Composite Requirement Hierarchy

The *Composite Requirement Hierarchy* pattern creates elements and diagrams that allow Requirement hierarchies to be defined to any level allowing drill-down (click-through) from a requirement in one level to another diagram displaying its child Requirements at the next level in the hierarchy.

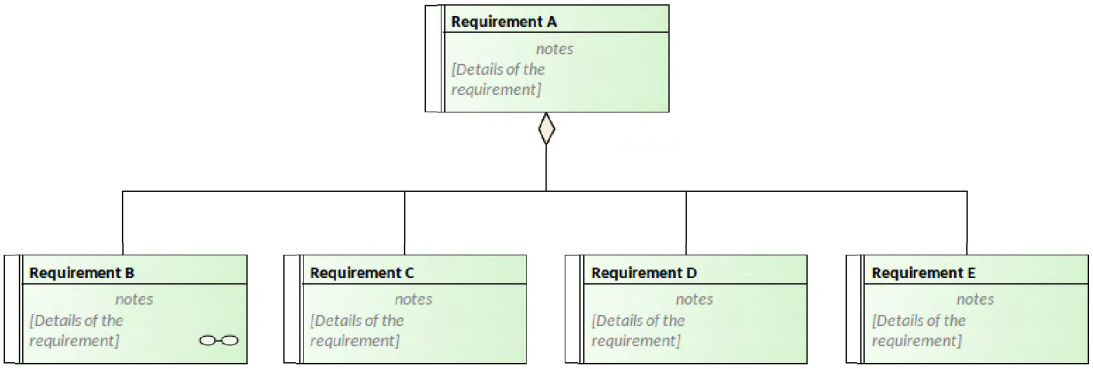

Figure 1. A Requirements diagram showing child requirements one of which has a composite marker indicating it can be double-clicked to display the next level in the hierarchy.

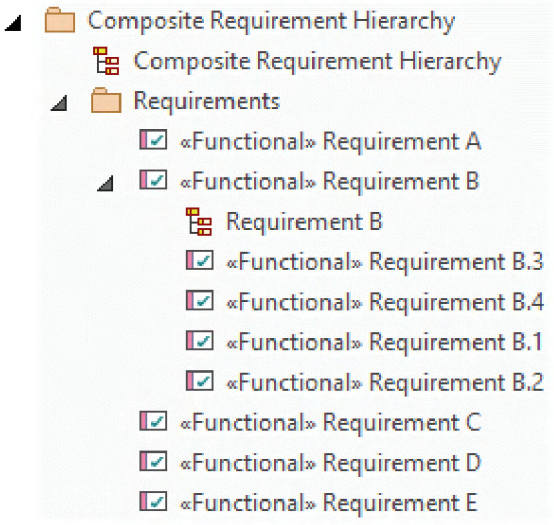

Figure 2. Shows the Project Browser Package and element structure. The composite Requirement has other requirements nested below it allowing drill-down in the diagram.

Discussion

The purpose is to provide a way of visualizing the structure of a set of Requirements one level at a time by indicating that one or more Requirements have children indicated by the marker at the bottom right corner of the element. The composite pattern can be applied down to any level.

When a Requirements or Business Analyst needs to show a single level of a requirements hierarchy but wants to indicate that the Requirements are composed of other Requirements, allowing drill-down to the other levels in the diagram.

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

- Rename the diagram.
- Rename the Requirements to suit the initiative.
- Add detailed notes that describe the business or system significance of the Requirement.
- Update the properties of the Requirements to suit the initiative.

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

- Extend the hierarchy by making other requirements composite. and creating new Requirements under them.
- Define Trace relationships showing how the Requirements relate to up-process elements such as Strategies, Business Rules and other Requirements and down-process elements such as User Stories, Use Cases, Components, Artifacts and database tables.
- Create high quality documentation generated automatically from the model.

Useful Workspace Layouts **Core | Core Modeling**

Reference

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

Requirements Diagram

Requirements Diagrams Examples

Requirements Overview

Working In Diagrams

What are Requirements

Meet the Requirement Tools

Tools you may find useful

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

Specification View

The Specification View can be used as a way of working with the Components and Interfaces particularly 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 a 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.

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.

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.