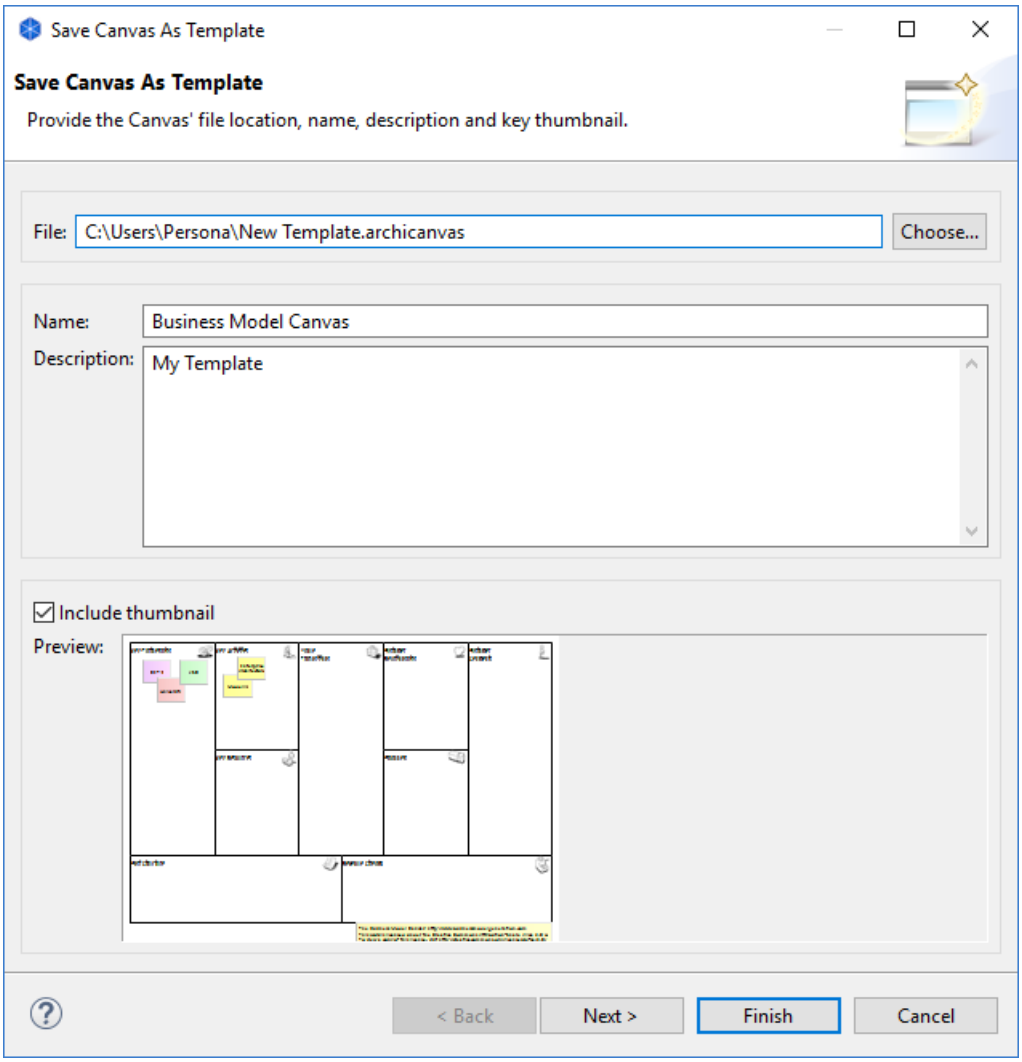
Normally Archi saves "*.archimate" files as single plain text XML format files. However, when images are used the file format used is a binary archive file (zip format) that contains both the model's XML file and the image files. This is to keep all related files together.

