



IBM® Rational® Rhapsody® Gateway Add On



Tagger Manual

Rhapsody[®]

**IBM[®] Rational[®] Rhapsody[®]
Gateway Add On**

Tagger Manual



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Tagger Introduction

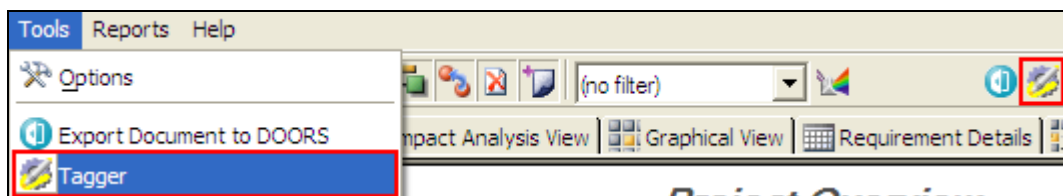
The **Tagger** plugin provides you additional features in order to better manage your requirements, your references and your global project:

- ◆ Highlight text in Microsoft Word or Adobe PDF and define this text as a requirement or as a reference. The Tagger automatically creates the requirement tag or the reference tag according to your standards.
- ◆ Use the Tagger to add attributes to requirements.
- ◆ When you receive a new version of your specifications document, the Tagger helps you to find out what you already defined as requirements, and re-affects tags automatically.

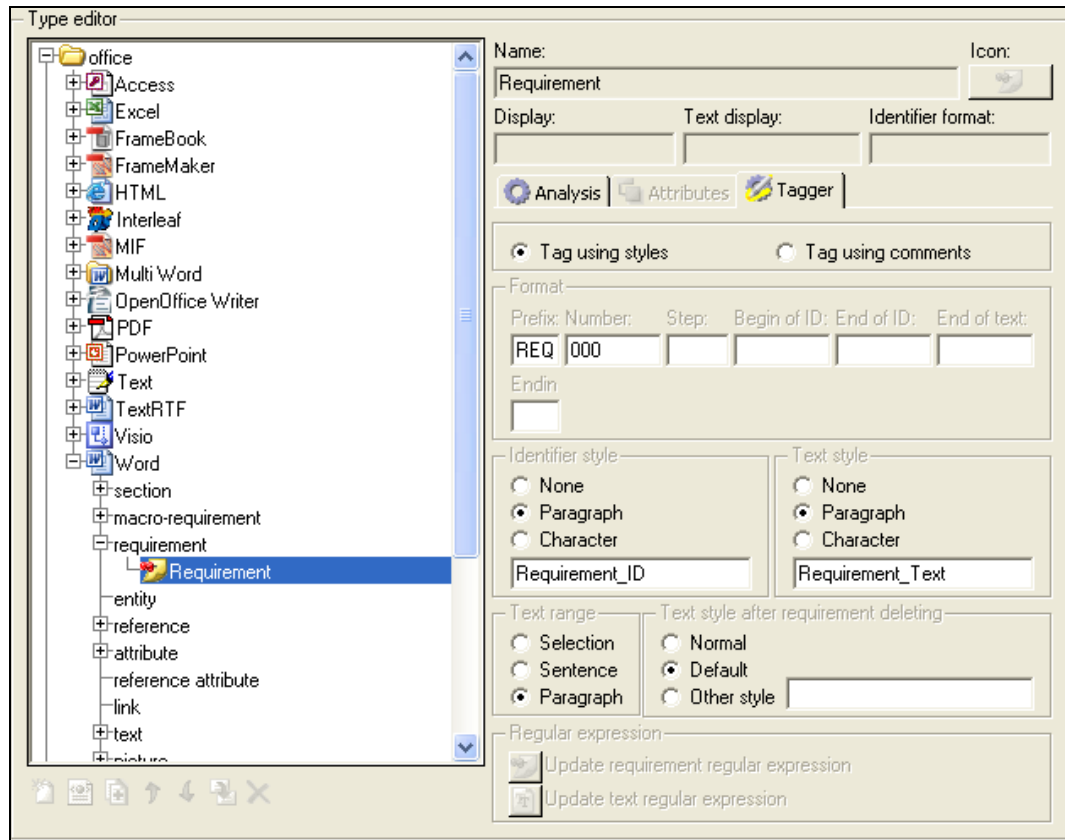
Impacts on the Product Default Configuration

The Tagger is available from two access ways:

- ◆ an additional item in the **Tools** menu
- ◆ a button in the toolbar



An additional pane has been added in the Types editor to specify the tags definition:



An additional pane has been added in the configuration **Options**. Refer to the *Tagger Options* section to get details on this element.

Types Definition

The configuration of the Tagger properties is made from the Types Editor.

Considering requirements in the Types Editor:

- ◆ The Tagger pane defines the syntax of the tag that will be added for the requirement.
- ◆ It must comply with the definition of the requirement element in the type, in order to capture the created requirements tag.

Entities follow the same behavior as requirements.

Attribute values or references can be inserted too using the Tagger.

Supported Versions

Word Supported Versions

The Tagger supports documents coming from Word with `doc` and `docx` extensions. Word versions that are supported are Word 97, 2000, XP, 2003 & 2007 versions.

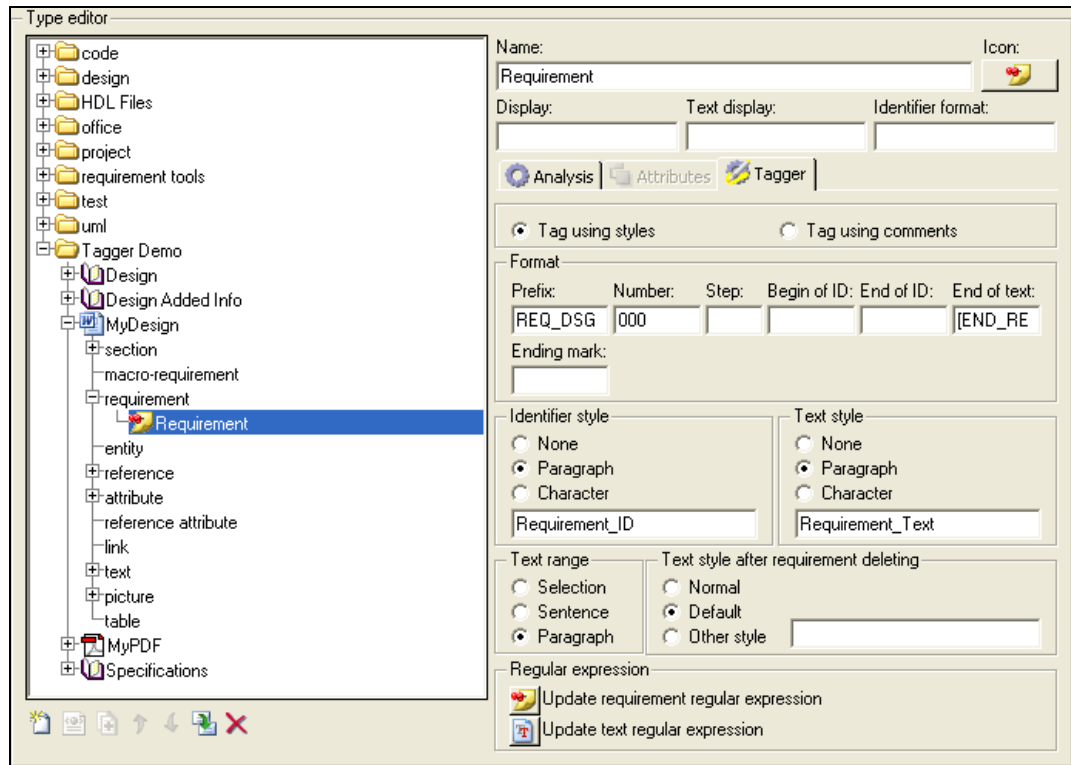
Acrobat Supported Versions

The Tagger also supports PDF documents. Because you need to be able to edit the PDF documents, it is essential to have Acrobat Professional (7 is preferred) and not simply the Acrobat Reader. Acrobat Professional versions that are supported are Acrobat Professional 6 to 9.

