ENTERPRISE ARCHITECT

User Guide Series

Custom Documents

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CREATED WITH ENTERPRISE ARCHITECT

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Custom Documents

A Custom Document is a variant of a Linked Document in which you can create a fully customized report on any set of ad hoc elements, diagrams or Packages. Individually or in combination, from anywhere in the model, in any order you choose, and in any format and style you select or design. The granularity of the objects you choose depends entirely on how you want to your document to be populated. A Custom Document represents a range of model elements and their properties, and every time you open the document the content is dynamically refreshed from the model objects you have included and from the template instructions.

A Custom Document can have three types of content:

- Boilerplate text from a document template - including a title page, table of contents and paragraph text

- Dynamic content that is dragged into the document from the Browser window, including Packages, diagrams, elements and features; you can bring in multiple objects together if you want to maintain the same sequence as in the Browser window

- Static content that you type or paste into the document, including additional images, tables, glossaries and similar
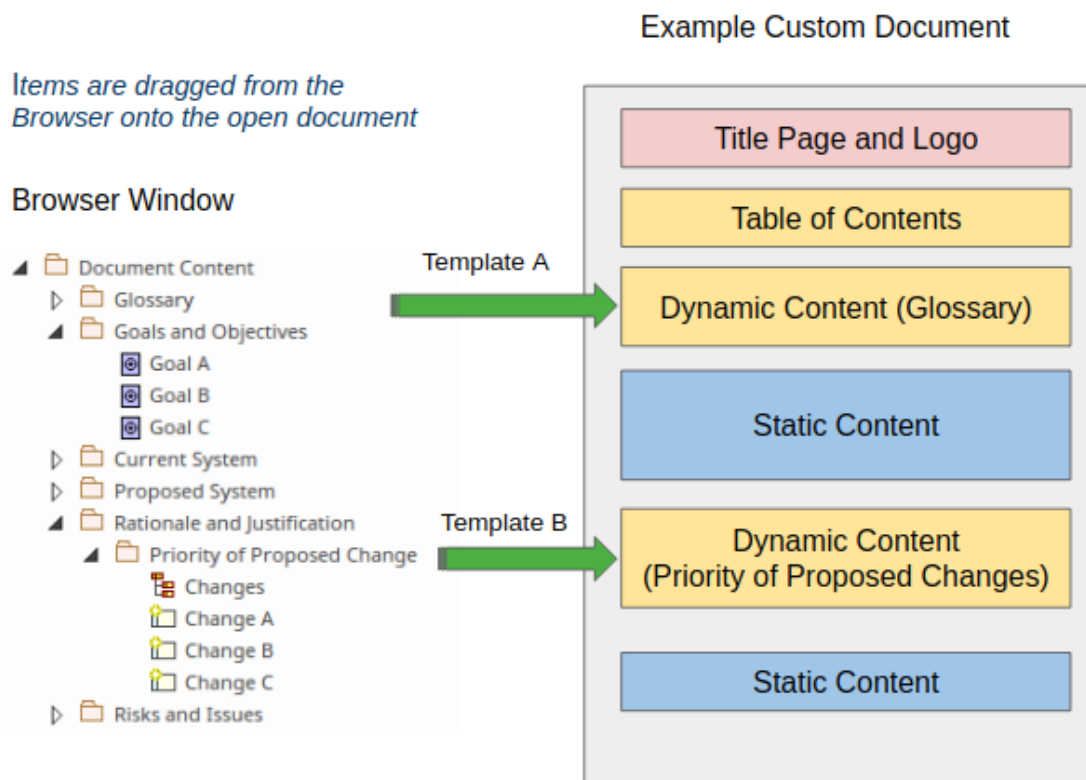
Custom Documents are one of the easiest and most compelling ways to produce high quality and flexible publications, for compliance with project or contractual obligations, or simply for internal use by other team members.

A productivity feature of the Custom Document facility is that you are able to refresh an entire document, or just a particular inserted fragment that will dynamically update the document, ensuring that it reflects the latest changes in the repository. For those who have previously created documents in their favorite word processor and have manually exported and pasted into their documents diagram images (which, of course, are out of date the minute the repository diagram is changed) will welcome the ability to have their document automatically updated and ready to publish with minimal effort.

Creating Custom Documents is straightforward and you can generate a professional and useful document within a few minutes. The document can be saved within the repository or exported to a variety of formats, including DOCX, PDF, and RTF. To complement the documents, it is also worth considering giving an audience access to a live model - through WebEA or Prolaborate - that is part of the Pro Cloud Server.

Getting Started

Getting started with Custom Documents is straightforward; this topic identifies and explains the steps you follow to create a professional and useful document to save within the repository or to export to file in a range of formats including DOCX, PDF, RTF and HTML.

In brief, to create a Custom Document you:

1. Identify or create any document templates you want to use in generating the Custom Document.

2. Select or create a parent Package or element to host the Custom Document.

3. Open a new Custom Document, and provide a name.

4. Select a document template from a list, or choose 'none'.

5. Type in Static text and drag in Packages, elements, diagrams or Features from the Browser window, as Dynamic content. When you drag Dynamic content into the document, you are prompted to select another template or template fragment so that you can organize the information on that object in a specific format.

6. Perform further editing and formatting on the document, using the Document-Edit ribbon options and the left-hand summary panel.

7. Print or save the document in the required format.

Identify Templates

At two points in the process of creating a Custom Document you can select a template to insert boiler plate text and format the document content.

The initial template is to apply an overall document structure and format, and other templates are used to provide specific formatting for particular sections within the document. You can use the system-provided templates, templates that you or other users have created before, or templates that you have created specifically for this document. You need to have created and/or identified these templates before you start. See the *Template Prerequisites* Help topic.

