OSRMT

Open Source Requirements Management Tool

User Guide

Version 1.6

February 2019

Revision History

Date	Version	Description	Author
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Table of Contents

1. Introduction ---------- 4
   1.1 Purpose of this Document:
   1.2 Who can use OSMRT?
   1.3 Installation Options
2. Getting Started ---------- 5
   2.1 Start Application
   2.2 Application Logon
   2.3 New product
   2.4 Open Product
3. Managing Artifacts / Functionalities ---------- 8
   3.1 Artifact Tree
   3.2 Artifact Data Entry
4. Traceability ---------- 14
   4.1 Traceability
   4.2 Traceability Tree
   4.3 Traceability Views
   4.4 Trace Impact
5. Reports ----------18
   5.1 Standard Reports
   5.2 Custom Reports
6. Import/Export_ ---------- 21
   6.1 Exporting artifacts
   6.2 Importing arifacts
7. User Management ---------- 22
   7.1 User Creation
   7.2 Adding / Removing user from user groups
8. Definitions ---------- 24

1. Introduction

Open Source Requirements Management Tool (OSRMT) is a highly configurable, free open source solution for defining and managing Requirements for software development. This is an easy to install and easy to use solution with capabilities to document all aspects of software development life cycle (SDLC).

This solution was initially built in 2006. However no further development happened for many years. In 2019, the redevelopment was initiated by Alan Clifford and a new version (Version 1.6) was released in Feb 2019 at GitHub. This can be accessed through **https://github.com/osrmt/osrmt**

1.1 Purpose of this Document:

The purpose of this document is to assist end users to get an understanding of the functionality of the system and help them to navigate through the application and effectively use it.

1.2 Who can use OSMRT ?

OSMRT can be used by

1. Single user using their work station
2. A group of users independently working, but willing to share a common database
3. A corporation or organization with multiple users including multi location users.

1.3 Installation Options

OSMRT Application can be installed in any of the below scenarios

1. **2 Tier Architecture** where the Application connects directly to a Database and has the following installation options
    a. ***Single user installation*** where the Database and Application resides in the same computer
    b. ***Multi user installation*** where the Database is centralised and Application resides in computer of every user.

2. **3 Tier Architecture** where the Application connects to the Database through the J2EE server and has the following installation options
    a. ***Multi user installation*** with multiple servers and a central database.
    b. ***Multi user installation*** **with** Central database and web browser clients

Please refer to *Installation manual* for help with the installing the application.

2. Getting Started

2.1 Start Application

The Open Source Requirements Management Tool (OSRMT) can be started in the following ways

1. Using Windows Start → Programs → OSRMT → OSRMTClient

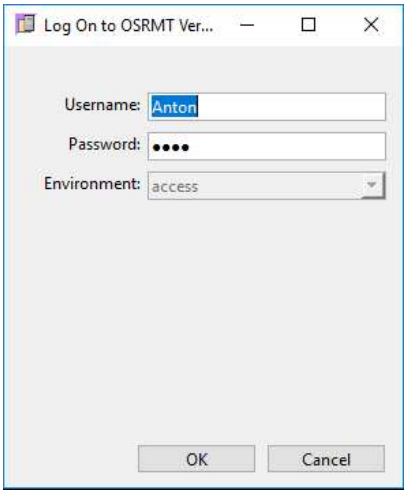
2. Using a Desktop shortcut
3. From the command prompt

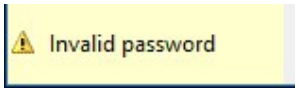
The application may be started from the command line as below

C:\Program Files\OSRMT > run.bat

2.2 Application Log On

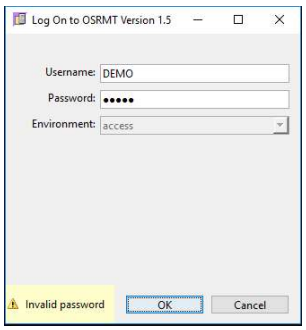
The Log On screen prompts for a username, password and environment.



An error message 

will display if an incorrect username or password is used. Clicking on the warning message will open a system log

screen where additional technical messages may be displayed.

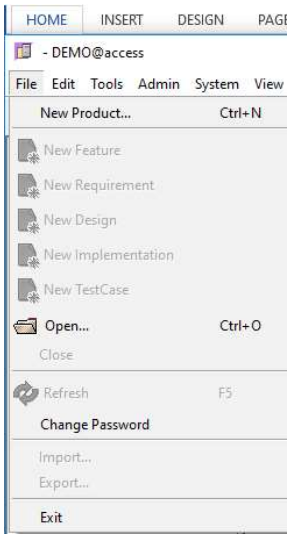


See the Application Log-on Error section in the Appendix for diagnosing any application log on errors. Click on the error display to view all errors.

2.3 New Project - New Product

The first step is to create a new project is to create a ***"New Product"*** to store all requirements and other artifacts.

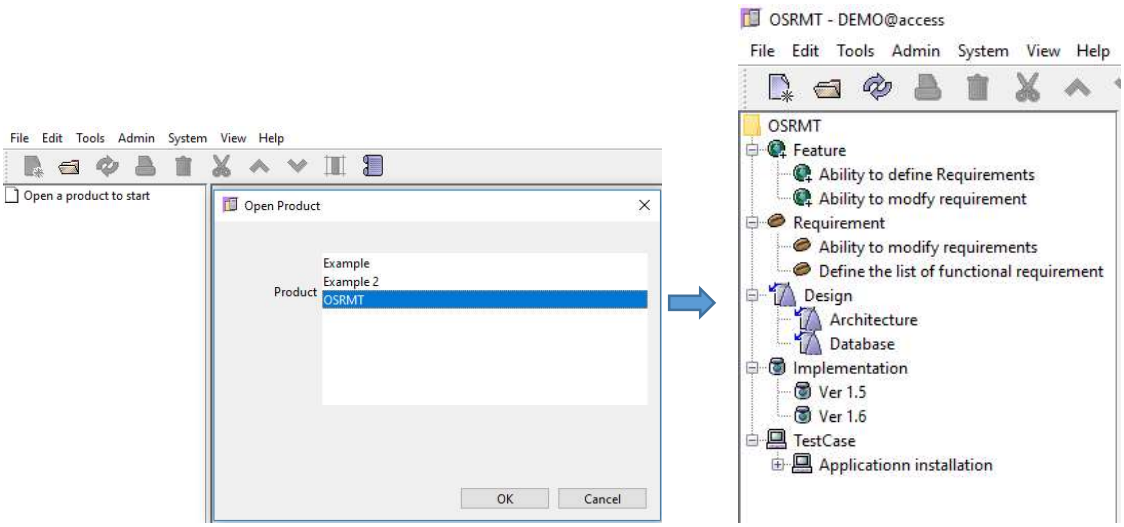
Create a new product from the menu item File → New Product as below



The product name that is entered above will be displayed throughout the application and standard reports.