Type Definition

When you use styles, you usually do not need to define all of the type elements, just duplicate the default Word or PDF type to create your customized type of analysis.

For types based on Word or PDF types, a specific Tagger pane is available as follows:




This pane is available for all the elements which are “taggable” in a document, i.e. requirements/macro-requirements, entity and reference. Refer to next sections to obtain details on each element pane.

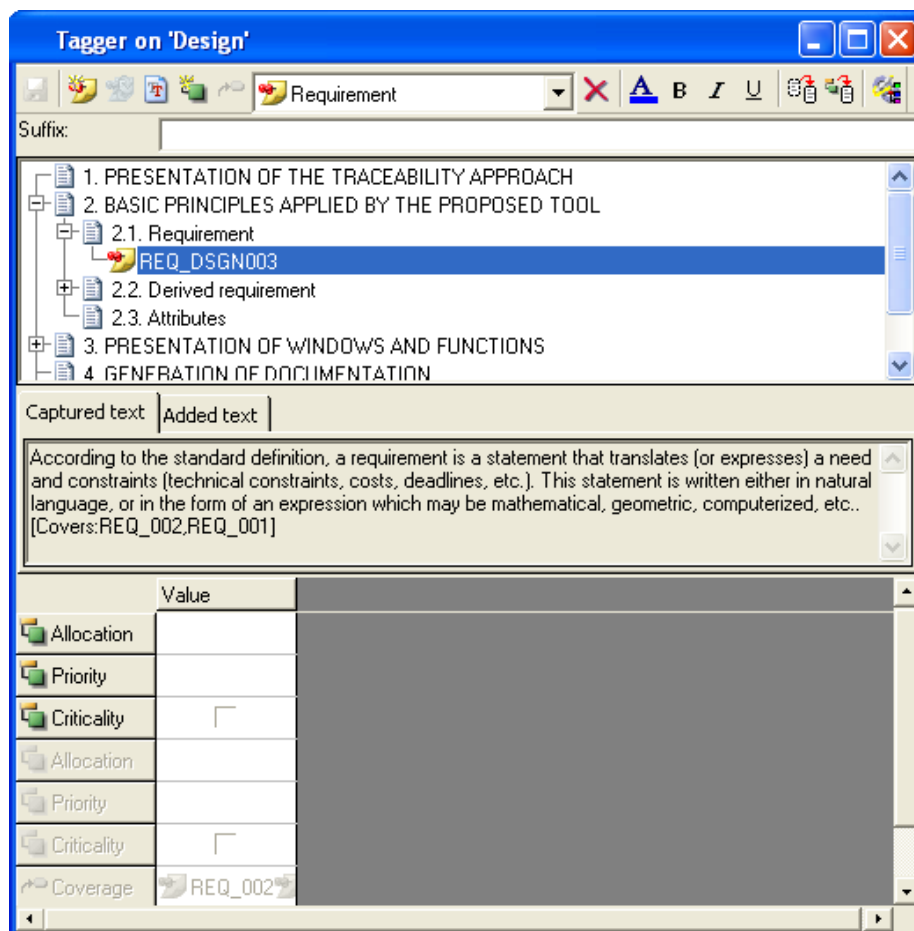
Tagger Dialog Box Description

The Tagger is available only if a Word or a PDF document is selected and if the Tagger pane has been completed in the Type editor for the type corresponding to the document.

Accessing the Tagger

To access the Tagger, select the document in the **Selection** column of the project then click the Tagger  button in the toolbar or select the **Tools > Tagger** menu.

The selected document automatically opens and the Tagger dialog box also opens:



Description of the Tagger Dialog Box







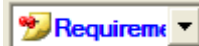

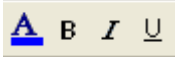
The dialog box is empty if the document does not contain any requirement. If you apply the Tagger tool to a document already containing requirements, the requirements appear in the dialog box:




- ◆ The upper text area of the dialog box contains the list of requirements.
- ◆ The lower text area contains the text of the requirement selected in the list of requirements.
- ◆ The lowest third of the dialog box contains attributes.

Greyed attributes are attributes already created in the document. Available attributes are attributes created from the Tagger.

The Tagger tool allows you to manage your already existing requirements.

The toolbar contains the following buttons:

Button	Description
	Saves the document and updates Rhapsody Gateway analysis.
	Creates a new requirement/new entity with the current selection.
	When a requirement has not been found in a new version of a document, it is displayed with a red cross in the requirements list. Select the new definition in the document, select the requirement in the list then click this button to re-affect the requirement ID to the selection in the document.
	Formats the text selected in Word into a requirement text. This is helpful if your requirement text is composed of two blocks separated by a comment block, for example.
	Opens the attributes pane in the dialog box editor to define new attributes.
	Creates a new reference with the current selection.
	If you defined several types of “taggable” elements, select in this drop-down list the type you want to consider.
	Deletes the selected requirement, and modifies your document to remove the requirement tag.
	Used to define the style of your requirement fonts: color, bold, italic, underlined.

Button	Description
	Click to replace the current version of your document by a new one. This launches several actions: <ul style="list-style-type: none"> • Updates the Rhapsody Gateway configuration • Looks for text of your current requirements in the new document, to propose automatic re-creation of existing requirements.
	Add attributes in your Word document for selected requirements.
	Click on this button to have your application displayed on the top of all the other applications on your desktop.
Suffix:	Enter a suffix to add at the end of the requirement ID.

Contextual Menu

The Tagger contains the following items for the Requirement selection.

Function	Description
Hide sections	Switches between only displaying requirements and entities or between displaying with sections.
Delete	Deletes the selected requirement/entity.

Using Tagger on Word Documents

The idea when using Word documents is to automatically add requirements tags, macro-requirements tags or entities tags for the highlighted text.

Before tagging the document, define the tagging parameters from the Tagger pane.

Defining Requirements/Entities Tagging

Definition Description

The following table lists the items which can be defined for a requirement, a macro-requirement or an entity.

Item	Description
Tag using styles / Tag using comments	If Tag using styles is checked, the used capturing process will be based on style formatting. If Tag using comments is checked, information to be captured are placed in annotations.
Prefix	Fill in this field to define a fixed prefix for your requirement/entity identifiers.
Number	Fill in this field to define the number of digits for your requirement/entity number (use "0" for one digit).
Step	Fill in this field to specify the step number a requirement/entity is incremented with.
Begin of ID	Fill in this field to define a syntax before the ID (*).
End of ID	Fill in this field to define a syntax after the ID, and before the text (*).
End of text	Fill in this field to define a syntax after the requirement/entity text (*).
Ending mark	Fill in this field to define a prefix for the end of the requirement/entity. The end of requirement/entity style will be the same as the identifier's one. (*)

