



# Enterprise Architect

User Guide Series

# The Specification Manager

How to define model elements simply? In Sparx Systems Enterprise Architect, use the document-based Specification Manager to create elements in a Package or diagram as simple text descriptions that indicate, as icons, the status of the element features.

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# The Specification Manager

In developing a model, you can use a wide range of Enterprise Architect tools to create the model specification. For the preliminary specification, such as defining Requirements, you can adopt one of two general methods:

- Diagram-based, creating UML-defined element icons in, for example, Requirements diagrams, and building the model graphically, or
- Text-based, creating elements as simple text descriptions, sketching out the elements, relationships and properties in a broad definition that you - or team members with more specific roles - can refine and develop into a more complete model

Your 'sketch pad' for the second approach is the Specification Manager.

The Specification Manager is a simple document-based interface to a selected Package or diagram in the model, providing the means of creating and reviewing elements as text representations of objects in the model, using a process that is familiar to all users including business professionals and management, who might not have expertise in model development.

## Facilities

The Specification Manager is also an interactive reporting tool for displaying, in icon form, the status of various other features against each entry and providing access to edit each

feature.

In the Specification Manager you can:

- Work on the element entries as paragraph text in the same way as you would edit a document using a word processor; this includes copying or dragging text from an external file into the Specification Manager, and importing data from an external spreadsheet (.csv) file
- Switch easily from element to element in a displayed Package, with a single mouse-click
- Show and edit in-place the current status of a number of properties of each entry
- Directly interface to a range of Enterprise Architect tools that you can quickly invoke to display, edit and discuss the properties of the selected Package or element; these tools span the range of Project Management and Model Management facilities, including:
  - Traceability (Traceability window and Relationship Matrix)
  - Change Management (Baselines and Auditing)
  - Maintenance
  - Testing
  - Risk Management
  - Documentation (document format, web format, and spreadsheet format)
  - Metrics
  - Review and Discussion (Model Library, Discussions, Formal Reviews and Model Mail)

Once any tool window is open, the details reflect the currently-selected element in the Specification Manager, so

you can quickly run through the properties of a number of elements just by selecting them in sequence in the list.

The Specification Manager makes it very easy to develop a simple, visual description of your model for initial specification, ongoing development and program management, with immediate access to a range of types of detailed information on any selected element, should you need this detail.

# Specification Manager - Overview

The Specification Manager is a document-based interface to a selected Package in the model, providing the means of creating and reviewing elements as text representations of model objects in that Package. You can rapidly define or edit properties of the elements in the Specification Manager window itself, and also immediately open a range of windows and dialogs to add or review further properties and characteristics specific to each element. A key feature of the Specification Manager is the speed and ease with which you can create, filter and review a large number of elements from one point, and develop or examine complex detail on each element *or not*, as you require.

You also have the facility to switch the display of the contents of a diagram to the Specification Manager view, either completely or as an inline display panel beside the graphical view of the diagram.

## Access

Ribbon	Design > Package > Specification View
Context Menu	Right-click on Package   Specification Manager
Keyboard	Ctrl+0

## Shortcuts

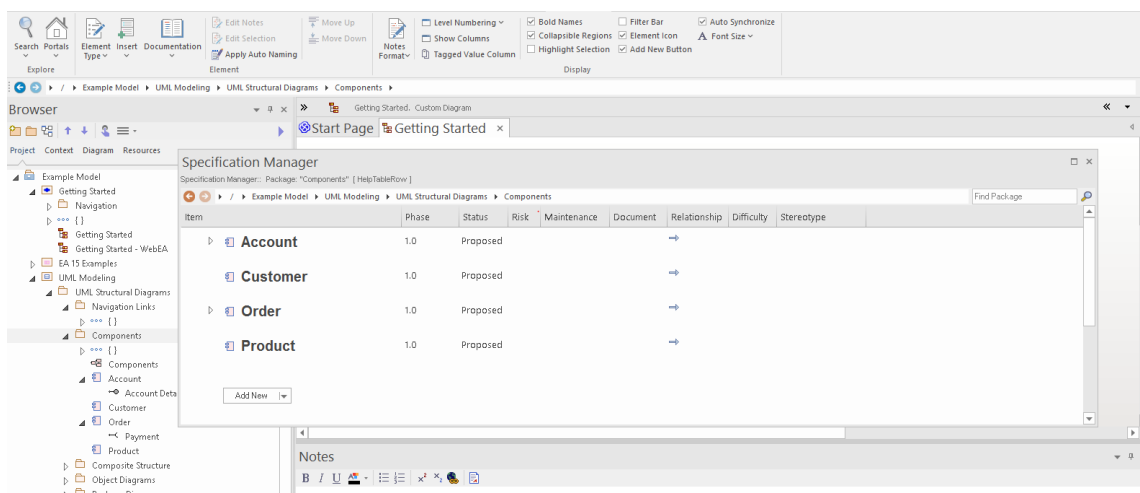
# The Specification Manager View

The Specification Manager initially displays as a tabbed view in the application work area, containing a:

- Tailored instance of the Navigator Toolbar
- List header bar of column names, and
- Blank work area

Displaying the Specification Manager automatically opens the 'Specification - Specify' ribbon, which provides a range of options for working in the Specification Manager.

The selected Package defaults to the currently-selected Package or, if none have been selected, the first top-level Package in your model, and the element type defaults to any type held in the Package.



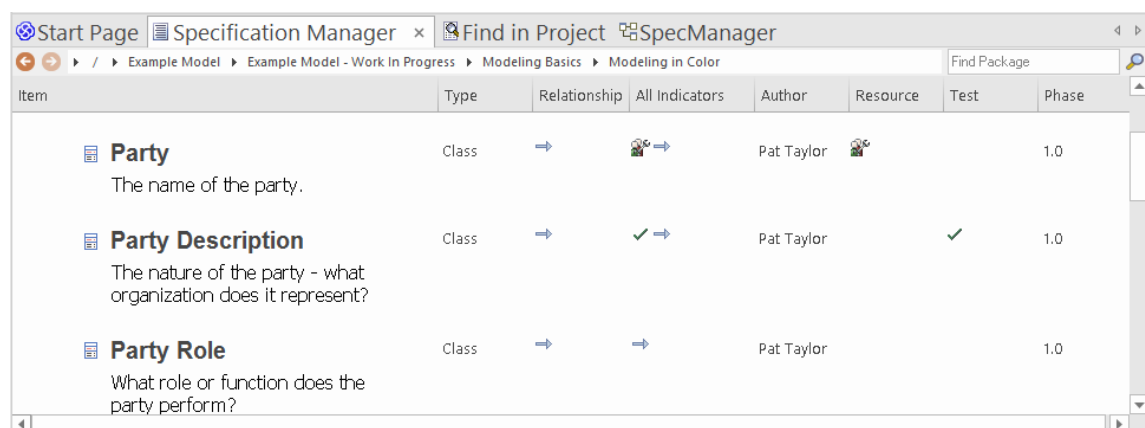
If you prefer, you can drag the 'Specification Manager' tab out of the application workspace and use it as a floating or docked window.

To begin you can either:

- Work with the selected Package, or
- If you have selected the 'Auto Synchronize' checkbox in the Specification-Specify ribbon 'Display' panel, click on another Package in the Browser window to switch to that, or
- Select another Package from the Package path in the Navigator Toolbar, or
- Create and/or select another Package in the 'Project' tab of the Browser window

If you want to select a specific type of element to review, use the 'Element Type' icon in the 'Element' panel of the 'Specification - Specify' ribbon. This also provides the option of switching back to displaying elements of any type in the Package

You can also adjust the column headings to include the columns that show the information of interest to you, and display the Filter bar to further isolate particular elements for review. For an existing Package, the Specification Manager might now resemble this:



The screenshot shows the 'Specification Manager' window with a table of elements. The table has columns: Item, Type, Relationship, All Indicators, Author, Resource, Test, and Phase. The elements listed are 'Party', 'Party Description', and 'Party Role'.

Item	Type	Relationship	All Indicators	Author	Resource	Test	Phase
<b>Party</b> The name of the party.	Class	→	👤 →	Pat Taylor	👤		1.0
<b>Party Description</b> The nature of the party - what organization does it represent?	Class	→	✓ →	Pat Taylor		✓	1.0
<b>Party Role</b> What role or function does the party perform?	Class	→	→	Pat Taylor			1.0

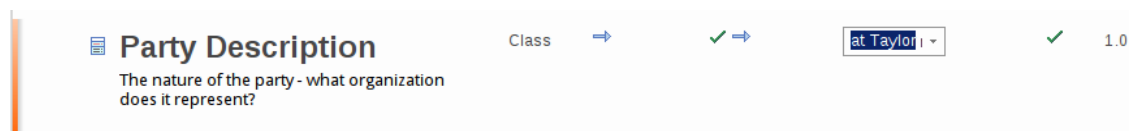
The display shows:



- The element icons and names, and any notes they might have (you can configure the display to hide the icons and notes)
- The text values of each property represented by a column, where those values have been set; you can quickly edit any of the values
- Icons in several columns, which indicate that the element has an associated object, file or Linked Document; you can double-click on these icons to display the object properties or document in the window in which it was created and, if necessary, you can edit the details

After you become familiar with what each indicator icon represents, you can display them all within the single 'All Indicators' column to save space.