2.4 Open Product

The product can be opened from Menu item as below



3. Managing Artifacts/ Functionalities

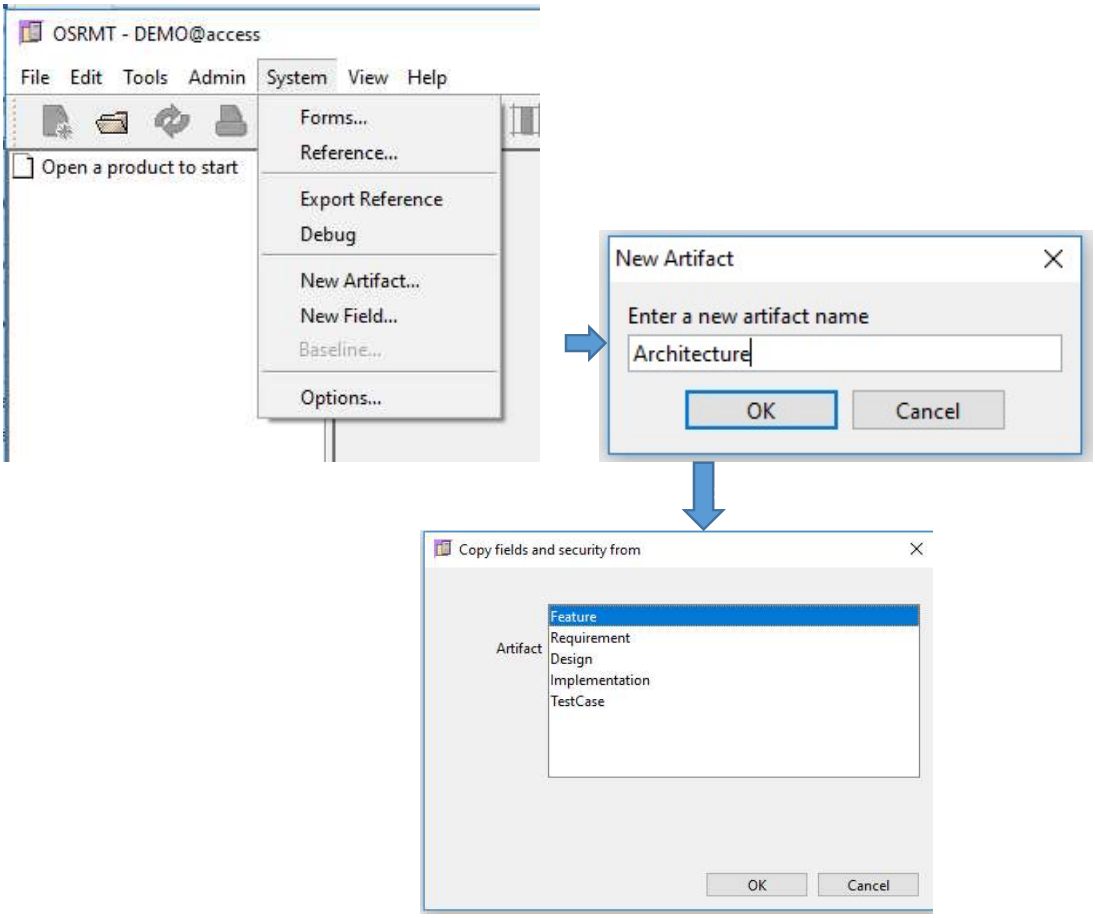
3.1. Artifact Tree

Artifacts can be defined by the administrator. The artifacts that are available as base line are ***Features, Requirements, Design Modules, Implementations and Test Cases***

The name of the artifact can be customized by the Administrator. The default list is shown below. Artifacts can be created under each of these artifact types.

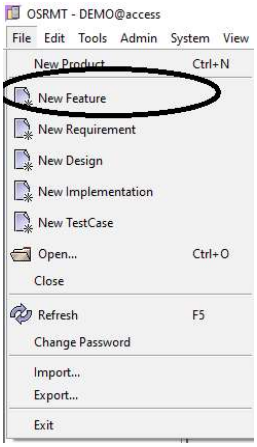
New Artifact

a. To create a new arteficat, choose ***New Artifact*** option under ***System Menu*** as below

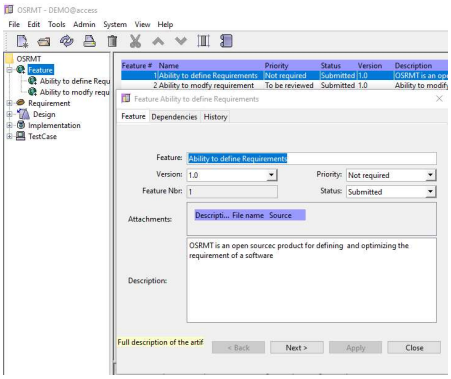


b. To create an artifact of a specified type, select the artifact and click on the ***New button*** as below.