Item	Description
Styles	<p>For Word, this item defines the application of Word styles.</p> <ul style="list-style-type: none"> • None does not apply to any Word style • Paragraph will apply to a Paragraph style, • Character will apply to a Character style <p>Identifier Style and Text Style fields are used to define the names of the Word styles applied to the identifier and the text of the created requirements/entities.</p>
Text range	<p>Text Range defines if Tagger considers either the Selection, the sentence containing the selection, or the Paragraph containing the selection, as the limits of the requirement/entity.</p> <p>The Text range selection is important. Select Paragraph if you want to have the requirement/entity text and the End of text tag in separated paragraphs.</p>
Text style after deleting	<p>Select the text style by checking one of the displayed options.</p> <p>The default style is Body text.</p>
Update requirement regular expression/ Update entity regular expression	<p>Use this option if you want to create regular expressions taking into account the information contained in the Tagger configuration.</p>
Update text regular expression	<p>Use this option if you want to create a regular expression capturing the text of the tagged requirement/entity.</p>

(*) These fields are used if you want to define for example:

```
[REQ_001]
```

```
The system shall do this.
```

```
End_ prefix_REQ_001
```


```
(END)
```

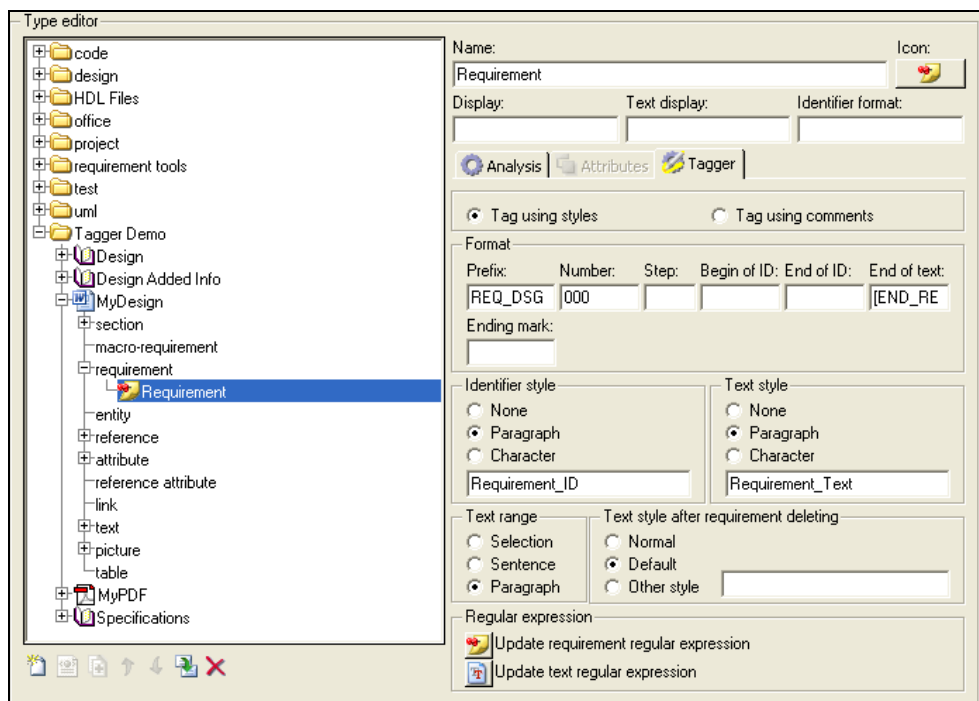
- ◆ REQ_ is defined using the **Prefix** field
- ◆ [is defined using the **Begin of ID** field
- ◆] is defined using the **End of ID** field
- ◆ End_ prefix_ is defined using the **End prefix** field

- ◆ (END) is defined using the **End of text** field

Defining Requirements/Entities Tagging for a Word Type

To define a customized type, follow these steps:

1. Open the Types Editor and create your own type.
2. Expand the type tree to select the **requirement/entity** element.
3. Select the **Tagger** tab, click **Add new type**  then define the requirement/entity tag you want to create, such as follows:





Adding Requirements/Entities in a Document

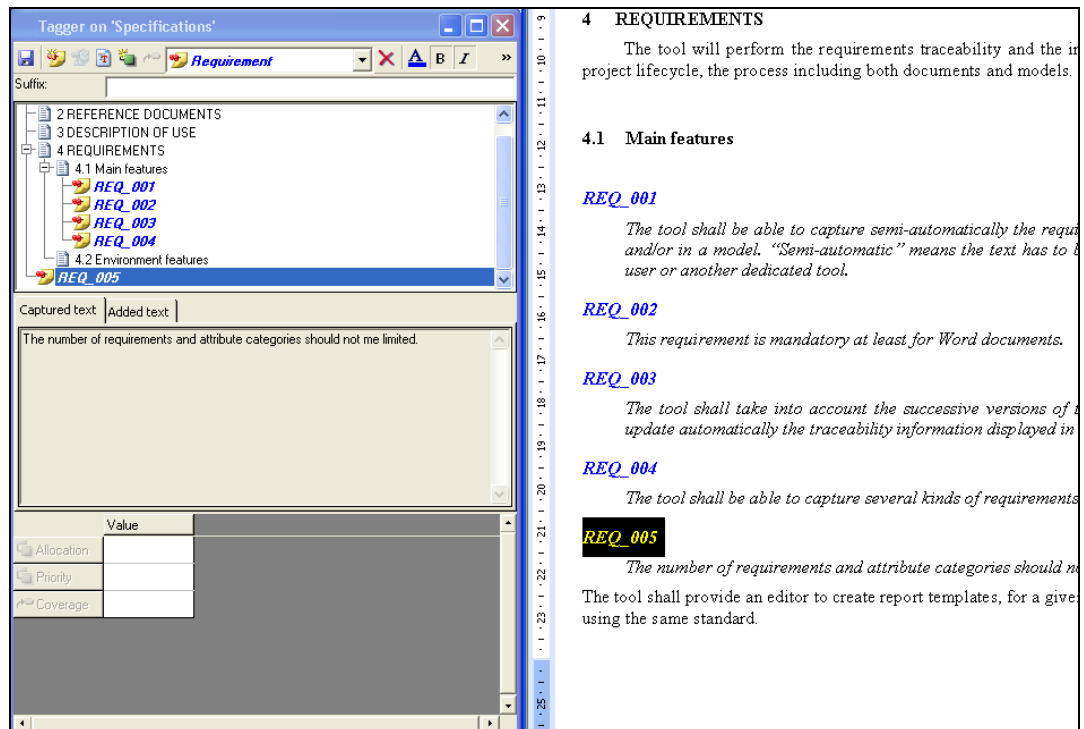
Adding Requirements/Entities Tag by Styles

To use the Tagger to tag Word documents by styles, process as follows:

1. Create a project configuration with a Word-based document which has the **Tag using styles** option selected. This type includes a tag definition, created from the Tagger pane of the Types Editor. You can use the default Word type for example.

2. In the project workspace, click the document, then click the Tagger  button in the toolbar or select the **Tools > Tagger** menu. The Word document automatically opens. The Tagger dialog box opens.
3. In your Word document, select Requirement/Entity in the combo-box of the toolbar. Select a part of the text and click  New Requirement/New entity to create a requirement/entity in your Word document.



