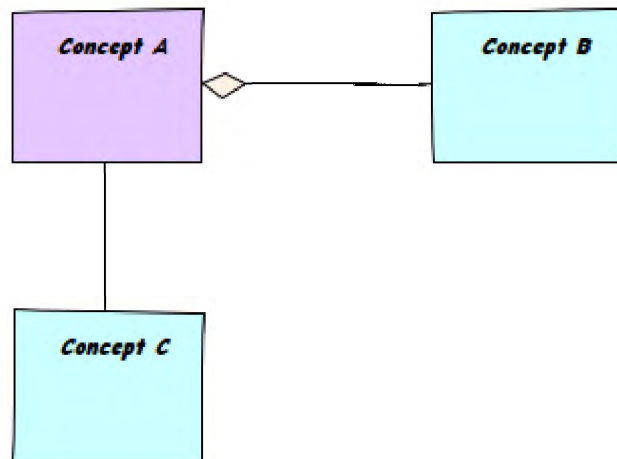


## Concept Modeling

The *Concept Modeling* pattern creates elements and a Class diagram that enables concepts to be modeled and visualized. Different types of connectors are used to convey different structural relationships between the concepts. A diagram property has been set to display the diagram in Hand Drawn Mode making it more appealing to some stakeholders. Concept Modeling helps define a universal lexicon of terms that will assist in creating a common understanding amongst stakeholders.



*Figure 1. Shows a Class diagram that is used to model concepts in the domain of discussion. Elements have been created and related to each other and the diagram mode has been set to Hand-Drawn to increase the diagrams appeal.*

## Discussion

The purpose of the pattern is to create a model and diagram that records the important business terms and their meaning for the given domain. The model facilitates collaboration by creating a share understanding of the business vocabulary. The model will be an important resource for both business and technical audiences.

The model and the terms it contains are typically created as part of enterprise modeling but if the terms do not exist they can be created at the inception of an initiative. The

bulk of the terms will be created as early as possible but it is likely that some new terms will be added as the initiative progresses..The concept model will commonly be used continuously throughout the lifetime of the current and future initiatives being of particular use when new staff or contractors join the team.

The following is a list of some things you may want to do when working with this pattern.

- Change the name of the diagram to suit the initiative.
- Change the names and notes of the concepts to suit the initiative.
- Create additional terms and definitions as needed.
- Create relationships between concepts in the model including Generalizations, Associations, Aggregations and Compositions.
- Add enumerations to document discrete lists such as product types.

The following is a list of some of the next steps available when applying the pattern.

- The Concepts can be related to other elements in the model or used in the textual notes in the description of other elements.
- In the circumstance that the model becomes large it can be broken down into a number of sub-models which can be created in different diagrams.
- Documentation can be automatically generated from the model using user defined or built-in templates.

## Reference

The following help topics will assist you learn about how to work with this pattern.

[Concept Modeling](#)

[Conceptual Data Model](#)

[Business Analysis Body of Knowledge \(BABOK\)](#)

[Traceability Tools](#)

[Documentation](#)

The following are some of the tools that will be helpful when working with this pattern.

### Hand Drawn and Whiteboard Diagrams

The Hand Drawn and Whiteboard Mode are display options available for any diagram that changes a system-drawn diagram to appear as though it was drawn by hand and, optionally, hand drawn on a whiteboard. It is a powerful device to engage an audience by presenting the diagram in a rough and more immediate style giving the impression that it is just a sketch that can be changed. For more details see the [Hand Drawn and Whiteboard Mode](#) help topic.

### Alternate and Images for Diagram Elements

Most standard elements allow an alternate image to be defined for an element that will be used in place of the graphical notation for the element either on a selected diagram or as a default on all diagrams. For more details see the [Using the Image Manager](#) help topic.

### Diagram Layout

The Diagram Layout tool allows you to layout an entire diagram, selected elements or sections of a diagram to make it more visually appealing or meaningful to a particular audience. There are a wide range of layout types to choose from and some types have filters that can be applied. For more details see the [Diagram Layout](#) help topic.

### Pan and Zoom

The Pan and Zoom facility is one of the tools that can be used to navigate around a large diagram. Often the resolution of a diagram must be reduced to ensure it is wholly visible but by using the Pan and Zoom window you can leave the diagram at a readable resolution and pan around to areas of interest zooming in when necessary. For more details see the [Pan and Zoom](#) help topic.

### Diagram Legends

The Diagram Legend facility is useful for manually or automatically changing the appearance of elements and connectors on a diagram. A legend can be added from the Common Toolbox and configured to codify the fill and line color and line thickness. This is a powerful way to add meaning and expression to a diagram and is particularly expressive when applied automatically based on element or connector properties. It can be used with a number of specialized diagrams such as roadmaps to create a powerful visualization. For more details see the [Diagram Legends](#) help topic.

### Document Generator

The Document Generator is a powerful facility in Enterprise Architect that allows a Database Engineer or other stakeholder to create high quality corporate or technical

documentation directly from the model, suitable for internal or external audiences. For more details see the [Documentation](#) help topic or the more general topic on [Model Publishing](#).

#### Element Discussions

The Element Discussion facility is a fully featured collaboration tool allowing modelers and model viewers and reviewers to communicate with each other directly inside the repository. Modelers using the full client or occasional viewers using WebEA can both post and reply to discussions and communicate and engage in chat. For more details see the [Element Discussions](#) help topic.

#### Specification View

The Specification View can be used as a way of working with any element type in a spreadsheet or word process view. It is particularly useful when there are a large number of elements as is typically the case when describing a system of any appreciable size. For more details see the [Specification View](#) help topic.

#### Relationship Matrix

The Relationship Matrix provides a spreadsheet like view of two groups of elements and the relationships that exist between them. It can be used as a powerful analysis mechanism to visually indicate how elements are related to each other and to discover which elements are missing relationships. For more details see the [Relationship Matrix](#) help topic.

#### Traceability Window

The Traceability Window automatically displays the relationships that exist between Use Cases and other model elements including up-process and down-process elements. The traceability tree view can be conveniently expanded to see deeper relationships and elements displayed in the window can be located in all diagrams in which they appear. For more details see the [Traceability Window](#) help topic.