When you click on an element in the display, it is marked by a vertical colored line in the left margin to indicate that the element is selected, and a vertical or horizontal line against the element property you clicked on, to indicate that the focus is on that property. In the illustration, the Author of the 'Party Description' element is selected. If you click again on the element property, the margin line changes color, to indicate that the property is open for editing. For example:



## Adding, displaying and changing information

When you create or review an element on the Specification

Manager, you operate through one of four areas:

1. The Navigator toolbar, which provides options to:
  - Change the Package under review
2. The Specification - Specify ribbon, which provides options to:
  - Change the specification element type
  - Set the option to automatically change the display to whatever Package you click on
  - Open tools to create, display or review the properties, characteristics and associated records of the Package or specific elements in the Package
  - Configure the appearance of the Specification Manager display and the types of information you might develop from the data in the display
3. The display area itself, where you can:
  - Perform in-place editing by directly editing text (such as Version, Phase or element notes) or selecting alternative values from drop-down lists (such as Difficulty, Status or Priority)
  - Double-click on an indicator icon and review the record or document attached to the element
  - Drag in elements from any page of the Diagram Toolbox
4. The element context menu, which you can display by right-clicking anywhere on an entry in the display; this provides options for:
  - Creating and deleting elements
  - Editing element properties (including adding and reviewing extended properties, or Tagged

Values)

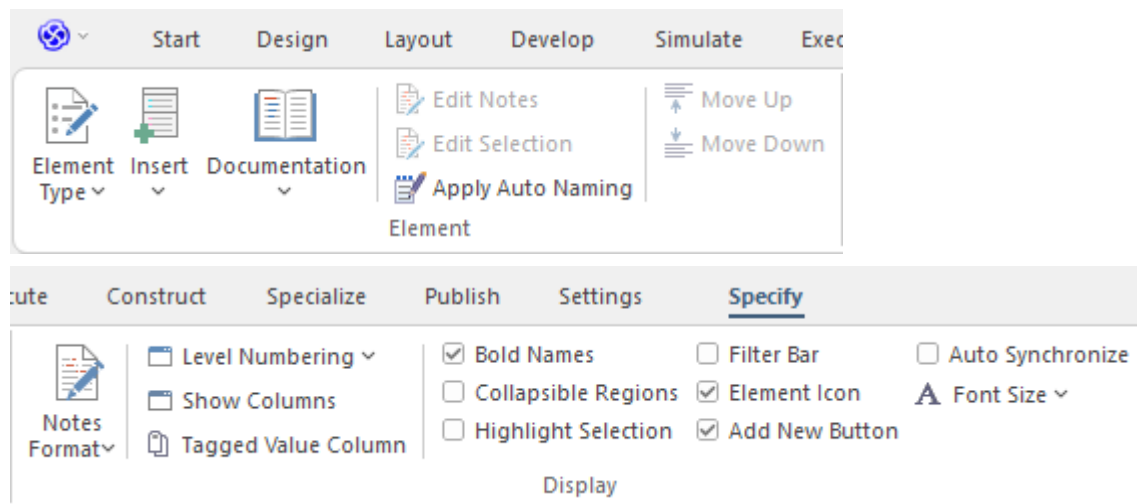
- Locating the element in the Browser window and
- Refreshing the display

## Notes

- In the Corporate and extended editions of Enterprise Architect, User Security can be applied to restrict or enable access to a range of operations and functions; if you cannot access a function in the Specification Manager, check with your System Administrator or Security Administrator to see if you have access permissions to work with that function

# Specification - Specify Ribbon

The 'Specification - Specify' ribbon provides a selection of facilities that you might use when creating and editing model elements as a text-based specification, using the Specification Manager. The ribbon becomes available when the Specification Manager is open.



## Panels

Panel	Description
Element	The 'Element' panel offers a range of facilities for working with the elements that are displayed in the Specification Manager view. There are facilities for adding new elements and viewing and editing element properties.
Display	The 'Display' panel provides a range of

	<p>options that make it possible to tailor the appearance of the Specification Manager view, to better display the information you want to examine. There are options providing visual cues, such as highlighting the selected element and using bold fonts to emphasize element names, as well as options to filter the list of elements that are displayed.</p>
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# Using the Specification Manager

When you begin working in the Specification Manager, there are three general areas of activity you work through:

- Setting up the Specification Manager to suit your work requirements
- Creating and/or organizing the elements in the View
- Performing whatever work you need to do on the elements

The Specification Manager is extremely versatile, and you can use it very simply to create a set of basic elements or at varying levels of complexity to develop and manage those elements in your project, as you need.

## Access

Ribbon	Design > Package > Specification View
Context Menu	Right-click on Package   Specification Manager
Keyboard Shortcuts	Ctrl+0

## Initial Tasks

Task	Action
Specify the type of element to work on	<p>Either:</p> <ul style="list-style-type: none"><li>• Work with the default (all element types) or</li><li>• Select a specific type of element</li></ul> <p>You specify the element type first because when you come to browse for or select the Specification Package, if you have specified a particular element type the system automatically filters the Package selection to only those that contain elements of that type.</p>
Select the Package to work in	<p>Either:</p> <ul style="list-style-type: none"><li>• Work with the default Package</li><li>• Select another existing Package in the model, or</li><li>• Create a new Package in the model</li></ul>
Set up List Header and Filter bars	<p>Use the 'Field Chooser' dialog to organize the columns that contain the type of information you want to work with. You can use the Filter bar to select for information that includes specific values, or hide the Filter bar altogether.</p> <p>Some of the columns contain indicators</p>

	that represent records and documents associated with an element. You can access the item represented by an indicator by clicking on it.
Configure the display	<p>As you begin, or at any other time in your use of the Specification Manager, you can change the appearance of the display to, for example, use smaller or larger text font, partially or totally hide Notes text, or show the element names in bold.</p> <p>You can further configure the display and the element definition by including level numbering and automatic naming, and by applying customized properties such as additional Requirement Types, Glossary entries and Tagged Value Types.</p>

## Organize elements

Task	Action
Add new elements	Create new elements in the model as direct members of the Package or as child elements of those members.
Delete	You can filter out elements from the



elements	display by type or according to the value of various properties. However, if an element does not belong in the Package and model, you can delete it completely.
Reorganize elements	<p>The Specification Manager reflects the sequence of elements in the Package as shown in the Browser window.</p> <p>To put the elements in the Specification Manager in a different order, either:</p> <ul style="list-style-type: none"><li>• Move them in the Browser window, then right-click on the Specification Manager and select the 'Reload View' menu option, or</li><li>• Right-click on the element to move and select the 'Move Up' or 'Move Down' option</li><li>• Click on the element to move and on the 'Specification-Specify &gt; Element &gt; Move Up' or 'Move Down' ribbon options, or</li><li>• Click on the element and press Ctrl+Shift+Up arrow or Ctrl+Shift+Down arrow</li></ul>

## Review the elements

Task	Action
Create and Review Relationships	<p>You can examine existing relationships and create new ones using the Relationship Matrix, creating and using specific Matrix Profiles.</p> <p>You can also review existing relationships by opening the Traceability window, either from the Toolbar or by double-clicking on the blue arrow displayed in the 'Relationship' and 'All Indicators' columns. If the element has no relationships, the blue arrow is not shown.</p>
Discuss and review elements amongst project members	<p>It is possible to create review documents and have recorded text message discussions on the development of your elements, using the Review, Discussion, and Model Mail facilities.</p> <p>If an element has an existing Discussion or Review, this is represented by a 'speech bubble' icon in the 'Discussion' and 'All Indicators' columns. You can open the discussion by double-clicking on that icon.</p>
Make, Review and	You can easily view and edit elements directly in the Specification Manager or

Manage Changes	<p>by displaying the appropriate window such as the Properties window.</p> <p>You can also monitor changes to the selected Package or element made anywhere in the system, using the Baselines and Auditing Facilities.</p> <p>Further, you can manage changes made by other users, opening the Project Tools window to quickly assign resources and risks to the work on the element. You can review work on the elements in the Package by displaying the Specification Manager in another tab in the form of the Project Gantt chart.</p> <p>Maintenance and Testing are integrated and easily available to help improve software quality from the beginning of your project.</p> <p>Existing records of these items are indicated by icons in the corresponding column, and can be quickly opened by double-clicking on the icon.</p>
Print the list of entries	<p>A print-out of the Specification Manager element list is a document containing a simplified version of the screen display:</p> <ul style="list-style-type: none"><li>• All elements are included, both parent and child elements</li><li>• The columns are narrowed to fit the</li></ul>