Saving a Canvas as a Template

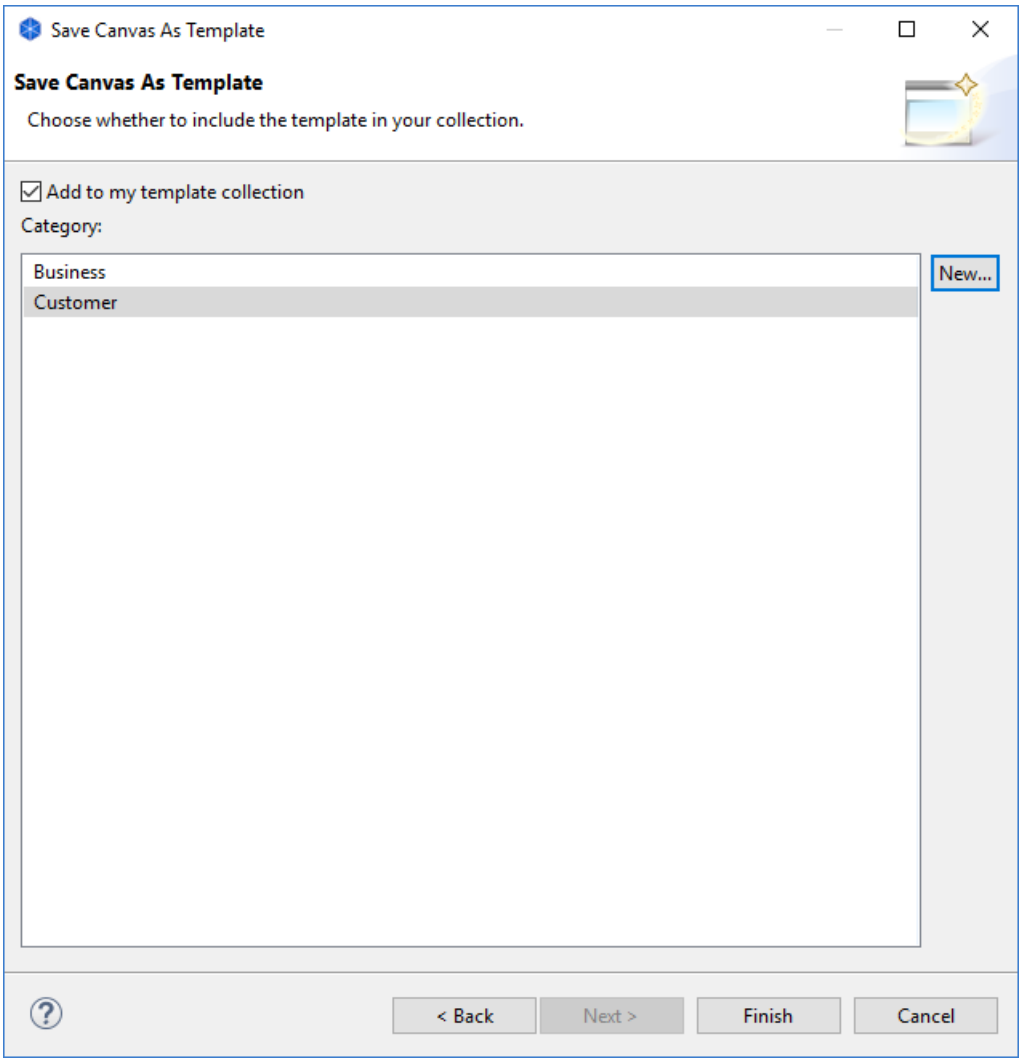
To Save an existing Canvas as a template follow these steps:

1. Create a new Canvas or open an existing model containing a Canvas.

2. Select the Canvas in the Model Tree, right-click on it and choose "Save Canvas as Template...". A wizard will open:



3. In the wizard, provide a file name for the location for the template file, a name for the template (this is different than the name of the model) and a description.
4. Select whether you want to include a thumbnail image of the Canvas in the template.
5. Click "Next" to move on to the next page of the wizard:



