

Impact Analysis using Extended Traceability Functions

Introduction

One of the key benefits of establishing Traceability between various entities is that it allows the users to quickly determine the impact of a change or error in the system.

The following two mechanisms will facilitate Impact Analysis

- Trace Links functionality is provided in the Traceability Tab
- Additional columns for all JIRA Entities are provided in the Reverse Traceability Tab

Trace Links function in Traceability Tab

The following steps can be followed to explore the context of an Entity.

1. Clicking on **Trace Links Button** on Traceability Tab opens up a panel, where the user can select
 - a. **Root Entity** by typing in the Entity Key
 - i. Please note that the complete string should be entered here, including the version number, as shown in the attached image.
 - b. **Link Types** in which user is interested.
 - c. **Entity Types** in which user is interested.
2. Once the entity key is entered, the system displays all selected link types.
3. The link types can be expanded to view all other entities associated with that link type.

The user can also use the Expand All / Collapse All Buttons to expand / collapse the entire tree.

The screenshot shows the JIRA interface with the Traceability Tab selected. The Trace Links panel is open, displaying a tree view of links for the entity key 'FIR-R18 {3}'. The tree includes categories like 'Depends On', 'Dependent', and 'Link To', with specific link types such as 'FIR-R13 {1}: Requirement 13' and 'FIR-17: Implement Requirement : Require...'. The background shows the JIRA navigation bar and a table with columns for Bug, Epic, and Story.

Additional columns for all JIRA Entities in Reverse Traceability Tab

User can use the Column Selection Tool to select additional columns for other JIRA Entities. This will allow the user to view association in a single row of a JIRA entity with

- Other JIRA Entities
- RMsis Requirements
- RMsis Test Cases

Reverse Traceability

Show: 10 Add Artifact JIRA Version Search

Jira Reference	Summary	Artifact Type	Requirements	Test Cases	Status	Task	Sub-task	Bug	Epic	Story
FIR-20	sub task 1	Sub-task	----		To Do					FIR-18 , FIR-19
FIR-19	Implement Requirement : Requirement 14	Story	FIR-R14 ⁽¹⁾ , FIR-R16 ⁽¹⁾	FIR-T8 ⁽¹⁾ , FIR-T9 ⁽¹⁾	To Do	FIR-1 , FIR-10	FIR-20	FIR-13	FIR-16	FIR-18 , FIR-18
FIR-18	Implement Requirement : Requirement 13	Story	FIR-R13 ⁽¹⁾ , FIR-R18 ⁽³⁾ , FIR-R16 ⁽¹⁾	FIR-T4 ⁽¹⁾ , FIR-T3 ⁽¹⁾	To Do	FIR-2	FIR-20	FIR-11	FIR-14 , FIR-15	FIR-19 , FIR-19
FIR-17	Implement Requirement : Requirement 12	Story	FIR-R12 ⁽¹⁾ , FIR-R18 ⁽³⁾	FIR-T1 ⁽¹⁾ , FIR-T3 ⁽¹⁾ , FIR-T4 ⁽¹⁾	To Do					
FIR-16	Implement Requirement : Requirement 14	Epic	FIR-R14 ⁽¹⁾ , FIR-R18 ⁽³⁾		To Do					FIR-19
FIR-15	Implement Requirement : Requirement 13	Epic	FIR-R13 ⁽¹⁾ , FIR-R18 ⁽³⁾ , FIR-R15 ⁽¹⁾	FIR-T7 ⁽¹⁾	To Do					FIR-18
FIR-14	Implement Requirement : Requirement 12	Epic	FIR-R12 ⁽¹⁾ , FIR-R15 ⁽¹⁾	FIR-T5 ⁽¹⁾ , FIR-T1 ⁽¹⁾	To Do					FIR-18
FIR-13	Implement Requirement : Requirement 14	Bug	FIR-R14 ⁽¹⁾		To Do					FIR-19