

AIT TeamSystemPro - WordToTFS 2010 User Guide

V2.1.1111.2100

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Quick Start: Installation

You can choose to directly install WordToTFS via Click Once from our webserver, or to install it through the offline setup. Just follow the installation wizard.

WordToTFS will receive updates automatically as long as you have an active Internet connection.

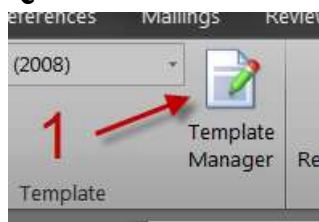
Just refer to <http://wordtotfs.aitgmbh.de> for the latest news and updates.

Quick Start: Overview

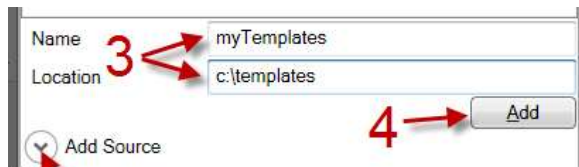


- (1) Connect to a team project in TFS, if connected, shows server and project connected to, click again to disconnect
- (2) Publish the changes from the document into the connect team project in TFS
- (3) Opens the task pane to import existing work items from TFS into the document
- (4) Dropdown to select a mapping template
- (5) Opens template manager to manage template locations
- (6) Inserts a blank work item table
- (7) Inserts a work item table with default values
- (8) Opens the task pane to edit default values for new work items (7)
- (9) Deletes all Ids from published work items to re-publish word file to another server
- (10) Opens the Area and Iteration task pane to insert Area and Iteration Paths into the document
- (11) Opens licensing dialog
- (12) **Help** opens help file, **About** shows Version and **Feedback** opens a web form to give feedback to AIT

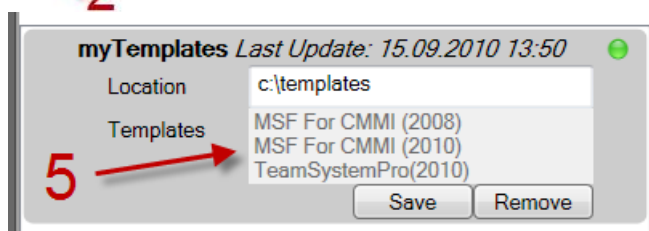
Quick Start: Add a Template Location



- (1) Click the **Template Manager** button



- (2) Click **Add Source** in the lower
- (3) Enter name and path of the location
- (4) Click **Add**

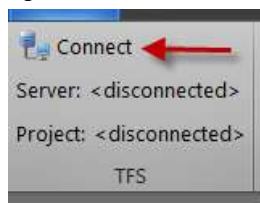


- (5) Click on the List box entry, check all templates are shown correct

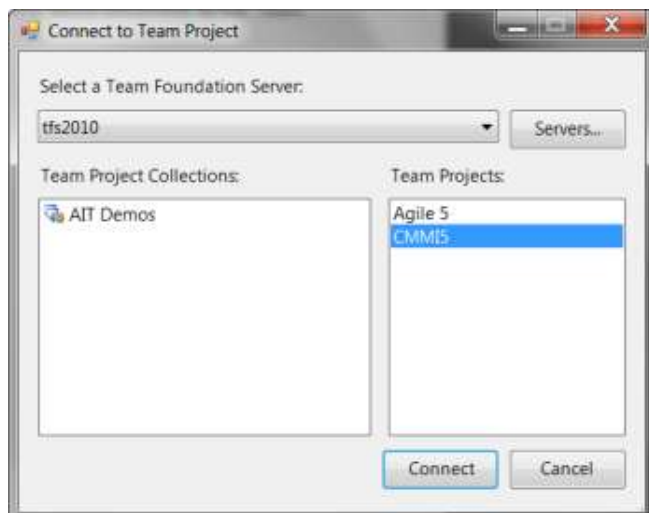


- (6) Select the template to use for the current document from the Template combo box

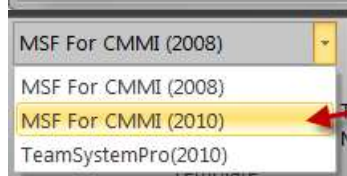
Quick Start: Connect, Create, Publish



(1) Click **Connect**



- (2) Choose server
- (3) Choose Team Project Collection
- (4) Choose Team Project
- (5) Click **Connect**



(6) Select Template



(7) Add some work items

Risk	Peter Projectmanager	
The risk of rain today	1	3
This is a high risk		

(8) Fill in the work item table with values according to your rule set



(9) Click **Publish**

Product Usage

Connect to a Team Project

To connect WordToTFS 2010 with a Microsoft Team Foundation Server Team Project, press the **Connect** button in the WordToTFS Ribbon. A new dialog will open as shown in figure 1. Choose a Team Foundation Server, a Collection and a Team Project where the work items will be stored. Press the **Connect** button at the bottom of the dialog to connect the current Word document to the Team Foundation Server.

