RaQuest 4.2 Startup Manual

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1. Introduction

Welcome to the Sparx Systems Japan RaQuest Startup Manual. This manual introduces the operations of RaQuest from the start-up. The pictures used in this manual may be different from those of the latest version.

2. First Run

This section provides you a quick start-up guide to RaQuest. It illustrates how to start RaQuest, open and create new projects, and set up local options.

2.1. To Start RaQuest

You can start RaQuest from the icon created on your Windows desktop during installation. Double-click the icon to start RaQuest (fig. 1), or select **RaQuest** from **Windows Start** menu.

fig. 1

After starting RaQuest, following window appears (fig. 2). In the next section, we will introduce how to create new projects for RaQuest.

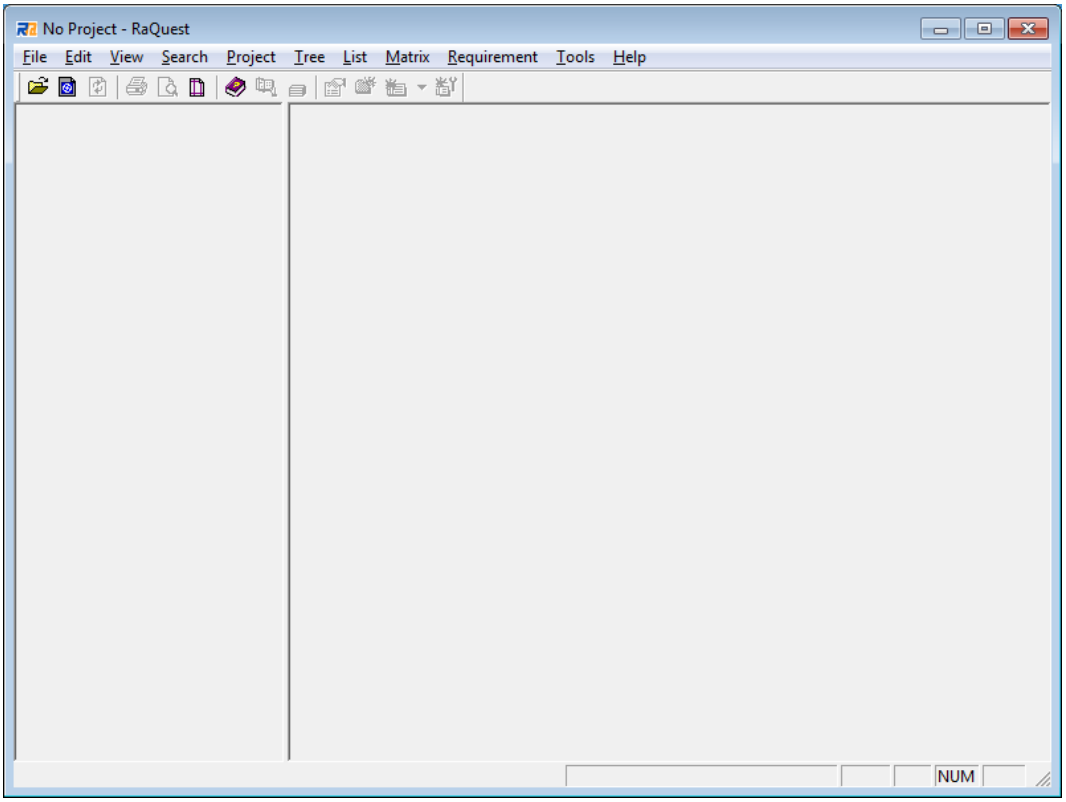


fig. 2

2.2. To Create New Project

Select **File | New Project** menu item (fig. 3). The screen to specify the project file (RQE file or EAP file) appears. Specify the file name and click **Save** button. As an example, we specify RaQuestStartup.rqe.

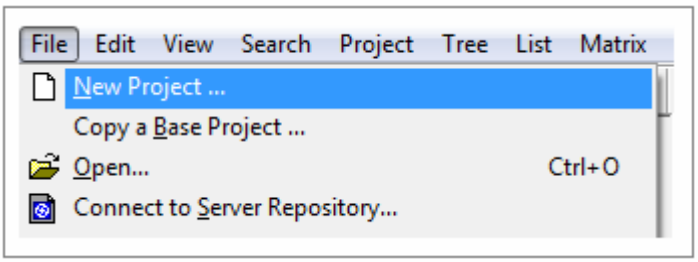


fig. 3

The file of project is newly created (fig. 4).

The package, named “Requirements," in the project tab on left pane is the overall-standard package to manage requirements. It is called a root package.

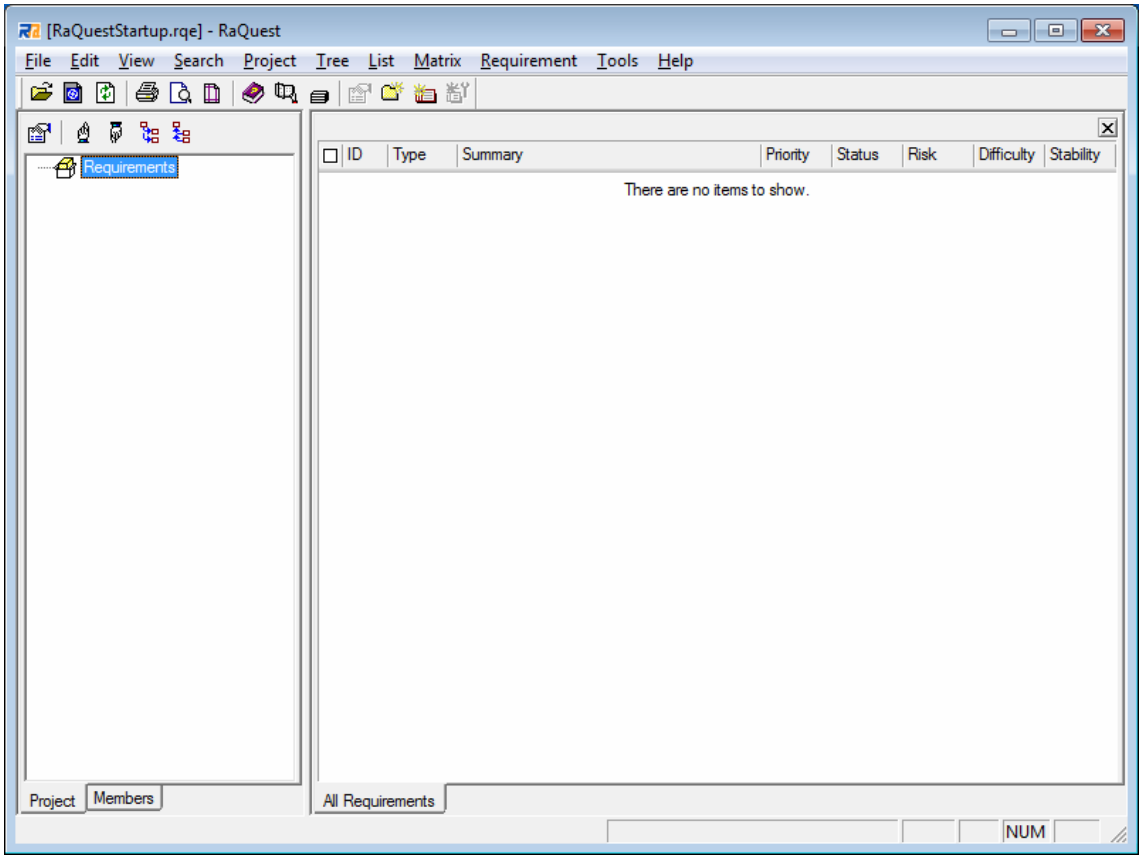


fig. 4

Note: The projects of RaQuest are in EAP files, the same data file format with UML Modeling Tool - Enterprise Architect. Both Repository on Database and Cloud Repository can be also used as projects. (You need to open them with Enterprise Architect that works with RaQuest.)

In this manual, we describe how to create new project on RaQuest, rather using Enterprise Architect's project file as RaQuest's project file. Refer to the help files, etc. to use the project of Enterprise Architect as a project of RaQuest.

3. Optional Setting in RaQuest

Before starting operations, this section provides you with the details about optional settings in RaQuest.

3.1. Setting for User Name

First, check the user name. Select **Tools | Local Options** menu item, then the following **Local Options** dialog appears (fig. 5). The item **Current UserName** is shown in the first screen of this dialog. This user name is applied in various fields like **Updated by,** which is used when creating requirements in RaQuest. If the **Current UserName** is blank or needed to be changed, enter the user name in the **Default UserName**. After setting the **Default UserName**, you have to reload the Project.

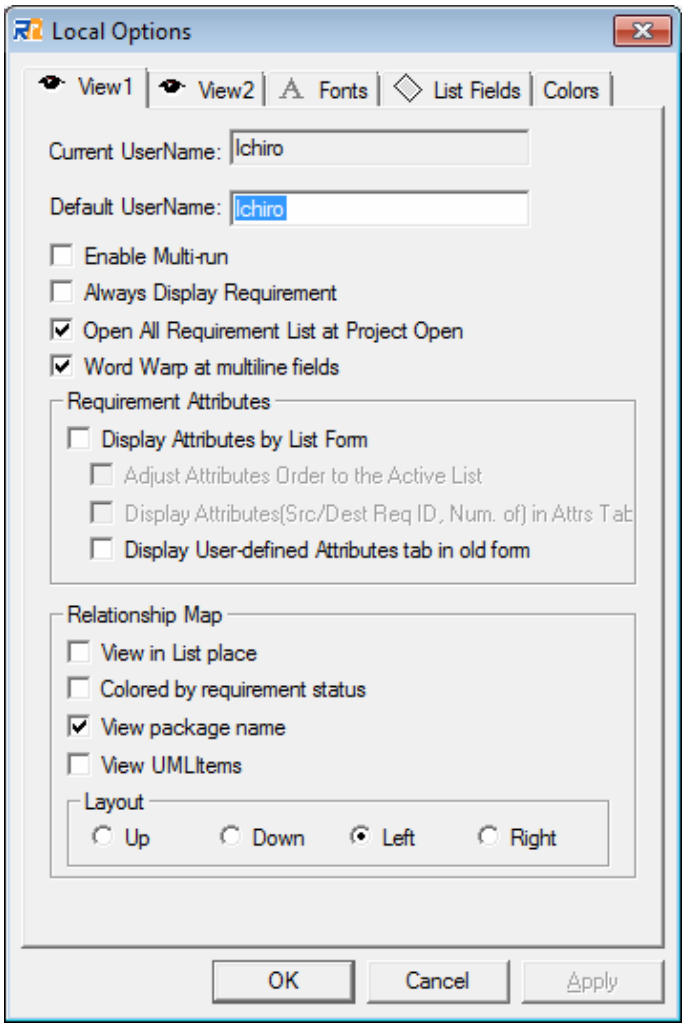


fig. 5

3.2. Requirement Status Flow in RaQuest

RaQuest assumes the following status flow in the process of requirements management (fig. 6).

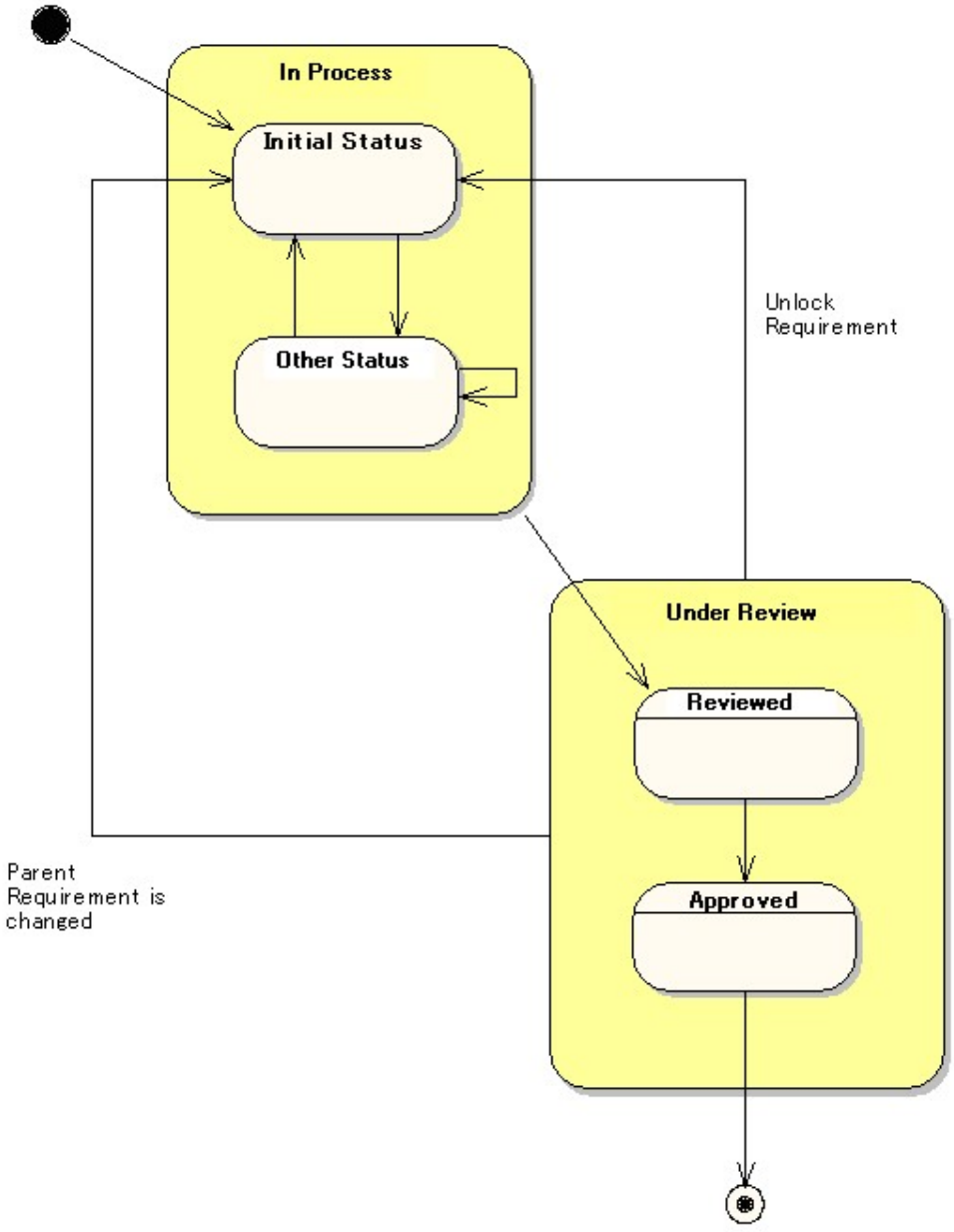


fig. 6

In above status flow, there are three special statuses for RaQuest.

- Initial status

  Status for a newly created requirement. Requirement needs to be reviewed.
- Reviewed status

  Requirement is reviewed and contents are fixed.
- Approved status

  Fixed requirement is approved and finalized by a person in charge.

Each of these special statuses has its own status, which can be modified in **Project Options**. It is possible to add/modify status in **Project Options** as well.

The following fig. 7 shows the flow of the statuses in default setting.