For example to create a New Feature, Choose ***New Feature*** from Menu as below



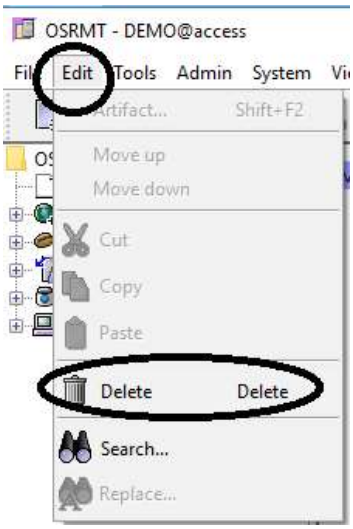
Enter the relevant data in the screen/form below and save the record to create a child record under Feature artifact



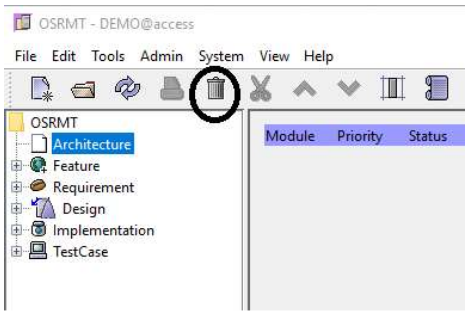
Delete Artifact

An artifact can be deleted by selecting it in the Artifact Tree and using the "**Delete"** option under Edit on the Menu bar.

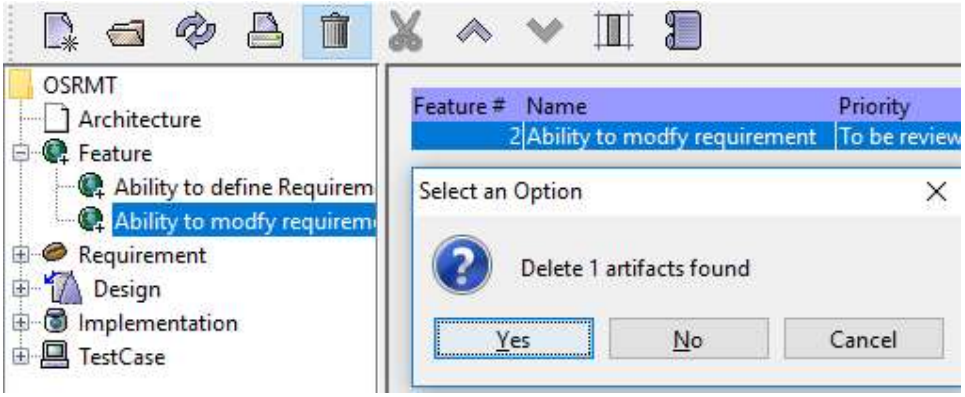
Alternatively, the delete button on the tool bar can also be used



OR



Note that only the artifacts selected in the **tree** will be deleted. On delete the total number of artifacts to be deleted will be displayed for confirmation of action.



Deleting an artifact which is a branch will delete all descendant artifacts under the selected artifact.

Moving Artifacts

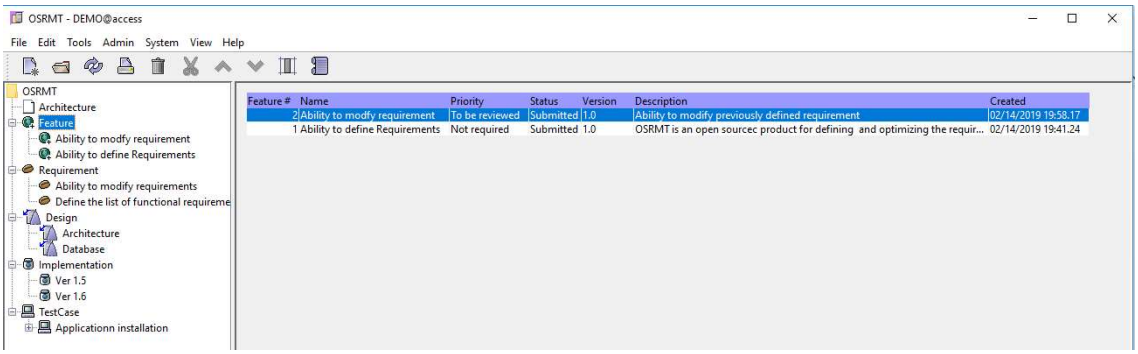
The hierarchy of the artifacts can be changed by dragging an artifact from one parent to another.

Dragging artifacts from one type to a different type will create a dependency on the target artifact – but it will not move the artifact.

The artifact types cannot be dragged and moved

View Artifact List

Selecting an artifact in the tree will display all child artifacts in a list to the right.



TIPS

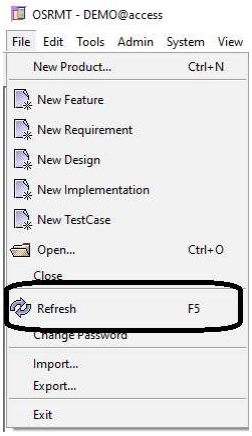
The display sequence and choice of columns can be customized by the Administrator.

To edit an existing artifact select from the list and double click on it.

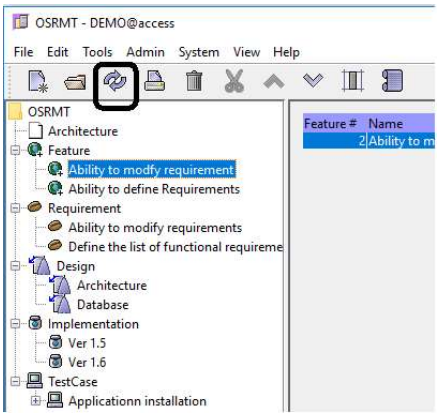
To sort the list of artifacts, click on the column header, click on a column header

Refresh Tree

The artifact tree can be refreshed by using the menu options **File → Refresh** or by clicking on the icon on the toolbar as below.