Select or Create Parent Element

A Custom Document is hosted by an element in the model. The direct method of creating a Custom Document also generates a Document Artifact element to contain it, in a selected Package. You might want to create this Package as a container for all your Custom Documents.

You can also create almost identical documents as Linked Documents, in which case you create and/or select the parent *element* for the document. See the *Create a Custom Document* Help topic.

Create a Custom Document

In the Browser window, select the Package in which to create the Custom Document, and select the 'Publish > Model Reports > Custom Document' ribbon option. The system prompts you to provide a name for the Custom Document; when you do, the Document Artifact element is created in the selected parent Package, and the document editing view opens in the Enterprise Architect workspace. See the *Create a Custom Document* Help topic.

Select Template

After the document editor opens a prompt displays for you to select from a list of built-in and user-defined templates. The templates might include those you have specifically created for your Custom Documents in general, or for this

document in particular.

The selected template will act as the backdrop for the whole document, and would typically provide a title page, a table of contents and placeholders for static or dynamic content, in addition to the styles. Such templates are likely to have been created as Linked Document templates.

You can choose to not use a template by selecting 'none'.
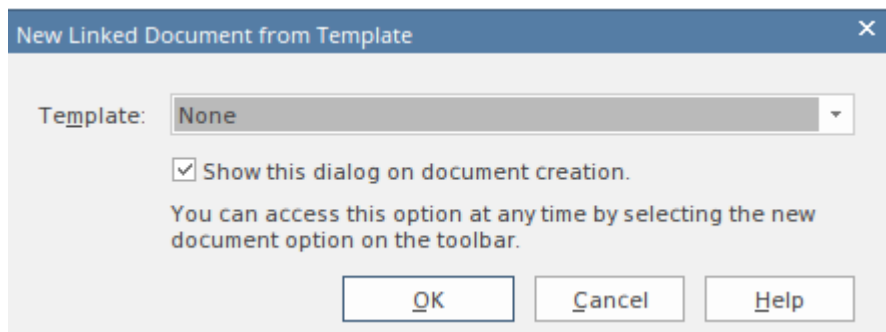
See the *Template Prerequisites* Help topic.

Add Static Content

You add Static content to the document by simply typing or pasting text directly into the editor screen and manually applying styles and formatting. Enterprise Architect has a fully-featured document editor that helps you to enter and edit the content of the document. The features of the editor are accessed via the Document-Edit ribbon, which is enabled when a document is open in the workspace.

You incorporate Static content to explain or connect the Dynamic text. For example, you might want to describe the process by which you created Requirements from the notes from stakeholder workshops. This image is an example of Static content pasted into a document and formatted.

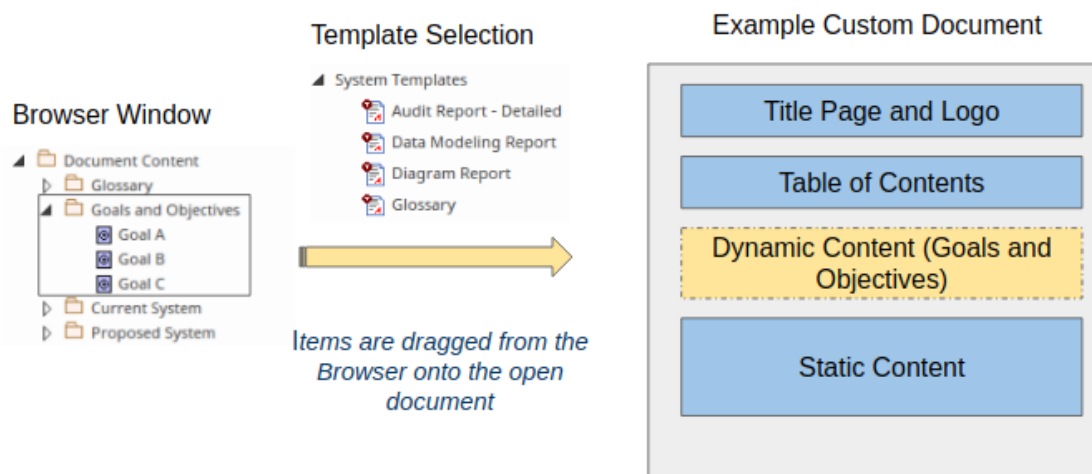See the *Add Static Content* Help topic.

Add Dynamic Content

Dynamic content is a set of links to any number of Packages, diagrams, elements and Features (attributes, operations and receptions) dragged from the Browser window onto the open document. Whenever you drag an item from the Browser window into a document, Enterprise Architect displays the 'Add Content to Document' dialog to prompt you to select how to insert and format the item.
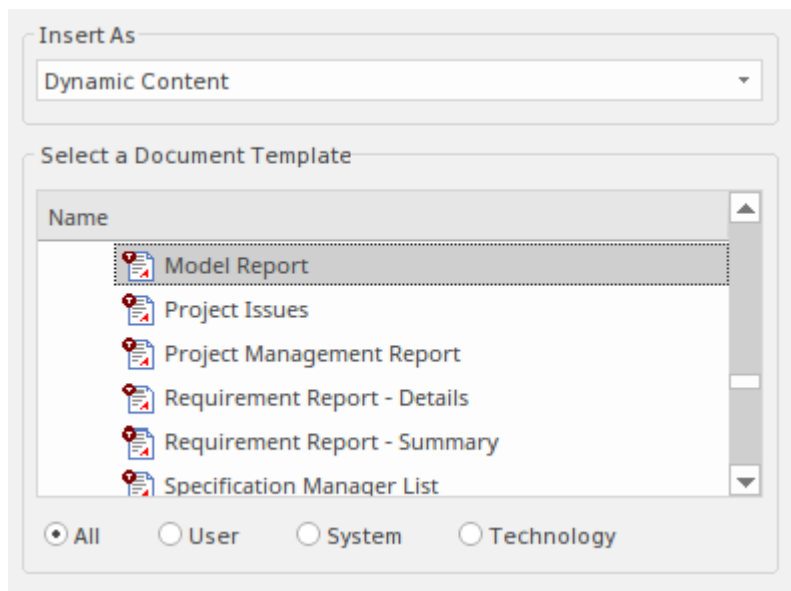
For a model element such as a Package, element or Feature, you can select the (default) option of 'Dynamic Content' in the 'Insert as' field. This adds the object information to the document. The prompt also provides a list from which you can select a template or template fragment to format that specific information within the document. The list of templates can be filtered to present only those that are user-defined, or system-provided, or technology-provided, or to show all available templates. You make your selection by clicking on the appropriate radio button under the list.