	<p>page width (if necessary)</p> <ul style="list-style-type: none"><li>• The indicator icons are not printed</li><li>• The font size and type face are uniform across the report</li></ul> <p>To generate the print-out:</p> <ol style="list-style-type: none"><li>1. Click on the 'Specification - Specify &gt; Element &gt; Documentation &gt; Generate Documentation (RTF/PDF/DOCX)' ribbon option. On the 'Generate Documentation' dialog, the 'Template' field defaults to 'Specification Manager List'.</li><li>2. If necessary, specify the output file location and extension, then click on the Generate button.</li><li>3. Display and print the output file.</li></ol>
Generate reports	<p>If you should need to extract and/or publish more of the information in the Specification Manager, you can do so in a range of forms such as:</p> <ul style="list-style-type: none"><li>• Using other templates and generation options to produce standard or customized document reports in RTF, DOCX or PDF format</li><li>• Publishing on the web in HTML or Joomla!, or</li><li>• Exporting to a spreadsheet tool in CSV</li></ul>

	format
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## Notes

- As you work on the information on the Specification Manager, periodically press F5 to refresh the view to include any updates performed by other users elsewhere in the system
- In the Corporate and extended editions of Enterprise Architect, User Security can be applied to restrict or enable access to a range of operations and functions; if you cannot access a function in the Specification Manager, check with your System Administrator or Security Administrator to see if you have access permissions to work with that function

# Specification Manager Configuration

As you work with the Specification Manager, you can tailor the display to provide more precise information, and to better represent the information. The Specification Manager provides options to:

- Create reference data to work from
- Modify the appearance of the entries, including the amount of Notes text to show
- Apply level numbering and automatic element naming and numbering

# Appearance Options

It is possible to tailor the appearance of the Specification Manager view to better display the information you want to examine.

## Access

Ribbon	<p>Specification - Specify &gt; Display &gt; Notes Format &gt; [format option]</p> <p>Specification - Specify &gt; Display &gt; Bold Names</p> <p>Specification - Specify &gt; Display &gt; Collapsible Regions</p> <p>Specification - Specify &gt; Display &gt; Highlight Selection</p> <p>Specification - Specify &gt; Display &gt; Font Size &gt; [size option]</p> <p>Specification - Specify &gt; Display &gt; Element Icon</p>
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## Adjust the appearance of the display

Aspect	Description

<b>Display of Notes</b>	<p>In the Specification Manager you can choose to hide, check, or create and edit Notes text on the screen.</p> <p>Click on the 'Notes Format' icon and one of these options:</p> <ul style="list-style-type: none"><li>• 'Hide' to not show the Notes at all; the element rows close up</li><li>• 'Preview' to show the first line (the width of the 'Item' column) of Notes text for each element; in this mode, you cannot edit the Notes text in the Specification Manager, only in the Notes window</li><li>• 'Full Notes Inlined' to show the complete Notes text for each element underneath the element name; in this mode you can create, edit and delete Notes text in the Specification Manager and perform the same operations as are available in the Notes window context menu</li><li>• 'Full Notes in Column' to show the complete Notes text for each element in a new column next to the element names; you have the same freedom to edit the text as for 'Full Notes Inline'</li><li>• 'Document View' to show the element names and text only, with no column headings or properties</li></ul>
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Display element names in bold	Select the 'Bold Names' checkbox. All element names, including the names of child elements, are displayed in bold.
Enable the use of Expansion arrows on parent elements	<p>If an element has child elements, you can configure the Specification Manager to either:</p> <ul style="list-style-type: none"><li>• Hide the child elements but provide an expansion arrow that you can click on to open and collapse the element hierarchy (select the 'Collapsible Regions' checkbox), or</li><li>• Automatically display the child elements indented underneath the parent element (deselect the 'Allow Collapsible Regions' checkbox)</li></ul>
Highlight the current element details	When you click on an element name or property, the Specification Manager defaults to indicating the selection with side bars and/or underlines. You can, if you prefer, also highlight the entire row of data for the element, by selecting the 'Highlight Selection' checkbox.
Show Element	The Package you are reviewing might contain elements of a number of different

Type as Icon	types, so it is helpful to be able to see at a glance the type of the element you are reviewing. Select the 'Element Icon' checkbox to display an icon representing the element type, to the left of each element name.
Change Font Sizes of display	<p>Across the Specification Manager view, the various display components such as parent element names, child element names, Notes/property values and column headings each have their own font size. You can select to increase or decrease the font sizes as a set across the display, relative to the current sizes.</p> <p>Select the 'Font Size' option and either:</p> <ul style="list-style-type: none"><li>• 'Small'</li><li>• 'Medium' or</li><li>• 'Large'</li></ul>

# Model Options

The Specification Manager helps you to develop the elements in a Package from 'the ground up'. You use standard, or reference, data in doing this, such as the names of team members who can create and edit model data, or the automatic naming system to apply in creating your elements. Because you can start from an early stage in the model's development, some of the reference data you want to use might not exist. The Specification Manager makes it easier to keep the elements in focus and check the development of properties as you use the facilities for defining the types of data you need.

## Access

Ribbon	<p>Design &gt; Dictionary &gt; Glossary &gt; Glossary View</p> <p>Settings &gt; Reference Data &gt; Model Types &gt; General Types &gt; Requirement</p> <p>Settings &gt; Reference Data &gt; Model Types &gt; People &gt; Project Authors</p> <p>Settings &gt; Reference Data &gt; Settings &gt; Auto Names and Counters</p> <p>Settings &gt; Reference Data &gt; UML Types &gt; Tagged Value Types</p>
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## Configure data for development

Data Type/Option	Description
Project Glossary	It is possible to create a Glossary of terms and definitions used throughout the Project, and to automatically link to the definition of a term where it occurs in the model text.
Requirement Types	Requirement elements can be of one of several system-defined types, as shown in the 'Stereotype' column of the Specification Manager, if you have selected to work on Requirements. If these types are not sufficient for your needs, you can define alternatives on the 'Requirement' page of the 'General Types' dialog.
Project Authors	A Project Author is a system user who has responsibility for creating modeling structures and data in a project. Initially there are no Project Authors defined on the system, and you might need to identify the users who are in your

	<p>development team.</p> <p>Click on the 'Settings &gt; Reference Data &gt; Model Types &gt; People &gt; Project Authors' ribbon option to display the 'People' dialog, on which you define the Project Authors.</p>
Auto Names and Counters	<p>When you start to create elements in your model, the system automatically gives them a name based on the element type and the number of elements of that type that already exist. For example, if you create a series of Requirement elements the default names are 'Requirement1', 'Requirement2', 'Requirement3' and so on. You then edit these default names.</p> <p>Alternatively, you can define your own default naming and numbering system for specific element types, for either the element name, the element alias, or both. Display the 'Auto Name Counters' dialog, with which you can define your naming and numbering system.</p>
Extended Property Types	<p>You can add Extended Properties (Tagged Values) to the elements in the Specification Manager, using the 'Extended Properties' option on the element content menu.</p>

However, you might want to use a type of Tagged Value that is not currently available; in this case, you can create that type using the 'Tagged Value Types' page of the 'UML Types' dialog.

Click on the 'Settings > Reference Data > UML Types > Tagged Value Types' ribbon option to display the 'UML Types' dialog.

## Notes

- In the Corporate and extended editions of Enterprise Architect, a User Security system can be applied that restricts or enables access to a range of operations and functions; if you cannot access a function in the Specification Manager, check with your System Administrator or Security Administrator to see if you have access permissions to work with that function

# Package Options

As you define the elements in your specification you can make them easier to reference by giving them more appropriate element names and/or numbers, either as the elements are created or retrospectively when a naming and numbering system has been finalized. You can also make the elements easier to locate and view by enabling level-numbering and indenting, helping you to organize and review the sequence and arrangement of the elements in the Specification Package. If you have been exploring other areas of the Browser window, you can return focus to the Specification Package in the Browser window.