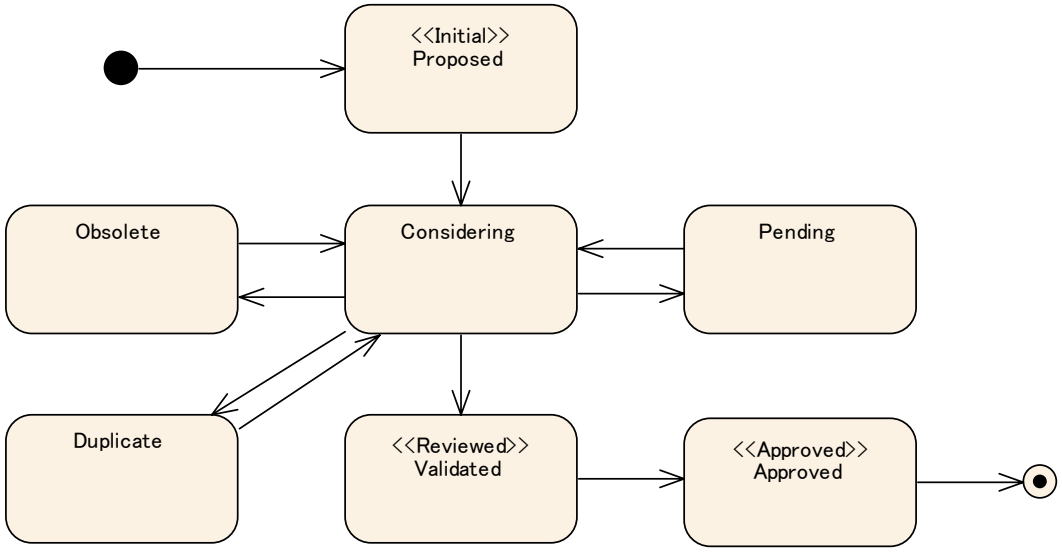


fig. 7

The default setting of RaQuest assumes the status flow of requirement to proceed from Initial (Proposed,) Considering, Reviewed (Validated), and Approved (Approved,) consecutively. Other than these, RaQuest has the statuses like "Obsolete" when the requirement is excluded while Considering, and "Pending" when consideration of the statuses is pending

"Reviewed" and "Approved" are fixed statuses, and the requirements of those statuses are locked automatically to protect them from modifications. If the lock has been released (unlock to make changes for some reason,) the status will go back to the "Initial status" automatically. The statuses of

related requirements will also be changed to "Review Required" at the same time.
Revising all related requirements prevents missing out reviewing.

3.3. To Check the Option of Requirement Status

Now, check the option of requirement status explained in Section 3.2. From the main menu of RaQuest, select **Tools | Project Options | Requirement Statuses** tab. (fig. 8)

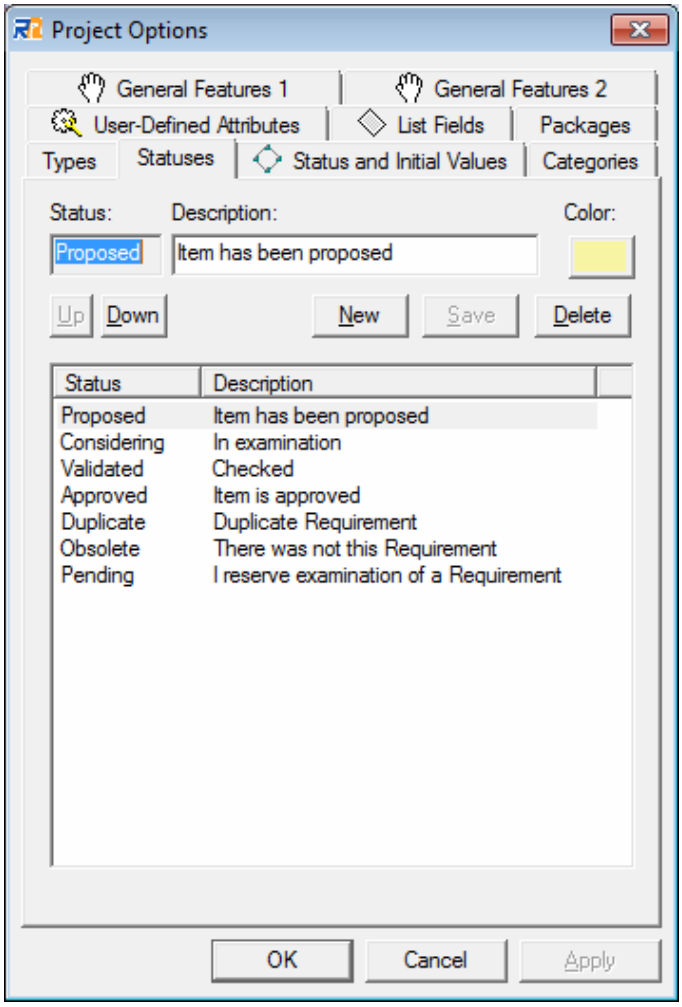


fig. 8

In this dialog, you can configure status types. For details about status types, see preceding section.

3.4. Optional Setting for Status

Before starting operations, you should check status types of three special statuses (“Initial,” “Reviewed,” and “Approved,” for details see Section 3.2). Display Project Options’ **Status and**

Initial Values tab (fig. 9).

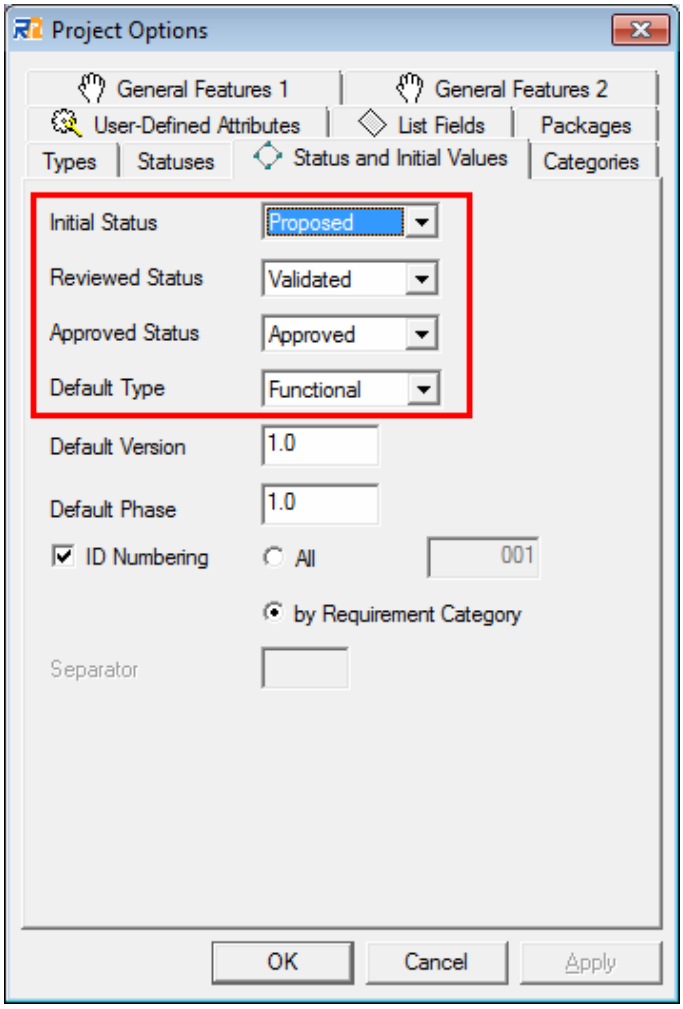


fig. 9

In above dialog, status types are assigned according to the status flow as shown in fig. 6. Change is made in this dialog. Please confirm the initial requirement type for newly created requirement. The requirement type is explained in Section 3.5.

If you change the above status types during works operations, it may violate logical consistency of status types. Therefore you are required to assign status types before starting the operations and not to change them during operations if at all possible.

3.5. To Check the Option of Requirement Type

Check the option of requirement type. To display, select **Requirement Types** tab of **Project**

Options dialog (fig. 10).

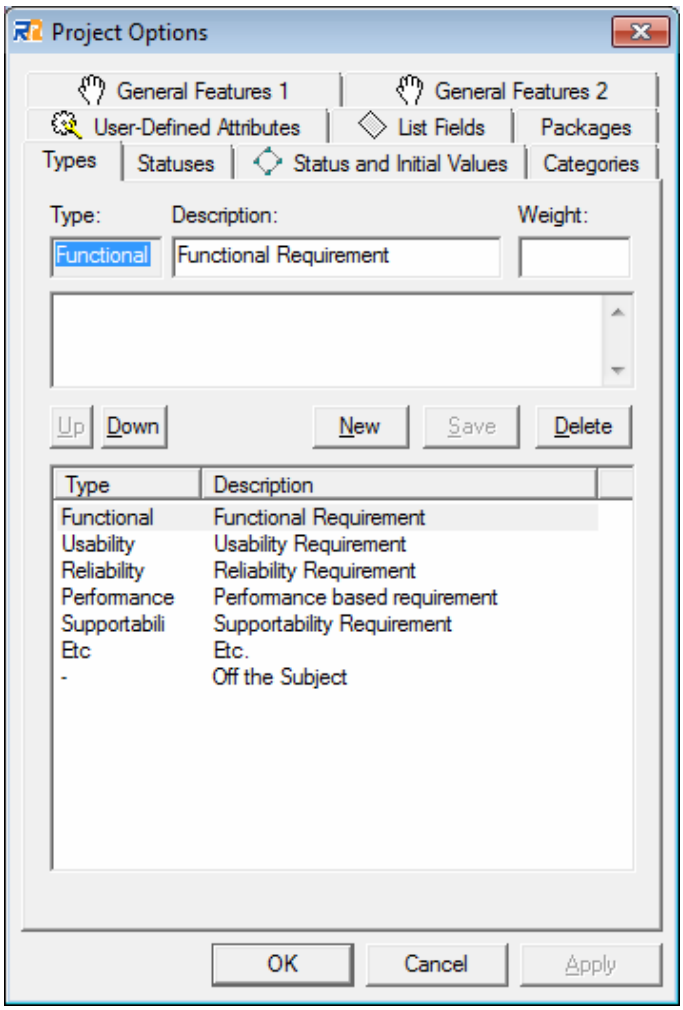


fig. 10

In the dialog, you can configure requirement types for RaQuest. By general classification, there are two types of requirements. One is functional requirement and another is non-functional requirement. However, your team or division may have an original rule for requirements' classification. You can freely add, modify and delete requirement types in this dialog according to the rule in your team or division. For instance, restriction or performance may be defined as detailed requirement types for non-functional requirements.

The type in classification model of FURPS+ is defined in default setting.

3.6. Setting for Requirement Category

To set requirement category, display the "Categories" tab in the **Project Options** (fig. 11**.)**

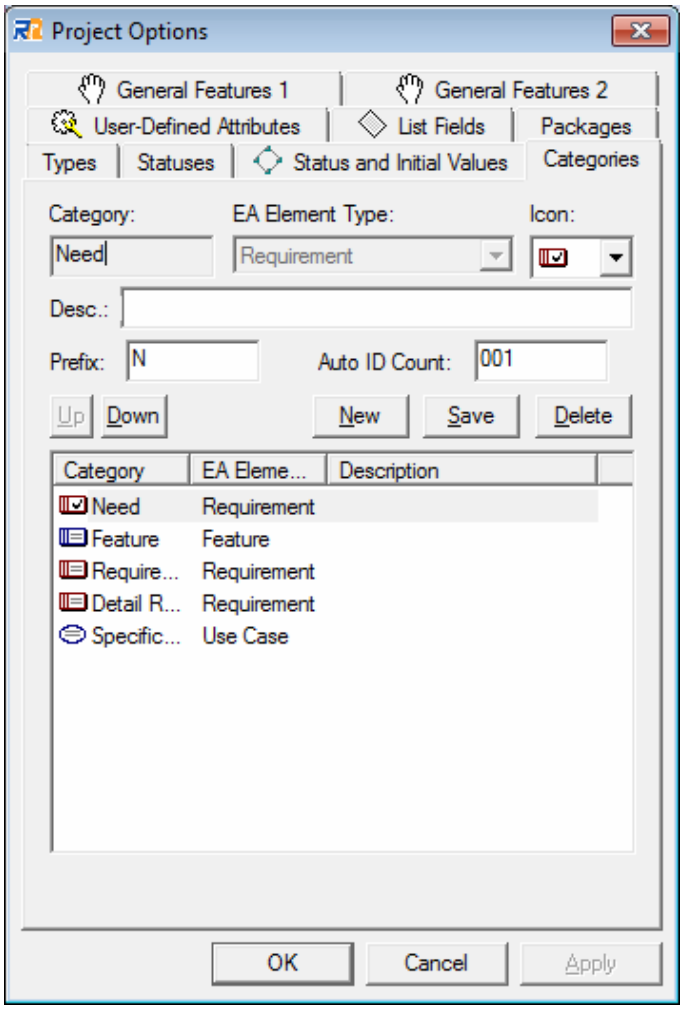


fig. 11

Requirement Category is not a type classification, but it is a classification of requirement abstraction level or granularity, and it is classified by Needs/Request/Specifications, or Needs/System requirements/Software requirements. In addition to the default settings, we added some categories as an example (fig. 11).

3.7. Setting for Division and Member

To configure divisions and members, click **Members** tab in the left pane of main window in RaQuest (fig. 12). **Members** tree appears and you can set divisions and members in **Members** tree.

fig. 12

To create new divisions or members, move your mouse to where you would like to create and right-click to show context menu. Select **Add Division** or **Add Member** to create them (fig. 13). You can put members under divisions.

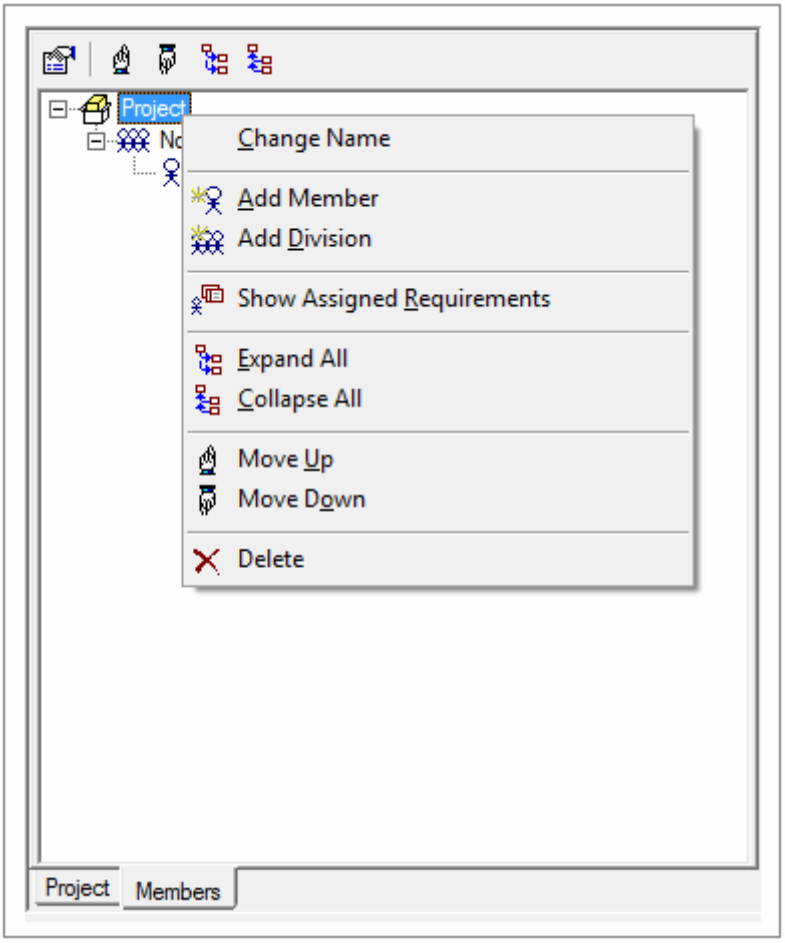


fig. 13

In this example, we set divisions and members as shown in fig. 14. We recommend you to add user name, described in Section 3.1.

fig. 14

3.8. Setting for User-Defined Attributes

Next the setting of user-defined attributes is explained. You can define the attributes which has never exist. We recommend you to create the attributes you need at the beginning.