You can also select an option in the 'Insert As' field to add the model element as a hyperlink, which enables the reader to access the object in the Browser window.

You can incorporate diagrams either as hyperlinks or as Diagram Images, by selecting the appropriate option.

See the *Add Dynamic Content* Help topic.

As you add Dynamic content to a Custom Document, a 'Content' panel displays on the left of the document editor. This panel is discussed in the next section.

Using the Content Panel

As you add Dynamic content to the Custom Document, the left-hand 'Content' panel lists the items that have been inserted as either 'Dynamic Content' or 'Diagram Image' - items added as hyperlinks are not included in the panel. The items are listed in the order in which they were inserted into the document. By right-clicking on an item name in the list

you can select options to:

- Change the template applied to the item in the document - the 'Add Content to Document' dialog displays for you to select another template

- Highlight the item in the body of the document

- Update that item alone as a dynamic section of the document

- Locate and highlight the item in the Browser window

- Delete the item from the document

See the *Manage Custom Documents* Help topic.

Print or Export Document

A Custom Document can be viewed by other team members using Enterprise Architect. It can also be exported to a variety of formats and so made available to a wider audience. To export the document, click on its Document Artifact element in the Browser window and select the ribbon option:

Document-Edit > File > Save As (Export to File)

The 'Save as' dialog displays, through which you can save the document to an appropriate location and in one of a variety of formats, including DOCX, PDF, RTF and HTML.

If the Pro features of the Pro Cloud Server have been enabled, the document will be available for view by a wider audience through a browser in WebEA and in Prolaborate, without the need to export it.

You can also print the document by clicking on the Document Artifact and selecting the ribbon option Document-Edit > File > Print.

See the *Publish a Custom Document* Help topic.

Template Prerequisites

Enterprise Architect provides a wide range of document templates that enable you to define the format and structure of your reports and documents. A big advantage of these templates is that you can re-use them for different instances of the same document or for different documents, helping you to implement document standards across the organization, and maintain consistency of style, format and presentation in your document library. For example, it might be part of your project methodology to create a 'Concept of Operation' document at the start of a project, and the same template could be used for a number of projects.

Two types of template can be used with Custom Documents:

- Linked Document templates - these templates apply to the Static content and control the main structure of the document, including title page, table of contents and headings and styles; for example, a 'Concept of Operation' template

- Document Generation templates - these templates can be applied to the Dynamic content you insert from the Browser window, and are typically specific to a particular style of presentation; for example, listing Requirements and their properties in a table, or showing a diagram with a list of the elements that it contains
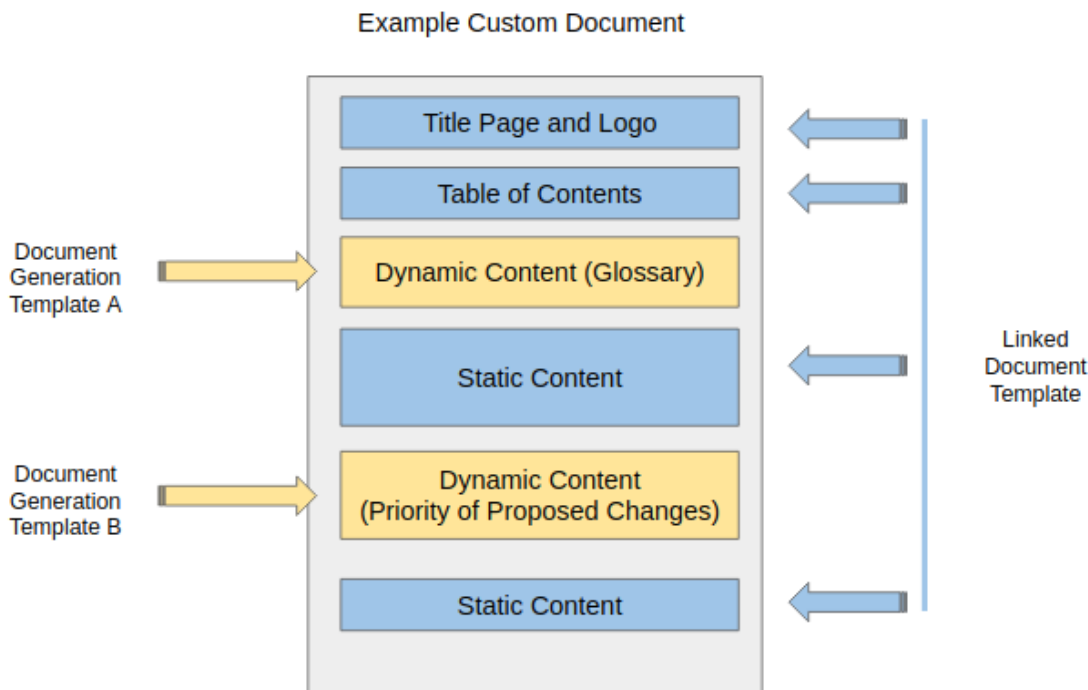
Productivity gains can be achieved by using a Corporate template for a document type; for example a 'System Requirements Specification' or a 'Solution Architecture Document' with appropriate styles, tables of content and boiler plate text. Enterprise Architect provides a large number of system (built-in) Linked Document templates and Document Generation templates to use, but you can also copy and modify the system templates or create entirely new templates to address particular organization, project or team standards. You can achieve this using the built-in template editor, for Linked Document templates, Document Generation Templates and Template Fragments.
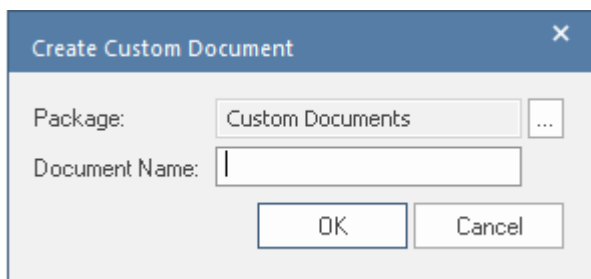
Create a Custom Document