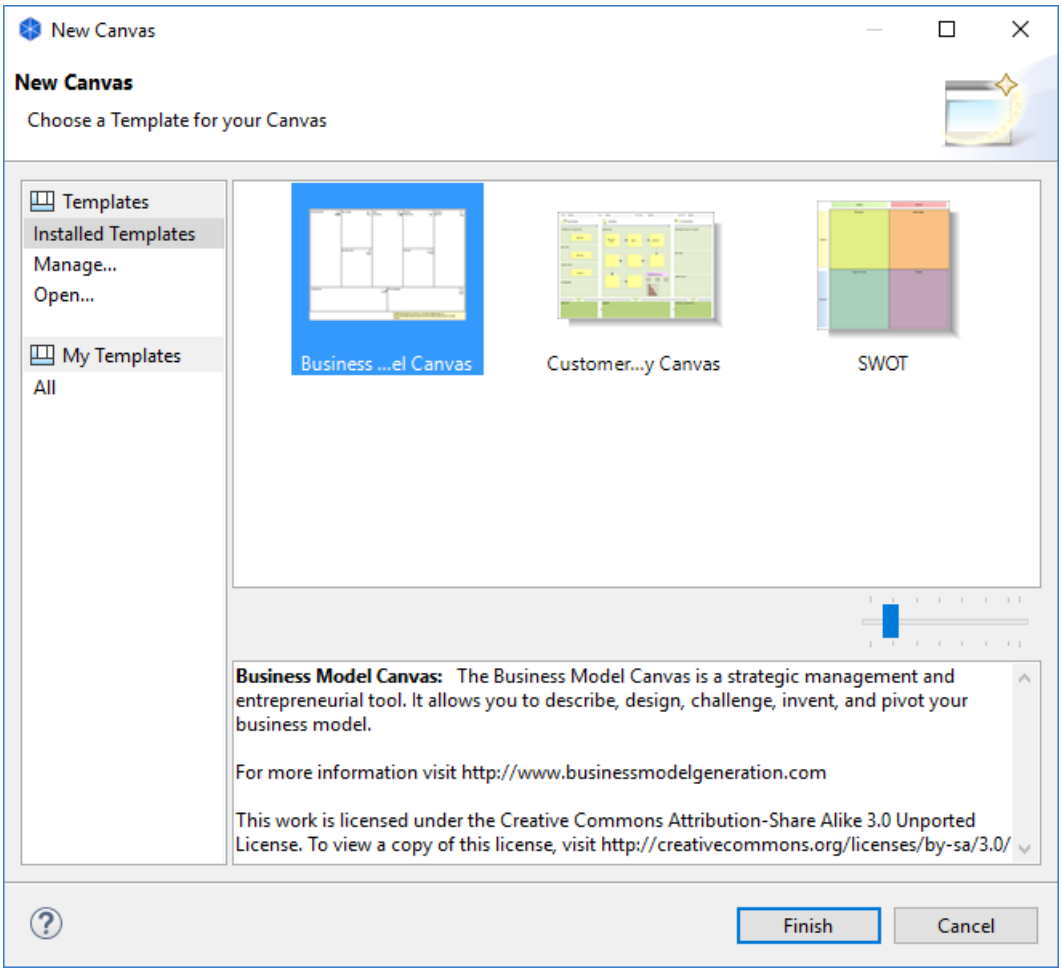
6. Choose whether you wish to add the template to your collection. Your collection of templates is a list sorted into categories that will be displayed in the "New Canvas from Template" wizard. If there are no categories available to choose from you can create a new category by clicking on the "New..." button in the wizard.
7. Press "Finish".

The template will be saved on your file system with an "*.archicanvas" extension. You can share this template with other Archi users if you like.

Creating a New Canvas from a Template

To create a new Canvas based on an existing template follow these steps:

1. Select the "Views" folder for the chosen Model in the Model Tree, right-click on it and select "New->Canvas from Template..." A wizard will open:

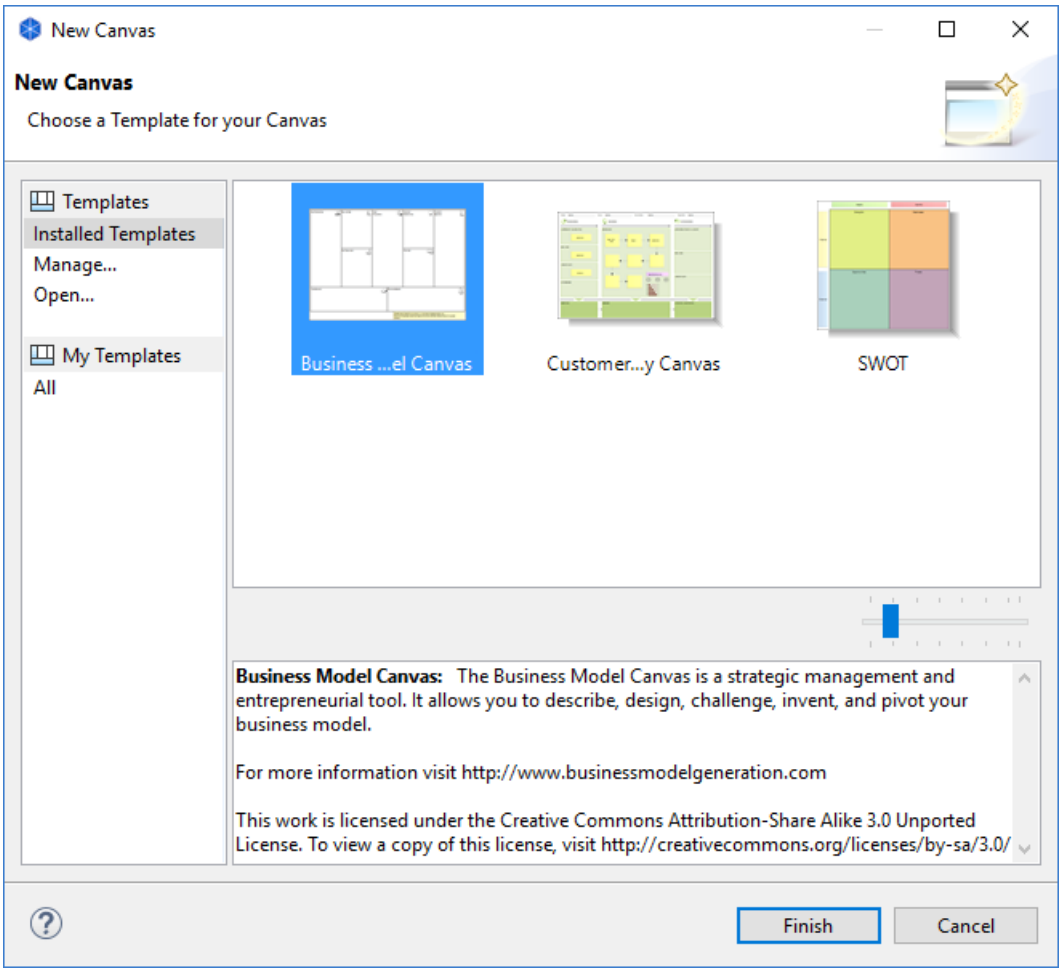


2. Choose the desired template. Some are provided in the "Installed Templates" section while user-created templates are listed in their categories in the "My Templates" section (see "Saving a Canvas as a Template"). The selected template's name and description are displayed in the Gallery's preview window.
3. You can resize the thumbnail images in the Gallery by using the resize slider control.
4. If you wish to open a template from file that is not shown in the wizard select the "Open..." item. A file dialog will allow you to choose a "*.archicanvas" template file.
5. Press Finish. A new Canvas is created and added to the "Views" folder in the Model Tree where you can edit the default name. The View itself will be open ready for you to edit.

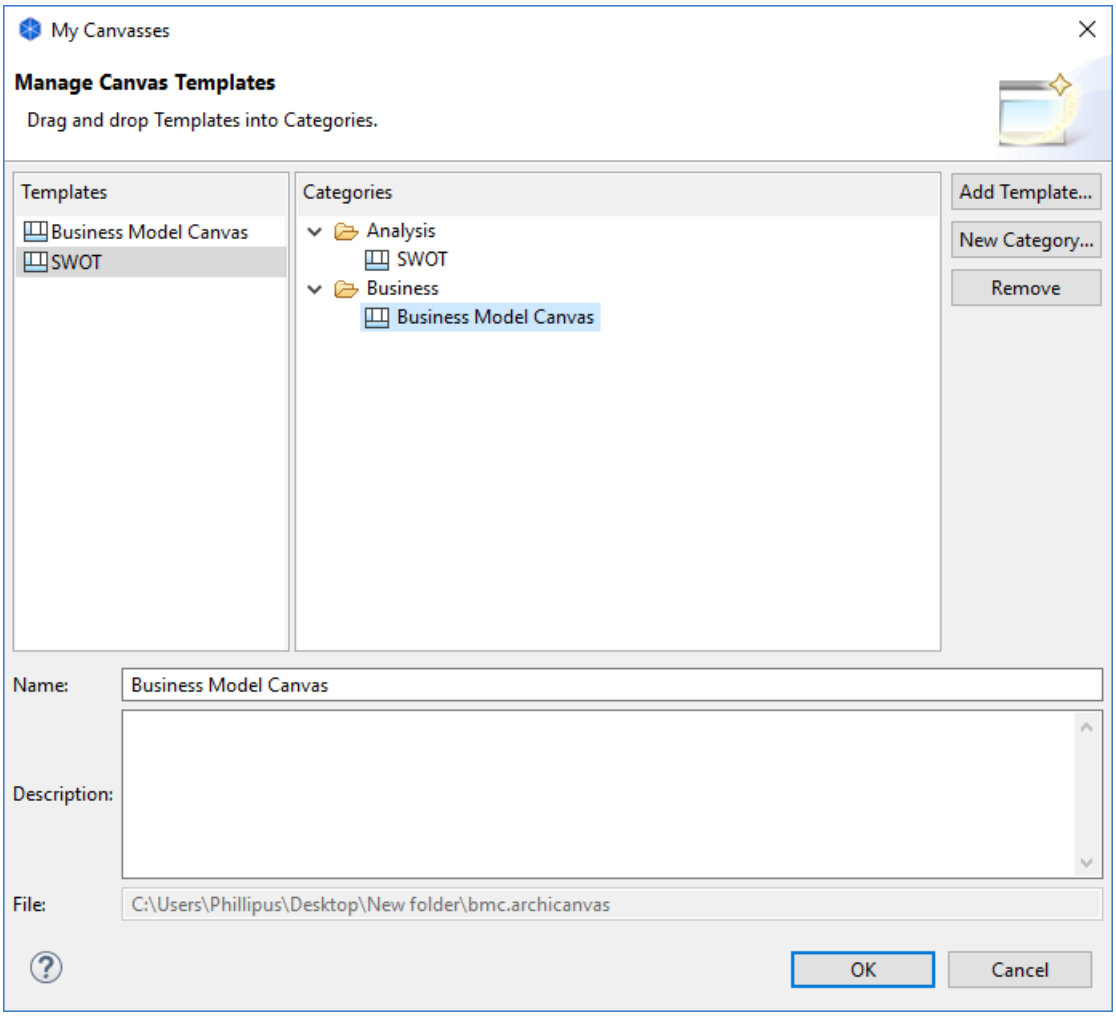
Managing your Canvas Templates

You store Canvas templates on your file system as "*.archicanvas" files. These can be stored anywhere on your local filing system. Archi allows you to create user collections that point to these templates. These are shortcuts to the actual templates. To manage your collection of templates follow these steps:

1. Select the "Views" folder for the chosen Model in the Model Tree, right-click on it and select "New->Canvas from Template..." A wizard will open:



2. Select "Manage..." from the "Templates" section on the left of the wizard. A dialog window will open:



3. This dialog allows you to add, rename and remove new template categories, and also to add templates from file to your collection. You can also edit and change the name and description of each template.
4. To add a template from file, click on the "Add Template..." button. Choose the "*.archicanvas" file from the file dialog that appears.
5. To add a new template category, click on the "New Category..." button. Provide a name for the category.
6. To add templates to a category, drag and drop a template entry from the "Templates" table to a category folder in the "Categories" tree. Note that a template can appear in more than one category folder.

Preferences

The Preferences for Archi are available from the "Preferences" menu item. Preferences are as follows.

Appearance, Colours, and Fonts Preferences

Appearance

Enable Theming
If selected, themes are enabled or disabled. A restart will be required for this change to take effect.

Theme
Choose the theme to use for Archi. A restart will be required for this change to fully take effect.

If the theme is set to "Automatically select Light/Dark" the theme will be set according to the current operating system theme of light or dark when starting Archi. Some system dark themes are not supported and so this setting might not work. If this is the case, select another theme to suit the host system theme.

Show a circle in tabs to indicate unsaved changes
If selected a circle is shown on diagram tabs to indicate unsaved changes rather than an asterisk.

Show Status Bar
Show or hide the status bar. A restart will be required for this change to take effect.

Use larger (Mac native) row heights
When this is selected, all table and tree row heights are larger to match the UI in macOS 11 and later. A restart will be required for this change to take effect.

Colours

Choose the default colours to use for elements, connections, folders and some theme colours.

Element and connection colours will be displayed when a fill or line colour is set to "Default" in the Properties window for a diagram element or connection. The default colours can be set differently for each installation of Archi so, for example, one user can have a completely different set of default fill colours than another user. The colours will not be saved in the .archimate model file unless the option to "Save the default fill colour for a new concept in the .archimate file" is ticked.

Folder colours are local to the application and are not saved in the model.

Theme colours for backgrounds can be set for each theme as set in the Appearance preference. These are for the application and are not saved in the model.

Colours that have been set by the user are shown with an asterisk after the label. Right-click on the tree to select "Expand All" or "Collapse All".

Derive element line colours from fill colours
If this is checked a newly created diagram object's line colour is derived from its fill colour. The setting for each object can be changed in the object's properties tab.

Save the default fill colour for elements in the model file
If this is checked an element's default colour is saved in the model file and will then be "fixed" in the file. This ensures that if the file is shared with another user they will see these colours.

Edit
Edit the selected colour(s).

Reset
Reset the selected colour(s) to default value.

Import Scheme
Import a colour scheme that has previously been exported.

Export Scheme
Export a colour scheme to share with other users.

Fonts

Scale fonts for diagram objects and connections on Mac
This option is only available on Mac. When this is selected, fonts used in diagram (View) objects and connections are adjusted to match the native DPI (dots per inch) on Mac. This ensures fonts appear to be the same size when sharing a model between Mac, Windows and Linux.

For example, you might work on an Archi model on Windows and set the font height for an object to 10. However, when opening the model on Mac the font will appear too small because Mac uses 72 DPI while Windows uses 96 DPI. Conversely, you might set the font height on Mac but it appears too big on Windows. This setting adjusts for this difference so that font heights appear the same on all platforms.

Note - If the current default font is the in-built default font, selecting this option automatically switches the font from "Lucida Grande 12" to "Lucida Grande 9" and vice-versa to compensate for the new scaling.

Set fonts for these items
Set the default font for elements and connections in diagrams (Views) and fonts for various user interface controls. Clicking the "Default" button sets the default font for the selected items. The "Edit" button will allow you to set the font for the selected items.

Canvas Modelling Toolkit Preferences

General

Enable Canvas Modelling Toolkit

If this is unchecked, the Canvas Modelling Toolkit menu items will not be present in the Model Tree.

Connections Preferences

Connections

Magic Connector

Show Elements first (Use the Ctrl/Command key to swap)
When clicking from the Magic Connector onto the empty View canvas show Elements first then Connections in the popup menus. Holding the Ctrl / Command key at the same time will reverse this.