OR



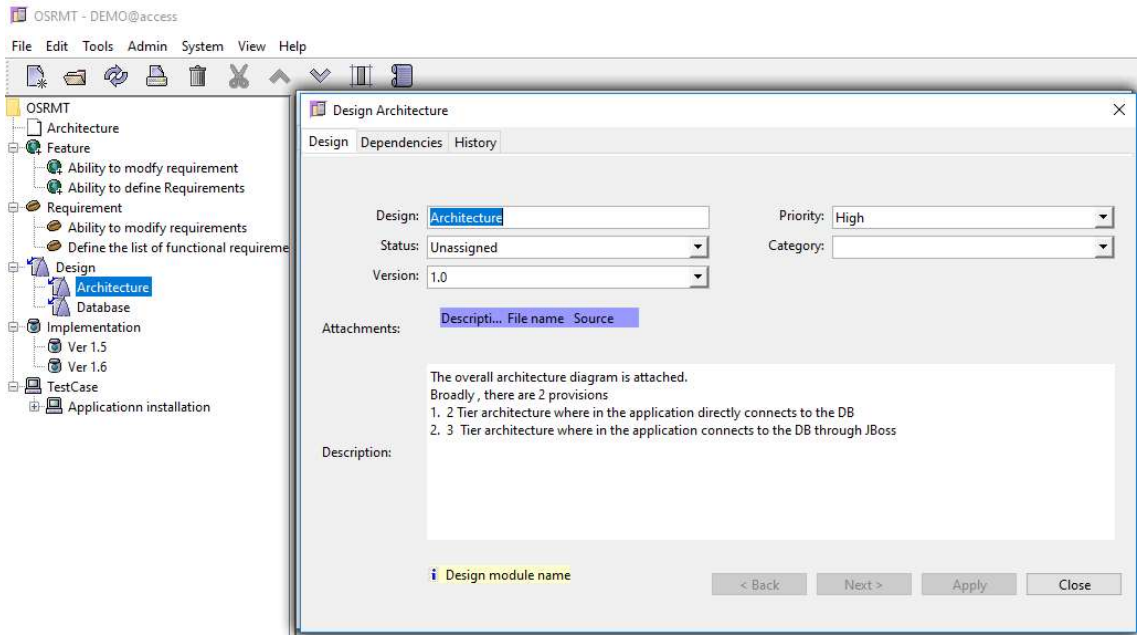
Refreshing the tree is used for getting the true state of the system. This will refresh the screen by extracting the relevant data from the data base again.

TIP

Refresh is normally done to reflect additions or changes by other users or in case of any errors

3.2 Artifact Data Entry

Each artifact type (feature, requirement, design etc.) will have a different data entry form as configured by the Administrator.
See below an example of it.



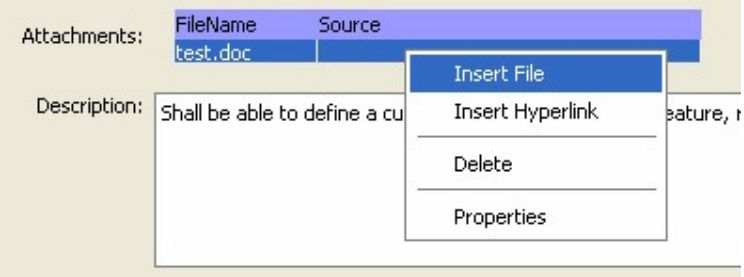
Custom Forms

The Administrator may add or remove tabs and controls or lock controls from editing. Controls may have default values or a custom list of values from the Reference table. The Administrator may write a custom Javascript to format or initialize a control.

Custom controls may be created to store new data in the database.

Attaching or Linking Documents

Right click in the attachment list to popup a menu of additional options.



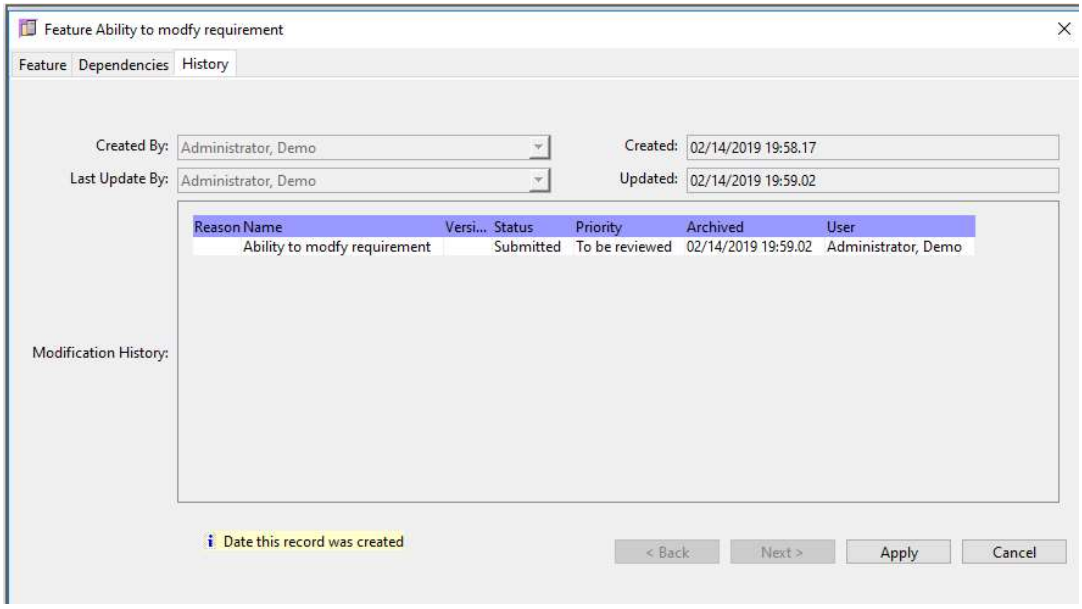
Selecting the menu item "***Insert"*** will prompt to select a local or network file. Select and press "***Open***" to upload the file to the server or local storage where a copy is placed in a storage area defined by the Administrator.

Once a file is in the list, the FileName display or Source description may be changed using the menu item ***Properties.***

Hyperlinks may be stored using the menu item ***Insert*** **Hyperlink.**

Modification History

The full history of creation and modification is available including the time and date before each update. See Sample below



4. Traceability

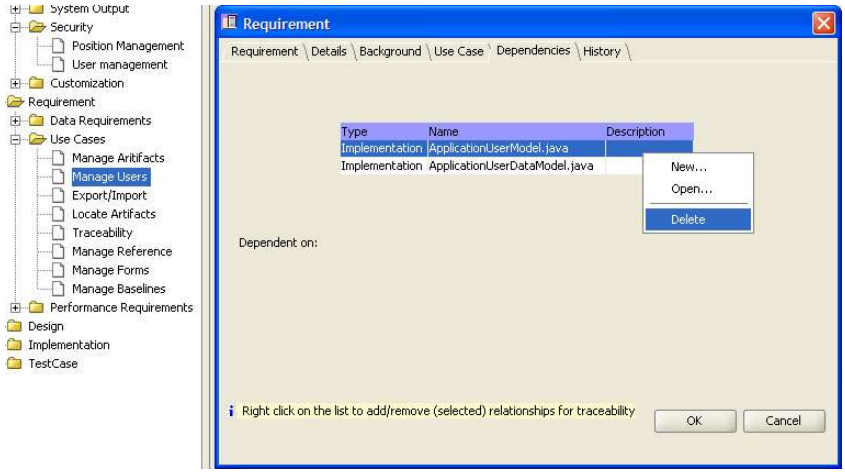
4.1 Traceability

Child Artifacts are not dependent

Selecting an existing artifact and creating a child artifact will automatically create a relationship between the two artifacts. This however does not create a dependency.