A Custom Document is a form of Linked Document, and therefore is associated with an element in the model. However, Linked Documents usually contain static information specific to the host element, whereas the main feature of a Custom Document is that it contains automatically refreshed information on several objects from anywhere in the model. Therefore, the main method of creating a Custom Document also generates a Document Artifact element to host the document, in a selected Package.
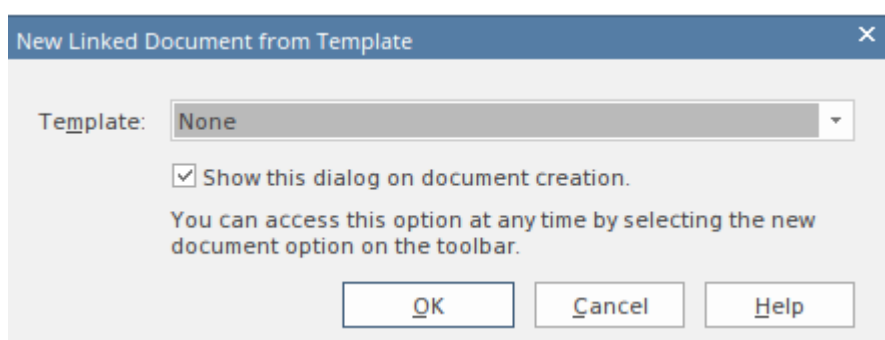
Access

Ribbon	(Click on selected parent Package.)
	Publish > Model Reports > Custom Document

Create the Document

When you select the ribbon option, the system displays a prompt to provide the document name.

After you type in the name and click on the OK button, the system opens the document in the document editor and prompts you to select any document template you have decided to use as the base template, to provide the cover pages, tables of content, styles and boiler plate text for the whole document.

If you do not want to use a document template you can select 'None' from the drop-down.

When you click on the OK button, the document is populated with any template boiler-plate text and fields, and the document is ready for you to add content.

Alternative Method - Use a Document Artifact

You can mimic the main approach by creating your own Document Artifact element and then creating a Linked Document on it, which you can also populate with Static and Dynamic content.

Firstly, open a diagram and drag a 'Document' icon from the 'Documents' page of the Toolbox onto that diagram. Give the Artifact element a name. Double-click on the Artifact to open the Linked Document editor (or click on the Artifact and select the 'Design > Element > Manage > Edit Linked Document' ribbon option). Enterprise Architect will then prompt you to select a template for the overall document (as for the Publish ribbon icon).

Add Document Content

When you work with Custom Documents you can add content in several different ways. This provides you with great flexibility and enables you to:

- Craft a document tailored exactly to your needs

- Create an expressive narrative that will appeal to your audience, with the added benefit of the document content being updated automatically whenever the content in the repository changes.

A Custom Document can contain three types of content:

- Content contained in the document template - including a title page, table of contents and paragraph text

- Dynamic Content that is dragged into the document from the Browser, including Packages, diagrams, elements and features

- Static Content that a user types or pastes into the document, including static images

We will look at these three types of content in the *Document Templates*, *Add Dynamic Content* and *Add Static Content* Help topics.
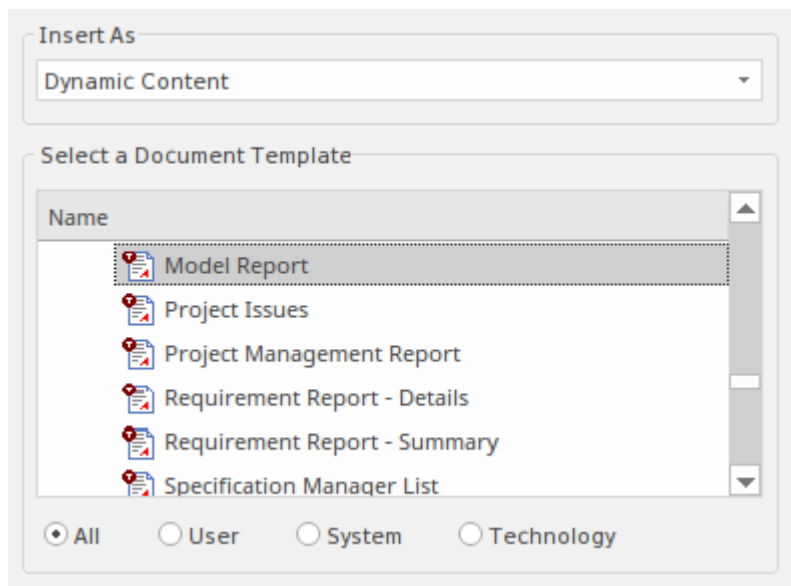
Add Dynamic Content

Dynamic content refers to content that can be added by dragging and dropping items from the Browser window onto the open document. This is a great facility of a Custom Document, because whenever the document is accessed, the item information is automatically refreshed from the model. Any item in the Browser window can be added to the document, including Packages, diagrams, elements and Features (attributes and operations). Multiple items can be dragged at the same time; these would be inserted based on their order in the Browser window.