User-defined attributes can be set in the Project Options' **User-Defined Attributes** tab (fig. 15).

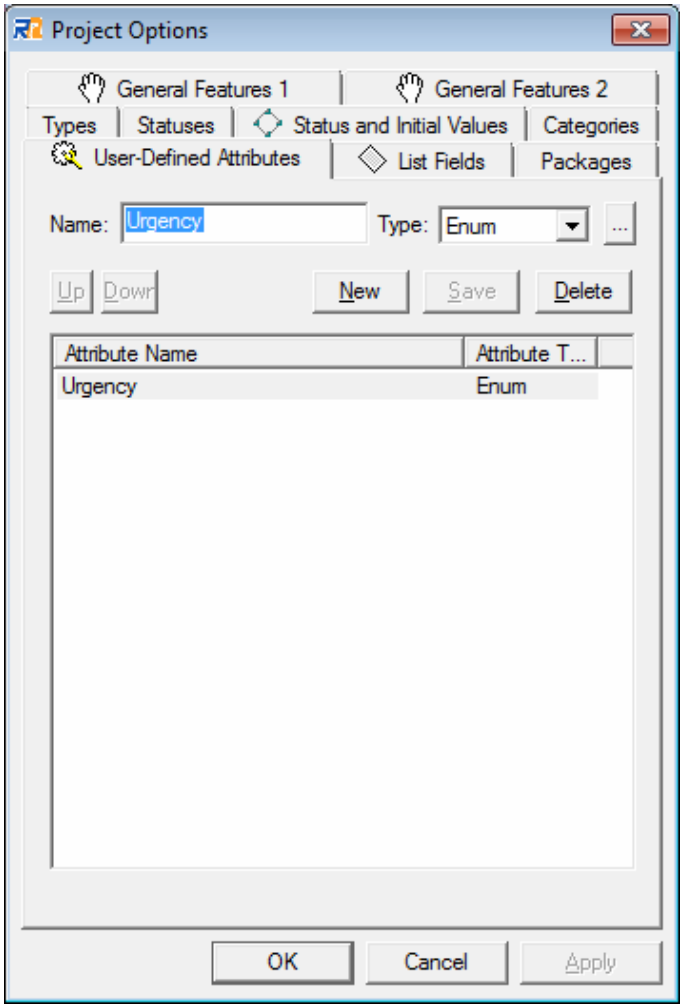


fig. 15

To define user-defined attributes, set attribute name and type and click **Save** button. The user-defined attributes are available in **User-Defined Attributes** tab of **Requirements Properties** dialog (fig. 16).

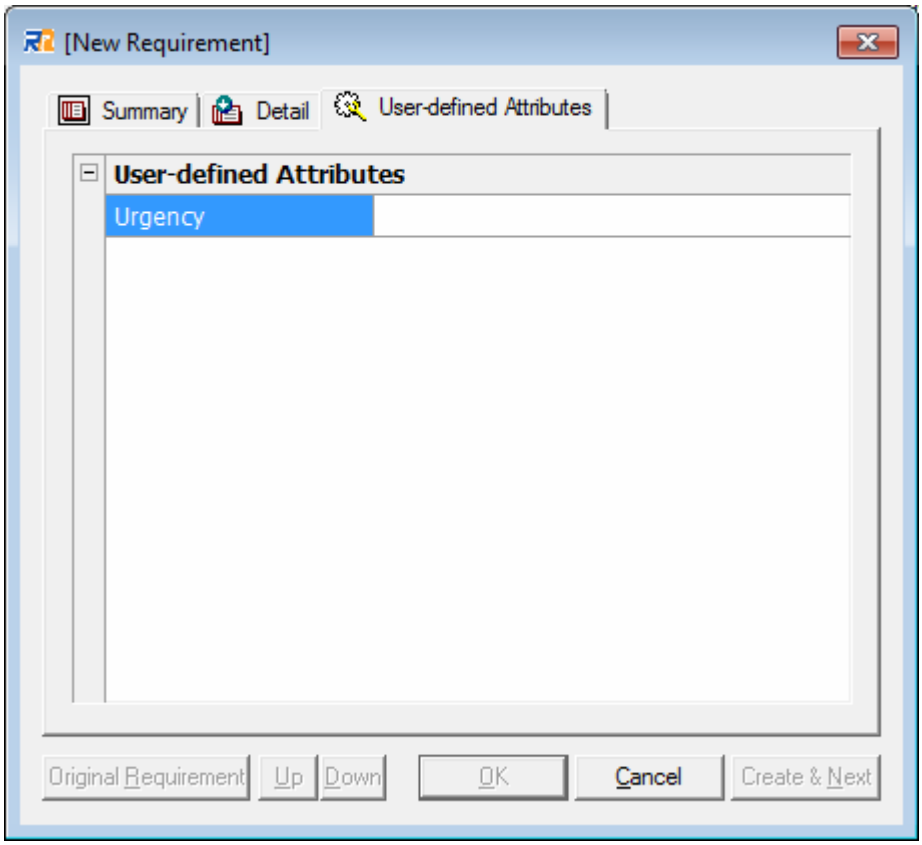


fig. 16

Now, all the settings of projects in RaQuest are completed.

4. Creation and Management of Requirement Items

From this section, actual creation and management of requirement items are explained.

4.1. To Enter Purpose, Range and Abstract of System

First, enter “Name,” “Purpose of System,” “Scope of System,” and “Summary” of system as the properties of root package. These are the bases of requirements in this project. Right-click the root package in the tree (root package is located at the top of the tree) and select **Properties** (fig. 17).

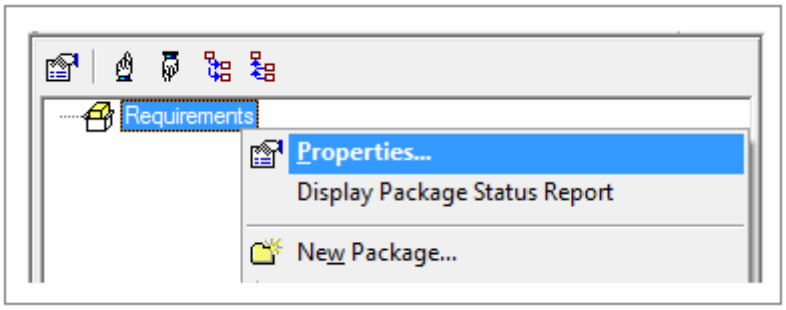


fig. 17

Root Package Properties dialog appears. Enter necessary information into the dialog. In this example, we enter them as shown in fig. 18.

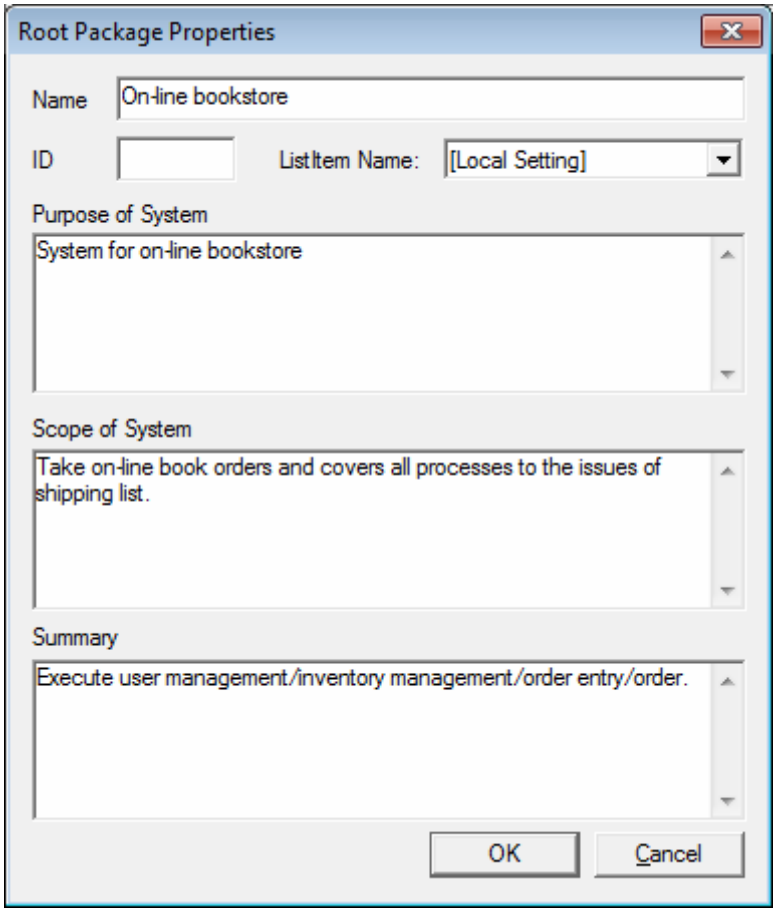


fig. 18

4.2. To Create Package and Requirement

RaQuest can create following three items.

- Package

  It is a container for requirements to manage the multiple requirements all together.
- Requirement

  Individual requirements
- Change requirement

  Use this feature when the existing requirements need to be changed. For instance, a requirement of some product needs to be updated to version 1.1 from 1.0. You can modify the existing requirements, but that will make its history hard to see. To avoid this, define the ”Change Requirement” to the existing requirement to clearly show that there are some changes made to the requirements.

Before creating requirement item, create new packages. To create a package, right-click the package you want to create (root package is used here) and select **New Package** (fig. 19). **Package Properties** dialog appears. Enter the name, summary and etc into the dialog. In this example, we enter them as shown in fig. 20.

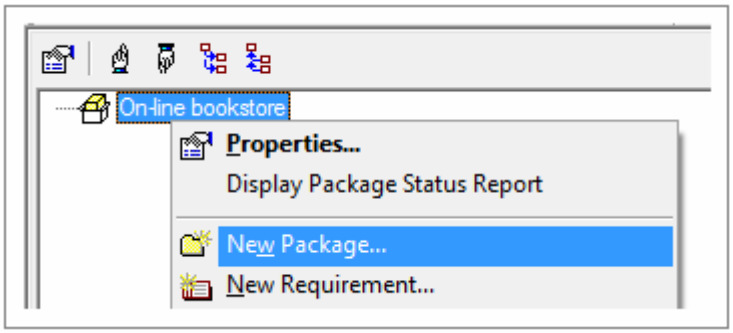


fig. 19

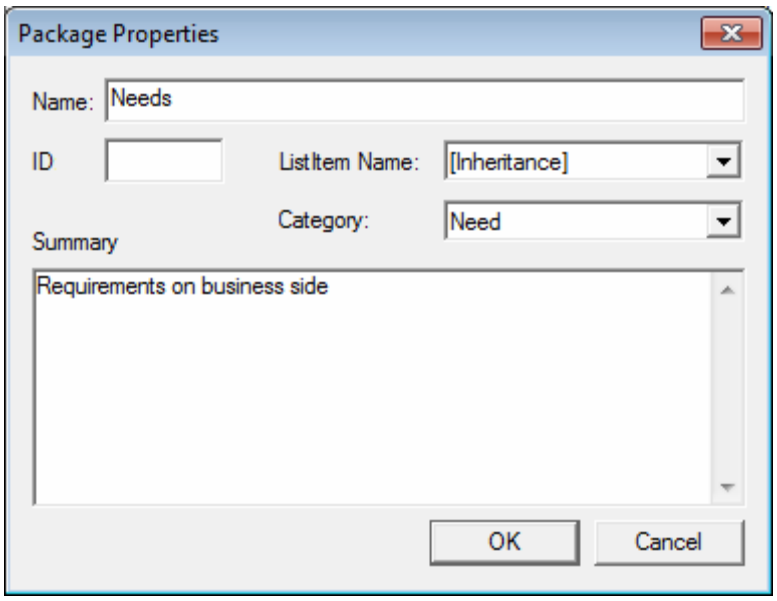


fig. 20

Next we create packages, and it looks like fig. 21.

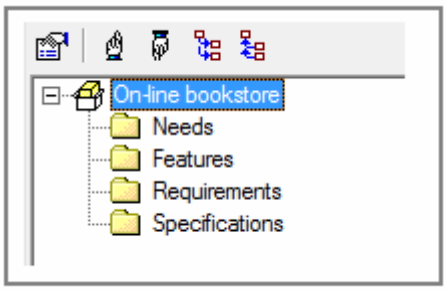


fig. 21

Then, create a new requirement. Right-click a package (under where you would like to create a new requirement) and select **New Need** (fig. 22). **New Requirement** dialog appears. Enter necessary information into the dialog. In this example, we enter them as shown in fig. 23.

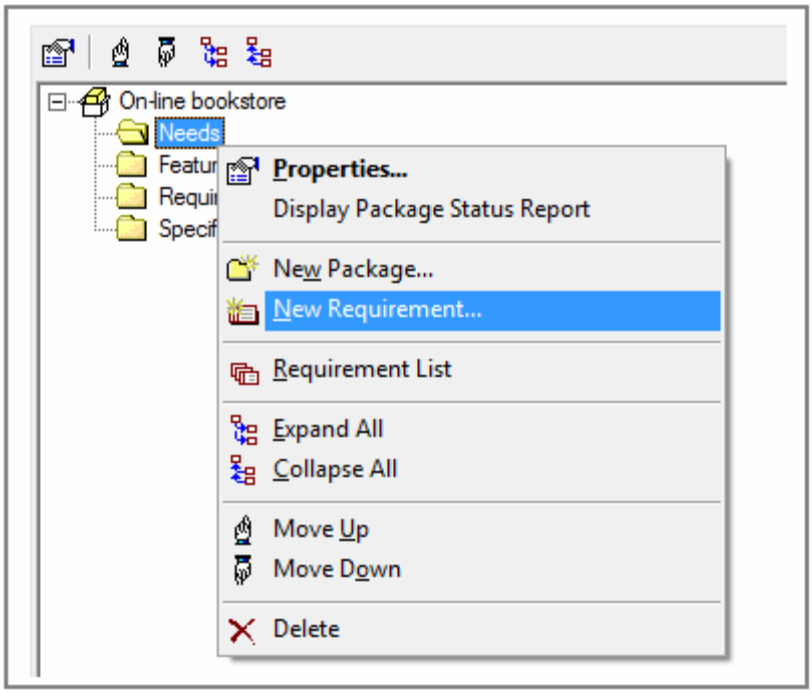


fig. 22

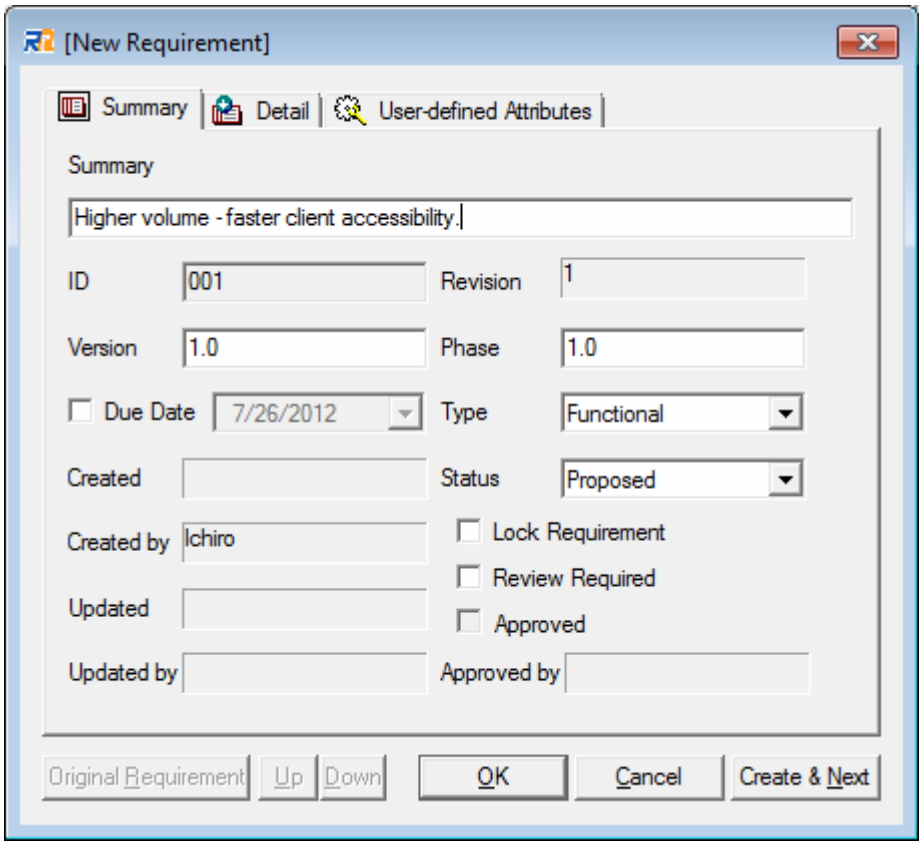


fig. 23

You can create other requirements in the same way. In this example, we create requirements as shown in fig. 24.