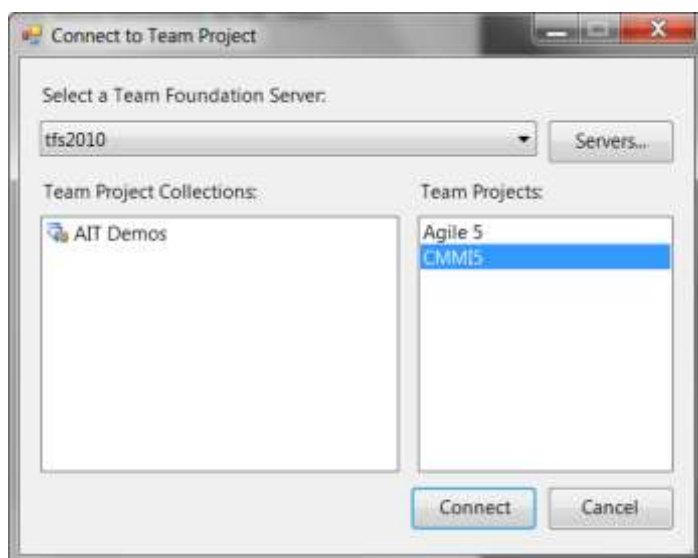
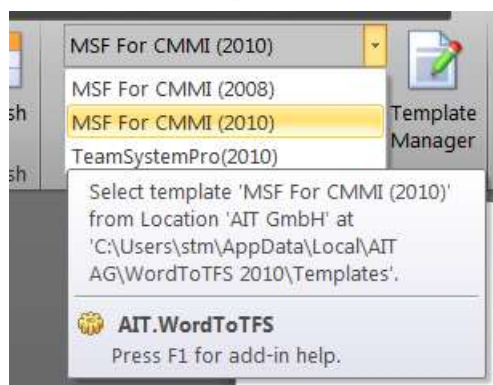


Figure 1 - Connect the Word document to a Team Foundation Server

- (1) Press the **Connect** button in the ribbon.
- (2) Select a Team Foundation Server from the drop down box or add a new Team Foundation Server by pressing the **Servers...** button.
- (3) Select a Collection from the list of available Collections in the lower left part of the window.
- (4) Select a Team Project from the list of available Team Projects in the lower right part of the window.
- (5) Press **Connect**

Choose a Template



To select an appropriate template just select the right one from the dropdown in the templates section.

Note that the selected template has to match the Team Project type which WordToTFS is connected to. If the selected template contains work items or work item fields that are not supported by the Team Project you will be shown an addition dialog each time you change to this template or connect to another server.

Figure 2 - Template dropdown and Tooltip

Each template owns a tooltip which tells you about its source location.

After selecting the template, the defined fields in the template will be checked against the server you are connected to. In case of mismatching, Word to TFS will tell you about:

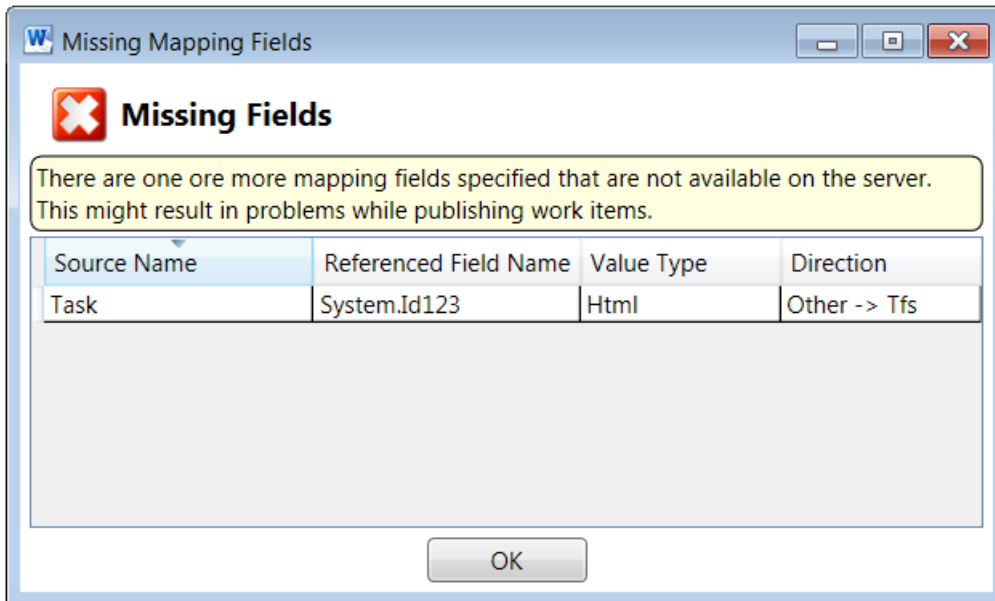


Figure 3 - Missing Mapping Fields Dialog

Even if there are missing fields, you should be able to synchronize with the TFS server. The ability of successfully synchronize depends on the type of missing field. If it is an optional field, the field value just isn't saved on the TFS (but in the word file, of course) or in the other way round, it's not resynced to the work item table in Word. However, if it is a required field and the direction is word to TFS, you are not able to successfully sync to the TFS server.

Manage Available Templates

You can see the template manager button right next to the template selection dropdown. The template manager provides you independent use of different templates from different locations such as from your network, your local hard drive or even from the internet via http. After opening it, you can see your default template location provided by AIT. Select the list entry, to see further details.

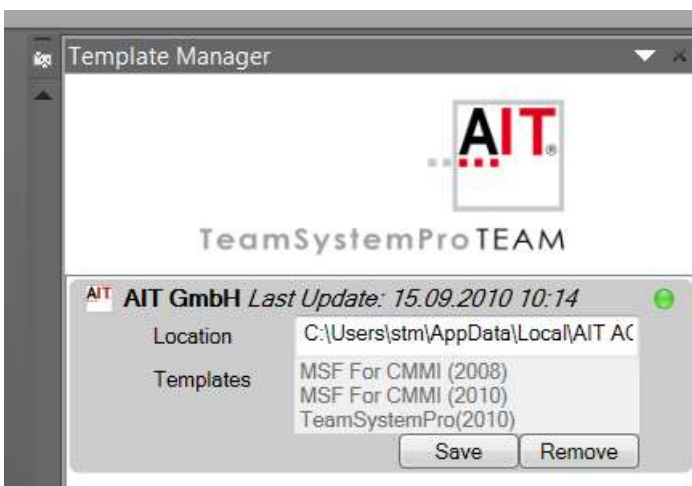


Figure 4 - The template manager and the default templates

To add a new location, click on the add Source expander on the lower side of the panel, enter your template location, and click add. WordtoTFS immediately starts to scan the folder for suitable template files, and add them after a quick check to the templates list. As already mentioned the path can be a UNC, local or even a web path. For providing web location ask your administrator or read the admin guide.

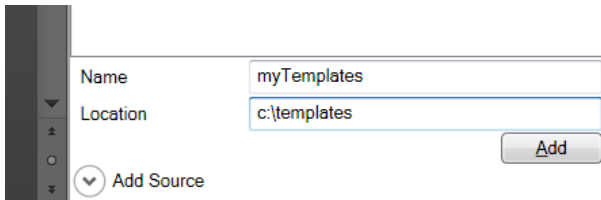


Figure 5 - Add a new template location

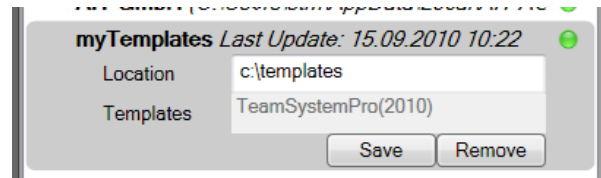


Figure 6 - The new added templates

Now you are able to select the new template from the templates combo box. (Figure 2)

Insert Work Items

Depending on the selected Template different Work Item Types are available for insertion into the document.