Great flexibility is provided by allowing you to select a document generation template for each item you add to the document. For example, you might add a Stakeholder Package containing a list of Stakeholder elements, and use a template that lists the Stakeholders in separate paragraphs.

This allows you to create a compelling publication that contains up-to-date selected information from the model in the repository, 'injected' into appropriate places in the document above, below or between Static content, and rendered using user-specified templates.

Adding the Material

Whenever you drag an item from the Browser window into a document, Enterprise Architect displays the 'Add Content to Document' dialog to prompt you to select how to insert and format the item.

You can drag and drop an item into a document as Dynamic content by selecting one of the options in the 'Insert As' field:

- Dynamic Content - the item contents will be copied into the document, rendered according to a selected document generation template: for a model element such as a Package, element or Feature, this is the default option

- Hyperlink - creates a link that a reader can follow to the object or diagram in the Browser window (note, this is for documents read online)

- Image Hyperlink - creates a hyperlink to an image artifact of a diagram, in the model; the image artifact is created as part of this process

- Diagram Image - this inserts the selected diagram as an image in the document
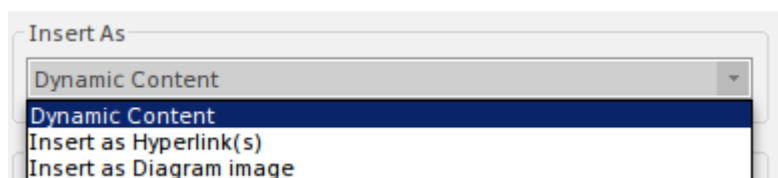

If you are creating a number of links (and, for Dynamic content, using the same template) you can avoid displaying the

dialog each time. Create the first link and then press the Ctrl key as you drag each of the subsequent objects onto the document. The links are all of the first-selected type, until you drag an object without pressing the Ctrl key; the dialog displays again and you can change the 'Insert As' option.

Specifying a Template

Whenever you add an item from the Browser window to a document, the 'Add Content to Document' dialog that is displayed also prompts you to select a Document Generation template or Template Fragment from the 'Select a Document Template' list. You would select a template if you have chosen to insert the item as Dynamic content. For example, you might want to display an element's content as a formatted paragraph with a heading and a list of features, or as a labeled table showing the element's Name, Description (Notes) and Status.
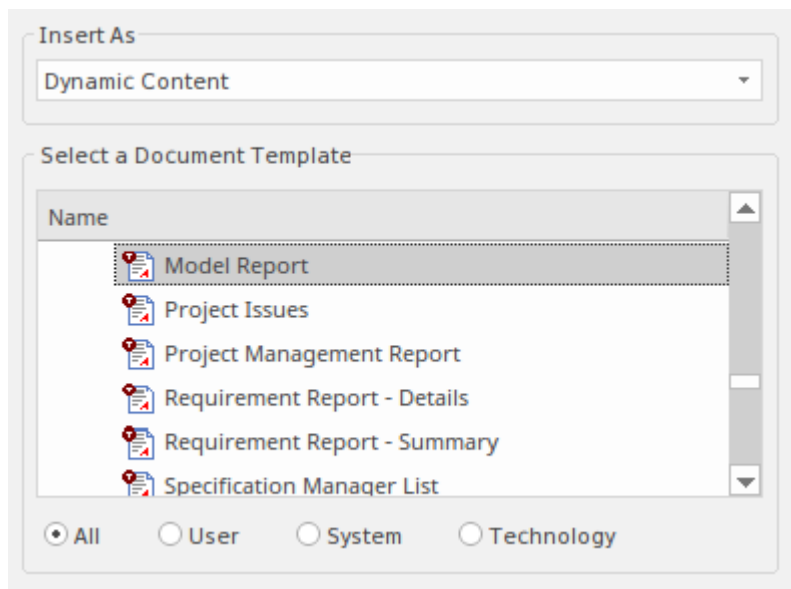
The list of templates can be filtered to include only those that are user-defined, or system-provided, or technology-provided, or to show all available templates. You make your selection by clicking on the appropriate radio button under the list.

This image shows an example of items that have been added as Dynamic content and rendered using a template that displays the items in a table showing each item's Name, Priority and Notes.

Priority of Proposed Change

The changes in the table below are listed with their priorities which have been determined through a series of stakeholder workshops.

Name	Priority	Notes
Change A	Medium	These are the notes that describe change A
Change B	Medium	These are the notes that describe change B
Change C	Medium	These are the notes that describe change C

Inserted Material

Generally, you insert Dynamic content items into the Custom Document from the Browser window in sequence. It is, in practice, possible to insert one dynamic item within the section generated by another, but this presents several complications in document generation and maintenance. Therefore, if you do insert one item within another, a warning message displays to makes sure you are aware of it, and to allow you to cancel the insert if it is not intentional.