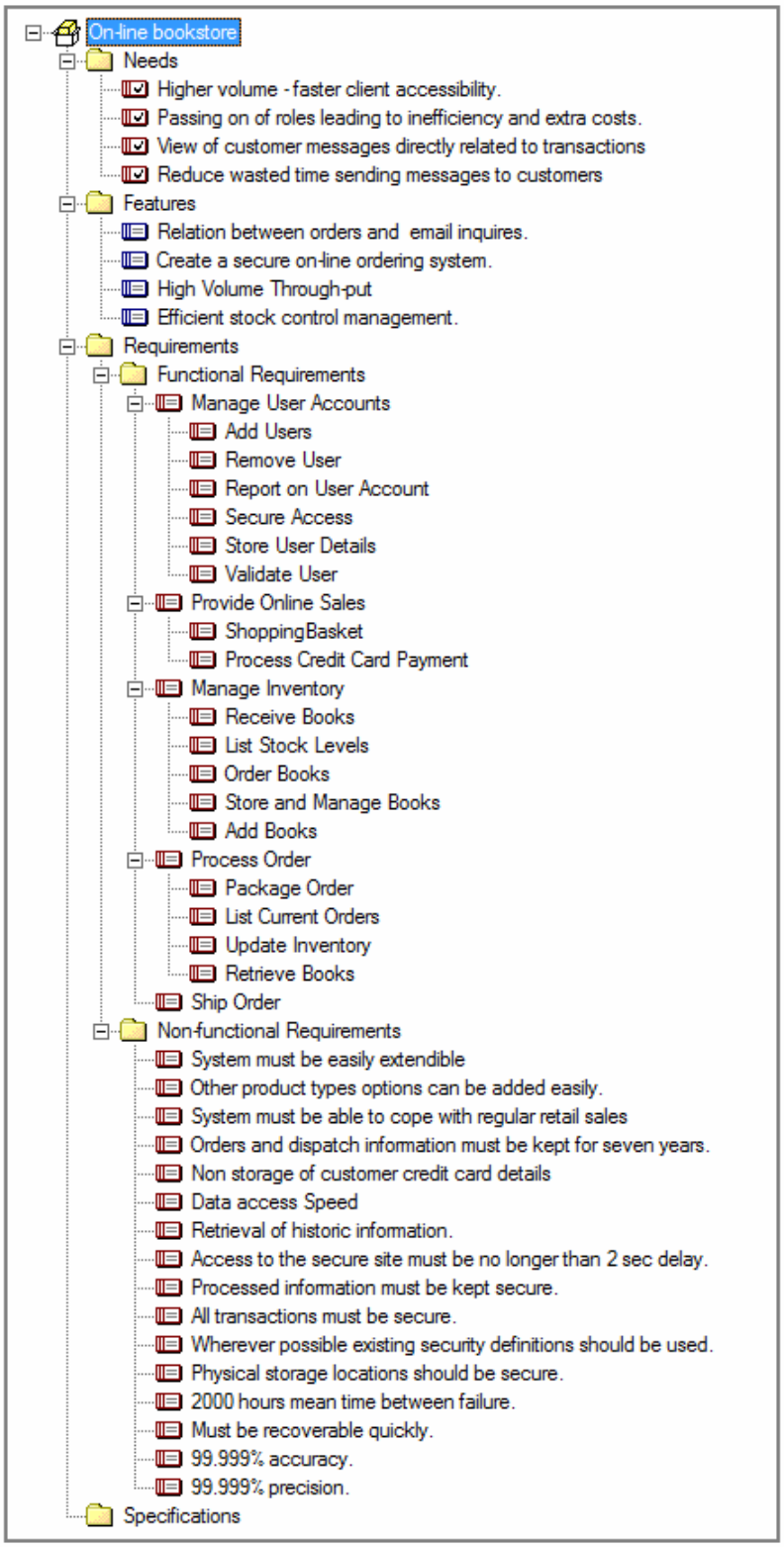


fig. 24

Requirements can be assigned a person in charge, information about related files and elements of URL/UML, and comments. For details see RaQuest Help.

It is possible to place package under requirement (fig. 24). Such packages work as an index to sort the child requirements, and they play different role from the packages with standard hierarchical structure. Therefore, please note that this kind of packages cannot be moved.

4.3. Requirements List

You can display a list of created requirements in the right pane of main window. Select root package (or a package which has requirements to display) and select **List | Requirements List** menu item (fig. 25). The created requirements are displayed by list (fig. 26).

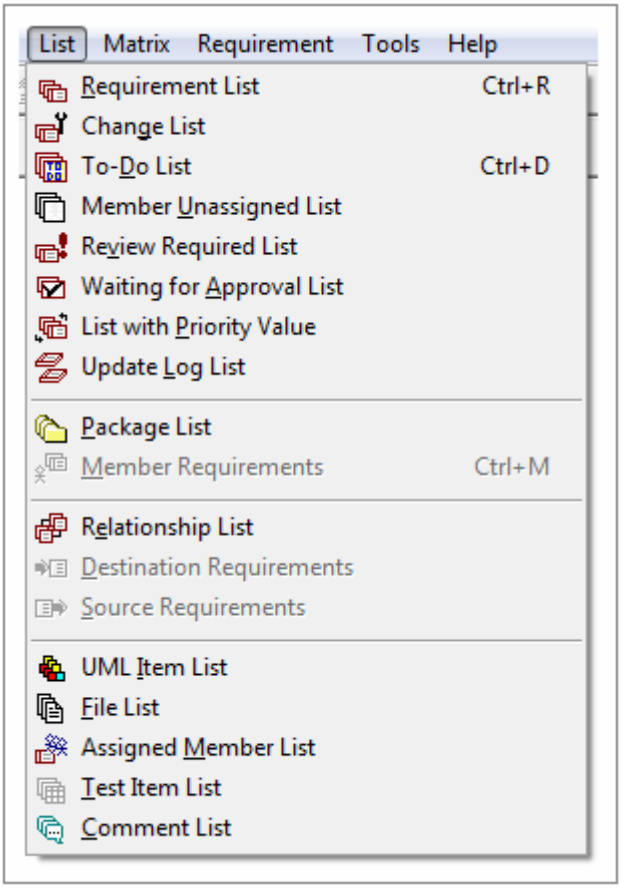


fig. 25

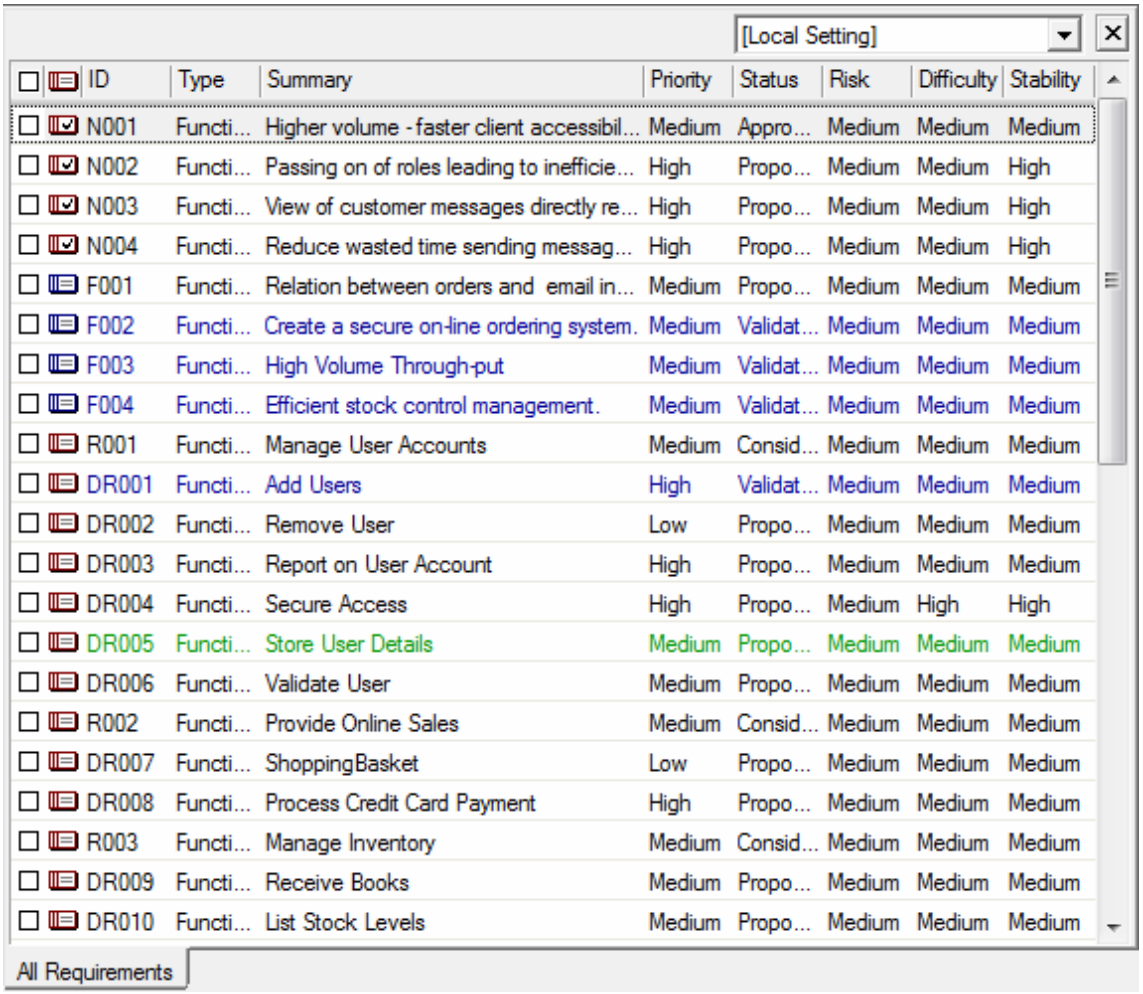


fig. 26

Click the header of each column to sort the requirements by the header item.

You can use filter feature to narrow down the requirements to be shown in the list. Select **Search | Filter List** menu item. **Filter List** dialog appears and then check the items and enter the filtering keywords into the field. You can display requirements containing the filtering keyword, or requirements not containing the filtering keyword (fig. 27, fig. 28).

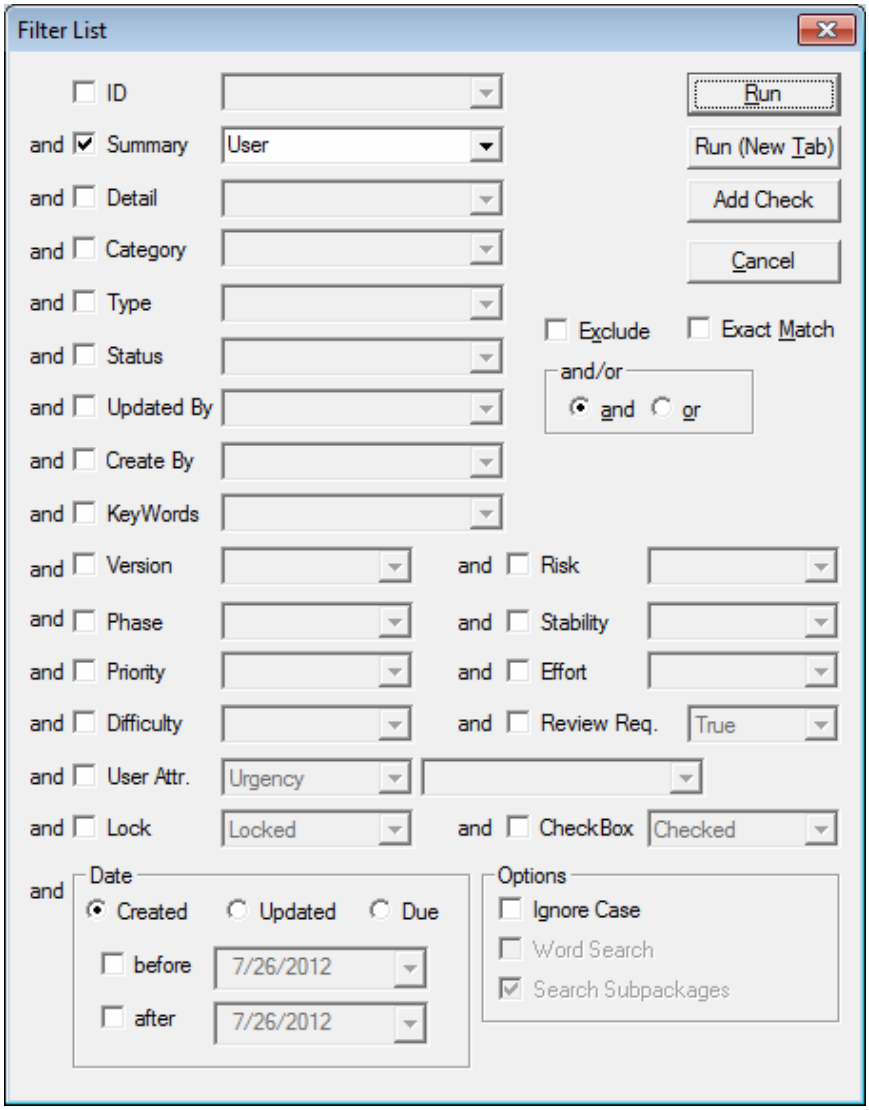
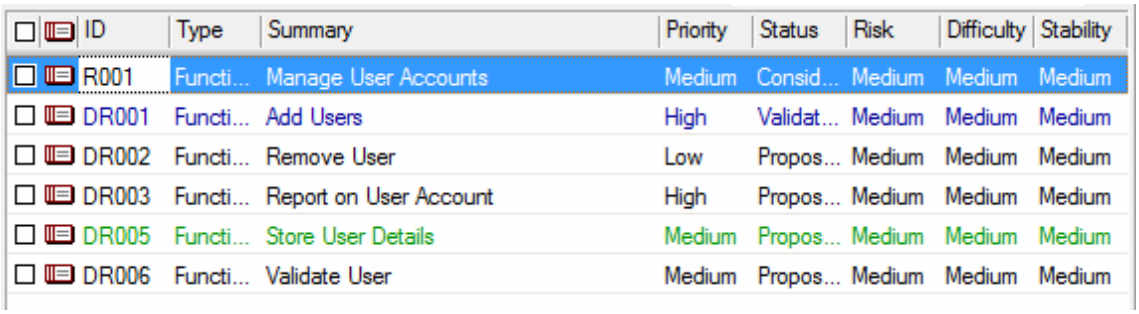


fig. 27



ID	Type	Summary	Priority	Status	Risk	Difficulty	Stability
R001	Functi...	Manage User Accounts	Medium	Consid...	Medium	Medium	Medium
DR001	Functi...	Add Users	High	Validat...	Medium	Medium	Medium
DR002	Functi...	Remove User	Low	Propos...	Medium	Medium	Medium
DR003	Functi...	Report on User Account	High	Propos...	Medium	Medium	Medium
DR005	Functi...	Store User Details	Medium	Propos...	Medium	Medium	Medium
DR006	Functi...	Validate User	Medium	Propos...	Medium	Medium	Medium

fig. 28

By this, you can easily check a lot of requirements. Furthermore, “Reviewed” or “Approved” requirements and expired requirements are displayed in different color so that it helps the effective management. (Usually requirements are written in black. fig. 29)

