Nested Requirement Hierarchy

The *Nested Requirement Hierarchy* pattern creates elements and a diagram that allows requirements to be visualized in a nested hierarchy permitting complex requirements to be decomposed into more granular ones down to two levels. The pattern can be extended down to any number of levels.

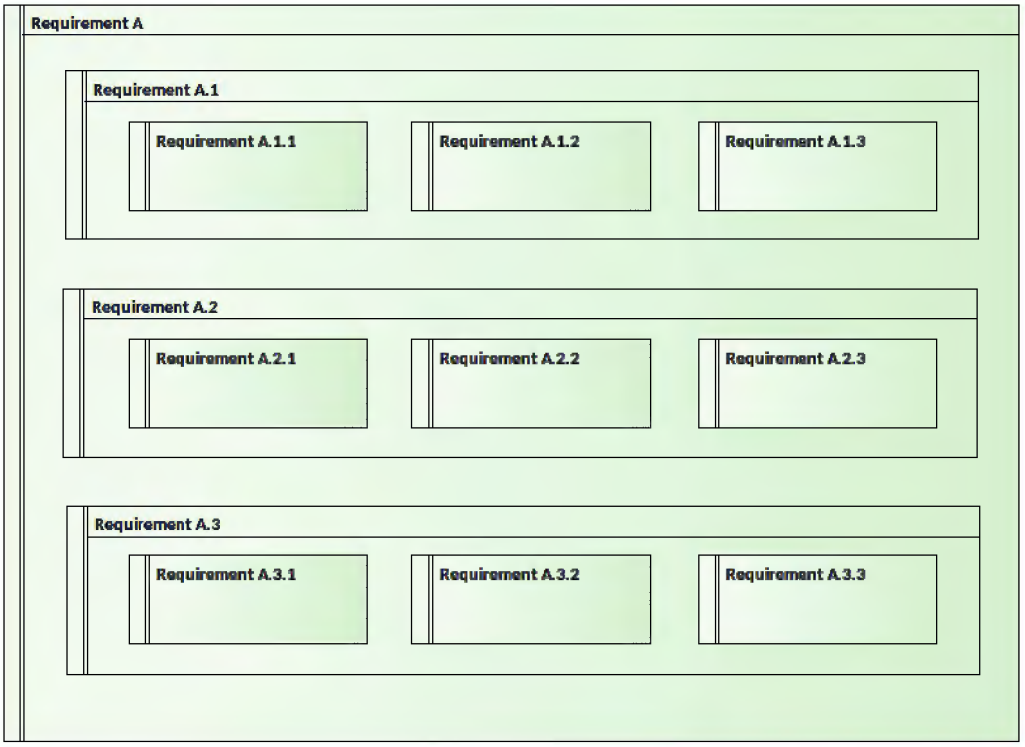

Figure 1. Shows a Requirements diagram with a series of nested requirements allowing the requirement structure to be visualized in a style familiar to many non-technical stakeholders.

Discussion

To provide a way of visualizing the structure of a set of Requirements down to two levels allowing the modeler to express the fact that one Requirement is composed of a number of other Requirements which in turn is composed of other Requirements. It also allows a Requirements or Business Analyst to create a familiar view of the requirements for non-technical audiences.

It is commonly used when a Requirements or Business Analyst wants to provide a visualization of a Requirement and the child Requirements from which it is composed. Requirements that describe an entire system are typically created early on in a system description; it can however be created at any time, particularly when the requirements describe a subsystem or a part of the system under focus.

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.
- Create other Requirements in the hierarchy.
- 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.

- 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.

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

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.