Keeping Track of Inserted Dynamic Items

As you add Dynamic content to a Custom Document, you will notice that a 'Content' panel displays on the left of the document editor, listing the items that have been inserted as either 'Dynamic Content' or 'Diagram Image', in the order in which they were added to the document. Items added as 'Hyperlinks' or 'Image Hyperlinks' are not included in the panel.) You can manage the added dynamic content from the context menu that displays when you right-click on each of the item names in the panel.
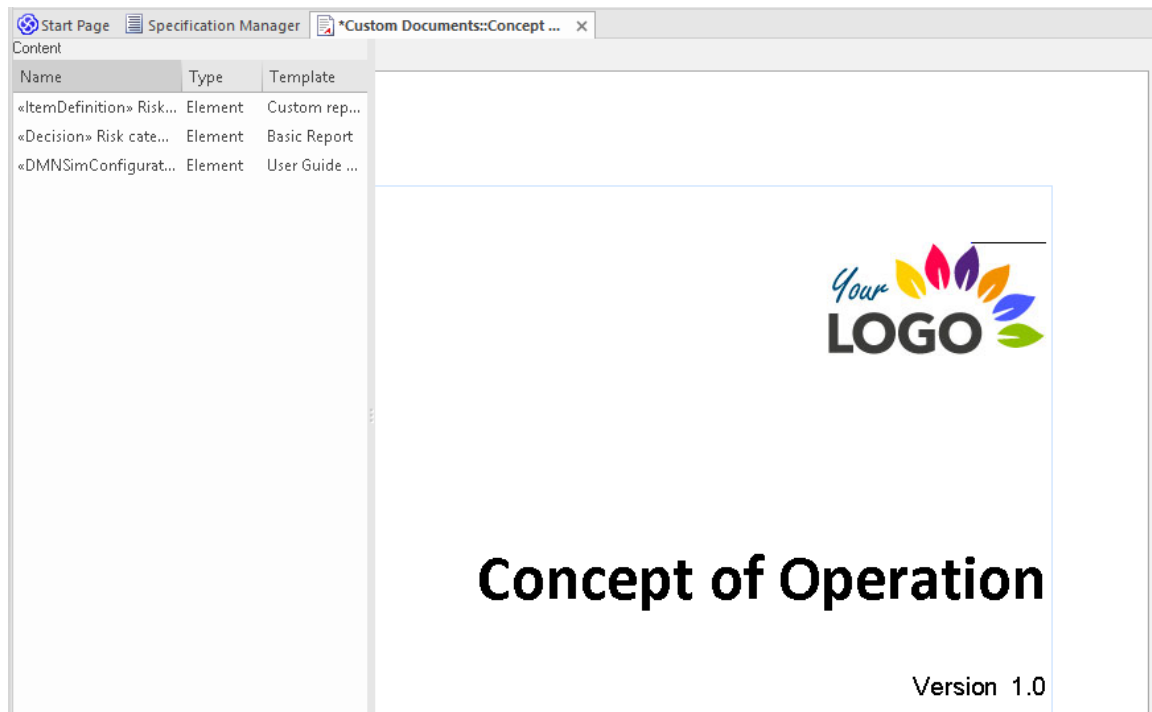

This panel is discussed in the *Manage Custom Documents* Help topic.

Inserting the Wrong Item

If you find that you have inserted the wrong model object as Dynamic content, you can right-click on it in the 'Content' panel and delete the section. Alternatively, if you inserted the item as a hyperlink (which is not listed in the 'Content' panel) and/or you have only just inserted the item, you can right-click on the text and select the 'Undo' option, which immediately removes the whole item. The Undo option is also available in the Document - Edit ribbon, under the 'Edit' icon in the 'Edit' panel.

Add Static Content

The main purpose of a Custom Document is to capture up-to-date information from the repository via Dynamic content, but you will also need to incorporate Static content to explain or connect the Dynamic text. For example, you might write some Static text describing the types of Requirements and how some were derived from the analysis of stakeholder requests, and then drag in a Package of Requirements from the Browser window as Dynamic text and apply a template that puts elements into the document as a table.
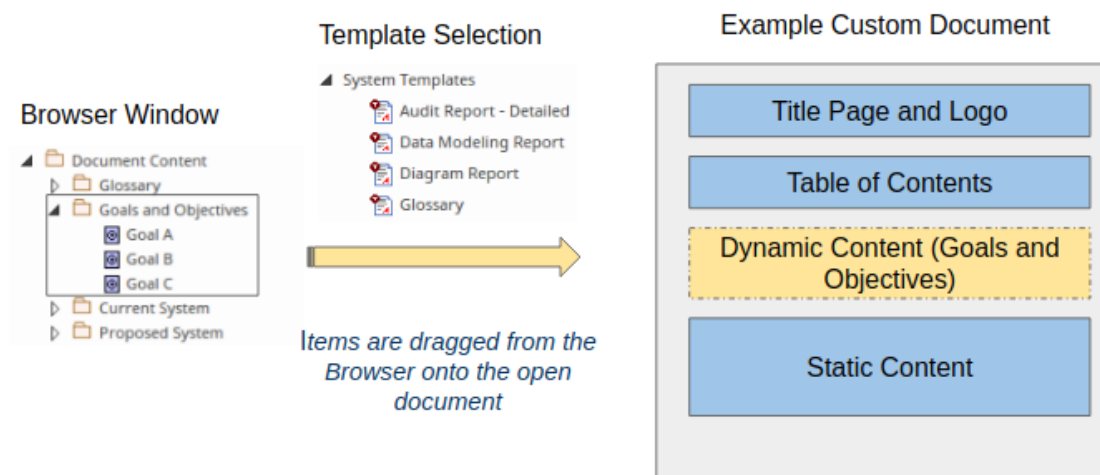
You can create Static content by typing or pasting text directly into the document and applying styles and formatting. Enterprise Architect has a fully-featured document editor that helps you to enter and manage Static content in the document. The editor facilities are available through the Document - Edit ribbon, which is automatically enabled when a document is open in the workspace. This image shows some of the formatting options available from the ribbon.
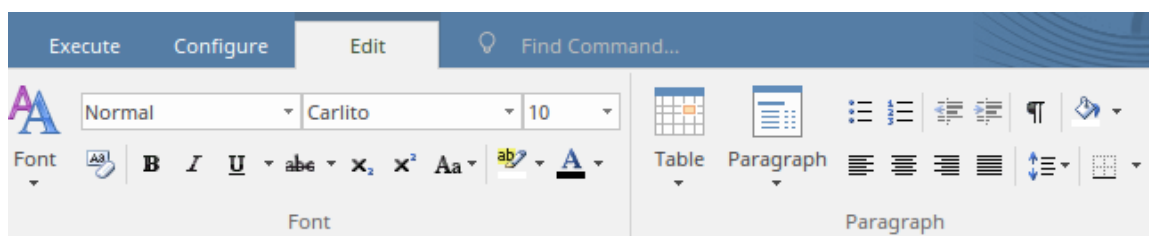
This image shows an example of Static content that has been pasted into the document and is rendered according to the styles defined in the Linked Document template. See the *Editing Documents and Templates* Help topic.