The Tagger dialog box displays the requirements/entities with their text:



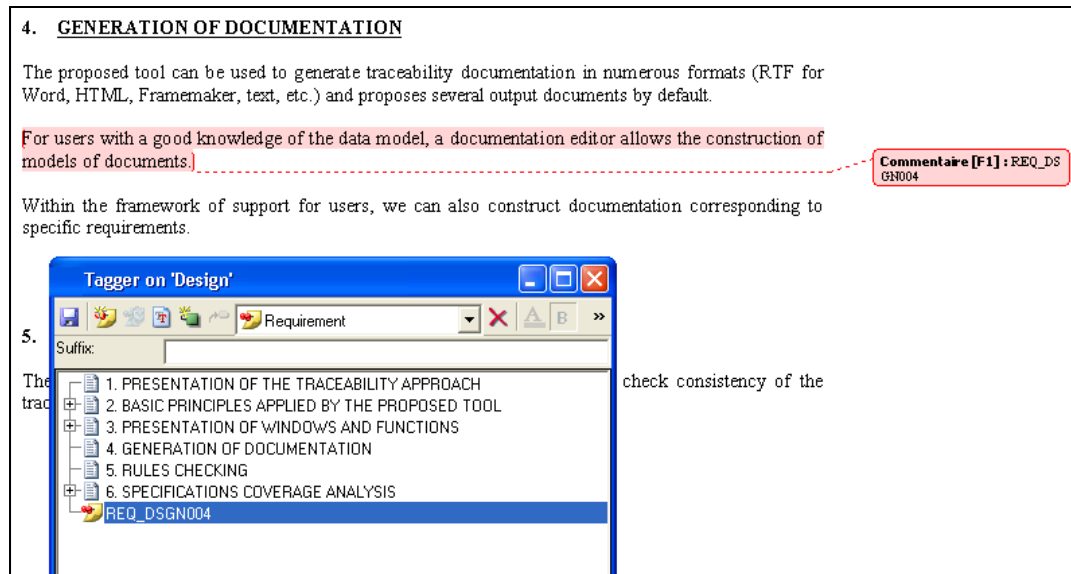
In the Word document, a requirement/entity tag has been added above the selected text. The requirement/entity tag and the requirement/entity text have specific style formattings.

Adding Requirements/Entities Tag by Comments

To use the Tagger to tag Word documents by comments, process as follows:

1. Create a project configuration with a Word-based document which has the **Tag using comments** option selected. This type includes a tag definition, created from the Tagger pane of the Types Editor.
2. In the project workspace, click the document, then click the Tagger  button in the toolbar or select the **Tools > Tagger** menu. The Word document automatically opens. The Tagger dialog box opens.
3. In your Word document, select part of the text and click  New Requirement/New Entity to create a requirement in your Word document.

The Tagger dialog box displays the requirements/entities with their text:




In the Word document, a requirement/entity tag has been added in a comment. The requirement/entity tag and the requirement/entity text have specific style formatings.

Adding Requirements/Entities Tag by Styles and by Comments

To both use the styles tagging and the comments tagging, you have to create two requirements/entities definition in your type.

Tagging Macro

During the Rhapsody Gateway installation, a template is installed in Word.

This template contains an autoexec method to create a button in Word in order to use a macro. 

After opening Tagger, this macro allows you to directly tag the document without using the Tagger window. Select just the elements to be tagged and a new tag is created. The process follows the tagging mode selected in the **Type Tagger Options**.

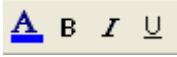

Troubleshooting

If the macro button is not visible in Word 2003, check the Rhapsody Gateway toolbar from the View > Toolbars > Customize list. In Word 2007, the macro button appears in the Complement toolbar.

If the Macro does not appear when you are tagging your document, verify the macro security levels of Word.

Features of the Tagger

Few other features are available from the Tagger, such as:

- ◆ **Navigating**—Select a requirement/entity in the Tagger dialog box, the tag is automatically selected in Word. This feature allows quick navigation within your Word document.
- ◆ **Style Formatting**—Use the  buttons to modify the style of your requirement/entity tags.
- ◆ **Deleting Requirements/Entities**—Use  to delete a requirement/entity. This will remove the requirement/entity tag and the styles applied to define your Word text as a requirement/entity text. Depending on the complexity of your standard, it is possible that your Word document will not be fully reformatted after this action.

To train yourself, a demo example named `Tagger Demo` is installed with Rhapsody Gateway.

Using Tagger on PDF Documents

The idea when using PDF documents is to add annotations for the highlighted text to enter requirements, macro-requirements or entities information.

Note: Using the Tagger with PDF documents the **With Annotations** options should stay selected in the value parameters.

Before tagging the document, define the tagging parameters from the Tagger pane.

Defining Requirements/Entities Tagging

Definition Description


The following table lists the items which can be defined for a requirement, a macro-requirement or an entity.

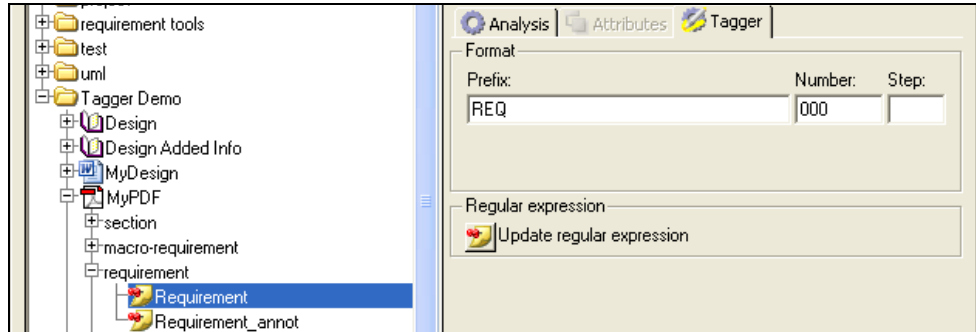
Item	Description
Prefix	Fill in this field to define a fixed prefix for your requirement/entity identifiers
Number	Fill in this field to define the number of digits for your requirement/entity number (use “0” for one digit)
Step	Fill in this field to specify the step number a requirement/entity is incremented with.
Update regular expression	Use this option if you want to create a regular expression taking into account the information contained in the Tagger configuration. The created regular expression is also displayed in the regular expression field.

Defining Requirements/Entities Tagging for a PDF Document

To define a customized type, follow these steps:

1. Open the Types Editor and create your own type.

2. Expand the type tree to select the **requirement/entity** element.
3. Select the **Tagger** tab, click **Add new type**  then define the requirement/entity tag you want to create, such as follows:



Adding Requirements/Entities in a Document



Please note that the PDF format is much more restrictive than the Word format. Rhapsody Gateway receives much less information and is limited in its API communication with Acrobat. Some complex selections may not be correctly captured.

Some limits exist for:

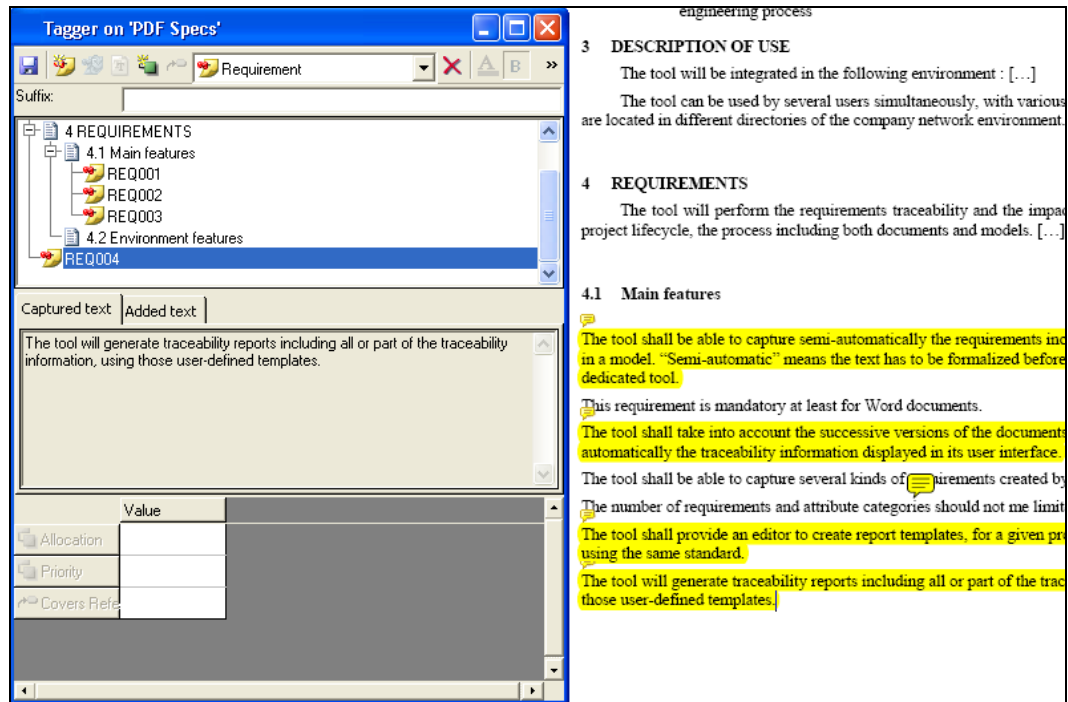
- ◆ Capture of tables
- ◆ Capture of text beginning on one page and ending on the next page
- ◆ Capture of text including headings, etc.