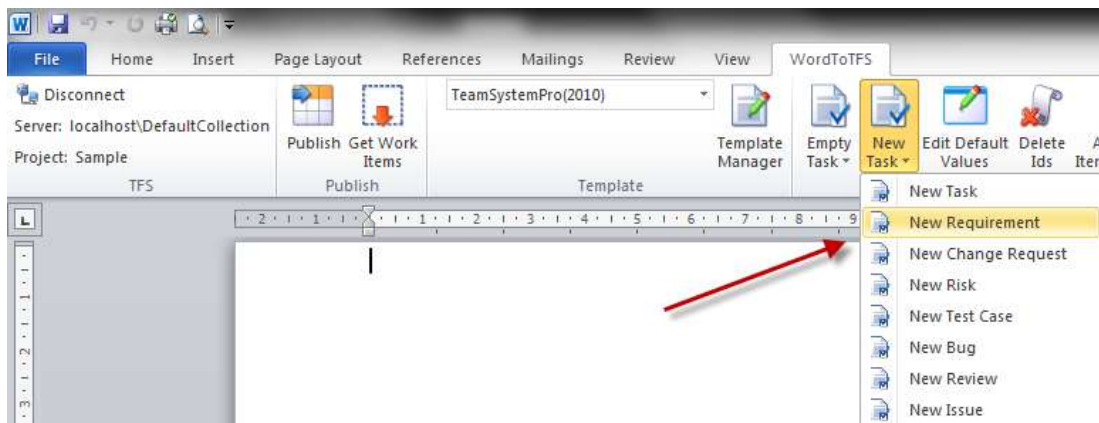


Figure 7 - Choosing from a list of work item types

A new Work Item is inserted as table into the document.

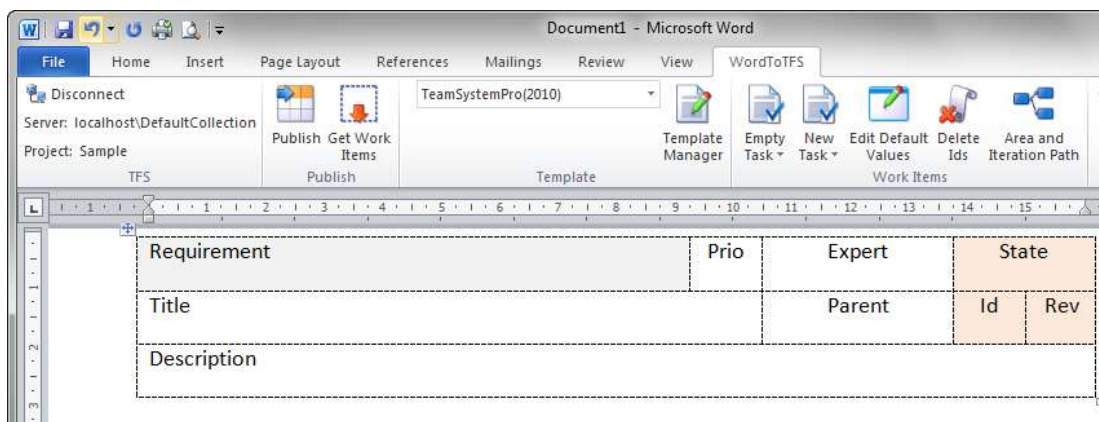


Figure 8 - The inserted work item table according to work item type and selected template

The table contains hints what should be inserted in each cell. The default values can be modified using the *Edit Default Values* task pane.

Support for any kind of work item



Figure 9 - Adding a new work item table

WordToTFS 2010 supports any kind of work items. The customizable *.w2t configuration files (see the WordToTFS 2010 - Admin Guide) is capable of describing any kind of work items, those predefined by Microsoft Team Foundation Server as well as custom created work items. In addition a single template may contain any number of different work item types. To select a specific work item type click on the **New** button to open a selection menu of all available work items for the selected template as shown in figure 3 and figure 4. Selecting one of the available work items will add a new table as defined in the work item configuration into the document and fills the table with default values. The **Empty** button provides the same functionality like the **New** button does, except the new created table will not contain any default values.

The **Empty** button provides the same functionality like the **New** button does, except the new created table will not contain any default values.

Publish work items to TFS

To publish work items from the Word document to the connected Team Project press the publish button in the WordToTFS ribbon. (This button is only enabled if you are connected to a TFS!) Publishing will create new work items in the Team Project for each work item in the Word document that does not have an id yet. Any work items from the Word document that already have an id will be updated. You can see the state of the publishing process on the right side at a task pane, which opens automatically once you have started the publishing process.

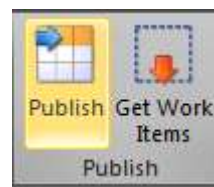


Figure 10 - Publish your changes to TFS



Figure 11 - The publish result

After the publish process has completed, all work items that are successfully saved to TFS are shown as list in the Publish task pane.

In case of any errors during the Publish, a red cross will indicate the error. Click the error entry in the Publish task pane to see details about the issue. To navigate to the work item table that caused the error, use the magnifier icon at the bottom right corner of the error entry.