## Access

Ribbon	<p>Design &gt; Package &gt; Manage &gt; Options &gt; Level Numbering</p> <p>Specification-Specify &gt; Element &gt; Apply Auto Naming</p> <p>Specification-Specify &gt; Display &gt; Level Numbering &gt; Enable</p> <p>Specification-Specify &gt; Display &gt; Level Numbering &gt; Indent Description</p>
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## Configure Package options

Option	Description
Apply Auto Naming to Elements	<p>If you had to create elements before setting up an auto-naming and/or auto-numbering system, you can select this option to apply the system to the existing elements retrospectively.</p> <p>If you set up an auto-naming and/or auto-numbering system before creating your elements, that system is automatically applied as you create the elements.</p>
Level Numbering - Enable	<p>Click on this option to apply level numbering to the elements in the Specification Package and indent each successive level, both in the Specification Manager and in the Browser window. Nested elements are numbered hierarchically; that is:</p> <ul style="list-style-type: none"><li>1 Name</li><li>2 Name<ul style="list-style-type: none"><li>2.1 Name<ul style="list-style-type: none"><li>2.1.1 Name</li><li>2.1.2 Name</li></ul></li></ul></li></ul>



	3
Level Numbering - Indent Description	<p>If you have enabled level numbering, this option is available to indent the element description under each element name, to align with the element name. If the option is not selected, the text is aligned with the left-hand edge of the level number. For example:</p> <p><i>Option ON:</i></p> <p>1 Name Description</p> <p>2 Name Description</p> <p>2.1 Name Description</p> <p>2.1.1 Name Description</p> <p>2.1.2 Name Description</p> <p>3 Name Description</p> <p><i>Option OFF:</i></p> <p>1 Name Description</p>

	<div>2 Name</div> <div>Description</div> <div>2.1 Name</div> <div>Description</div> <div>2.1.1 Name</div> <div>Description</div> <div>2.1.2 Name</div> <div>Description</div> <div>3 Name</div> <div>Description</div>
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## Notes

- In the Corporate and extended editions of Enterprise Architect, a User Security system can be applied that restricts or enables access to a range of operations and functions; if you cannot access a function in the Specification Manager, check with your System Administrator or Security Administrator to see if you have access permissions to work with that function

# Select Specification Type

When you start to use the Specification Manager you can work on elements of all types in the Package (the default) or identify a specific type of element to work on. You can select any type of element supported by Enterprise Architect or the MDG Technologies that are integrated with the system.

If you specify the element type first, when you go on to locate the Package to work in, the system automatically filters for Packages that already contain that type of element.

## Access

Ribbon	Specification-Specify > Element > Element Type Specification-Specify > Element > Element Type > Limit Display to Selected Type
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## Select the element type

Click on either:

- 'Other', and expand the technologies and element groups until you can click on a specific element type to filter for, or

- An element type from the list of recently used types (if you have not previously selected a specific element, or you have cleared the list, this list is not available)

Also check that the 'Limit Display to Selected Type' option is selected.

To revert to listing any type of element in the Package, click on either the:

- '<Any>' option or
- 'Limit Display to Selected Type' option again to deselect it

The list of recently used types (after the 'Other' option) accumulates entries as you focus on elements of different specific types. This helps you cycle through work on elements of a small group of types.

If the list is no longer relevant to your work (for example, you have moved on to a different module or stage of development) you can clear the list by selecting the 'Clear Recent Items' option, and start to accumulate a different set of frequently used element types.

# Select Specification Package

When you start to work with the Specification Manager, you identify the Package in which to build your specification.

When you open the facility, the Specification Package defaults to the first top-level Package in your model, as indicated by the 'Package path' in the Navigator toolbar. If this is the Package in which you intend to work, you can go on to configure the display and create or review elements.

You might, however, want to use a different Package that:

- Already exists in the model and already contains elements of the specified type
- Already exists in the model but contains no elements of the specified type
- You will create underneath the current Specification Package, or
- You will create underneath a different Package elsewhere in the model

You can perform these tasks using the 'native' facilities of the Navigator Toolbar.

## Access

Click on a Package in the Browser window, then use one of these options to open the Package in the Specification Manager.

Ribbon	Design > Package > Specification View
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Context Menu	Right-click on Package   Specification Manager
Keyboard Shortcuts	Ctrl+0

## Locate Existing Package Containing Specification Elements

Step	Action
1	<p>In the Navigation toolbar, right-click on the name of a Package in the Package path, and select the 'Go to Package' option.</p> <p>The 'Select a Specification Package' dialog displays. This dialog presents your model hierarchy, filtered to show only those Packages that already contain elements of the type you selected as the Specification element type (which is identified in the 'Element Type' field at the top of the dialog).</p>
2	<p>To expand a Package and reveal sub-Packages it contains, click on the expansion arrow next to the Package name, or click on the Expand All button. (If a Package does not contain any sub-Packages, it has</p>

	no expansion arrow.)
3	<p>Click on the required Package, and click on the OK button.</p> <p>The Package name displays in the 'breadcrumb trail' in the toolbar, and the elements in the Package are shown in the main body of the Specification Manager window, filtered to the specified type if appropriate.</p>
4	<p>Customize the columns and/or add elements to the Package.</p>

## Locate Existing Package

It is possible that you want to create your specification in a Package that has been set up for this purpose but does not yet contain any elements (or any elements of the specified type). In this case the Package would not be included in the 'Select a Specification Package' dialog. To select this Package for the Specification Manager:

- Right-click on the Package name in the Browser window and select 'Specification Manager' from the context menu, or
- Select the Package in the Browser window, then press Ctrl+0, or
- Click on the Package name and on the 'Design > Package

> Specification View' ribbon option

The Package name displays in the view header and Toolbar.

## Create New Package

This method creates a new Package underneath the current Specification Package.

Step	Action
1	From the ribbon bar, select 'Specification-Specify > Specification > Package > New'. The 'New Package' dialog displays.
2	In the 'Name' field, type the name of the new Package. (Optionally, you can also select a radio button to automatically create a new diagram in the Package.)
3	Click on the OK button. The new Package becomes the current Specification Package in the Navigator toolbar. The Package is also added to the Browser window, underneath the previous Specification Package.
4	Customize the columns and/or add elements to the Package.



## Create New Package Elsewhere in the Model

This method creates a new Package underneath a different Package in the model.

Step	Action
1	From the ribbon bar, select 'Specification-Specify > Specification > Package > New'. The 'New Package' dialog displays.
2	Click on the Browse button beside the 'Owner' field. The 'Select Owner' dialog displays.
3	Browse through the model and click on the existing Package under which to create the new Package. Click on the OK button. The 'Owner' field in the 'New Package' dialog is updated.
4	In the 'Name' field, type the name of the new Package. Optionally, you can also select a radio button to automatically create a new diagram in the Package.
5	Click on the OK button. The new Package becomes the current Specification

	Package, named in the window toolbar. The Package is also added to the Browser window underneath the selected parent Package.
6	Customize the columns and/or add elements to the Package.

# Customize Columns

The Specification Manager can display a wide range of properties for the elements in the selected Specification Package, each property being shown in a separate column. Using the 'Field Chooser' dialog, you can customize the display of the columns so that you show as many or as few as you need, in an appropriate sequence. Also, you can add columns to show the values of specific tags used in individual elements or globally across the Package.

Having added the columns you need, you can use full or partial property values in the Filter bar as a means of filtering the display to show only those elements that have property values that match the filters.

## Access

Ribbon	Specification - Specify > Display > Show Columns Specification - Specify > Display > Filter Bar
Other	Right-click column headings   Field Chooser Right-click column headings   Toggle Filter Bar

## Using the Field Chooser

Drag the column headings that you want to include out of the 'Field Chooser' and onto the header bar, in the position you want the column to occupy in the sequence of column headings. You can drag an existing heading from its current position in the bar to another position in the sequence, including making it the final column.

If you do not want to include a column that is already in the heading bar, drag it up or down out of the bar. It is automatically returned to the 'Field Chooser' dialog.

## Using the Filter bar

In the Filter bar, you define a text string that any displayed values in the corresponding column must include.

In the filter field for a column, type the character or string that must form part of the value shown in each row of that column. As you type the string, element rows in the Specification Manager that do not match the filter are hidden from display.

To clear the text in the filter field, click on the green cross at the right of the field.

You can display or hide the Filter bar by right-clicking on the column headings and selecting the 'Toggle Filter Bar' option.

## Add Tagged Value Column

If you want to show the value that any element in the list has for a particular tag, you can add a column specifically for that tag. There are two ways in which to do this:

Method	Action
1	Open the 'Tags' tab of the 'Properties' dialog for the element (Alt+5   Properties Dialog > General > Tags) and drag the tag onto the Specification Manager; a new column is added for each tag you drag onto the list.
2	<p>Either:</p> <ul style="list-style-type: none"><li>• Right-click on the element in the Specification Manager and select the 'Add Tag Value Column' option, or</li><li>• Right-click on the column headings and select the 'Add Tag Value Column' option, or</li><li>• Select the 'Specification - Specify &gt; Display &gt; Tagged Value Column' option</li></ul> <p>The 'Add Tag Value Column' dialog displays.</p> <p>Either type the tag name into the 'Tagged Value' field, or select one of the two radio</p>

buttons:

- Global Tagged Values - populates the 'Tagged Value' drop-down list with all global Tagged Values in the project; you can select a Tagged Value that is applicable to a large number of elements
- Tagged Values from the selected element - populates the 'Tagged Value' drop-down list with the Tagged Values defined for the selected element (as listed on the 'Tags' tab for that element); select the Tagged Value from this filtered list of tags

When you have selected the required tag, click on the OK button to add a column for that tag to the Specification Manager columns.