Adding Requirements/Entities Tag by Comments in PDF

To use the Tagger to tag PDF documents, process as follows:


1. Create a project configuration with a PDF-based document. This type includes a tag definition, created from the Tagger pane of the Types Editor. You can use the default PDF type for example.
2. In the project workspace, click the document then click the Tagger  button in the toolbar or select the **Tools > Tagger** menu. The PDF document automatically opens. The Tagger dialog box opens.
3. In your PDF document, select some text and click the  button in the Tagger dialog box to create a requirement/entity in your PDF document.

The Tagger dialog box displays the requirements/entities with their text:



Features of the Tagger

Few other features are available from the Tagger such as:

- ◆ **Navigating**—Select a requirement/entity in the Tagger dialog box, the tag is automatically selected in Acrobat. This feature allows quick navigation within your PDF document.
- ◆ **Deleting Requirements/Entities**—Use  to delete a requirement/entity. This will remove the requirement/entity tag in your PDF document.

To train yourself, a demo example named `Tagger Demo` is installed with Rhapsody Gateway.


Using the Tagger to Create Attributes

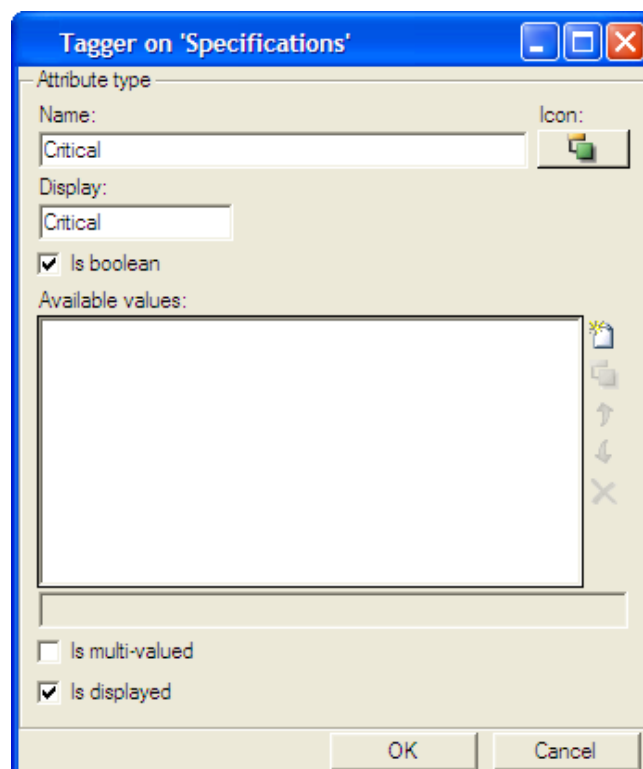
To add attributes, you can either use the **Types for added elements** option or create them from the Tagger features. In both cases, a modification file is created.

See the *Customization Guide* for more details concerning the attributes creation.

Creating Attributes

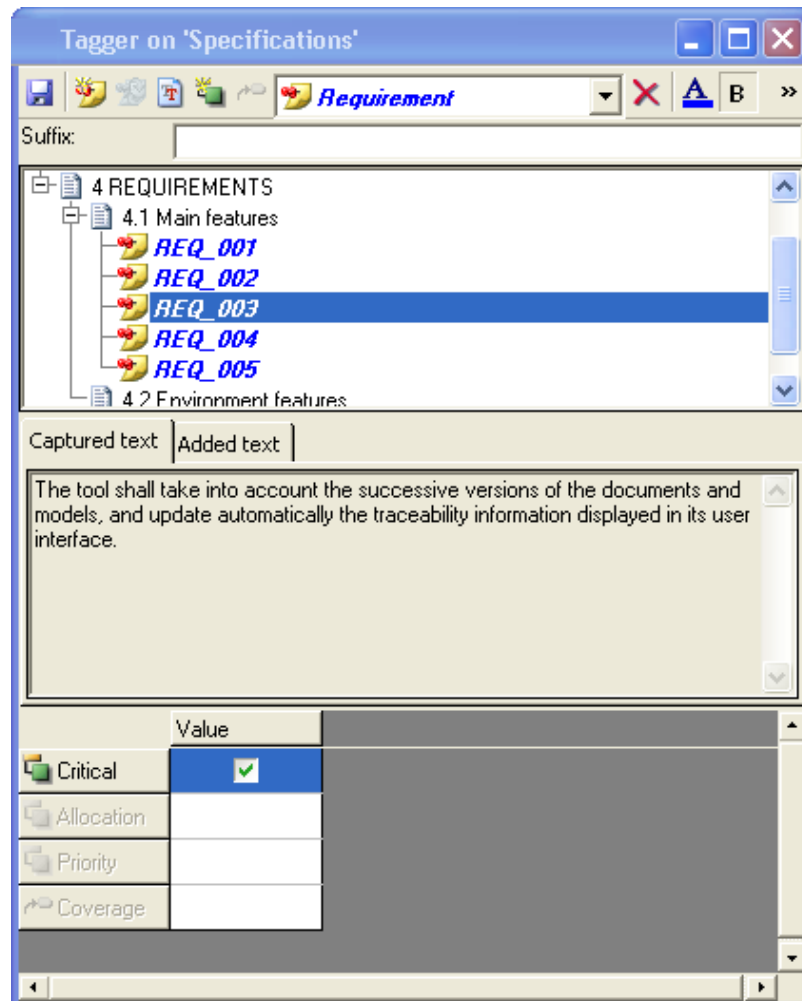
Once requirements are created, you can qualify them with attributes. To add attributes from the Tagger, process as follows:

1. Click the attributes  button of the Tagger dialog box to define new attributes.
2. The Tagger opens a dialog box to define attributes. This dialog box allows the user to create a text, Boolean, enumerated or 'multi-valued' attribute.



Once the attribute is defined, click **OK** to validate. If you click the **Cancel** button, the attribute is not created and the main Tagger window is displayed.

- Now use the Tagger dialog box to define the attribute values for requirements. Select one or more requirements, define the attribute value then save.