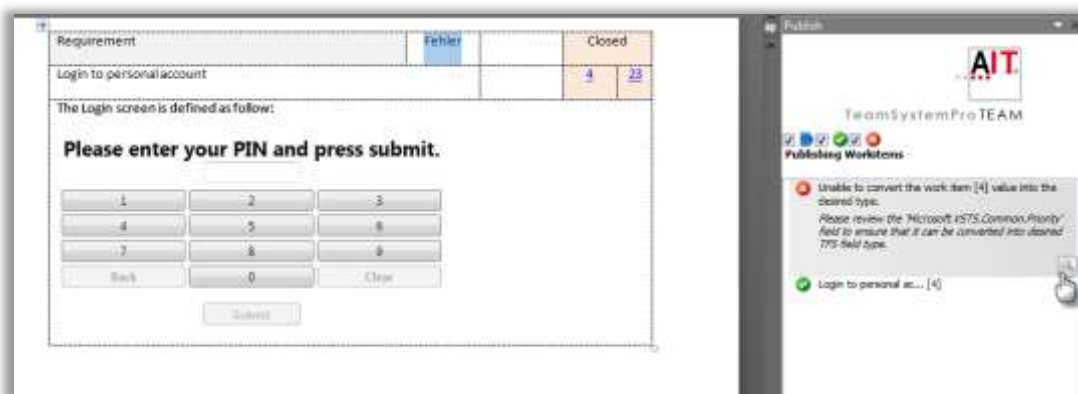


Figure 12 - Errors during Publish are listed inside the Publish task pane

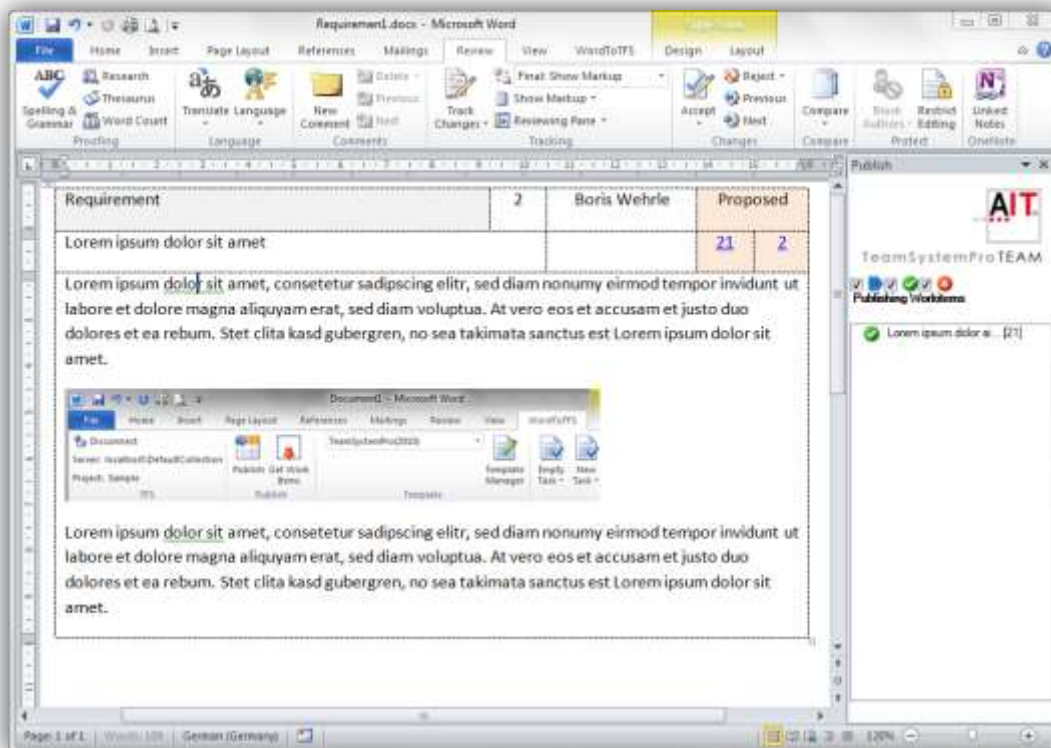


Figure 13 - Sample Requirement work item table

During publish the state, revision and work item id is inserted or updated inside the Word document.