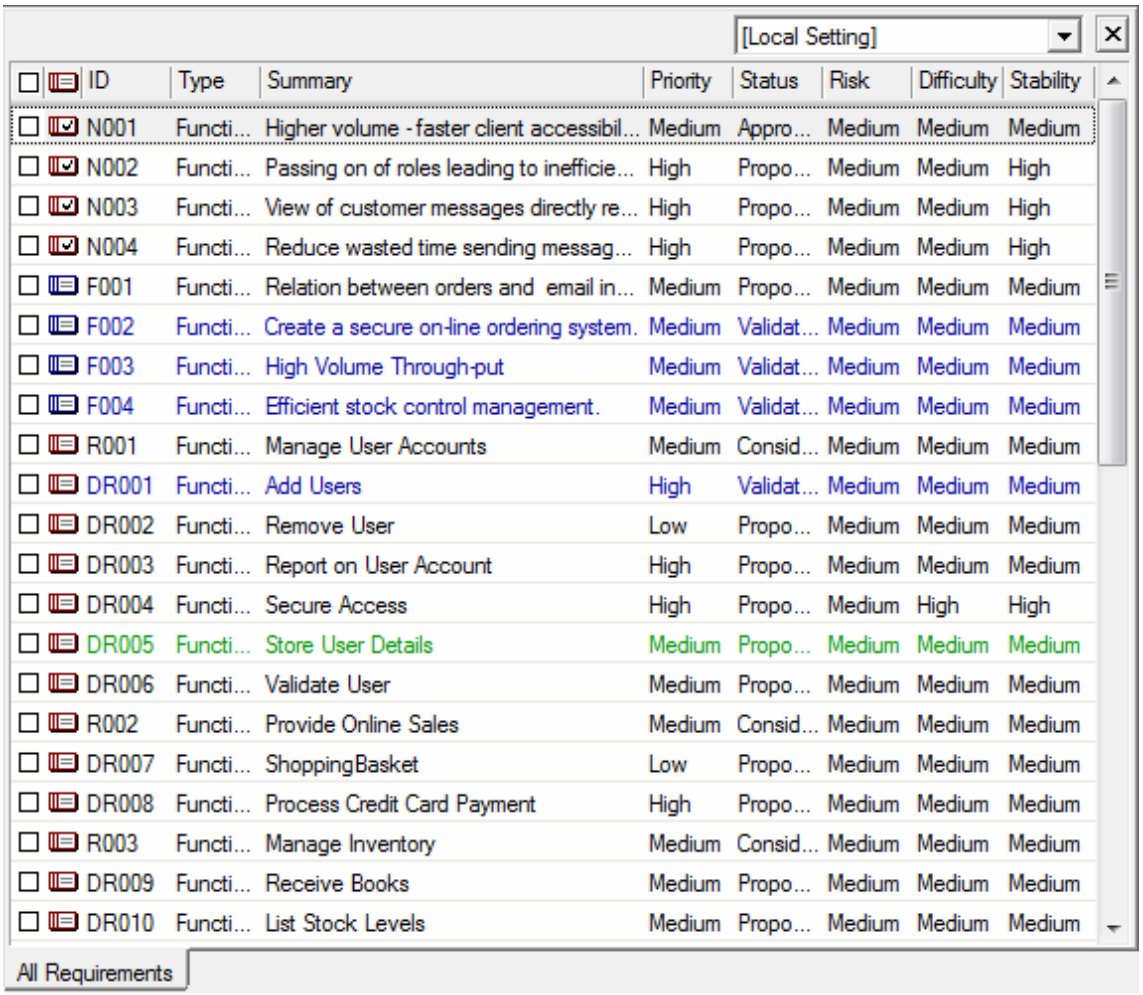


fig. 29

5. To Import the Existing Requirements Information

In this section, we will explain the following two methods to import the information of existing requirements, managed by the external tools like spreadsheet programs and others.

- CSV importing function
- Word Add-in

5.1. CSV Import

To import the requirement information from the external tools like spreadsheet programs and others, the data has to be converted to the csv file. Export the data from each tool, and then import it to RaQuest by the following step.

First, select a package in the tree to store the imported requirement. And then, select **File | Import | CSV** menu item (fig. 30.)

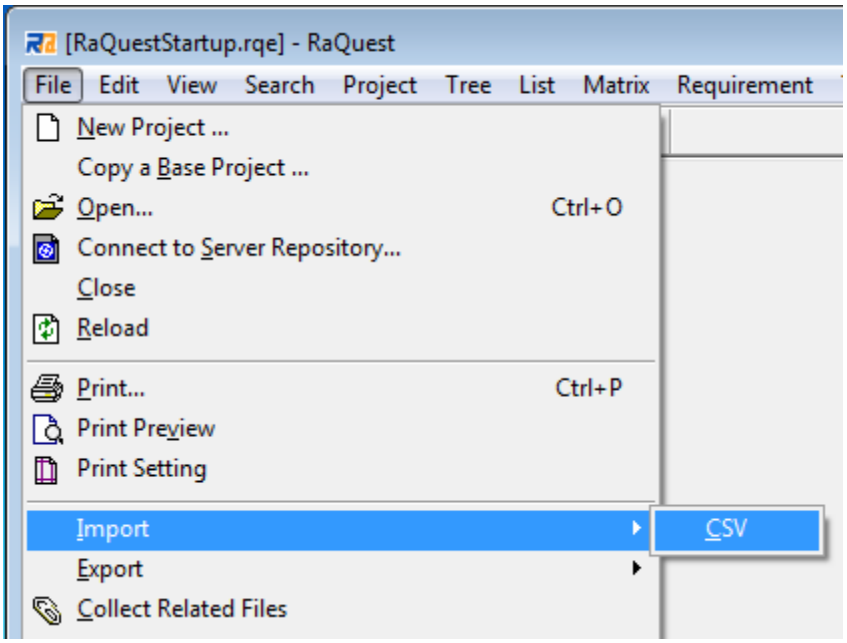


fig. 30

On the **List Import/Export** dialog (fig. 31,) press the **Edit/New** button.

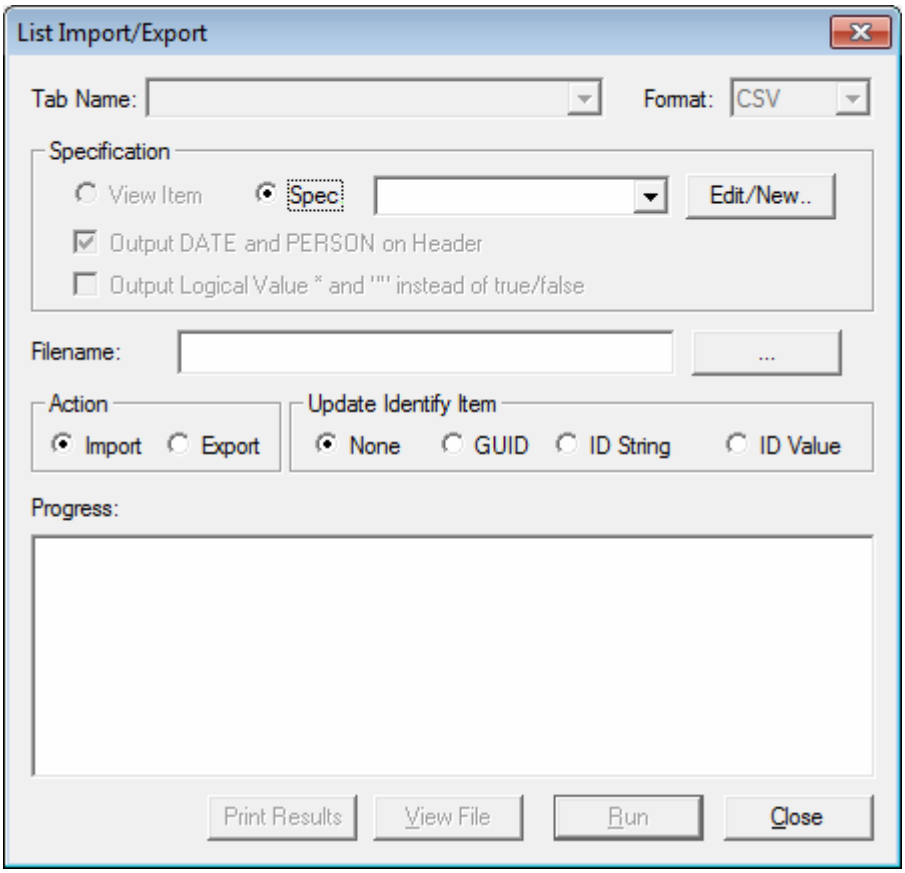


fig. 31

Then, on the **CSV/Excel Import/Export File Specification** dialog, use **Add Field** or **Up/Down** buttons to define file form to import the csv file. Here, we use the following conditions of csv file for our setting (fig. 32.)

(ID), (Summary), (Status)

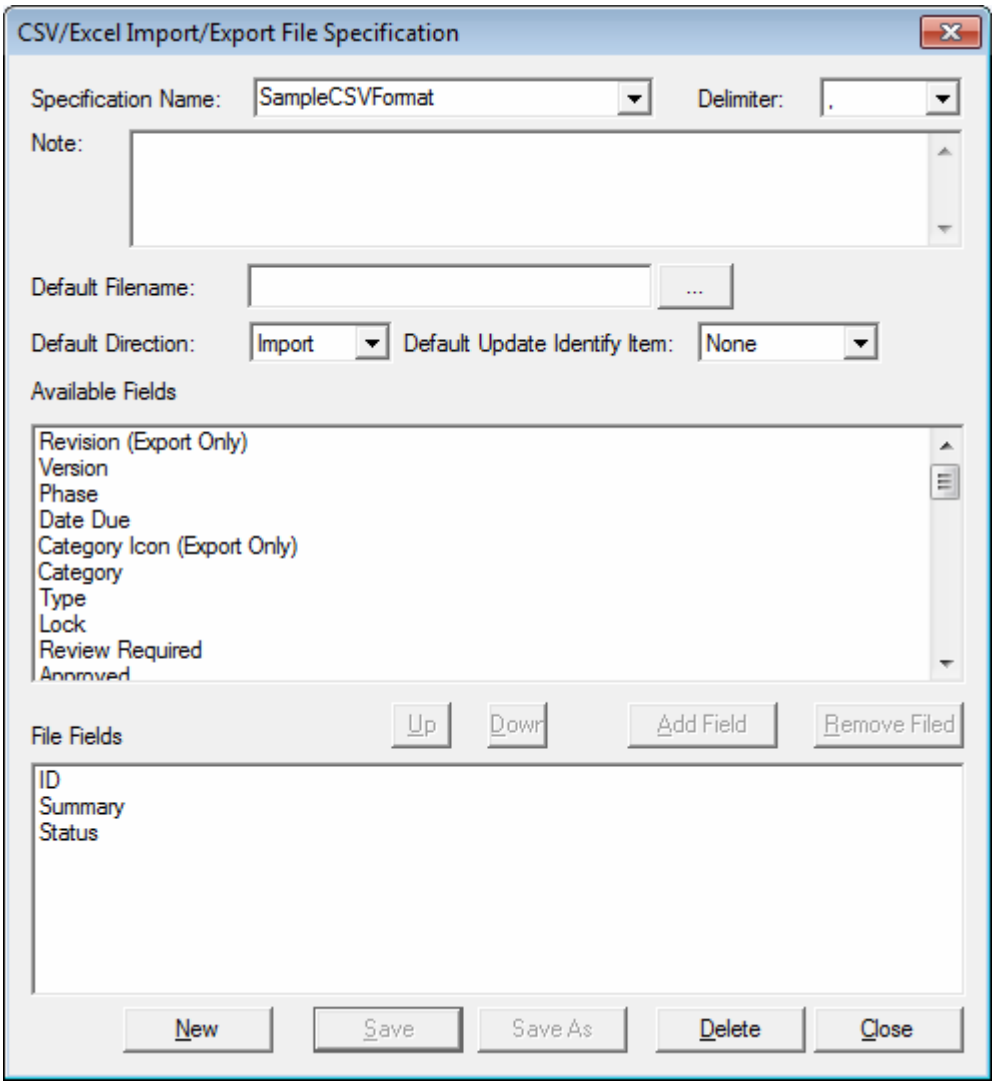


fig. 32

Name the setting, here we named this SampleCSVFormat, and save.

On the **List Import/Export** dialog, specify your setting from the combo box of setting. You can specify the csv file, and then press the **Run** button. The data of csv file is imported to the specified package as a requirement.

If the ID or GUID of requirement in the csv file is already existed in the project, it can be overwritten by changing the settings of **Update Identify Item** on the **List Import/Export** dialog. Also, you can synchronize the data even if the csv file is edited outside of RaQuest. For this, you need to include ID or GUID information in the files to be exported; CSV/Excel Export will be explained in section 9.2.

5.2. Word Add-in

When Word Add-in is registered at the installation, right-click menu of the high-lighted texts has **Register to RaQuest** menu item. This option registers the high-lighted texts as a requirement of the currently opened project of RaQuest.

For details, please refer to the Help file.

6. To Assign Member and Make Relationship to Requirement

6.1. To Assign Member to Requirement

You can assign members to requirements. The member assigned here can be a person who reviews the requirement or a person who is in charge of the requirement until it is approved.

The following is the simplest way to assign members to requirements. First, display **Requirements** list explained in Section 5.3 and select **Members** tab at the left pane of main window to display **Members** tree. Drag and drop the requirement to the member in **Members** tree (fig. 33).

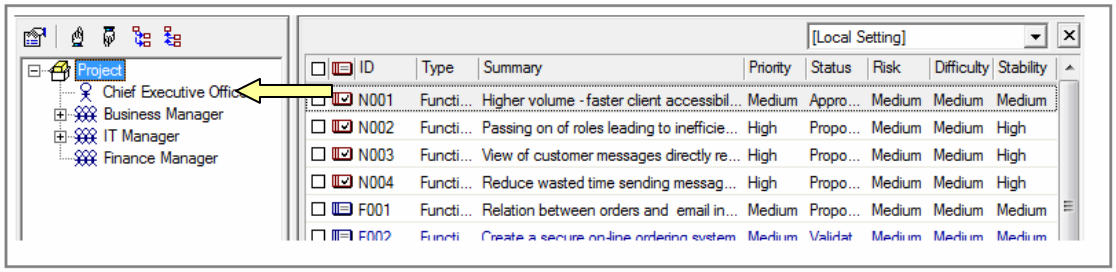


fig. 33

The members are assigned successfully when the message is displayed on status bar as shown in fig. 34.

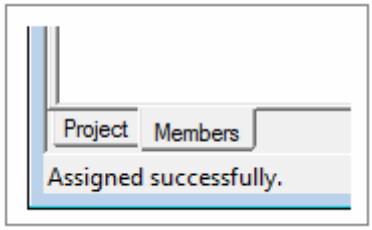


fig. 34

Drag and drop the member to the requirement is effective as well.

You can check the assigned members of the requirements from the **Properties** dialog of each requirement. Select **Members** tab to check it (fig. 35).