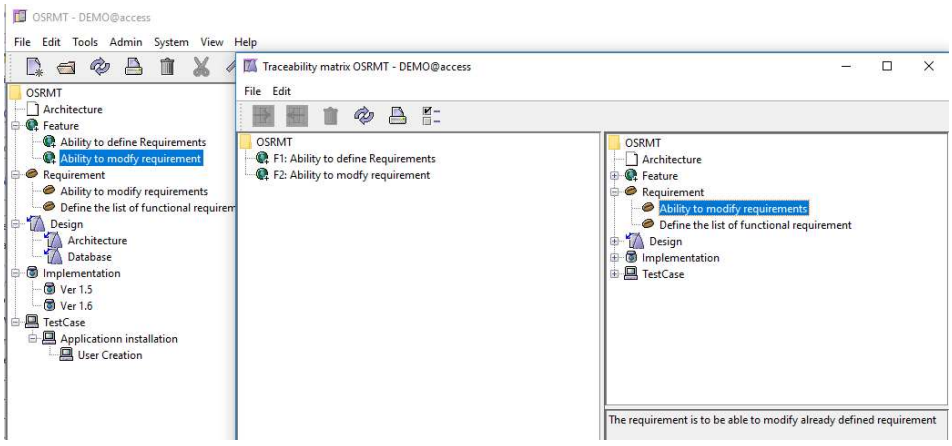
Adding dependencies

The dependencies define the traceability between the artifacts. To trace additional artifacts to an opened form, right click in the related artifact list and select the menu New.... Select all artifacts to be dependent on.



4.2 Traceability Tree

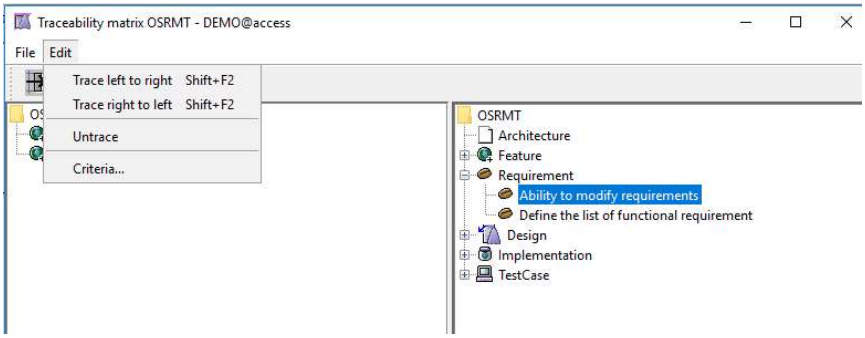
The traceability tree can be viewed using the menu option View traceability from the menu bar as below

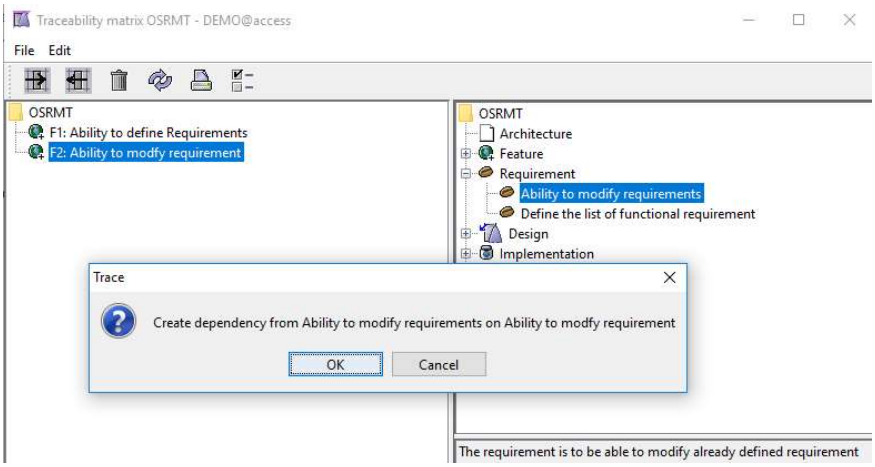


Pressing the Trace "***left to right"*** button will create a dependency from the artifact on the top to the artifacts just below it. You can also trace from the menu **Edit → *Trace left to right.***

Pressing the **Trace right to left button** will create a dependency in the opposite direction.

See below.





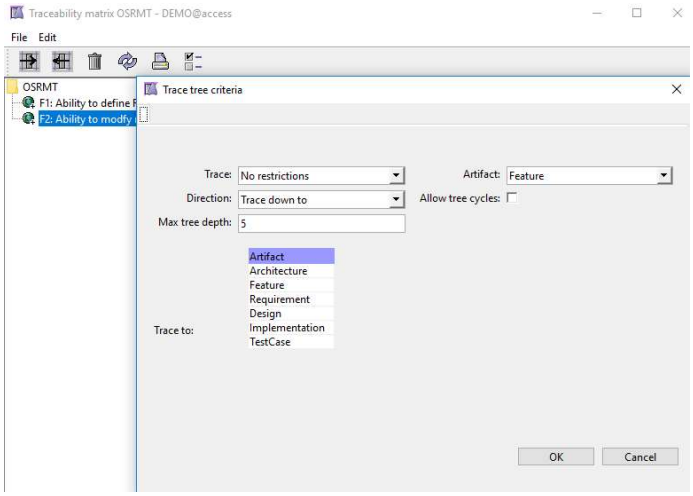
TIP

Only one artifact should be selected on one of the sides – otherwise a confusing number of dependencies will be created.