## Notes

- You can edit the values of the tags in the Tagged Value columns; see the *Editing Elements* Help topic
- The column layout for any added Tagged Value columns is preserved when you close the Specification Manager and re-open it for the same Package
- You can hide a Tagged Value column by dragging the

column title off the header bar - as for any other column - so that the column header is added to the 'Field Chooser' dialog

- You can remove a Tagged Value column altogether by right-clicking on the column header and selecting the 'Remove Tag Value Column' option

# Adding Elements

The Specification Manager is an excellent model development tool, through which you can create elements in the Package you are reviewing in a number of ways. You can add new elements either:

- Directly to the Package or
- As child elements of an element in the Package

There are several methods of adding a new element, some of which vary depending on whether you have set a specific element type as the Specification Type, or set the display to list all types of element in the Package. If you import a set of element data from an external spreadsheet (.csv) file, this setting will also filter the imported information to show elements of the specified type or all types.

## Access


With the Specification Manager window open:

Diagram Toolbox	Drag an element icon from an appropriate page of the Diagram Toolbox onto the Specification Manager
Ribbon	Specification-Specify > Element > Insert > Add Default Specification-Specify > Element > Insert > Add Child



	Specification-Specify > Element > Insert > Repeat Previous Specification-Specify > Element > Insert > Add Other Specification-Specify > Element > Insert > Add Multiple Elements
Context Menu	Right-click window   Add New Element Right-click window   Add New Child Right-click window   Repeat last Element Right-click window   Create Multiple Elements
Add New Button	Click on the Add New button at the end of the display
Keyboard Shortcuts	Ctrl+N        (new element) Ctrl+Shift+N    (new child element) Shift+F3      (repeat previous element)

## Add an element from the Diagram Toolbox

When you have the appropriate page of the Diagram Toolbox displayed (press Ctrl+Shift+3), click on  and use the Toolbox 'Find Toolbox Item' dialog to locate the page), you can drag an element icon to a specific point on the Specification Manager View. The element entry

immediately above the cursor is indicated by a blue side-bar, and a context menu displays with three options:

- 'Insert after Selection' - the new element will be added as a peer immediately underneath the highlighted element
- 'Insert as Child' - the new element will be added as a child of the highlighted element
- 'Add to End of Document' - the new element will be added to the end of the list, as a peer of the highest level of the hierarchy

## Add element using the Add New button

At the bottom of the Specification Manager view, this button displays:



Select a current element, then click on the button or use the keyboard down-arrow to move to and select it, then select either:

- An element type from the list of appropriate types based on the current Package type and content
- The 'Other' option and select an element group and type from the submenu, or
- The 'Any' option to display the 'New Element' dialog, from which you can select an element type from any defined in the model

The new element is added to the Package immediately after and at the same level as the selected element.

The button can be hidden and redisplayed using the 'Add New Button' option on the 'Display' panel of the Specification - Specify ribbon.

## Add element of predefined Specification Type

If you have set the Specification Type to a particular type of element:

- An element of that type is immediately added to the Specification Manager; the element has either the system default element name or a name that you have set up under your own naming conventions
- The name is highlighted and, if you want to change it, you can immediately type in an alternative name
- If the element is a child of an existing element, the entry is added underneath the parent, indented and in a smaller font; the parent element is given an expansion arrow

## Add element of any Specification Type

If the Specification Manager is listing elements of any type, or if you have set the 'Specification Type' to '<Any>', the 'New Element' dialog displays. You can use this dialog to create an element of any type that the model supports.

## Add elements from Pattern

Enterprise Architect provides Patterns in the Diagram Toolbox and in the 'Resources' tab of the Browser window; you can create your own Patterns and make them available from the same places. Patterns are a great way to create template structures of elements in your specifications, and you can 'drag and drop' them from the Toolbox or 'Resources' tab of the Browser window into the Specification Manager.

When you release the mouse button to 'drop' the Pattern, a short menu displays from which you select to add the Pattern elements underneath the item immediately above, either as a peer structure or as a child structure.

## Notes

- If you add an element of the defined Specification Type to the selected Package in the Browser window, it is also added to the Specification Manager
- In the Corporate and extended editions of Enterprise Architect, User Security can be applied that restricts or enables access to a range of operations and functions; if you cannot access a function in the Specification Manager, check with your System Administrator or Security Administrator to see if you have access permissions to work with that function

## Deleting Elements

The Specification Manager provides a direct view of a Package in your model, and reflects the contents of the Package as it appears in the Browser window. If you delete an element from the Specification Manager, it is removed from the model and therefore also disappears from the Browser window. Any child objects that the element has are also deleted from the model.

### Access

Context Menu	Right-click on element   Delete Selected
Keyboard Shortcuts	Ctrl+D Ctrl+Del

### Delete an element

When you select to delete an element in the Specification Manager, a prompt displays to confirm that you want to delete the element from the model.

Click on the Yes button. The element is removed from the Specification Manager and all other windows and diagrams in which it appears.

## Notes

- You cannot select more than one separate element at a time in the Specification Manager, and therefore you cannot delete multiple elements there; you can, however, select and delete multiple elements from the Browser window, which also removes them all from the Specification Manager in one operation
- In the Corporate and extended editions of Enterprise Architect, a User Security system can be applied that restricts or enables access to a range of operations and functions; if you cannot access a function in the Specification Manager, check with your System Administrator or Security Administrator to see if you have access permissions to work with that function

# Editing Elements

When you have created elements in the Specification Manager, you can add and review the properties and characteristics of each element to whatever extent you need. You could simply set some basic properties such as the element version, status and general description in the Notes area, or you could develop extended properties (Tagged Values) or add a Linked Document to add more detailed and extensive information on the element.

## Editing tasks

Task	Action
Display/Edit Element Properties	<p>Where a column in the Specification Manager contains a property value, you can double-click on the value and either:</p> <ul style="list-style-type: none"><li>• Type a different value (such as the element name) or</li><li>• Click on the field to display a drop-down arrow and select a value from the list</li></ul> <p>Alternatively, click on the value and press F2.</p> <p>Otherwise, you can right-click on the item and select the:</p> <ul style="list-style-type: none"><li>• 'Properties' menu option (or press</li></ul>

	<p>Alt+Enter) to display the 'Properties' dialog, or</p> <ul style="list-style-type: none"><li>• 'Properties window' menu option (or press Ctrl+2) to display the Properties window</li></ul>
Edit Element Notes	<p>The 'Specification - Specify' ribbon provides the 'Notes Format' icon for defining how you view existing Notes text on each element, or how you create and edit Notes, depending on how you have configured the display of Notes on the screen.</p> <p>If you select the 'Preview' option, the first line of any Notes text in the Notes window displays underneath the element name. You cannot add or edit text in this space, but you can work on the text in the Notes window itself (click on the text and press the Space bar).</p> <p>If you select a 'Full Notes' option, either inline or in column, the complete text of any existing Notes displays underneath or to the right of the element name, respectively. You can now create and edit the Notes directly in the field - simply click twice on the area and type in the text. The text you type here can also be viewed in the Notes window; text edits in</p>




one of the views (Notes window or Specification Manager) are updated in the other view as soon as you click off the item.