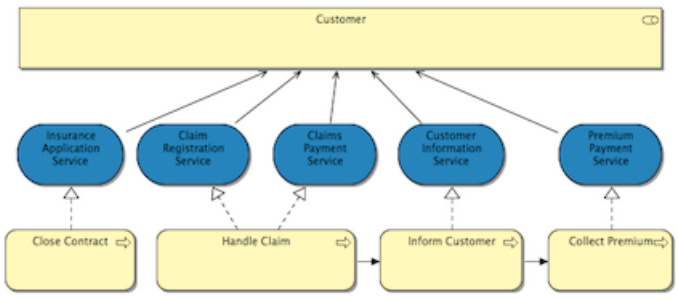
Show Connections first (Use the Ctrl/Command key to swap)
When clicking from the Magic Connector onto the empty View canvas show Connections first then Elements in the popup menus. Holding the Ctrl/Command key at the same time will reverse this.

Drawing

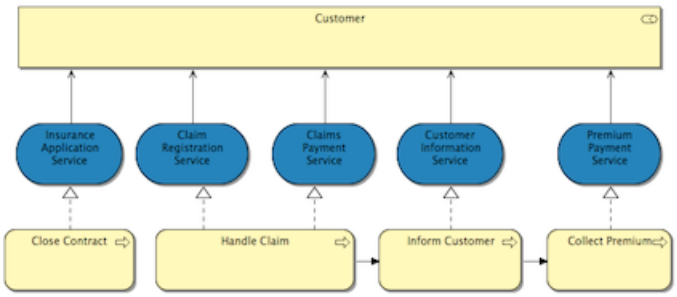
Use anti-aliasing on connections
On Windows and Linux operating systems ensures that connections are drawn more smoothly.

Use orthogonal connection anchors
If this is ticked then a new method to calculate the anchor point for a connection is used (the position where a connection connects to a figure). By default (option not ticked), the anchor point is computed as the intersection of the figure's border and the connection targeting the figure's centre. With this option, the anchor point is computed to make the connection either a vertical or horizontal line (if this not possible, it connects to one of the figure's corners). It is possible to move this anchor point just by moving the figure or by creating a bend point in the connection and moving that.

For example if not ticked (default) the connections appear as follows:



If ticked the connections appear as follows:



Use line curves
If this is enabled, connections are shown with curves at bend points.

Use line jumps for intersecting connections
If this is enabled, a jump curve is shown when one connection crosses another.

Highlight selected connection
If this is enabled, the selected connection is highlighted to make it easier to see.

Label background
Sets the strategy for drawing connection label backgrounds. This can be one of "Transparent", "Opaque" or "Clipped".

General

Show a warning message when a re-connection affects other Views
When making a re-connection between ArchiMate elements in a View those elements and connection may be present in one or more other Views. The re-connection will affect those Views and this warning alerts the user to this and the action can be undone.

ARM

Automatic Relationship Management

For more information see Container Elements and Nested Element Relationships.

Enable implicit connections in Views for nested elements
If this is enabled then nested parent/child elements are considered to have an implicit connection in a View representing a relationship between the elements in the model.

Offer to create new relation when creating new element from Palette
If this is enabled then when a new element is added from the Palette onto a parent element in the View a dialog appears offering to create a new relationship between the parent and child elements.

Offer to create new relation when adding element from Model Tree
If this is enabled then when a new element is added from the Model Tree onto a parent element in the View a dialog appears offering to create a new relationship between the parent and child elements if one does not already exist.

Offer to create new relation when moving an element to a new parent element
If this is enabled then when an element in a View is dragged onto a parent element in the View a dialog appears offering to create a new relationship between the parent and child elements if one does not already exist.

Relation types offered when creating new relations
Select the types of relationship that will be offered when new implicit connections are created between parent and child elements in a View.

Reverse relation types offered when creating new relations
Select the types of relationship that will be offered when new implicit connections are created between child and parent elements in a View. These are "reversed" nestings.

Relation types to hide when elements are nested
Select the types of relationship connection that will be hidden in a View when there are nested parent and child elements. Non-ArchiMate connections are hidden by default when a connected object is nested.

Diagram Preferences

View

Grid Size
Sets the grid spacing used in diagram Views.

Margin Width
Sets the margin border width in diagram Views. Increase this value if more space is required at the edges of diagram Views. For example, if scroll bars are obscuring the edges of objects.

Palette is open when opening Views
If enabled the palette in a View will be open when the View is opened.

Show tooltips in Views
If enabled tooltips in Views will be shown.

Edit name after creating new object from Palette
If enabled when a new element is added from the Palette you can immediately edit its name.