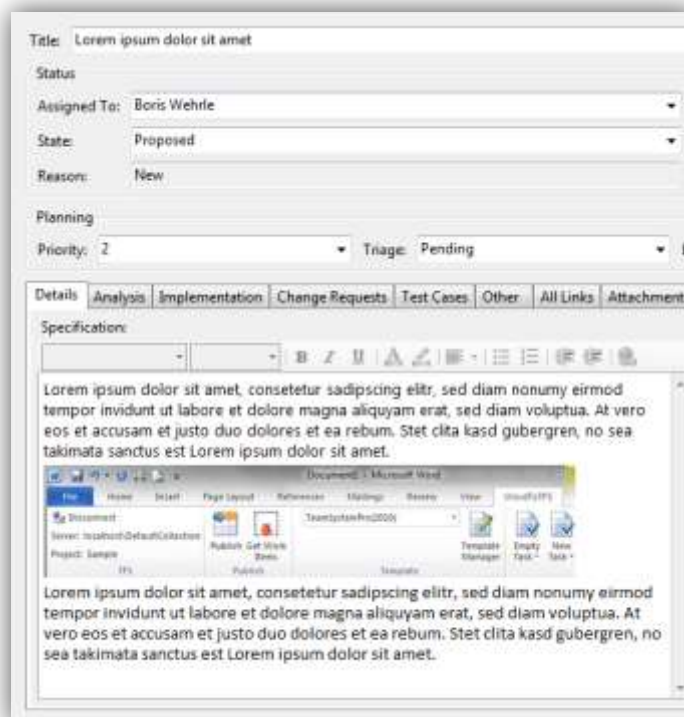
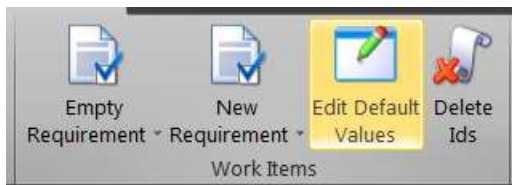


Figure 14 - The published work item in TFS

Edit default values for the current template




To edit the default values of the current template, press the button **Edit Default Values**. At the right border of the window a new task pane will appear, containing all work items of the selected templates and all their fields.

Figure 15 - Edit default values

After editing the default values the window may be closed. Inserting a new work item using the **New** button will create a new table in the word document using the previously specified default values.

All default values can be reset by pressing the **Reset Values** button at the bottom of the default values window.

- (1) Click the **Edit Default Values** button
- (2) Edit the default values in the **Default Values** task pane at the right side of the screen
- (3) Close the **Default Values** task pane



The image shows a task pane titled 'Default Requirement Values' with the AIT logo and 'TeamSystemProTEAM' text. It contains a table with two columns: 'Field' and 'Value'. The fields are grouped into sections: Task, Requirement, and Change Request. At the bottom of the task pane is a 'Reset Values' button.

Field	Value
Task	
Title	Task Title
Description	Task Description
Assigned To	Assigned To
Requirement	
Title	Title
Specification	Requirement Specification
Priority	2
Subject Matter Expert	Expert
Change Request	
Title	Title
Specification	Specification
Owned By	Owner
Justification	Justification

Figure 16 - A list of all editable fields and their default values

Delete work item ids from an existing document

By pressing the **Delete Ids** button as shown in figure 11, all fields of all tables in the document that points to a TFS work item **System.Id** field are cleared. This allows the synchronization of one document on different Team Foundation Servers.

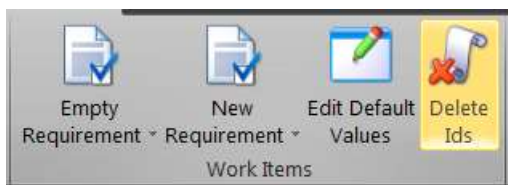


Figure 17 - Pressing the 'Delete Ids' button will delete all work item ids from the document

- (1) Press the **Delete Ids** button
- (2) Confirm the deletion of all ids

Import Existing Work Items from TFS

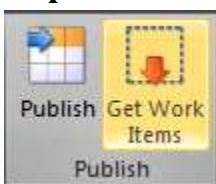


Figure 18 - Get Work Items

You can import work items from TFS into your Word document by clicking **Get Work Items**. This opens the **Get Work Items** task pane which gives you several options for getting work items from TFS.

You can get work items by Work Item Query, IDs or title. You can also include linked work items based on work item links from the **Hierarchy** pane.

Click **Find** to get the work items matching your criteria. To insert the work items found, select them from the result list and click **Import**. The work item tables will be inserted at the current cursor position within the Word document. In case work item tables already exist in the document, they will be updated (overwritten!) inside the document with the latest values from TFS.