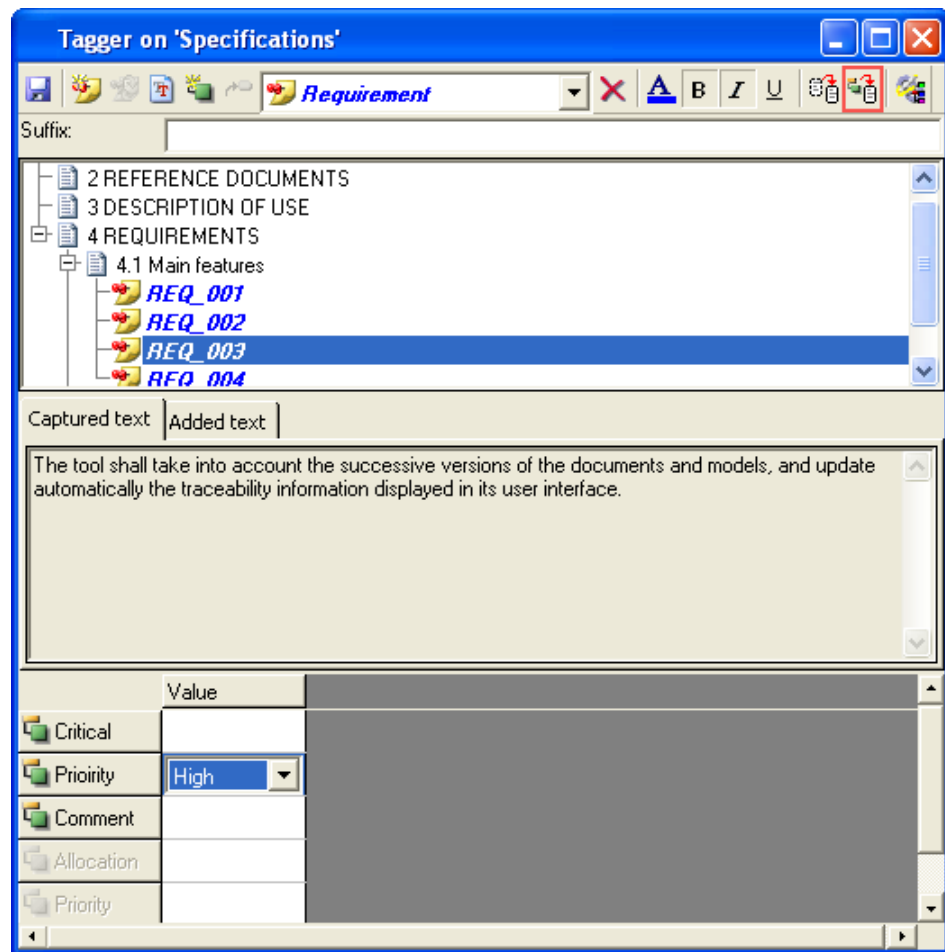


These new information are added in a modification file associated with the tagged document.

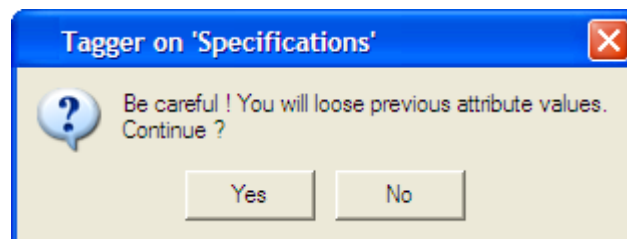
Inserting Created Attributes into Word

To insert the attributes you created from the Tagger into Word, follow these steps:

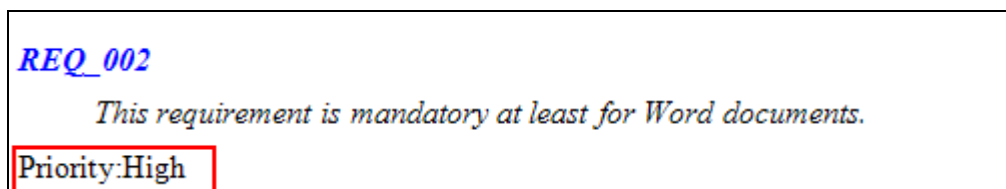
- Select the requirement or several requirements for which you want to insert the attributes, then click on **Insert added attributes** from the toolbar. If no requirement is selected, all requirements are taken into account.



2. A dialog box opens to validate your choice, because already existing values of attributes will be modified. Refer to *Modifying Attributes* section in this chapter.



All attributes values are inserted after their requirements.



Attributes Insertion Principle

The attribute insertion process is based on the following principle: to detect the appropriate location, the requirement identifier and the end tag which follows the identifier are detected. Then the previous paragraph is detected and the attributes are inserted at this place. Remark, if no end tag is found, the attributes are inserted after the requirement identifier.

It is possible to insert several attributes from several requirements at the same time.

If the attributes have different values, follow these actions:

- ◆ select the first requirement and assign a value to the attribute,
- ◆ select the second requirement and assign a value to the attribute,
- ◆ now select all the requirements then insert the attributes.


If you want to affect the same attribute value for several requirements:

- ◆ select all the requirements and assign a value to the attributes,
- ◆ now insert the attributes.

Modifying Attributes

When an attribute value is modified in the Tagger, the new value needs to be updated in the Word document. In order to, we click on **Insert added attributes** option, the corresponding attribute is modified in Word but this attribute is moved at the end of the attributes list.

These actions are synchronized with the **Requirement Details** view of Rhapsody Gateway when you click the **Save**  button.

If you modify attribute values from the **Requirement Details** view of Rhapsody Gateway, click the Tagger  button in the Rhapsody Gateway toolbar to synchronize the Tagger.

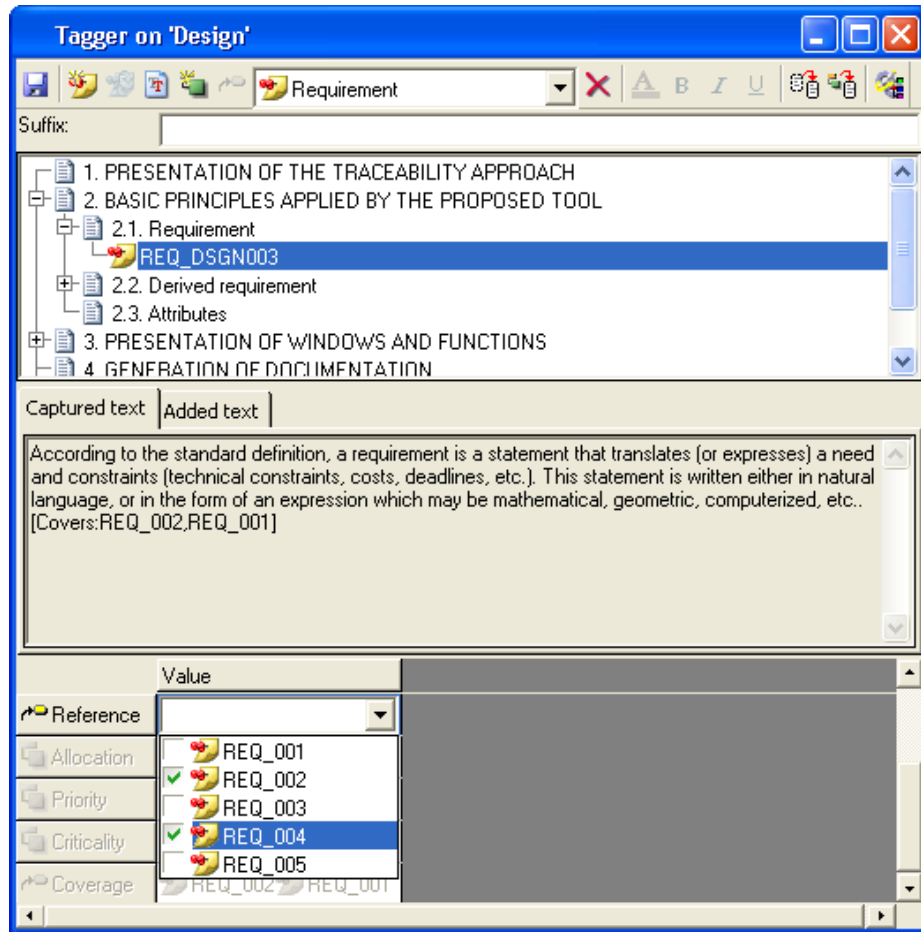
Adding References


The Tagger dialog box allows you to create references. In order to, a reference assignment can be performed when the following conditions are met:

- ◆ the covering document has a modification file with added type associated (I.E. has a type for added elements)
- ◆ this modification file has one or more references defined

To create a reference, follow these steps:

1. Select a requirement in the Tagger dialog box.
2. The list of requirements contained in the higher level document is displayed in a drop-down list (or several if you defined several kinds of references) in the lower third part of the dialog box.
3. Use this dialog box to indicate what are the requirements covered by the selected requirement.