Show Specializations in Palette
If enabled specialized concepts will be shown in the Palette. New specialized concepts can be created like any other concept from the Palette.

Viewpoints

Grey out disallowed concepts in the Model Tree
When this option is set any concepts that are disallowed in a Viewpoint are greyed out. For more information see Viewpoints.

Hide disallowed concepts from the Palette
When this option is set any concepts that are disallowed in a Viewpoint are not shown in the Palette. For more information see Viewpoints.

Hide disallowed concepts from the Magic Connector
When this option is set any concepts that are disallowed in a Viewpoint are not shown in the Magic Connector. For more information see Viewpoints.

Ghost disallowed concepts in a View
When this option is set disallowed concepts in a Viewpoint are "ghosted" out. For more information see Viewpoints.

Paste Special behaviour

Always paste a reference to copied element
When this option is set copied elements in a diagram always reference the original elements.

Always paste a duplicate of copied element
When this option is set copied elements in a diagram are always duplicates of the original elements.

For more information see Copying, Pasting, Selecting and Deleting Elements.

Resize behaviour

Child object positions are fixed (default)
When this option is set child objects maintain their absolute position when the parent object's top/left is resized. Resizing at the top or left will create new space in the parent object.

Child object positions are relative to parent
When this option is set child objects maintain their relative position to the parent object when the parent object's top/left is resized. Resizing at the top or left will not create new space in the parent object.

Appearance

Global

These are global settings for the application.

Word wrap style
Set the default word wrap style for ArchiMate figures.

Hard - wrapping will only occur at valid line breaks.
Soft - wrapping will always occur at the end of the available space, breaking in the middle of a word.
Truncated - wrapping will always occur at the end of available space, truncating a word if it doesn't fit.

Defaults for new ArchiMate figures

These are the defaults to use when creating a *new* ArchiMate figure. You can change these settings individually thereafter.

Width
Set the default width for new ArchiMate figures.

Height
Set the default height for new ArchiMate figures.

Text Alignment
Set the default text alignment for new ArchiMate figures.

Text Position
Set the default text position for new ArchiMate figures.

Default Gradient
Set the default gradient for new diagram elements. **Note - gradients will not show when a diagram is exported in SVG image format.**

Sketch View

Default Background
Set the default background for newly created Sketch Views.

Default Figures

Alternate default figures are provided for ArchiMate figures in Views. Click on a figure to set the default to be used when adding a new element to a View.

Legend

Defaults for new legends

These are the defaults to use when creating a *new* Legend. You can change these settings individually thereafter.

Sort
The sort method to use for a new legend. Options are "Name" to sort by concept name (grouped into Elements and Relations) and "Category" to sort by concept type (Strategy, Business, Application, etc) and then by name.

Colour Scheme
The colour scheme to use for a new legend's icons. Options are "None" for no colours, "Core" for the in-built ArchiMate colours, and "User" for the user fill colours defined in Preferences. Note that the user colours are stored in your local preferences and not saved in the model itself.

Rows per column
How many rows are displayed per column for a new legend.

Labels

Set custom labels for each ArchiMate concept that is displayed in a legend. Add a custom label in the table or clear it to set it to its default. Note that these custom labels are stored in your local preferences and not saved in the model itself.

General Preferences

Files

Automatically open Views in a Model when opening from file
When opening a Model from a file, choose whether to automatically open all the Views in the model. There is a maximum limit of 100 Views to ensure that opening the model is not too slow.

Automatically create a backup file (*.bak) when saving
If this is selected, whenever an .archimate file is saved, a backup copy with file extension .bak will be created first.

Size of recently opened file list
Set the cached sized of the recently opened file list in the "File->Open Recent" menu. Can be set from 3 - 15.

Model Tree

Display unused concepts in italics
When this is selected, any elements or relations that are not used in Views are displayed in an Italic font.

Update search result as you type
When this is selected, search results in the Model Tree are updated as you type (default). If not selected the search result will update when the Return key is pressed.

Always warn when deleting objects
When this is selected a warning is always displayed when objects are deleted in the Model Tree. If unselected, a warning is only displayed when deleting objects if the objects are used in Views.

Show Specializations in "New" menu
When this is selected any specialized elements in the current model will be shown in the "New" right-click menu of the Model Tree.

Show Specialization icons in Model Tree
When this is selected custom icons of specialized elements will be shown in the Model Tree.

Alphanumeric sorting
When this is selected the Model Tree will sort names with numbers like "1, 2, 3, 10" instead of "1, 10, 2, 3".

Initial number of child elements displayed
Set the initial number of child elements that are displayed in the Model Tree. If the number of elements exceeds the given limit, you need to click on the "Show next n items from remaining n" node to show more elements. This can improve performance if a folder contains many thousands of child elements. A reasonable limit might be 1000. Set to 0 for no limit (the default).