It is possible to create a dependency for a single feature on multiple artifacts.

Traceability Tree Options

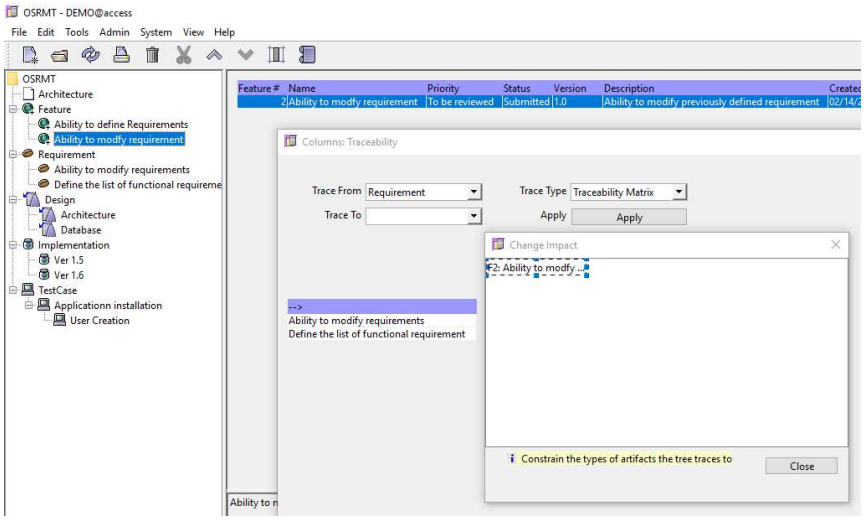
The display on the right pane is the full artifact tree. The display on the left is a dependency or traceability tree. To change the display of the traceability tree use menu **Edit → Criteria** or press the ***Criteria*** toolbar button.

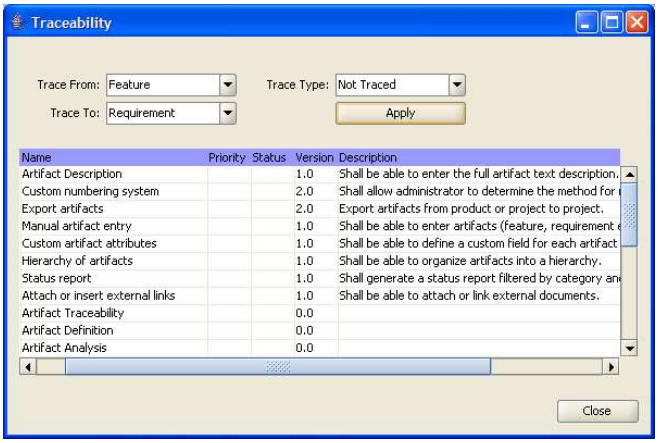


4.3 Traceability Views

"Traced" and "**untraced"** views are available in the system. To get to these views,

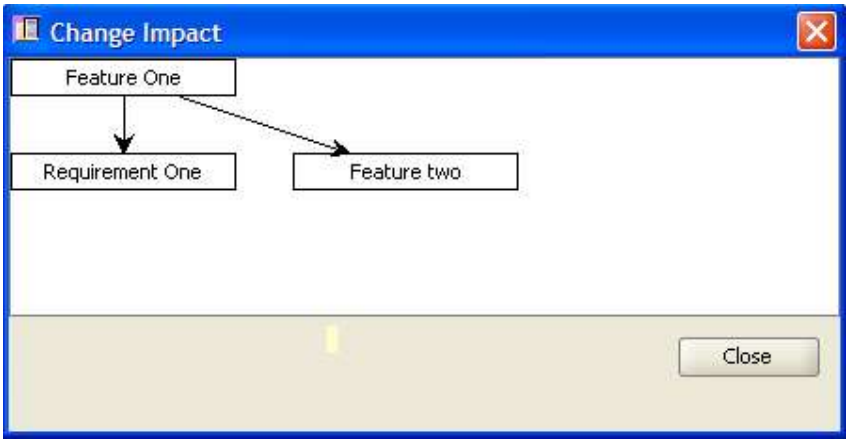
Use **Tools → Trace** Options from the menu bar.





4.4 Trace Impact

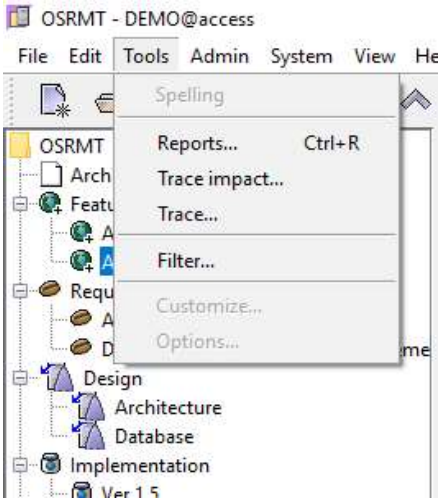
To trace the impact, select an artifact from the tree and use menu items **Tools → Trace Impact.** A graph of the artifacts dependent on or from the selected artifact is shown.



5. Reports

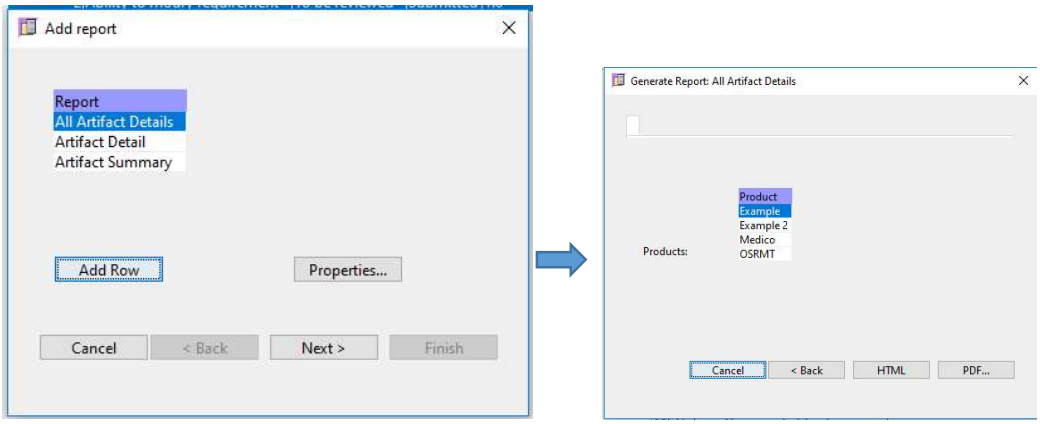
5.1 Standard Reports

Reports can be accessed from the menu item **Tools → Reports** option as below



To create a report for a single product, select that product. Otherwise make no selection as below.