In either view, you can also right-click on a text string to display the 'Notes' context menu and perform further operations, and use keyboard shortcuts. These operations include:

- Creating a Glossary definition from the text, and linking to existing definitions in the text
- Generating a new element in the same Package, with the selected text as the name and linked to the text
- Generating a new element linked to the text, that you effectively drag directly onto an open diagram
- Creating a link from the selected text to an existing element in the model (in the Notes window only)
- Creating a hyperlink to a wide range of target objects, including image files, diagram images, web pages, text files, Help topics and Enterprise Architect commands (Notes in the Specification Manager, or using the 'Hyperlink' icon in the Notes window toolbar)
- Mark the text for a specific translation,

	<p>or for excluding from automatic translation</p> <ul style="list-style-type: none"><li>• Searching for instances of the selected text in a range of sources (options derived from the 'Code Editor' context menu)</li><li>• Editing the text, with cut, copy, paste, undo and delete</li><li>• Hiding or revealing Glossary definition markers (underlines) in the text (Specification Manager Editing Notes row)</li></ul> <p>You can also select to display only the element names and notes in the Specification Manager (Document View) or to hide the Notes text altogether, in which case the element rows close up.</p>
Locate a selected element in the Browser window	<p>Right-click on the element item and select the 'Find in Project Browser' option (or click on the item and press Ctrl+F). The system expands the Browser window and highlights the element name.</p>
Review extended properties (Tagged Values) on an	<p>Right-click on the element item and select the 'Tagged Values' option (or click on the item and press Ctrl+2). The Properties window displays; select the 'Tags' tab, through which you can</p>

element	<p>view, add, edit and delete Tagged Values on the selected element.</p> <p>Once the Properties window is open, you can click on any element in the Specification Manager and immediately switch the focus of the 'Tags' tab to that element.</p> <p>You can also show the values for specific tags used in the Package, with a Tagged Values column for each named tag. See <i>Customize Columns</i>. If an element has a Tagged Value that matches the column header, you can edit the value. For:</p> <ul style="list-style-type: none"><li>• Values selected from a defined list, double-click on the value and change it in the 'Tags' tab</li><li>• Free-text values, whether simple or &lt;memo&gt; type, click twice on the value and edit it in place</li></ul> <p>The field is not editable if the element does not have the tag, is locked or has duplicate tag names.</p>
Create and edit a Linked Document on an element	<p>You can create a Linked Document on the selected element in the Specification Package, by:</p> <ul style="list-style-type: none"><li>• Right-clicking on the element line and selecting the 'Linked Document' option,</li></ul>

	<p>or</p> <ul style="list-style-type: none"><li>• Clicking on the element line and pressing Ctrl+Alt+D</li></ul> <p>The 'New Linked Document From Template' dialog displays, from which you select any template you want to base the document on, or 'None' for a free-style document with no template.</p> <p>When you click on the OK button, the 'Linked Document Editor' view becomes active, with the 'Document - Edit' ribbon, and you can create a document describing any aspect of the selected element.</p> <p>If the element already has a Linked Document, selecting the 'Linked Document' option opens that document.</p> <p>If you no longer want the Linked Document, select the 'Start &gt; Application &gt; Design &gt; Document' ribbon option and, on the 'Linked Document' tab of the Document window, click on the  icon and select the 'Delete Linked Document' option.</p>
Finishing and Saving your changes	<p>A quick way to save your changes and exit from the item editor is to press Esc.</p>

## Notes


- You can also copy-and-paste text from a text file into the Specification Manager, using the text to fill the element name or notes text area of an existing element entry
- In the Corporate and extended editions of Enterprise Architect, a User Security system can be applied that restricts or enables access to a range of operations and functions; if you cannot access a function in the Specification Manager, check with your System Administrator or Security Administrator to see if you have access permissions to work with that function






## Indicator Columns




An element specification can have any of a number of resources associated with it. You can obtain a quick indication that resources exist for the element by displaying the corresponding column (selected from the 'Field Chooser' dialog) on the Specification Manager; if the resource exists, an icon displays in the column against that element. When an indicator is displayed, you can double-click on the icon to immediately access the record or the first in a set of records for the element, in the corresponding window. You can use these windows to edit, delete or (where appropriate) add to the records against the element.

The Package you are reviewing might also contain elements of a number of different types, so it is helpful to be able to see at a glance what the type is of the element you are reviewing. In the 'Specification - Specify > Display' ribbon panel, select the 'Element Icon' checkbox to display an icon representing the element type, to the left of each element name.

## Columns

Column Header	Indicator
Relationship	 Indicates that: The selected element has

	at least one relationship to another element, which is shown in the Traceability window.
Resource	 Indicates that: There is at least one resource assigned to a task on the element, in the Resource Allocation window.
Risk	 Indicates that...: There is at least one Risk item defined for the element, in the Risk window.
Maintenance	 Indicates that...: There is at least one Maintenance item defined for the element, in the Maintenance window.
Test	 Indicates that...: There is at least one Test item defined for the element, in the Test Cases window.
File	 Indicates that...: The selected element has at least one associated file, defined on the 'Files' page of the Properties window.

Discussion	 Indicates that...: There is a discussion thread or review of this element, in the Discuss & Review window.
Journal	 Indicates that...: There is a Journal entry for this element, in the Discuss & Review window under the Journal tab.
Document	 Indicates that...: There is a Linked Document for this element.
All Indicators	- Indicates that...: Any or all of the listed items exist for the element, as indicated by the corresponding icon.



# Traceability

As you create and set up the elements in your Specification Package, using the Specification Manager, it is critical to:

- Trace any existing relationships those elements have to the elements in the model that realize them, or are realized by them
- Follow the relationships of such elements further, to check how changes to a source element or its relationships might affect other relationship chains in which the target elements are involved
- Create new relationships, where you can do so quickly and with an immediate view of how elements as a group are connected across the model

The two most significant tools for this are the Traceability window and the Relationship Matrix.

When you display the Traceability window, you can review every relationship in which the element selected in the Specification Manager is the source or target, the details of each of the related elements, and the relationships in which each of those elements are involved.

In the context of the Specification Manager, the Relationship Matrix provides a view of the relationships between the elements within the Specification Package, or between the elements of the Specification Package and a different Package. You can also use it to quickly create many relationships between the elements, defining a simple organization within the Specification Package and defining

its relationships with other Packages.

## Access

Ribbon	'Design > Package > Specification View > In Navigation toolbar, right-click on final Package in the Package pathway > Open Relationship Matrix > <options> Design > Element > Trace
Keyboard Shortcuts	Ctrl+7 (display Traceability window)

# Open Relationship Matrix

If you want to quickly create relationships on the elements in your Specification Package, or review the relationships that already exist, you can do so very easily using the Relationship Matrix. By opening the Relationship Matrix from within the Specification Manager, you can use the parameters already set in the Specification Manager to automatically configure the Relationship Matrix.

## Access

Ribbon	Design > Package > Specification View > In Navigation toolbar, right-click on the Package name > Open Relationship Matrix > <options>
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## Open the Relationship Matrix

Option	Action
As Source	Open the Relationship Matrix with the Specification Package set as the Source Package and the Specification Type element type as the Source element type.

	Other fields default from the last settings of the Relationship Matrix; you can change any fields as necessary.
As Target	Open the Relationship Matrix with the Specification Package set as the Target Package and the Specification Type element type as the Target element type. Other fields default from the last settings of the Relationship Matrix; you can change any fields as necessary.
As Both	Open the Relationship Matrix with the Specification Package set as both the Source Package and the Target Package, and the Specification Type element type as the Source and Target element type. Other fields default from the last settings of the Relationship Matrix; you can change any fields as necessary.
Matrix Profiles > Create New Profile	Define a Matrix profile with the Specification Package set as the Source Package and the Specification element type set as the Source element type, and automatically open the Relationship Matrix with this profile in effect.
Previous	Open the Relationship Matrix using the

Settings	<p>previously-processed settings; that is, the last settings under which changes were saved to the repository.</p> <p>These settings could have been defined during your use of the Specification Manager, or in the Relationship Matrix independent of any use of the Specification Manager.</p>
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## Notes

- In the Corporate and extended editions of Enterprise Architect, a User Security system can be applied that restricts or enables access to a range of operations and functions; if you cannot access a function in the Specification Manager, check with your System Administrator or Security Administrator to see if you have access permissions to work with that function

# Create Matrix Profile



In using the Specification Manager you work on a specific Package and element type. If you want to use a Relationship Matrix profile to look more closely at the relationships of elements in that Package, it is therefore more logical to define the profile from the information already set in the Specification Manager, before you open the Relationship Matrix. The system helps you to do this. You can also apply this procedure to creating the matrix profile represented by a Matrix Specification Artifact element.

## Access

Ribbon	'Design > Package > Specification View > In Navigation toolbar, click on final ▶ > Matrix Profiles > Create New Profile
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## Create the Matrix Profile

Option	Action
Profile	Type in a name to identify the profile.
Source	Displays the name of the current

	<p>Specification Package, as the source Package in the Relationship Matrix.</p> <p>If necessary, you can click on the  button and select a different Package.</p>
Type	<p>(For the Source Package) Displays the name of the current Specification element type. If necessary, you can click on the drop-down arrow and select a different element type.</p>
Target	<p>Defaults to the name of the current Specification Package as the target Package of elements in the relationships to examine.</p> <p>If you want to examine relationships to elements in a different target Package, click on the  button and, on the 'Browse Project' dialog, locate and select that Package.</p> <p>Click on the OK button to put the Package name in the 'Target' field.</p>
Type	<p>(For the Target Package) Defaults to '&lt;All&gt;' target element types.</p> <p>If you want to examine relationships to a specific type of element, click on the drop down arrow and click on the element type name.</p>

Relationship	<p>Defaults to 'Realization' as the type of relationship to display.</p> <p>If you want to examine relationships of a different type, click on the drop down arrow and click on the relationship type name.</p>
Direction	<p>Defaults to 'Source -&gt; Target' as the direction of the relationships to examine.</p> <p>If you want to examine relationships in the opposite direction, or in both directions, click on the drop-down arrow and select the appropriate option.</p>
OK	<p>Click on this button to create the profile and close the dialog.</p> <p>The Relationship Matrix automatically opens, applying the Profile that you have just defined.</p>
Cancel	<p>Click on this button to discard any values you have entered, and to return to the Specification Manager.</p>

## Notes



- After you have created a Matrix profile, the name of the profile is added to a list of profiles that include the Specification Package and Specification element type, under the 'Create new Profile' option; when you click on the profile name, the Relationship Matrix immediately displays with that profile in effect
- In the Corporate and extended editions of Enterprise Architect, a User Security system can be applied that restricts or enables access to a range of operations and functions; if you cannot access a function in the Specification Manager, check with your System Administrator or Security Administrator to see if you have access permissions to work with that function

# Reviewing Elements

When you are managing or working as a member of a project team, it is useful to have mechanisms for reviewing the work you are doing and keeping some record of those reviews, whether they are casual discussions between peers or coordinated, structured and formal reviews. The Specification Manager supports the full range of review types, focused on the elements that are defined in the Specification Package.