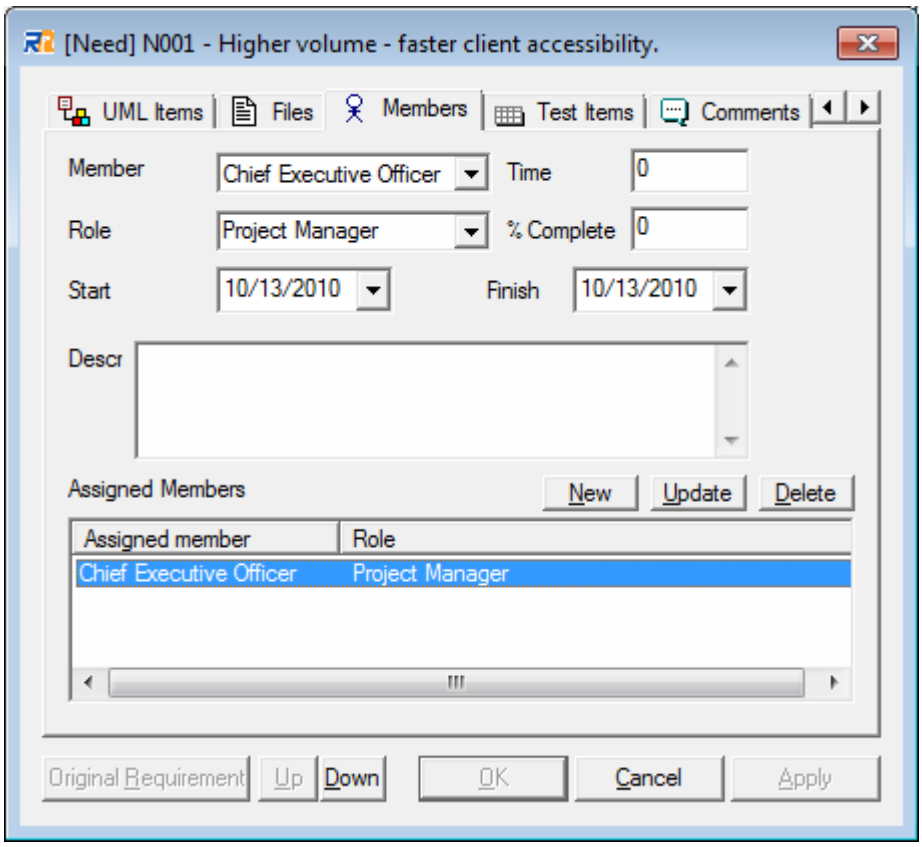


fig. 35

You can add, modify and delete the assigned members in this dialog. Use this dialog to modify or delete members. To customize the roles, run Enterprise Architect from **Tools | run Enterprise Architect** menu item. Then, in Enterprise Architect, select **Settings | People** menu item. The **Member** dialog shows up. You can customize the roles in the **Project Roles** tab. Change it as you need.

You can check the requirements in an individual assigned member basis. Select a member in **Members** tree at the left pane of main window, and select **List | Member Requirements** menu item. You can view all requirements of the member in a list at the right pane of main window (fig. 36, fig. 37).

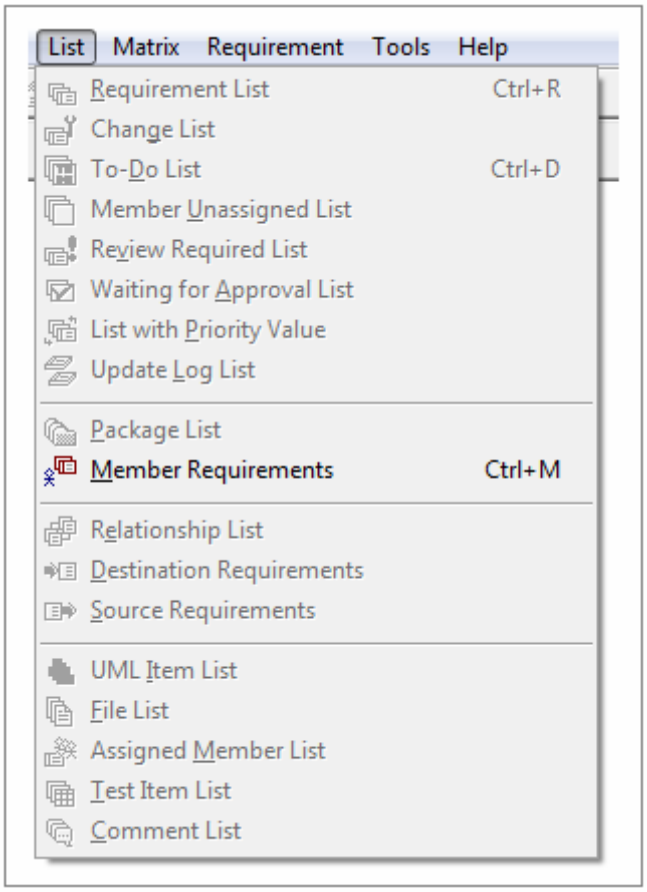


fig. 36

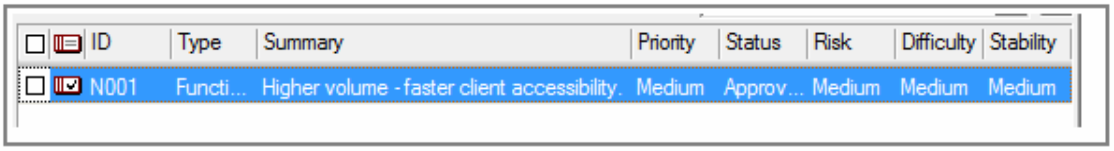


fig. 37

6.2. To Make a Relationship between Requirements

Relationships between the requirements can be defined when needed. Relationship here means that the contents of requirement A and B are closely-related so that any changes made to the requirement A likely influences the requirement B. Many of the relationships are likely created between packages immediately below root package (fig. 21). With RaQuest, you can manage such relationships.

With drag-and-drop, you can easily make a relationship between requirements. You can drag a requirement from the **Project** tree or the **Requirement** list, and drop it to another requirement. Note that you will drag a requirement (destination requirement, B in the above example), which will be influenced, and drop it to an influential requirement (source requirement, A in the above example.). The result will be displayed on the status bar (fig. 38).

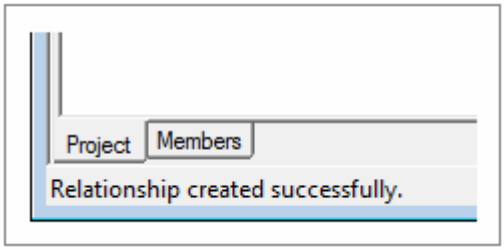


fig. 38

There are three ways to check the relationships between requirements; relation map, relationship list, and matrix.

Right-click a requirement and select **Show Relationship Map**, which shows the relationships between selected requirement and its related requirements (fig. 39).

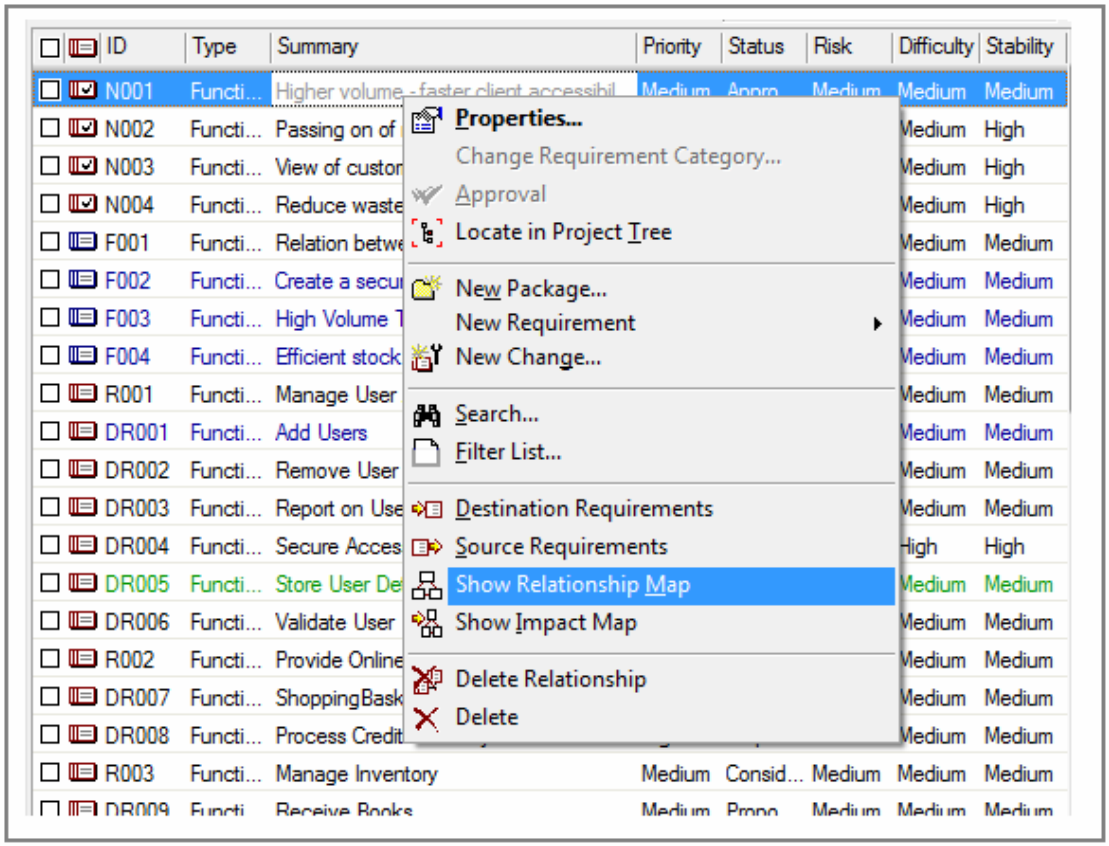


fig. 39

The diagram appears as shown in fig. 40. The requirement you selected is shown in red.

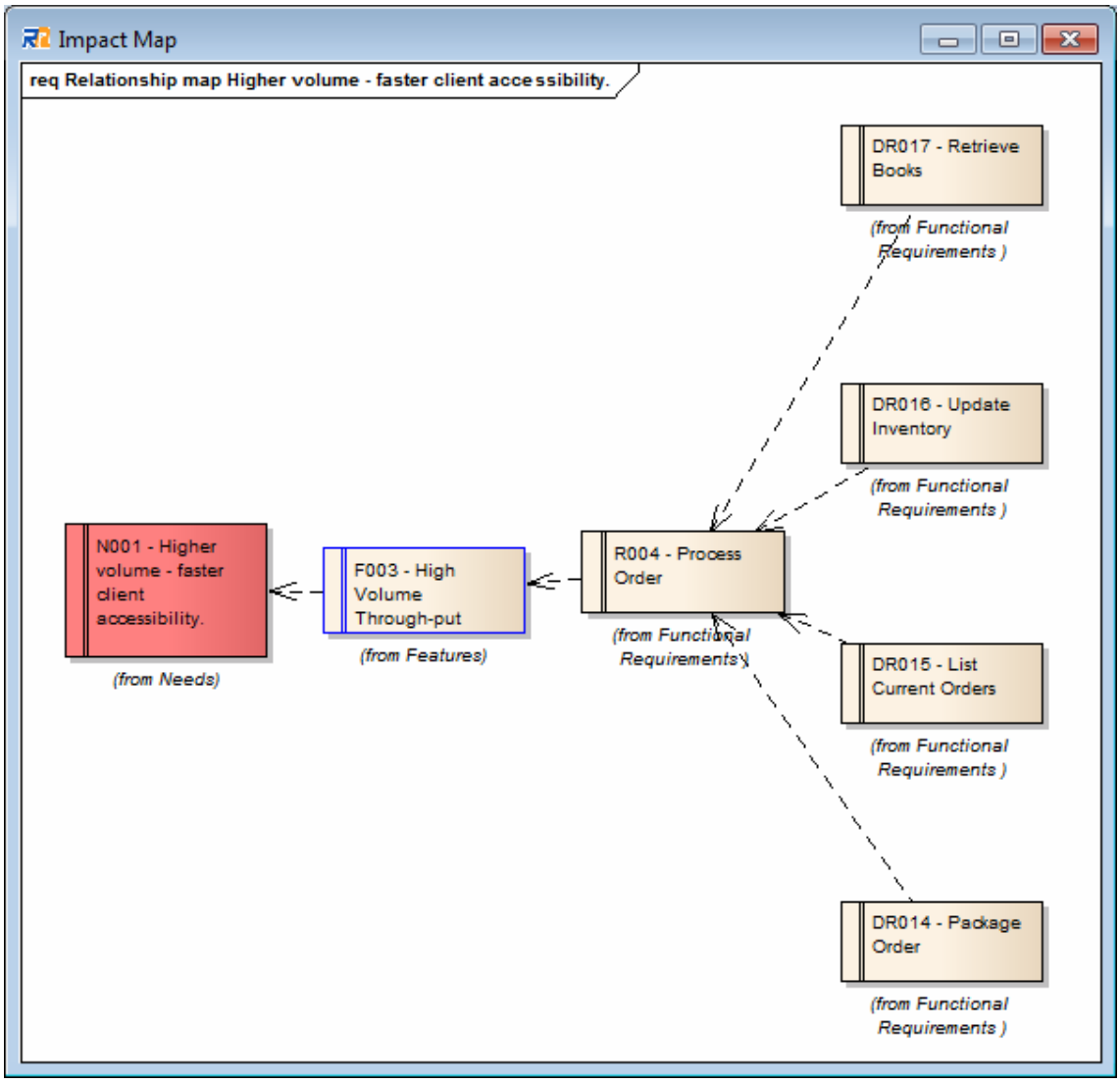


fig. 40

The arrow here indicates the direction of dependency. In fig. 40, the left requirement is dependent on the right requirement. Note that the direction of dependency is in the reverse direction from the direction of effect.

Right-click the requirement and select **Destination Requirements** or **Source Requirements** to check the relationships by list. **Destination Requirements** means requirements which are affected by the currently selected requirement. On the other hand, **Source Requirements** means requirements which affect the currently selected requirement. For above instance, the list of requirement A, **Destination Requirements**, includes the requirement B, as below fig. 41.

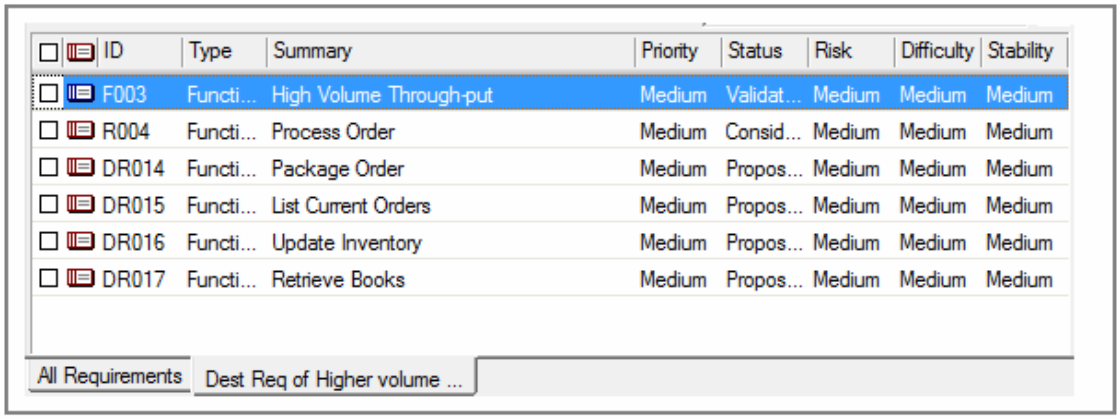


fig. 41

When you delete the relationship, right-click the requirement and select **Delete Relationship** from the context menu (fig. 42).