Inserting Breaks, Headers, Footers and Extras

Amongst the wide range of features for working with Static content in a custom document are options to add page and section breaks, headers and footers, tables of content, footnotes, and paragraph and text formatting. There are also several guides such as horizontal and vertical rulers.

## Inserting Static Images and Objects

Whilst many of the images in a Custom Document will be inserted dynamically from the Browser window, there will be occasions where you might want to add an image from a local or network drive; for example, an organization or project logo, or an image from another tool.

It is worth remembering that these too could be added to a repository diagram and inserted as Dynamic content.
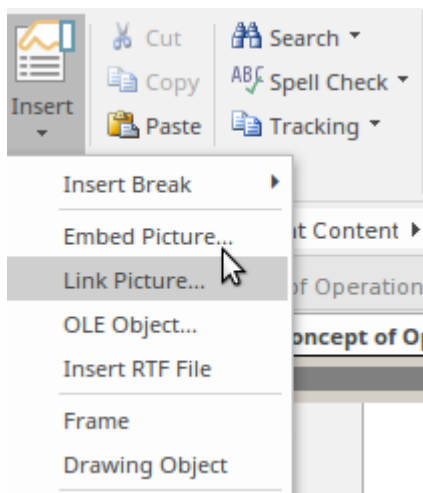
Inserting and Formatting Tables

Just as if you were using your favorite word processor, you can insert tables and format them to suit the content, including adding rows and columns, and changing border style and cell spacing. These tables could be used in the document preamble for sections such as versions of the document, or audience, or in the body of the document. This image shows some of the options for working with tables.
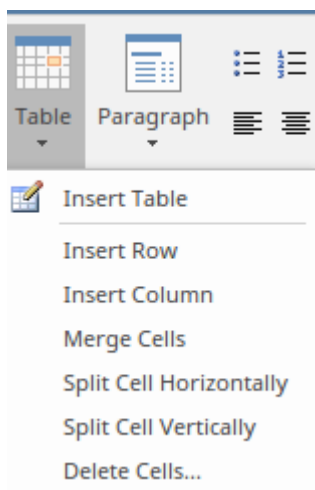
Spelling and Thesaurus

When working with both Static and Dynamic content you can configure Enterprise Architect to auto spell-check, and you can also use an inbuilt thesaurus to find alternative words to make your document richer. Spelling can be configured by setting a number of options available from the Document - Edit ribbon, as illustrated by this image.
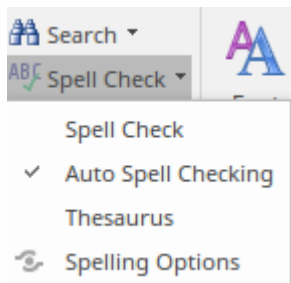
Using Track Changes

The document edit facilities in Enterprise Architect allow you to work collaboratively with other modelers. One feature that will help you when working with Static text in Custom Documents is Track Changes. This allows you to track the changes as you or others work with the document. This image shows a Static part of the document where Track Changes have been enabled and some text has been changed; the deleted and added text is shown in red.

Baselines and Version Control can be used to 'track changes' in the Dynamic parts of the document.

Manage Custom Documents

As you add Dynamic content or Diagram Images to a Custom Document, the name of each added item or diagram is added to the 'Content' panel on the left of the document. You can use these context menu options in the panel to perform a number of operations on the listed items:

- Change the Template

- Highlight Section

- Update Dynamic Section

- Find in Browser

- Delete Section

These options are described in the remaining sections of this topic.

The main body of the Custom Document editor also has a context menu, providing the 'Update Dynamic Report elements' option that will update all Dynamic content across the document, ensuring that you have the very latest information from the model. This context menu also provides a number of common editing commands such as Cut, Copy, Paste, Undo, Print and Zoom. Note that the 'Undo' option, when selected after a Dynamic content item has been added, will remove the entire section created for that item.

Change the Template

This option allows you to change the document generation template for the selected item. It is most useful when re-factoring the document in response to, say, a review by Stakeholders. For example, you originally used a template for Requirements that listed each Requirement in a paragraph style. A Stakeholder, after reviewing the document, asks to see the Requirements listed in tabular form. You would then use this option to switch to an alternative template.

Highlight Section

This option highlights the formatted material from the selected item in the Custom Document. This is very useful for two reasons, in that it identifies where the item is included in the document, and it shows exactly what material has been added from the item.

Update Dynamic Section

The main characteristic of Dynamic content is that it drawn from items in the model that are subject to frequent change. As you read the document, an item might be updated by another team member. To ensure that you are seeing the latest instance of an item, select this option to refresh the item details from the model.

There is also an option available from the context menu for the main body of the Custom Document, to update *all* Dynamic sections of the document at the same time, as described earlier.

Find in Browser

This option locates the selected object in the Browser window. As you develop your Custom Document and add more and more sections it might not be obvious from looking at the list what each item or diagram is and where it came from in the repository. Select this option to locate the Package, diagram, element or Feature (attribute, operation or reception) in the Browser window.

Delete Section

This option removes the Dynamic content for the selected section. An item might have been added to the document that, for some reason, is no longer required. You can select the option to remove that item from the document without altering the other sections, regardless of whether they are Static or Dynamic. At a later time, if necessary, you can drag the item back in at the same point or a different point.