These actions are synchronized with the Rhapsody Gateway analysis results when you click the **Save**  button.

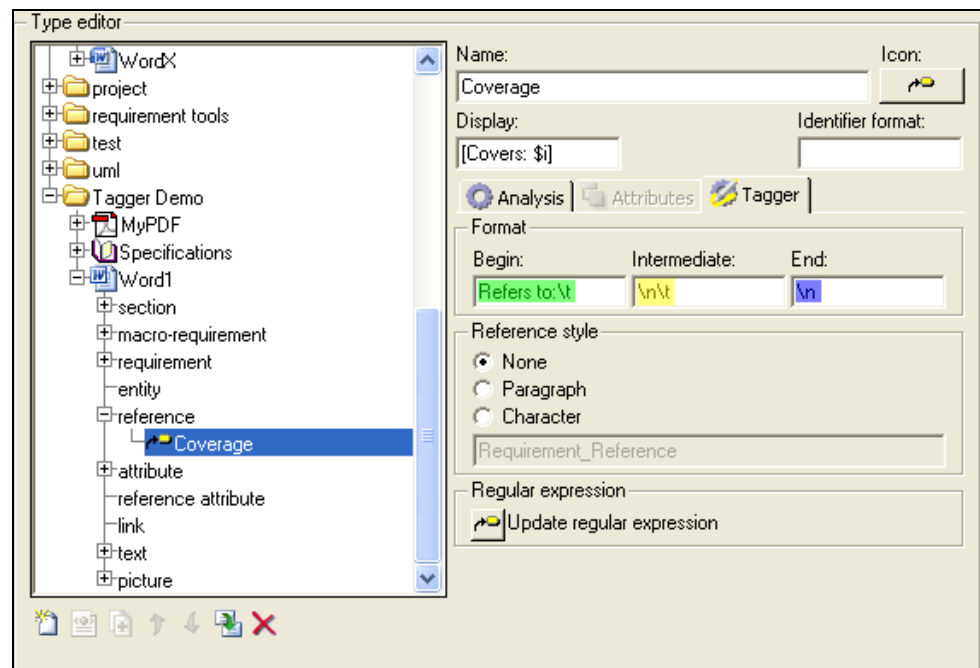
Inserting References to Requirements

References can be added in a document using the Tagger. In order to, at least one reference needs to be created in the used type.

Defining References Definition

To define a customized type, follow these steps:

1. Open the Types Editor and create your own type.
2. Expand the type tree to select the **reference** element.
3. Select the **Tagger** tab then define the reference tag you want to create, such as follows:



The definition shall be performed to support insertion of multiple references.

Item	Description
Begin	Fill in this field to define what is inserted before the first reference.

Item	Description
Intermediate	Fill in this field to define what is inserted between the references.
End	Fill in this field to define what is inserted after the last reference.
Styles	<p>For Word, this item defines the application of Word styles.</p> <ul style="list-style-type: none"> • None does not apply to any Word style • Paragraph will apply to a Paragraph style, • Character will apply to a Character style <p>Identifier Style and Text Style fields are used to define the names of the Word styles applied to the identifier and the text of the created requirements.</p>
Update regular expression	Use this option if you want to create regular expressions taking into account the information contained in the Tagger configuration.

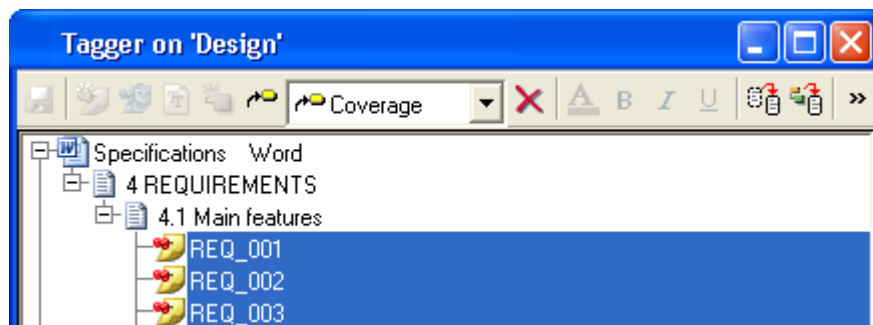
For these insertions, you can use the following characters:


- ◆ \n to insert a new paragraph
- ◆ \t to insert a tabulation
- ◆ \s to insert a space

Inserting References

You can insert references in a document.

1. Select several requirements in the Tagger in order to add these references, as follows:



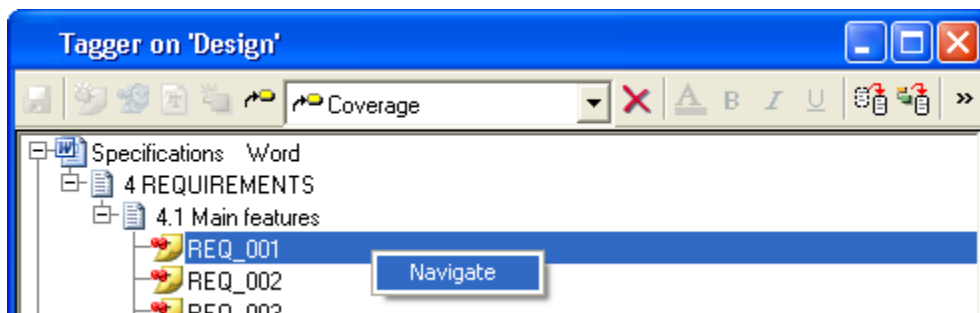
2. Click on the  button to insert the references at the cursor position in the Word document.

All these references are inserted gathered in one block in the document as follows:

The tool shall take into account the different val		
Refers to:	→	REQ_003
	→	REQ_002
	→	REQ_001

Accessing the Reference

To access a reference from the Tagger, select the reference then right click and select the **Navigate** option.



The corresponding document opens highlighting the selected requirement.


Updating a New Version of Document

Once you tagged a document with requirements, you should try to convince your customer to use your formalized document as the new discussion basis.

However, sometimes the informal version remains the reference and you may receive new versions of the documents, still without any requirement tag.