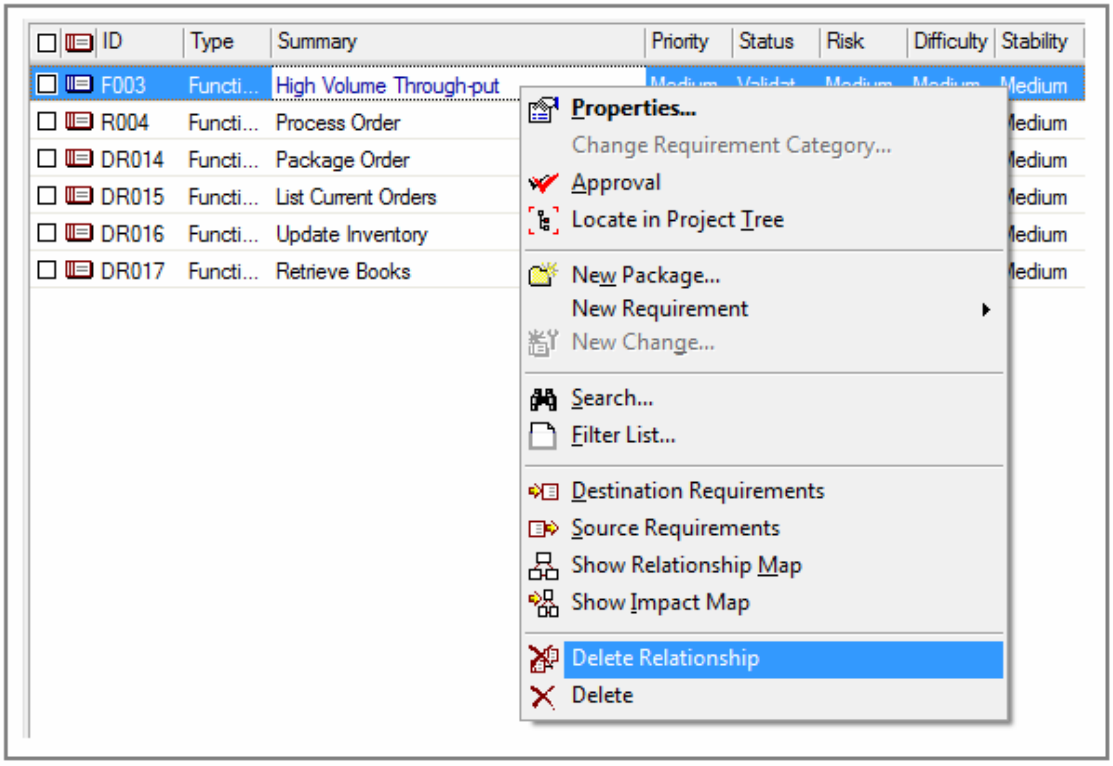


fig. 42

To display matrix, select **Matrix | Requirement Matrix** menu item. At first the relationships between all requirements are displayed (fig. 43). Use the narrowing down the target packages to display them at the package selection, as needed. Setting and editing the relationships are possible by double-click the matrix, or from the context menu displayed by right-click the matrix. You can also display requirement and member, requirement and Use Case, and requirement and UML item in Matrix. And it is possible to check exclusion/omission by **Color unrelated** checkbox.

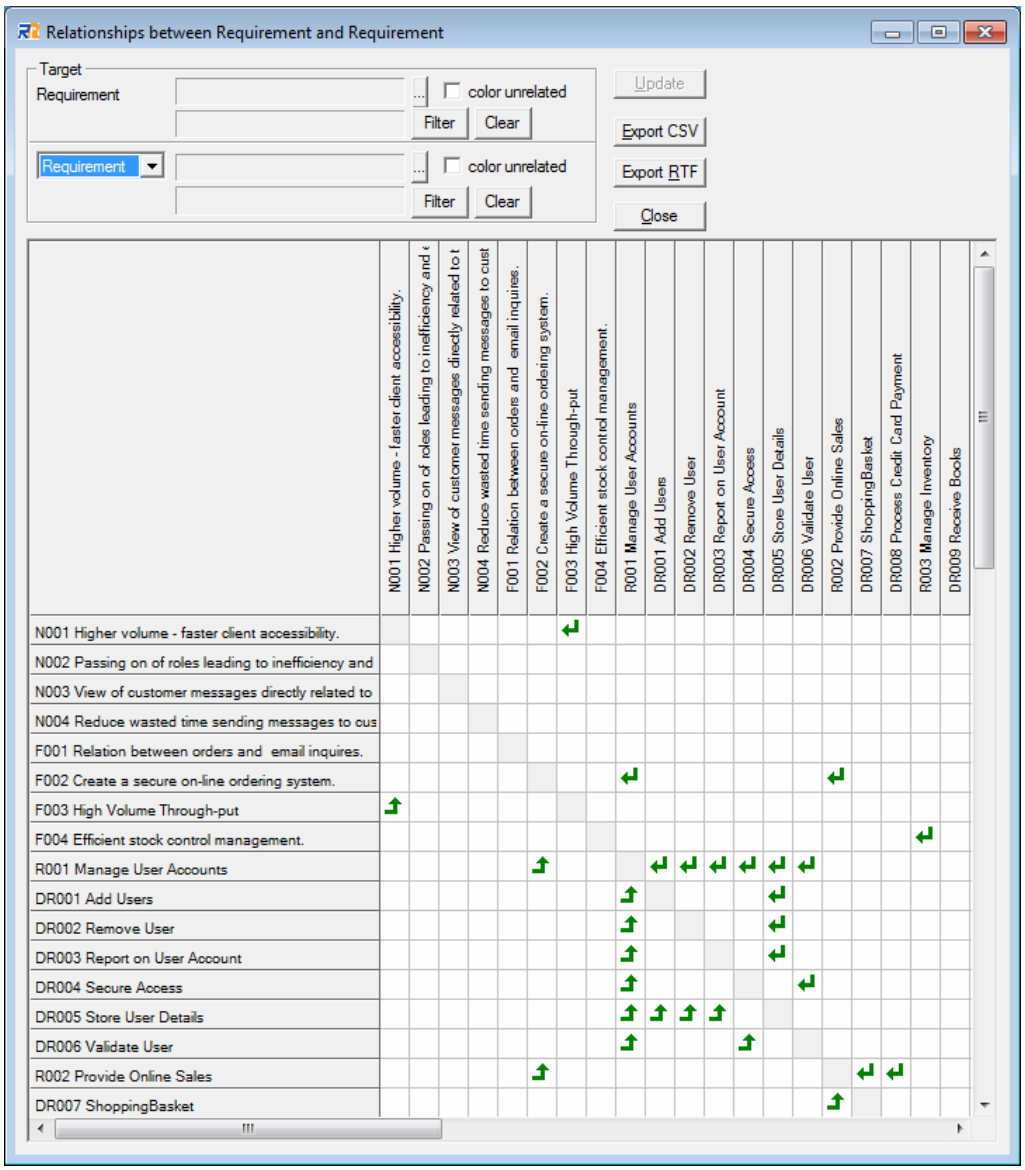


fig. 43

You can define relationships between requirements and check them in diagrams, lists or matrix as explained. This relationship definition is also used at Section 7.4 in next section.

7. Requirement Status Management

This section provides you with the way to manage requirement status.

7.1. To Change Requirement Status

As described before, each requirement has status. It shows the condition of the requirement, so status is essential to mange requirements. To change the status, **Properties** dialog of the requirement is used.

Double-click the requirement in **Requirements** list or **Project** tree, or right-click the requirement and select **Properties**. **Properties** dialog appears as shown in fig. 44. You can change the status in this dialog.

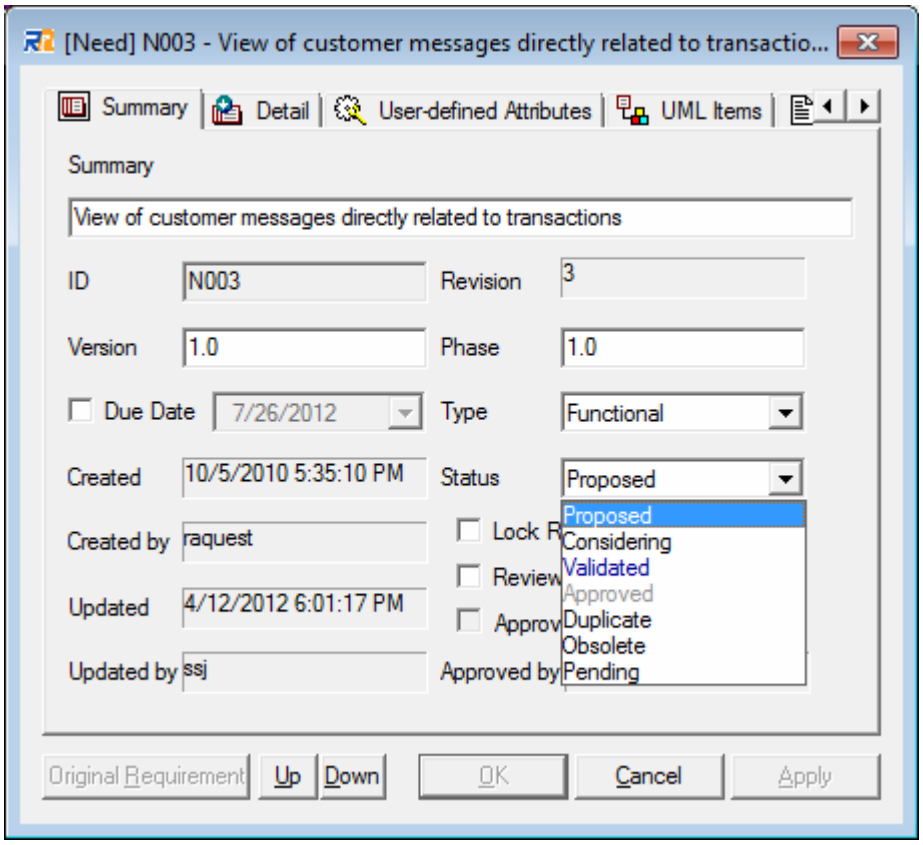


fig. 44

After you change the Status, click **OK** button to save the value.

7.2. Status Change to “Reviewed”

“Reviewed” and “Approved” status are special status for RaQuest, so they need special steps when you change the requirement status to “Reviewed” or “Approved.”

First, let’s look at “Reviewed” status. You can change the requirement status to “Reviewed” according to the procedure described in Section5.1. After you click **OK** button, the following message appears (fig. 45).

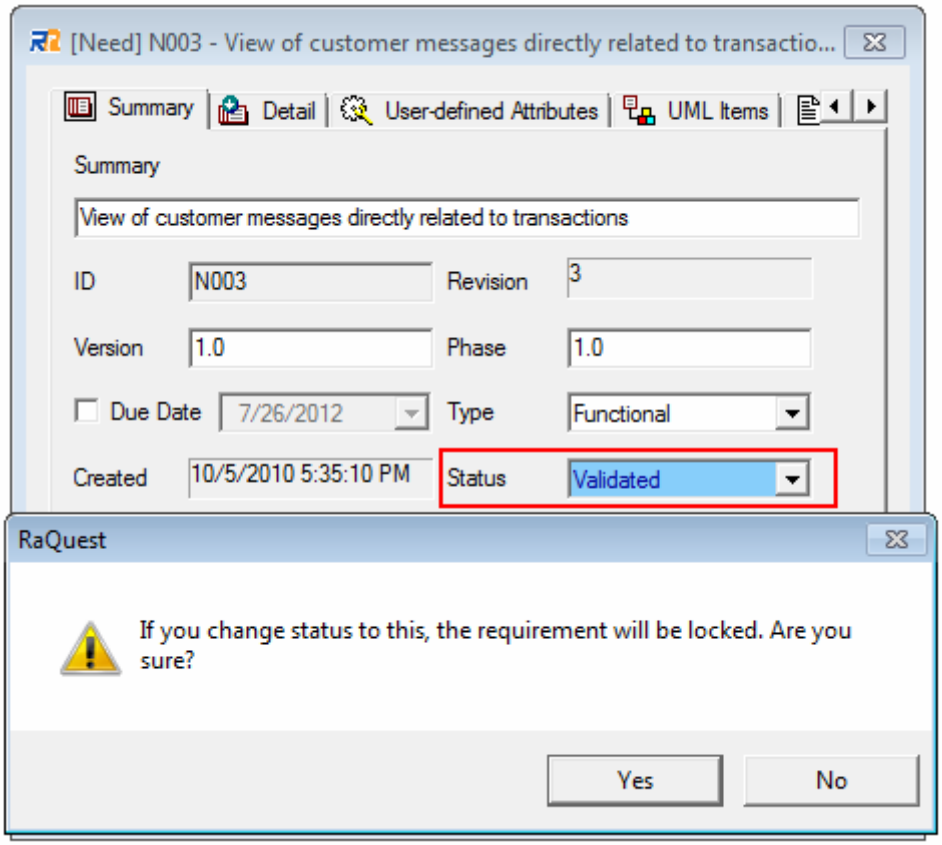


fig. 45

If you click **Yes** button, the requirement is locked and you cannot modify it. When you need to modify the locked requirement, uncheck the **Lock Requirement** checkbox in the **Properties** dialog. When you uncheck the checkbox, the following confirmation message appears as shown in fig. 46.

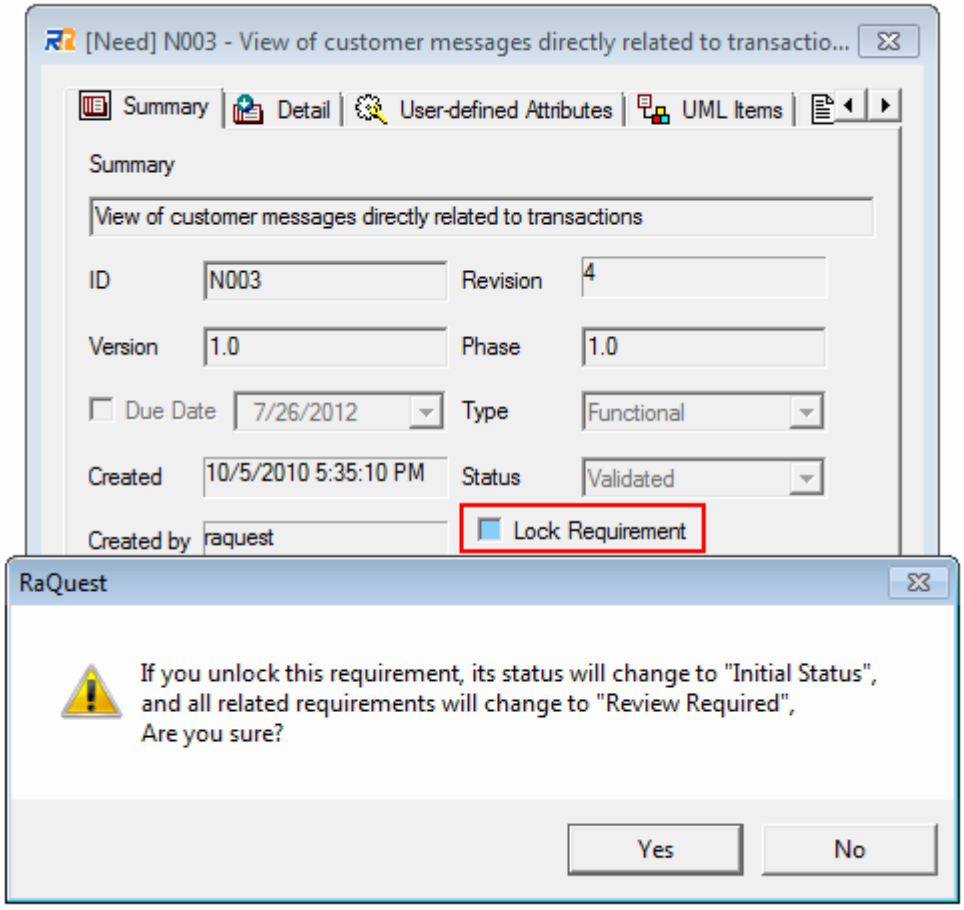


fig. 46

If you click **Yes** button here, the requirement status is changed to the “Initial” status automatically. In this example, status “Proposed” is defined as the initial status, so the requirement status gets back to “Proposed.” At the same time, the statuses of all related requirements are also changed automatically (the details are described in Section 7.4.)