Note that Packages and elements inserted into a document might have child objects, and if you delete the parent object from the document you will lose the child objects as well. Therefore, when you select to delete an object with child objects, a warning message displays to make you aware and allow you to cancel the deletion if necessary.

Rearrange Content

Because a Custom Document contains template boiler-plate text and Static text as well as Dynamic text, there is no direct option for switching the Dynamic sections around - you cannot take the fixed text into account that way.

The simplest option is to just click and drag the cursor over text you want to move, use the 'Copy' or 'Cut' context menu options, and then paste the text into the required location. If this moves a section of Dynamic content, the relocation is reflected in the left-hand panel after the document is saved.

You can also use the panel 'Highlight Section' option to make sure that:

- The copied or cut section contains exactly the text and Dynamic content you want to move, and

- The point to which you want to move the text does not sit within the start or end of another Dynamic section

Simply right click on the item represented by the Dynamic content in the panel, and select the 'Highlight Section' option. This highlights all the text within that item's Dynamic content. You can then select any appropriate text that includes the highlighted section.

In the panel, you then right-click on the item represented by the Dynamic content before or after which you want to insert the captured text, and again select the 'Highlight Section' option. You can then see exactly where that section starts and ends, and paste in the captured text where it does not conflict with the highlighted section.

Locate Custom Documents

Another way to make Custom Documents available is to refer the users to the 'Publish' search for locating Custom Documents. This also helps you find Custom Documents that you might want to edit or delete.

Call up the Model search facility and select the 'Publish' search category, then select the 'Locate Custom Documents' search. This searches for and lists all Custom Documents in the model.

Publish a Custom Document

Once you have created a Custom Document and added Static and Dynamic content, you can share the document with other modelers and stakeholders. A publication can be created using the 'Document - Edit > File > File > Save As (Export to File)' ribbon option.

Before you generate the document you might want to refresh the Dynamic content to ensure it is up-to-date - see the *Manage Custom Documents* Help topic.

The 'Save As (Export to File)' option helps you to save the document to a file on a local or network drive in a variety of convenient formats, including:

- PDF
- DOCX
- HTML
- RTF
- TXT
- SSE

When you select the option, a Windows-style 'Save As' dialog displays on which you browse for the file location to save the document into, and select the file format to apply.
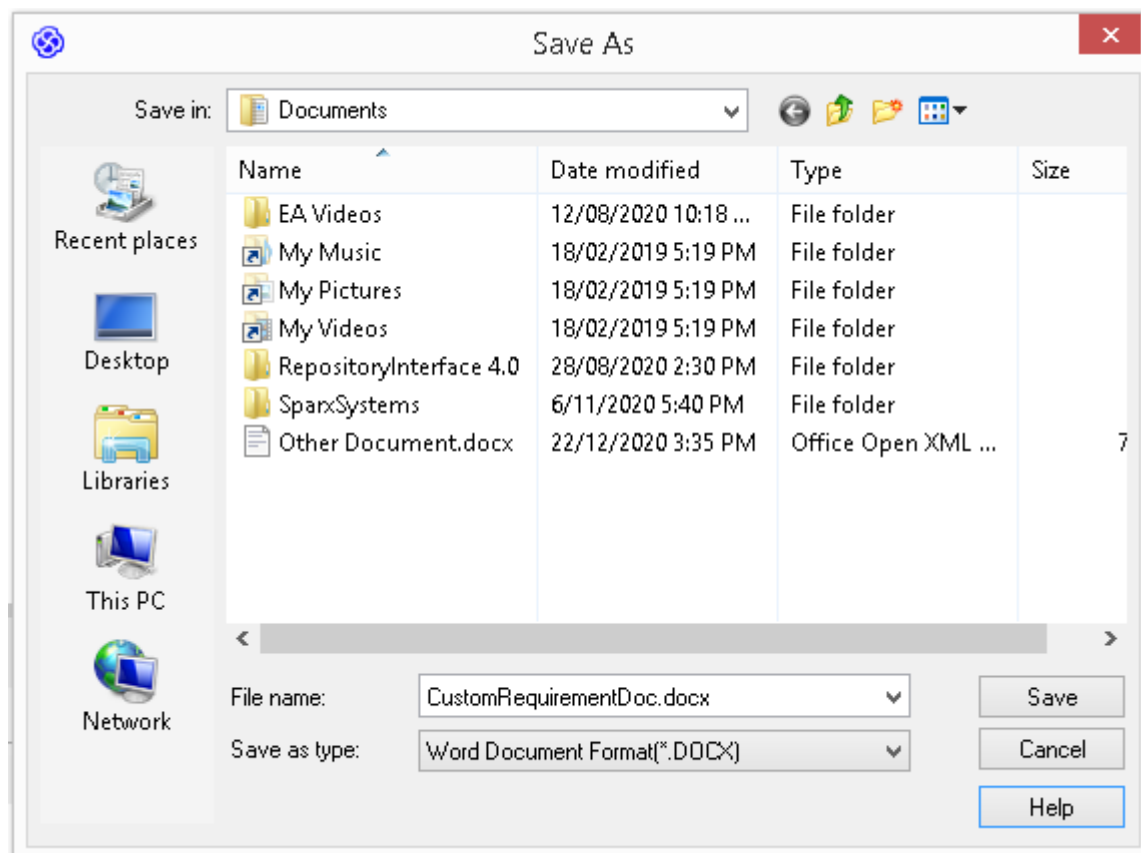
There are other ways in which a document can be made available to stakeholders, depending on the Sparx platform that you have set up. If you are using the Pro Cloud Server and have 'Pro' features enabled, you can make your document available to a wide audience, including stakeholders outside the modeling teams, using two tools that anyone with a Web Browser and the correct credentials will be able to open.

- A link can be provided to a WebEA page that will display the document (see the Add a Document Help topic in the WebEA section)
- A link can be provided to a Prolaborate page that will display the document (see the Prolaborate Help topic)