## Access

Ribbon	Design > Package > Specification View > click on required Package or element
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## Review facilities

Facility	Description
Review Documents	It is possible to create any number of 'Review Documents' on the elements of the Specification Package, both to formalize and guide specific review processes and to present the element

	<p>information to be reviewed.</p> <p>The documents are stored in and easily accessed from the 'Model Library' feature. Select the 'Start &gt; Collaborate &gt; Model Library' ribbon option.</p>
Bind Package to Model Library Folder	<p>By default, 'Review Documents' are stored in folders under a special category of the Model Library, called 'Formal Reviews'. You can, however, generate those documents elsewhere in the Model Library, by binding the Specification Package to whichever Model Library folder (topic) is most appropriate to the Package.</p>
Model Library	<p>The Model Library tools provide a number of other facilities that can be of use in discussing the development and features of an element, such as the 'Resources' folder or the ability to develop a sequence of communications on a specific element, on a group of elements, or on some broader aspect of the model development.</p>
Discussions	<p>Using the Discuss &amp; Review window, you can initiate or respond to a general, ad-hoc discussion amongst your team</p>

	<p>members, on a specific element. The facility maintains a record of each initial comment or question, and every response to that comment.</p> <p>There is no limit on the number of different discussions, on the number of responses, or on the length of each item, although the facility is better suited to short queries and responses.</p> <p>Similarly, you can perform a formal review on one element or a group, adhering to a stricter protocol and timeframe.</p> <p>When there is a discussion or a review on an element, the  icon displays in the 'Discussion' and 'All Indicators' columns on the Specification Manager. Simply double-click on the icon to display the discussion or review comments.</p>
Model Mail	<p>The Model Mail facility is a personal, project-internal email service. You can use it to send emails to specific individuals or groups on your project, concerning the Specification Manager contents or functions, or any other subject you need to discuss.</p> <p>If you want to discuss a particular element, click on it in the Specification</p>

	Manager, open Model Mail (right-click   Collaborate   Send Mail) and create a message, and use the 'Insert Quicklink' button to create a hyperlink in the mail message to the selected element.
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# Create Review Document

When you are managing the work of a project team, it is useful to have a mechanism for coordinating and guiding the work that the team members are required to do on the elements in the Specification Package, such as a review document. You can generate this type of document quickly and simply from the Specification Manager, to be distributed, accessed and read through the Model Library facility.

There are, broadly, two types of review document that you can generate:

- A specification document that contains the material to be reviewed - the individual features of each element - such as a Model Overview, List of Issues or Maintenance Report, and
- A management or review document that guides the reader in applying tests, checks and procedures across the Package, such a Phase Review, Test Plan or Training Plan

You can generate both kinds of document using a range of templates, or create a document without using any template. The templates are all those available through the Report Generator (specification documents) or Linked Document Editor (management documents), whether system-provided or user-designed.

The specification documents automatically structure information from the Specification Manager according to the selected template and should not require further editing

to serve their purpose (although it is possible to edit them if you need to). They are therefore termed 'auto-generated documents'.

By default, 'Review Documents' are stored in folders (Topics) in a special category of the Model Library, called 'Formal Reviews'. You can, however, generate those documents elsewhere in the Model Library, by binding the Specification Package to whichever Model Library folder is most appropriate to the Package. For example, if you have a modular structure in the Model Library, you might want to hold the 'Review Documents' for a Specification Package in the same section of the Model Library as folders containing discussions and documents on the part of the model containing that Package.

## Access

Ribbon	Start > Collaborate > Model Library
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## Create a Review Document

Option	Action
Name	On the 'Team Document' dialog, type a name for the document.

	<p>This is the name that you use to recognize and open the document in the Model Library folders.</p>
RTF Template	<p>Click on the drop-down arrow and select either:</p> <ul style="list-style-type: none"><li>• 'None' to create a free-format document yourself, or</li><li>• A document template name, to create a document of that type</li></ul>
OK	<p>Click on this button to open the document in the 'Document Editor', which you can use to populate the document with text and images, format it and print it.</p> <p>At the same time:</p> <ul style="list-style-type: none"><li>• The Library window opens</li><li>• The 'Formal Reviews' category is created (if it does not already exist) in the Model Library</li><li>• A folder is created with the same name as the Specification Package (if it does not already exist) in the 'Formal Reviews' category</li><li>• The review document name is added to this folder</li></ul> <p>If you have bound the Package to a different Model Library folder, the</p>



	'Review Document' is created in that folder instead of under the 'Formal Reviews' category.
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## Auto-generate a Review Document

Option	Action
Name	<p>On the 'Team Document' dialog, type a name for the document.</p> <p>This is the name that you use to recognize and open the document in the Model Library folders.</p>
RTF Template	<p>Click on the drop-down arrow and select a document report system-template name, to create a document of that type</p>
OK	<p>Click on this button to generate the document through the Document Report Generator, containing the information currently displayed in the Specification Manager, within the parameters of the report template.</p> <p>At the same time:</p> <ul style="list-style-type: none"><li>• The Library window opens</li></ul>

	<ul style="list-style-type: none"><li>• The 'Formal Reviews' category is created (if it does not already exist) in the Model Library</li><li>• A folder is created with the same name as the Specification Package (if it does not already exist) in the 'Formal Reviews' category</li><li>• The review document name is added to this folder</li></ul> <p>The document is displayed in the 'Team Document' tab for any further editing and modification you need, although the document is effectively ready for immediate use.</p> <p>If you have bound the Package to a different Model Library folder, the 'Team Document' is created in that folder instead of under the 'Formal Reviews' category.</p>
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## Bind Package to Different Model Library Folder

Step	Action

1	On the 'Select a Topic to Link' dialog, click on the expansion box next to the appropriate category name to display the topic folders it contains.
2	Click on the appropriate topic folder name.
3	<p>Click on the OK button.</p> <p>When you:</p> <ul style="list-style-type: none"><li>• Create a 'Review Document', it will now be automatically stored in the selected topic folder</li><li>• Select the 'Show Current Review Folder' option, the Model Library window will open with the selected folder name highlighted and expanded</li><li>• Select the 'Current Reviews' option, the submenu will list the documents held in the selected folder; click on one to open it</li></ul>

## Notes

- For a given Specification Package, you can generate as many review documents as you require
- Before you generate a Review Document from the Specification Manager, you could run the system Spell Checker over the Specification Package to remove any errors in the text

# View Review Document

In the Specification Manager, you can generate a range of documents that either guide a structured review of the elements you have listed, or provide the actual material - the descriptions, features and properties of the elements - to be reviewed. These documents are, by default, stored in the 'Formal Reviews' category of the Model Library, from which point they can be accessed in a number of ways. Whichever access path you select, the document opens in the application work area and you can read the document online, edit it and/or print it.

If you want to edit or print the document, you can do so using the facilities of the common document editor, which is used in creating and editing both documents and document templates.

The Specification Manager also provides a facility for changing the default folder into which the 'Review Documents' are generated, and from which you can select the documents to open.