7.3. Status Change to “Approved”

Changing the status to “Approved,” the final stage of status transition, needs to follow the different step. When the status is changed to “Approved,” the approval function has to be used.

To approve, select a requirement, and then select **Requirement | Approval** menu item (fig. 47).

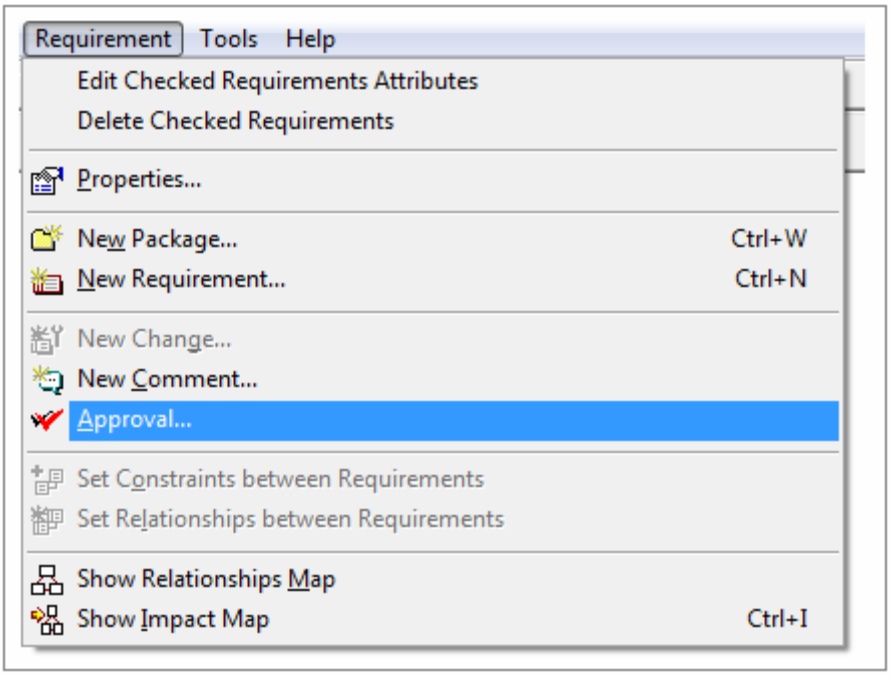


fig. 47

The following dialog appears as shown in fig. 48. In this dialog, summary and details of the requirement are described. You can decide whether to approve it based on the information (fig. 48).

fig. 48

The approved requirement remains to be locked. When you try to modify the locked requirement,

the confirmation message, the same one which appears when unlocking the “Reviewed” requirement, appears.

7.4. Effect of Status Change

When you unlock the requirement, RaQuest considers its fixed contents need to be changed. Under this circumstance, the related requirements are;

- Unlocked.
- changed its status to “Initial” status when the status is “Reviewed” or “Approved.”
- changed its status to “Review Required.”

“Review Required” status can be modified in **Properties** dialog of the requirement (fig. 49).

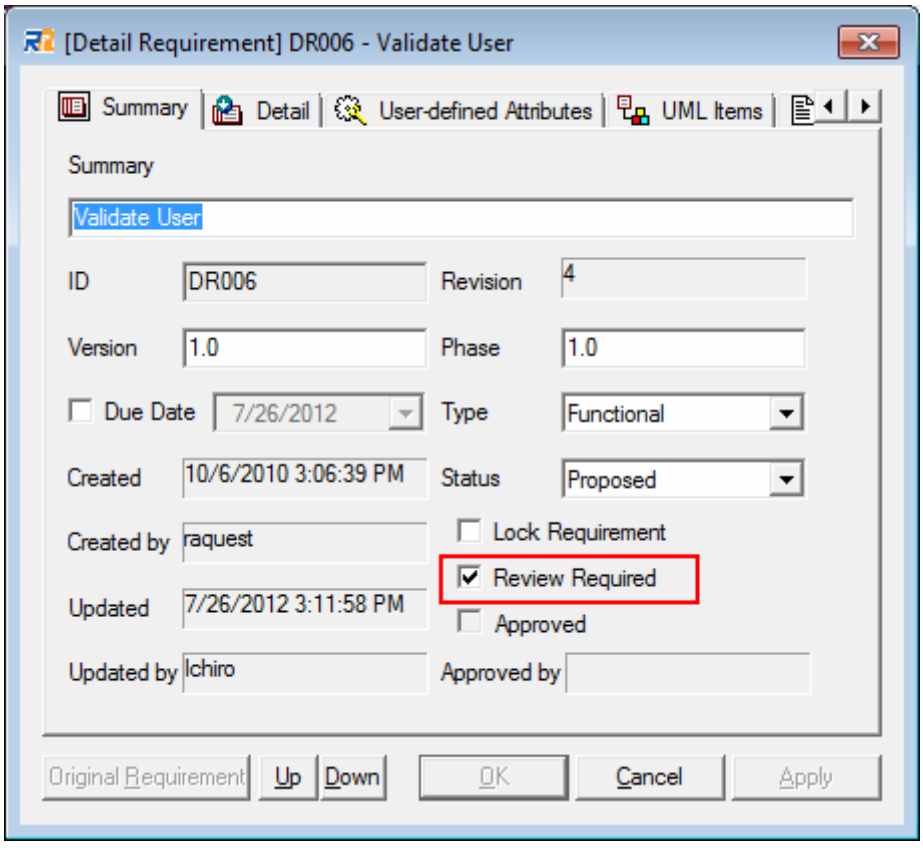


fig. 49

When **Review Required** is checked, it means that the requirement has been effected from the changes of the other requirements. Un-check this means the review is finished. However we do not

recommend un-check it right after the modification of the source requirement, because it means the dependent requirement has been changed. You can check which requirement is changed from the **Review Requirements** tab. Check the influences of the each dependent/caused requirement from the **Review Requirements** tab. Change the contents if needed, and click **Reviewed** to empty the **Source Requirement List for Review**, and then un-check the **Review Required** checkbox.

The requirements with “Review Required” status are displayed in green in the **Requirements** list. They are also in green in the diagram displayed by the **Show Impact Map** feature as shown in fig. 50.

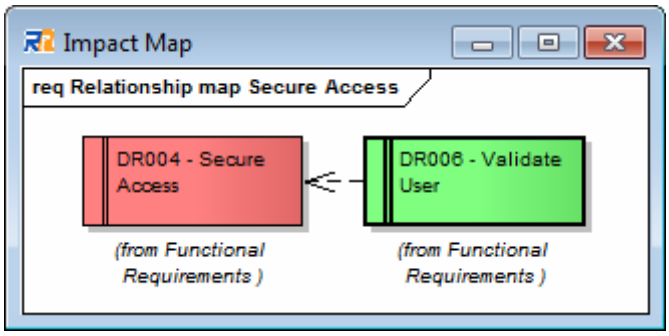


fig. 50

When you modify a locked requirement, it is a difficult task to review its all destination requirements without missing out. Above features can support you and prevent you from forgetting to review them.

8. Variation of Requirements Display

Not only the tree and the list as described in section 4, RaQuest can also display requirements in various forms by the following features:

1. Custom tree
2. Customizable list fields
3. Matrix
4. **Always Display Requirement** option
5. **Display Attributes by List Form** option

For the details of these features, see RaQuest Feature Guide or HELP file. The following fig. 51 is a sample window of when **Always Display Requirement** option is checked and fig. 52 is a sample window of when **Display Attributes by List Form** option is checked.

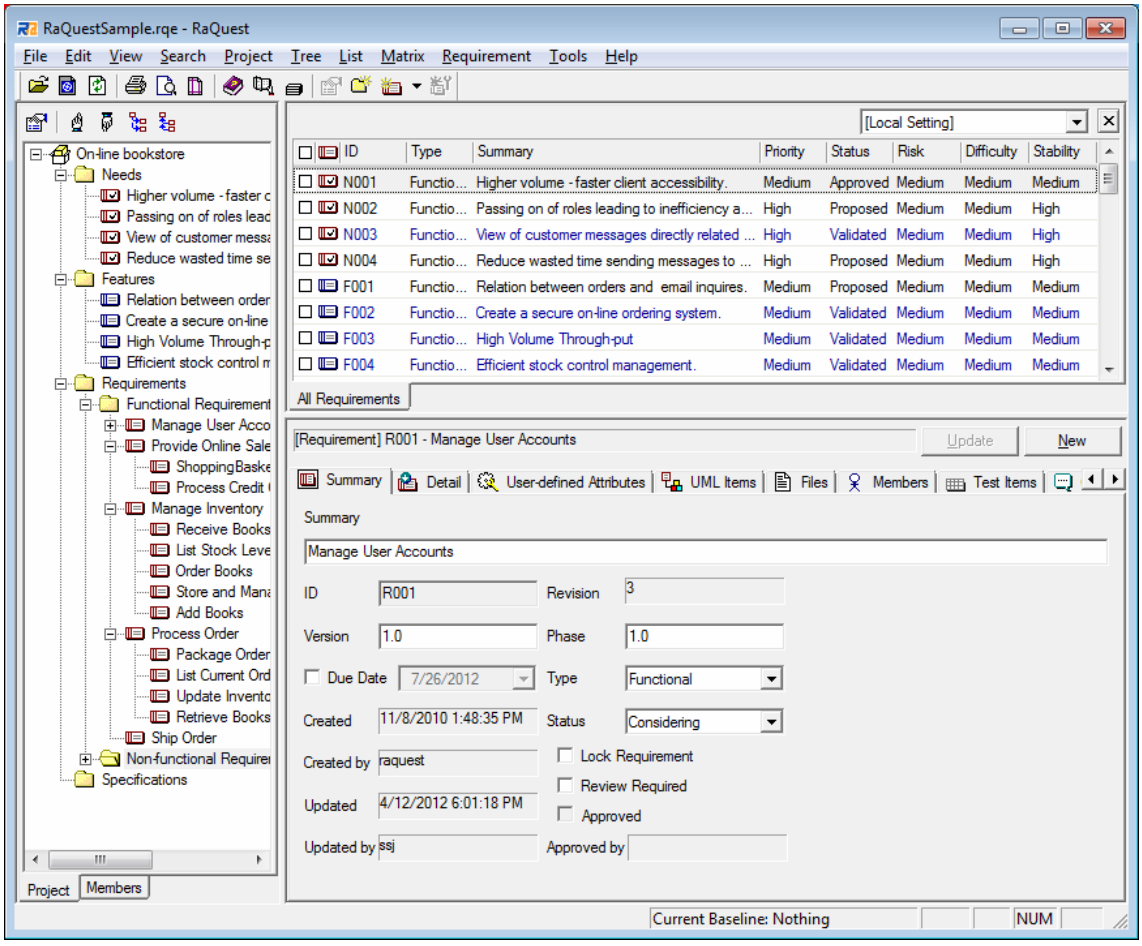


fig. 51

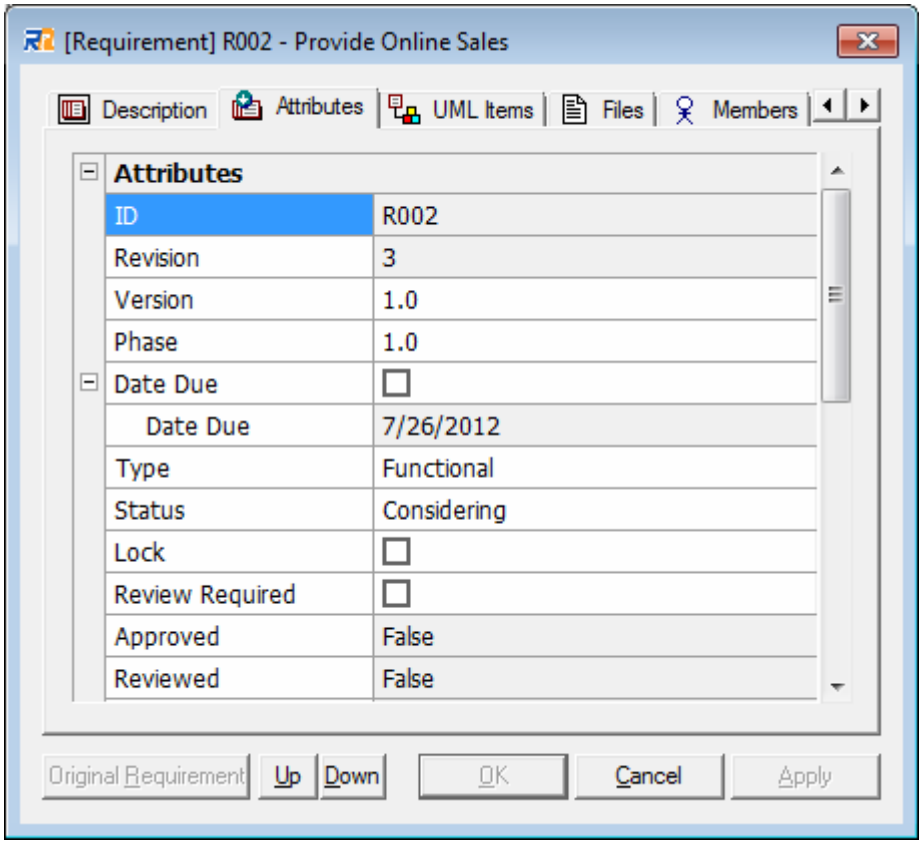


fig. 52

9. Output of Requirements

This last section provides you with the way to output requirements. Basically you can control requirements in RaQuest, but when you want to consider or document the requirements, the output feature is useful.

RaQuest can output requirements by the following two ways.

9.1. Print Requirements

All **Requirement** lists in the right pane of main window can be printed out. Not only the **Requirement** list, but any lists like **Team Member Requirements** or **To-Do** list are able to be printed out.

To print out **Requirements** list, select a tab of the list to display the list, and then select **File | Print** menu item (fig. 53).

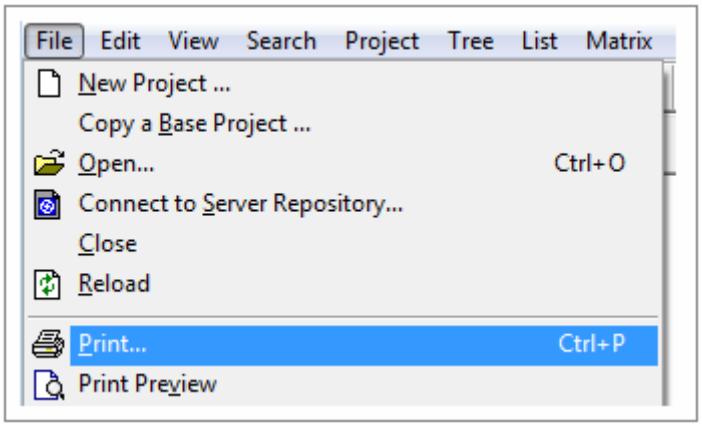


fig. 53

9.2. Export Documents

RaQuest can export requirements in the following file formats.

- HTML
- RTF
- CSV
- Microsoft Excel

For details, see RaQuest Help.

The output features expand the effective utilization of requirements.