



Defining Traceability Relationships for Specific Needs

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Kovair Software is a Silicon Valley based software Product Company specializing in the domain of Integrated Application Lifecycle Management - ALM solutions. Our objective is to make the software development process better, faster and collaborative – anytime, anywhere, using any tool, platform and technology. Kovair’s focus on integrating third party best-of-breed tools enables creation of applications in a synchronized tools environment.

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Traceability Relationships – Define Them for Your Specific Needs in Kovair

Changes are inevitable in any sort of development effort regardless of industry. Poorly managed changes can create mammoth impacts on even the most talented development teams. When change is properly managed teams can assess the impact of the change, track the full history, and maintain synchronization among globally distributed teams and disparate tools thus improving the product quality substantially. Maintaining traceability manually can be burdensome and leads to inconsistent information, poor productivity, and diminished quality. The solution to this is integration with a central repository based ALM solution which allows end to end traceability across the entire tool chain and visibility to all stakeholders without requiring access to individual tools.

Kovair ALM Studio, a 100% web based central repository tool along with its own SOA based integration hub; Omnibus, has the most comprehensive traceability relation features available in an integrated ALM solution today. It allows multiple types of relations, including custom ones, enabling you to create logical links ('depending', 'affecting', and 'bidirectional') between artifacts and visualize them in a number of ways. These include folder hierarchy report, Traceability Matrix and Traceability Relation Network Diagram. Moreover, Kovair allows both proactive and reactive impact analysis. Stakeholders can be notified automatically of impacts as they happen to ensure real time collaboration and to undertake corrective action and minimize the high cost of changes at the later stages in the development lifecycle.

The major benefits one can achieve by using the traceability of Kovair are:

- ❖ Define relationships between artifacts across different tools
- ❖ Create relationships
- ❖ Ensure proper coverage
- ❖ Assess the impact of change before actually implementing it
- ❖ Keep all the stakeholders in synch with real-time data

In this writing, we will discuss the unique features of Kovair in allowing users to define relationships between artifacts as per their specific needs.

Defining Relationships

Traceability capabilities are available in almost all ALM based tools, but it is very important to select the right one. Frequently the 'out of the box' defined relationships do not cater to all business needs of the organization. Worse yet, many provide limited options for configuration. To respond to this shortfall, the Kovair platform provides the unique capability to define relationships between any artifacts along with sophisticated features such as user defined relation types, impacts, and relationship attributes. In Kovair,

users can define relationships between different artifacts by simple mouse click configuration with no coding required and no configuration files to edit.

Select Artifacts

The ability to define relationships is available in any entity or artifact type in Kovair, including any custom entity you have created. Simply create a relation field, give it a name, and select the artifact with which the relationship needs to be established. In the screenshot below are some of the options available when creating a relationship.

General Information	Select Related Entity	Test Case
Field Details	Relationship Name	System Requirement to Test Case
Impacting Details	Cardinality	Many to Many
Attributes	Track Changes	<input type="checkbox"/>
	Track Impact :	<input checked="" type="checkbox"/>
	Make Field Mandatory :	<input type="checkbox"/>
	Allow Multiple Links :	<input type="checkbox"/>
	Unfold Item :	<input type="checkbox"/> Test Set (Test Set to Test Case M M)
	Visible From Test Case :	<input checked="" type="checkbox"/>
	Field Label From Test Case :	Associated System Requirements
	Display Row Order :	<input type="checkbox"/>
	Allow Reorder :	<input type="checkbox"/>

Define Cardinality

User can specify the cardinality that will be permitted when establishing relationships between artifacts. Kovair supports all possible cardinalities:

- One to One: One Business Requirement can relate to One Use Case
- One to Many: One Business Requirement can relate to multiple Use Cases
- Many to One: Multiple Business Requirements can relate to one Use Case
- Many to Many: Multiple Business Requirements can relate to multiple Use Cases

These can be set to ensure the relationships make logical sense, and disallow a relation that should not be permitted.

Defining Impact Scenario

Kovair allows users to specify not only in which direction (parent, child, bidirectional) the impacts are raised, but also provides fine grained controls over what particular changes will create an impact. In addition notifications may be sent to relevant users.

Allow linking of same items multiple times

In certain scenarios, same set of records may need to be related multiple times with each other. Kovair supports this scenario with the option of "Allow Multiple Links".

Relational Attributes

In certain cases there are attributes which are specific to the relationship between two artifacts e.g. when a Test Case gets executed then a Test Run record is created. The status of the test steps related to that run is neither associated to test step nor associated to test run. It is an attribute of the relationship between Test Run and Test Step. To cater to this situation Kovair allows users to define attributes specific to the relationship through this option.

Label	Field Type	Default Value	Make Field Mandatory
Actual Result	Multi Line Text		No
Status	Pass Fail	Failed	Yes Edit Remove

Visibility from Other Entities

Kovair allows users to control the exposure of a relation field. Through the option of “Visible from <<Other Entity>>” users can specify whether the relationship field should be visible from both entities involved in the relationship or not.

Snapshot Fields

Values of the attributes of a record keep changing over a period of time. It is very important, especially in the context of relationship to capture or maintain a snapshot of the values of certain attributes of the artifacts involved in a relationship. Kovair allows users to do this by selecting snapshot fields during the relationship definition.

Thus Kovair enables users to build traceability relationships between artifacts from scratch as per their specific needs and that too without writing any code. Organizations using different methodologies such as Waterfall, Agile can use Kovair to customize traceability relationships as per their project needs and gain in both productivity and product quality.