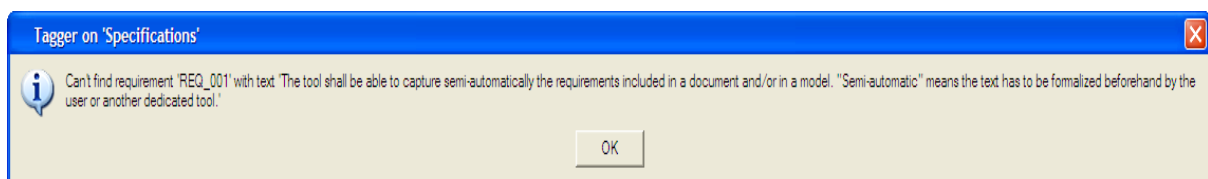
Selecting New Document Version

To select a new version of a document, follow these steps:

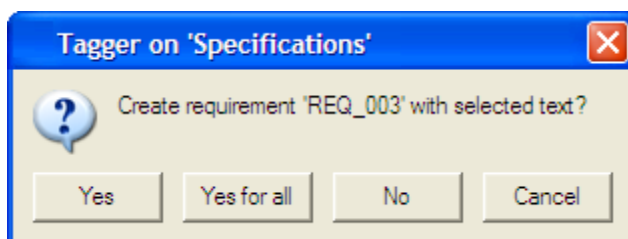
1. Open the Tagger on your document.
2. Click the **Replace document**  button in the Tagger dialog box. A browser opens.
3. Select your new document in the browser.

The Tagger tool automatically creates a snapshot of your Rhapsody Gateway project, updates your Rhapsody Gateway project configuration and searches your requirements in the new document.


If the text of the formerly created requirements is not found, you will see an information dialog box.



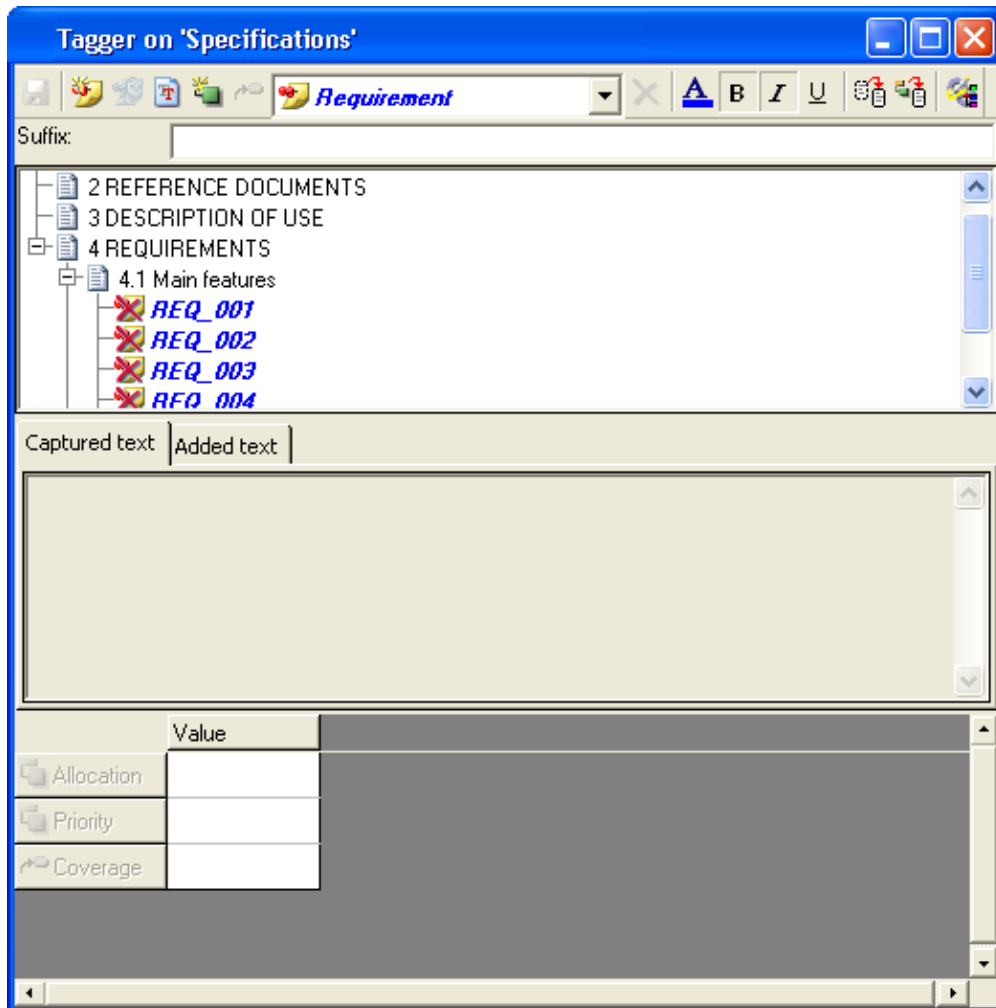
If the text of a requirement still exists in the document, it is highlighted and the Tagger opens a dialog box:





- ◆ If you click **Yes**, the Tagger re-creates the requirement automatically.
- ◆ If you click **Yes for all**, from now the Tagger re-creates the requirements automatically.

At the end of the procedure, the dialog box displays the list of requirements. Some of them have an icon with a red cross  to indicate that the Tagger has not been able to find them.

The dialog box looks like:



You can review the “deleted” requirements, as follows:

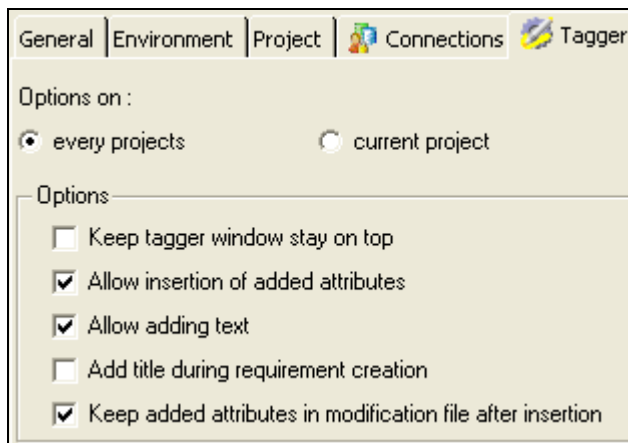
1. Select them in the list and click  to delete them.
2. Select their new definition in the document and click  to re-create them. You can use Rhapsody Gateway features to manage requirement changes.

Tagger Options

An **Options** tab is available in the **Configuration** window of Rhapsody Gateway.


If the user rights management is activated, users need to have the **Edit options** right to modify options, otherwise options are read-only.

In the **Tools** menu, select **Options** and click on the **Tagger** tab to open it.



These options are available either for **every projects** or for the **current project** according to the selection.

The available options are:


- ◆ **Keep tagger window stay on top**—Check this option to display the Tagger window on the top of your desktop.
- ◆ **Allow insertion of added attributes**—Check this option if you want to enable the insertion of attributes in your document. If this option is unchecked, the  button is not available.
- ◆ **Allow adding text**—Check this option to enable the addition of text. If this option is unchecked, the Added text tab of the Tagger window is not available.
- ◆ **Add title during requirement creation**—Check this option to assign your requirement a title.

- ◆ **Keep added attributes in modification file after insertion**—Check this option to keep added attributes in the modification file when attributes are inserted in the document.

Troubleshooting

Trouble with a Word Document

If the Tagger is missing some requirements, or does not fully re-format your Word document:

- ◆ Close the Tagger dialog box.
- ◆ Modify your Word document to comply with the standard you defined for requirements.
- ◆ Update the Rhapsody Gateway analysis.
- ◆ Click  to re-open the Tagger dialog box. Rhapsody Gateway will pass updated results to it, then you can continue your work.

Trouble with a PDF Document

To save modifications added in a PDF document from the Tagger, it is necessary to close Acrobat beforehand.

In case of trouble, follow these steps:

1. Open the Task Manager.
2. Make sure Acrobat is not running.
3. Close the Task manager.
4. Reload the project to re-launch the Acrobat document analysis by Rhapsody Gateway.