Then choose HTML or PDF option to generate the report



TIP

Report may fail with some operating system. In that case start the local browser or pdf viewer and then open the generated report file.

Files are typically created in <client directory>\temp\<filename>

5.2 Custom Reports

Backup any reports you do not wish to lose

Copy report

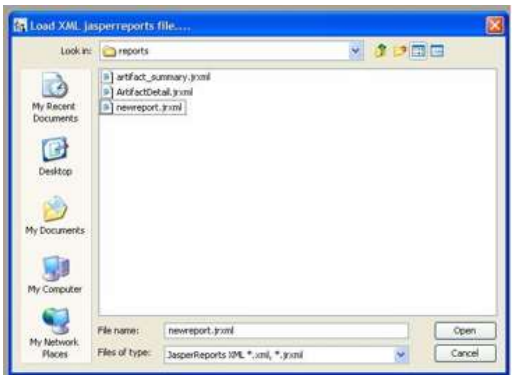
Navigate to the reports directory e.g. C:\Program Files\osrmt\v1_6\client\reports.

Copy an existing source file report to a new name

Example: "***copy ArtifactDetail.jrxml newreport.jrxml"***

Open the report writer via shortcut or from report writer bin directory. Example below

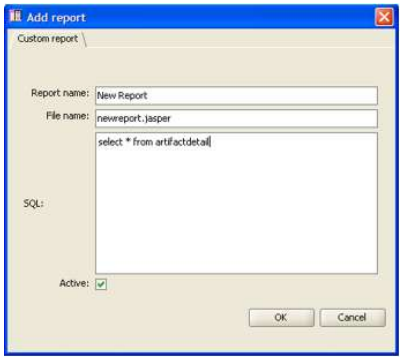
"C:\Program Files\osrmt\v1_6\client\reportwriter\JasperSoft\iReport-1.2.2\bin\startup.bat"



Add report to OSRMT

Within OSRMT use **Menu → Tool → Reports** and press the **Add Report** button.

Complete the form ensuring the file name in the reports directory matches the file name listed (without any directory prefix).



TIP

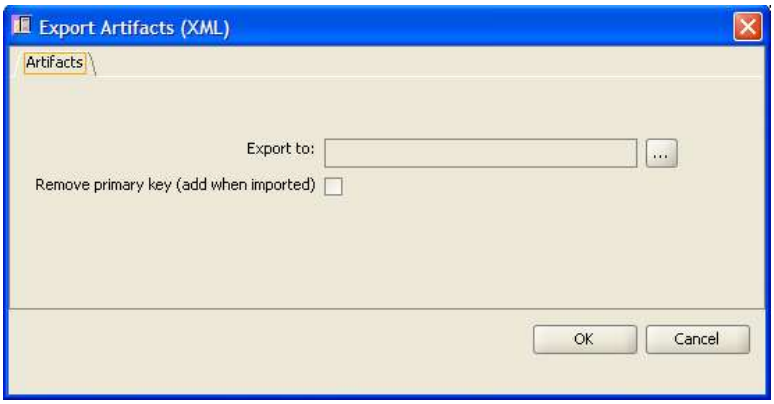
Please get assistance *from a system administrator or developer if you are developing a report with complex SQL as it may have impact across forms*

6. Import/Export

6.1 Exporting artifacts

For exporting artifacts, Navigate to selected branch of the requirements tree. Then filter the list and/or search for artifacts to create a custom list of artifacts.

File → Export options from Menu bar can also be used for exporting the artifacts from the filtered list.

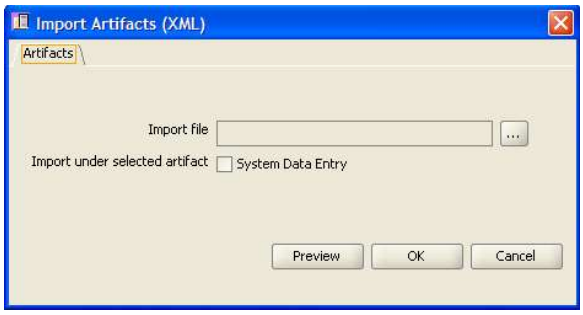


TIP

*Select the option -"**Remove the primary" key**" to import into a new database.*

6.2 Importing Artifacts

Navigating to a branch in the requirements tree will enable the option to import artifacts under a specific branch in the tree.



TIP

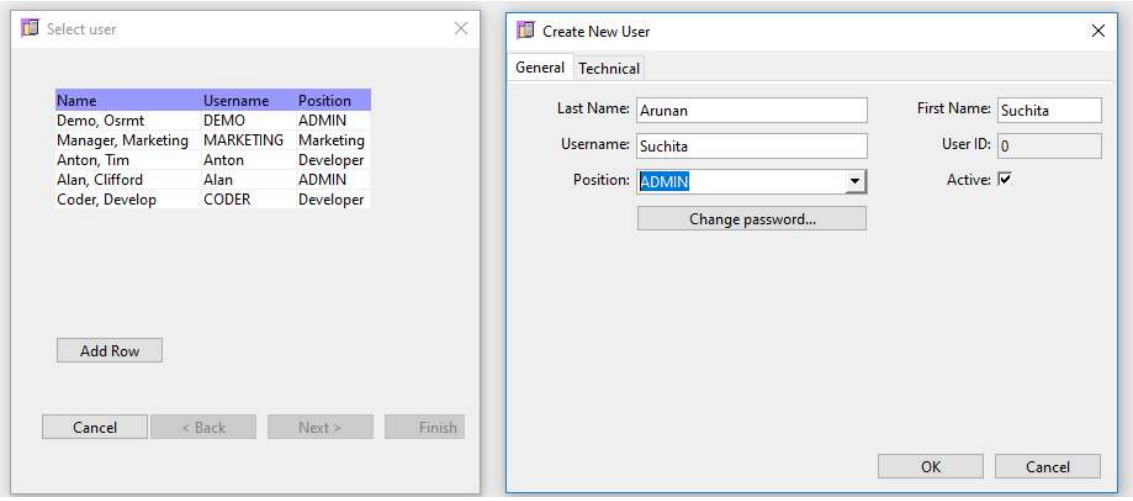
Ensure the artifacts that are added have the artifactId = 0 and artifactNbr = 0 .