Label Expressions

Use for View names in Analysis table

When this is selected, the "Used in Views" in the "Analysis "section uses a label determined by an ancestor folder's label expression (if set).

Other

Add a note to a Relation's documentation field when changing type

When this is selected, if a connected relation type is changed to Association as a result of changing an Element's type, a note will be added to the Relation's documentation field.

Export images at native display scale

When this is selected, images are exported and copied to the clipboard at the native display scaling. This is on by default for Windows and Mac and off for Linux. This ensures that the exported image quality is better at higher display scales. If this option is not selected images are exported at 100% scaling. This setting is usually not needed on Linux displays.

If the resulting image needs to be at its logical size you could edit it in an image editor and set the DPI to double its value. For example, on Mac change the DPI from to 72 to 144.

Upscale exported images (Windows only)

When this is selected, images are exported using a scaling method that ensures that text height is calculated correctly in images. Note that the resulting image uses anti-aliasing and is slower to create. If this option is not selected, images are crisper but text height may be calculated incorrectly and spacing between lines of text will be increased.

Internal Web Browser

Use MS Edge (Windows only)

When this is selected, the internal browser used by Archi for the Help system, Hints panel and Report Preview is Microsoft's Edge. For Edge support on some earlier versions of Windows the WebView2 Runtime distribution may need to be installed first. This is the "Evergreen Standalone Installer" for x64. More information and the download is available here. Archi will need to be restarted if this setting is changed.

Clear Cache (Windows only)

This will clear the cache used by the internal Edge browser. Note that all instances of the internal browser must first be closed (Hints, Report Preview, Help, etc).

Enable JavaScript in Hints
When this is selected, JavaScript is enabled in the internal web browser used for the Hints window.

Allow External Hosts in Hints
When this is selected, non-local web locations are allowed in the internal web browser used for the Hints window.

Animation

Animate Views
Sets whether animation is used in diagram Views for some Undo/Redo commands and when changing the View's Connection Router.

Speed (mS)
Sets the animation speed for animating in Views in milliseconds.

Animate Visualiser
Sets whether animation is used in the Visualiser when laid out for the first time and when the "Layout" button is clicked.

Speed (mS)
Sets the animation speed for animating in the Visualiser in milliseconds.

Jasper Reports Preferences

Settings

User Templates Folder

Set the root location of where customised user Jasper Reports templates are stored. Each template should be in its own sub-folder. When exporting a model to Jasper Reports the name of the folder will be displayed in the export wizard. For more information see Reporting.

System Preferences

Sets various preferences depending on Operating System platform.

Help

Sets various preferences for displaying Help contents.

Keys

Set key bindings for commands and actions. See here for more information.

Note that some key binding commands are not relevant to Archi and are present because of the underlying Eclipse framework. Examples of these are "Add Bookmark", "Close Perspective", "Content Assist" and several others. Should you accidentally invoke a command and Archi does not display or behave as expected, you can reset by selecting "Help -> Reset Archi to Defaults... -> Reset User Interface".

Network Connections

Settings for network proxy connections.

Secure Storage

This preference page is used to manage storage of encrypted information such as passwords. See here for more information.

Web Browser

Settings for which browser to use when displaying web content.

Validator Preferences

Rules to check

Each validation rule can be enabled or disabled.

Managing Plug-ins

You can install and uninstall Archi plug-ins with the Archi Plug-ins Manager or manually.

Using the Plug-ins Manager

To install or uninstall an Archi plug-in, select "Manage Plug-ins..." from the Help menu.

The Archi Plug-ins Manager dialog will show. From here you can view installed plug-ins and their details.

Installing

To install an Archi plug-in using this method you need to have the plug-in in Archi plug-in format. This is an archive file (*.archiplugin or *.zip file extension) containing one or more jar files and a marker file. Examples of this type of Archi plug-in are the Collaboration and jArchi Scripting plug-ins. If the plug-in is a jar file you will need to install it manually (see below).

To install a new plug-in, click the "Install..." button. Select the plug-in file or files that you wish to install. You can select and install more than one plug-in if you wish. You will be prompted to restart Archi.

Uninstalling

Installed plug-ins will be displayed in the table view in the dialog. If you wish to install one or more plug-ins, select them and click the "Uninstall" button. You will be prompted to restart Archi.

Manual installation

If the plug-in is in *.jar file format you can simply copy the *.jar file(s) to Archi's special "dropins" directory. (Ensure you quit Archi first before doing this.)

The "dropins" directory is located in the following places:

Windows: user.home/AppData/Roaming/Archi/dropins

Mac: user.home/Library/Application Support/Archi/dropins

Linux: user.home/.archi/dropins

("user.home" denotes your home directory.)

If the "dropins" directory does not exist, you will need to create it first.