## Access

Ribbon	<p>To open the Library window:</p> <ul style="list-style-type: none"><li>• Explore &gt; Portals &gt; Windows &gt; Collaborate &gt; Team Review or</li><li>• Start &gt; Collaborate &gt; Model Library</li></ul>
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Other	<p>From the Library window:</p> <ul style="list-style-type: none"><li>• Formal Reviews   &lt;Package name&gt;   double-click &lt;document name&gt;</li></ul>
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## Notes

- If you have changed the default folder for the Package (by binding the Package to a folder other than those in the 'Formal Reviews' category), the 'Current Reviews' and 'Show Current Review Folder' options will automatically show the new default folder and the documents it contains; if you access the Library window directly, you would need to know the name and location of the new default folder

# Managing Changes

If you are responsible for a team of people who are working on the specification, you can manage their work and monitor the changes that they are making via the Specification Manager, keeping the focus on the specification work rather than having to establish the focus in each management tool separately. You use the Specification Manager to:

- Show if each element in the Package has a resource or maintenance item (the presence or absence of a column indicator on the relevant column, or in the 'All Indicators' column)
- Where the element does have a resource or maintenance column indicator, open the appropriate window by double-clicking on that icon
- Where the element does not have a column indicator, or for other monitoring tools, maintain the focus on the element for the window you open via the appropriate ribbon

## Access

Ribbon	Design > Package > Specification View
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## Management and Monitoring facilities

Facility	Description
Manage Package Baselines	<p>Press Ctrl+Alt+B or click on the 'Design &gt; Package &gt; Manage &gt; Manage Baselines' ribbon option to open the 'Baselines' dialog, which you can use to capture the state of development of the Specification Package, as a Baseline. At a later point, you can compare the current state of the Package with this captured Baseline (or another one) and establish the changes that have been made since that Baseline was made.</p> <p>You can also roll back any of the changes that you do not want to keep.</p>
View Audit Trail	<p>Click on the 'Settings &gt; Model &gt; Auditing' ribbon option to display the Audit View and the 'Audit History' tab of the System Output window.</p> <p>You can use the Audit View initially to turn on and configure Auditing, and then to perform audit checks on changes to the elements and connectors in the Specification Package (which might include changes to objects other than those of the Specification element type). The results of the audit check are</p>

	displayed both in the Audit View and in the System Output window.
Resources	<p>Click on the 'Construct &gt; Resource Management &gt; Resources' ribbon option to display the Resource Allocation window. You can use this window to define and allocate work for the people (resources) working on the Specification Package, either at Package level or at element level (select an element on the Specification Manager before defining the work).</p> <p>You can also select the Project Tools window 'Risk', 'Effort' and 'Metrics' tabs to define other aspects of work on an element (the 'Construct &gt; Project Management &gt; Effort', 'Risks' and 'Metrics' ribbon options). You create and update the actual records through the '&lt;item&gt; Details' dialog.</p> <p>Once you have allocated a resource or defined a risk, an icon displays on the element row in the corresponding column of the Specification Manager, and in the 'All Indicators' column. You can double-click on the icon to redisplay the appropriate Project Tools window tab and review the record, and add more records</p>



	if necessary.
Maintenance	<p>Click on the 'Construct &gt; Change Management' ribbon panel and select the appropriate option for any of these Maintenance items:</p> <ul style="list-style-type: none"><li>• Features</li><li>• Changes</li><li>• Documents</li><li>• Issues</li><li>• Defects</li><li>• Tasks</li></ul> <p>The corresponding tab of the Maintenance window displays, through which you can create a record to define the maintenance item for the Specification Package or a selected element within it.</p> <p>When you create one of these records, an icon displays on the element row in the 'Maintenance' and 'All Indicators' columns of the Specification Manager.</p>
Testing	<p>Click on the 'Construct &gt; Test Management &gt; Tests' ribbon option and select the appropriate option for any of these test types:</p> <ul style="list-style-type: none"><li>• All</li></ul>

	<ul style="list-style-type: none"><li>• Inspection</li><li>• Unit</li><li>• Integration</li><li>• System</li><li>• Acceptance</li><li>• Scenario</li></ul> <p>The Test Cases window displays at the corresponding tab, through which you can create a record to define a Test for the Specification Package or a selected element within it (the record is actually created and edited on the '&lt;item&gt; Details' dialog).</p> <p>When you create one of these records, an icon displays on the element row in the 'Test' and 'All Indicators' columns of the Specification Manager. You can double-click on the icon to redisplay the Test Cases window and review the record, and to add more records if necessary.</p>
View Package as Gantt or List	Click on the 'Design > Package > Gantt View' or 'List View' ribbon option to display the Package contents in Gantt or List format, on a separate tab. The Gantt view lists all the elements in the Package, showing their assigned resources and the

	<p>progress of work on their separate tasks, both in text on the left hand side and as a graphical timeline on a calendar on the right. In List format, the elements are simply listed in a more condensed form of the Specification Manager, with no Notes text, Maintenance items or Tests. You can review the element properties or resource details by double-clicking on the item.</p>
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## Notes

- If a record or entry does not display on the Specification Manager when you save the record, press F5 to refresh the display
- Package Baselines and Auditing are available in the Corporate and extended editions of Enterprise Architect
- In the Corporate and extended editions of Enterprise Architect, a User Security system can be applied that restricts or enables access to a range of operations and functions; if you cannot access a function in the Specification Manager, check with your System Administrator or Security Administrator to see if you have access permissions to work with that function

# Reporting

As you develop the elements in the Specification Package, you can produce a number of documents and reports to either disseminate the information you have compiled or to extract additional information on the elements from other aspects of model development and management, that might not be immediately visible in the Specification Manager.

You can also export the data you have created to a .csv file and perhaps onwards to another tool, or import element information created outside Enterprise Architect.

## Access

Ribbon	<p>Select the element in the Specification Manager, and the 'Specification - Specify &gt; Element &gt; Documentation' option, then the required submenu option:</p> <ul style="list-style-type: none"><li>• Generate Documentation (DOCX/PDF/RTF)</li><li>• Publish as HTML</li><li>• Publish as Joomla! Article</li><li>• CSV Import/Export</li><li>• QA Reports and Metrics</li><li>• Spell Check Current Package</li></ul>
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## Review facilities

Facility	Description
Generate documentation in report document format	<p>Enterprise Architect provides a comprehensive report generation facility, through which you can create a range of reports on different aspects of your model. You can apply this facility to the elements of a Specification Package, to generate a report in any of these formats:</p> <ul style="list-style-type: none"><li>• DOCX</li><li>• PDF</li><li>• RTF</li></ul> <p>Select the 'Generate Documentation (DOCX/PDF/RTF)' option.</p> <p>The 'Generate Documentation' dialog displays, with the 'Element' field set to 'Selected Elements' as the target contents of the report, and the 'Template' field set to 'Specification Manager List'. The output file extension determines the output format of the document.</p>
Generate documentation in web	<p>As you develop the Specification Package elements you can publish them on the web, where the outline structure</p>

page format (HTML)	<p>closely mirrors the Package structure and makes it very simple to explore on-line. You export the Package to web pages, where the web report provides an easy to use, highly detailed, JavaScript-based structure. In addition, any hyperlinks in the elements make browsing to related information very simple.</p> <p>Select the 'Publish as HTML' option.</p> <p>The 'Publish as HTML' dialog displays, with the Specification Package name in the 'Package' and 'Title' fields.</p>
Generate documentation as a Joomla! Article	<p>An Enterprise Architect Package can be published as an Article (HTML page) in a local Joomla! installation, using the 'Publish as Joomla! Article' dialog. All child Packages of the selected Package will be automatically included for publishing.</p> <p>Select the 'Publish as Joomla! Article' option.</p> <p>The 'Publish as Joomla! Article' dialog displays, with the Specification Package name in the 'Package' field.</p>
Generate spreadsheet file (CSV)	<p>In Enterprise Architect you can import data from a spreadsheet into a Package and export element data from a Package</p>

<p>and import from a spreadsheet</p>	<p>into a .csv file.</p> <p>You can perform both of these operations within the Specification Manager, to bring in an existing set of element definitions to the Specification Package or transfer the Enterprise Architect element definitions to a different location. Select the 'CSV Import/Export' option.</p> <p>As part of either operation, you need to create a CSV Specification file.</p> <p>Whilst your display might be filtered to show a specific type of element, the operations work on the Package itself and incorporate all types of element within the Package.</p> <p>After you perform an import, refresh the display (press F5) to show the imported elements.</p>
<p>Generate Quality Assurance reports and Metrics</p>	<p>Enterprise Architect provides several Quality Assurance reports for checking the development and impact of development of the elements in a Package. You can access these within the Specification Manager, so that the Specification Package is automatically the target of the report.</p> <p>You can also view and adjust the metrics report should you want to monitor the</p>

	impact on the project metrics of the work that the elements in the specification might entail.
Spell-check the Package	<p>Before generating and/or printing any information from the Specification Manager, you could run the system Spell Checker over the Specification Package to remove any errors that might exist in the element names and text.</p> <p>Select the 'Spell Check Current Package' option to display the 'Spell Check: &lt;Package Name&gt;' dialog, and click on the Start button.</p>

## Notes

- In the Corporate and extended editions of Enterprise Architect, a User Security system can be applied that restricts or enables access to a range of operations and functions; if you cannot access a function in the Specification Manager, check with your System Administrator or Security Administrator to see if you have access permissions to work with that function