The import file should be of the same XML format as the file exported

7. User Management

7.1 User Creation

To add a new user choose **Admin → Users** option from menu bar as below

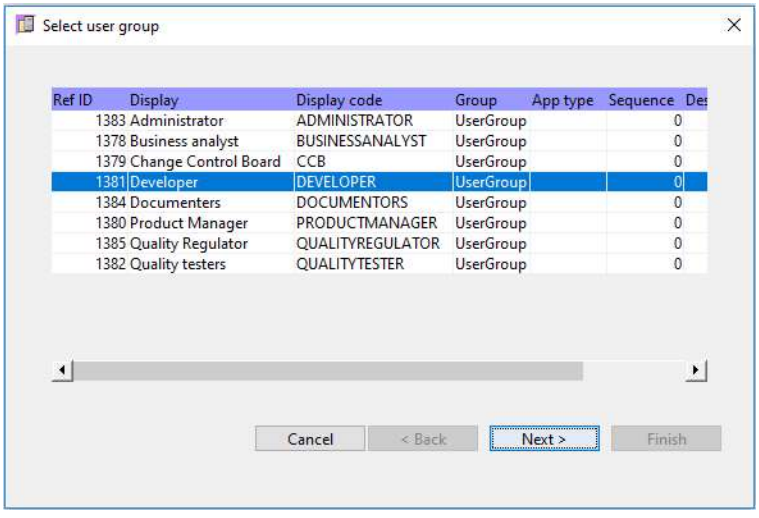


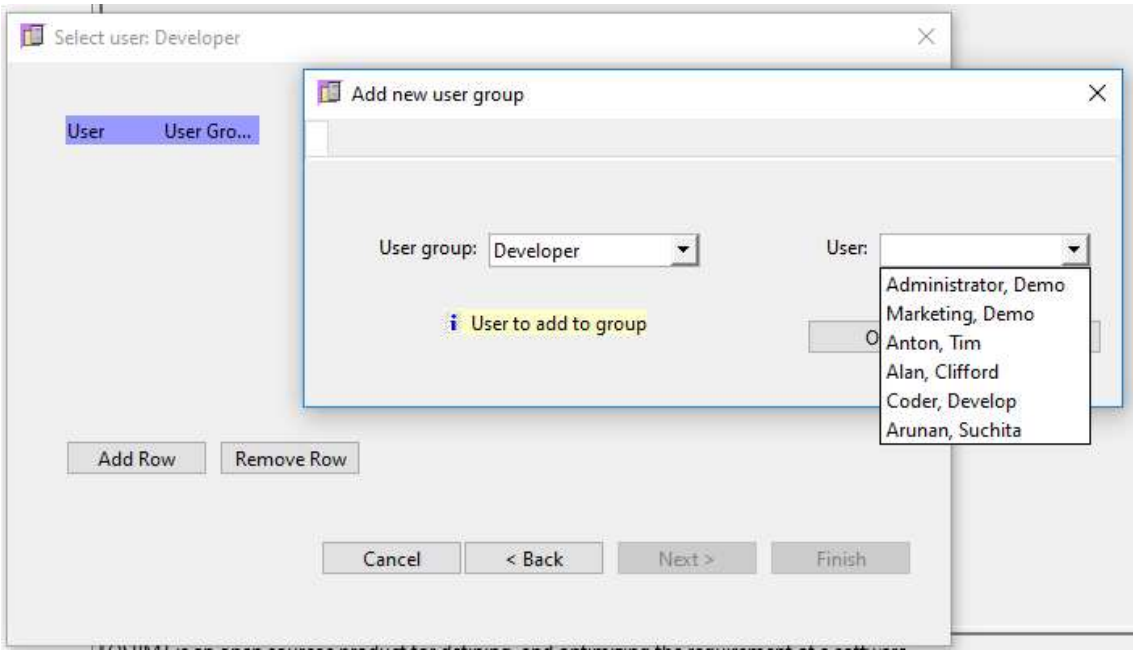
7.2 Adding / Removing user from user groups

To add or remove a user from/To a group, choose

Admin → User Groups option from menu bar as below

The below screens show how to add a user or remove a user from a group




Select user: Developer
User
User Gro...
Add new user group
User group:
Developer
User:
Administrator, Demo
Marketing, Demo
Anton, Tim
Alan, Clifford
Coder, Develop
Arunan, Suchita
User to add to group
Add Row
Remove Row
Cancel
< Back
Next >
Finish

9. Definitions

Below are the list of key words used in this project and their definitions.

Field	Description
Trace	Allows auditing on the artifact list. 'Child dependencies' restricts artifacts in the list to those with an existing trace(dependency) to a child artifact 'No Child dependencies' shows all artifacts without a trace to a child artifact 'Parent dependencies' restricts artifacts in the list to those which have another artifact tracing to it. 'No Parent dependencies' shows all without a trace to a child artifact.
Direction	Trace down to will show dependencies on child artifacts. Trace up to will show artifacts which trace to the top level artifacts. The fact that the 'parent' artifacts will be shown as a child in the tree may be counter intuitive. Note if you just created a dependency – but not in this direction the tree will not change.
Allow tree cycles	With this off no artifact added to the tree will display twice. This may create a misleading picture.
Max tree depth	Prevents circular dependencies from going too deep.
Trace to	The type of artifacts to trace down or up to in the tree.
Artifact	An artifact is the specification of a physical piece of information that is used or produced by a software development process, or by deployment and operation of a system