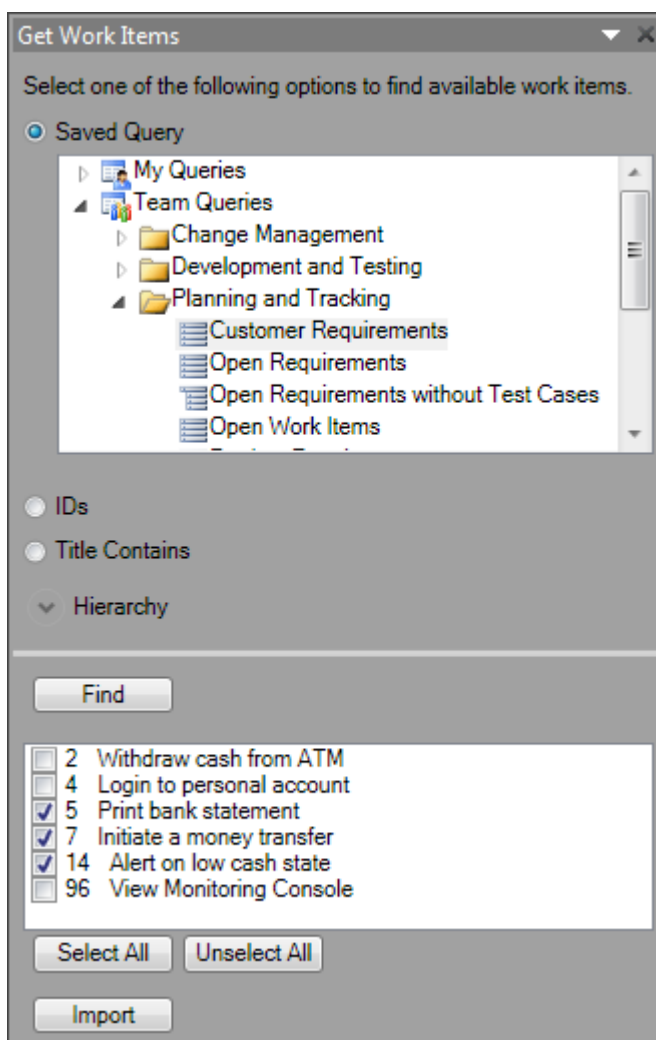


Figure 19 - Choose a work item query and import selected work items into the Word document

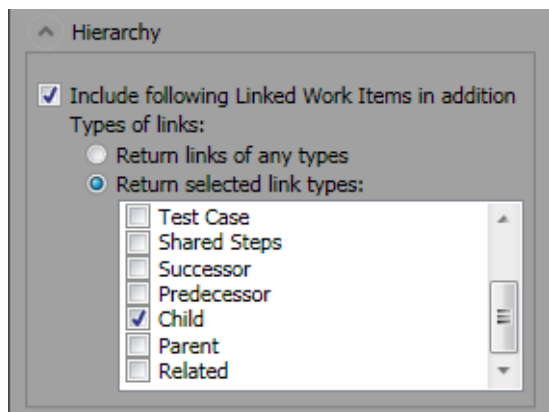


Figure 20 - Querying for linked work items

After the import, the complete work item table is inserted into the document:

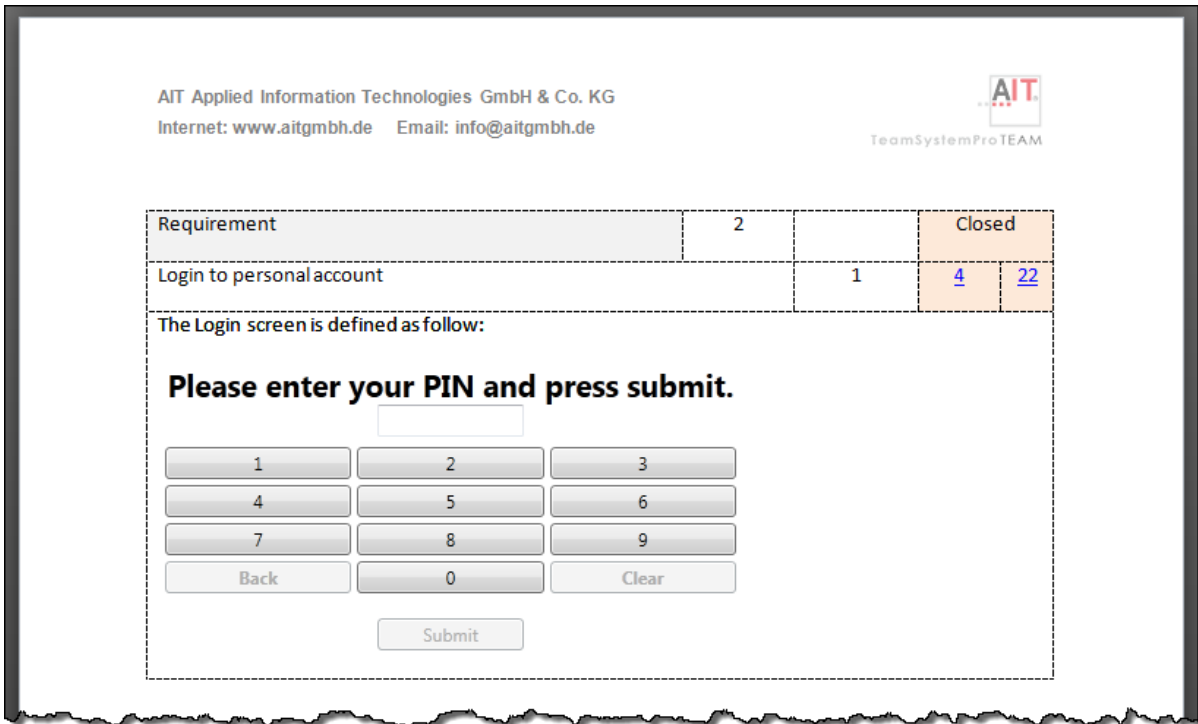


Figure 21 - A sample work item table in Word

The work item might look like this in TFS:

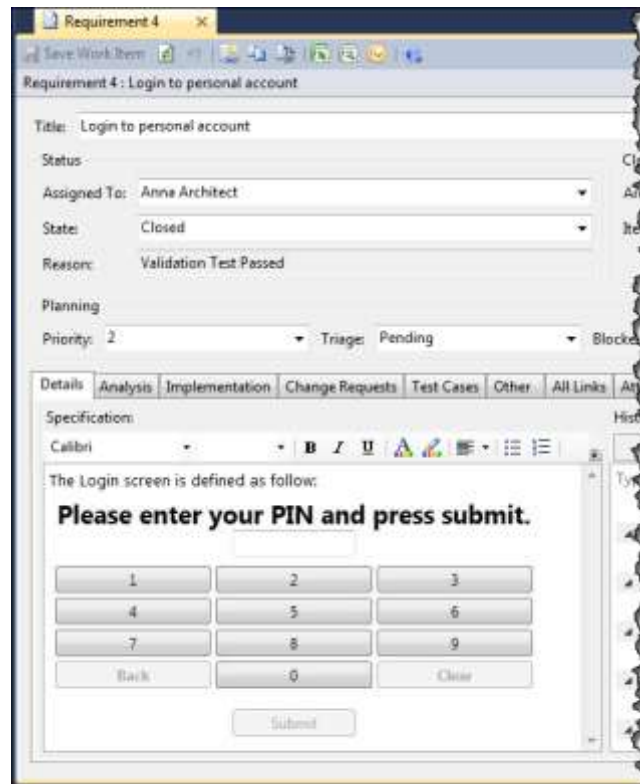


Figure 22 - Same sample in TFS

Insert Area and Iteration Path Values

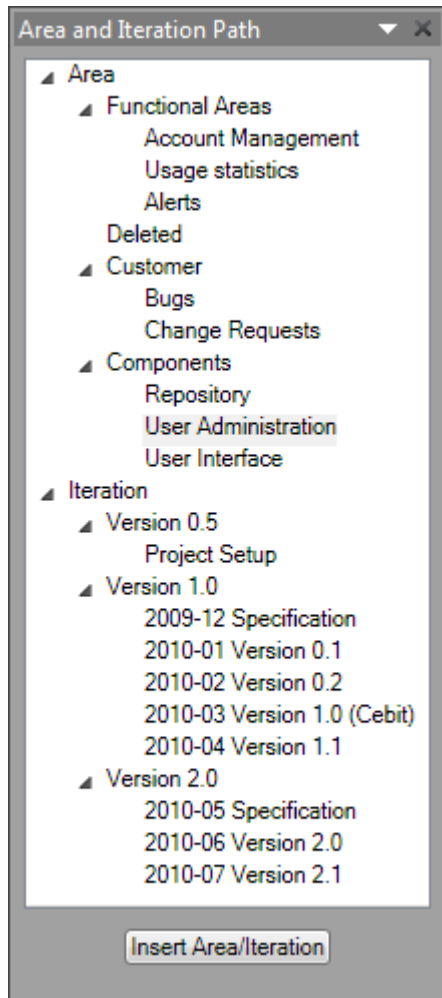


Figure 24 - The Area and Iteration task pane

You can insert Area and Iteration Path values within the document. This way, you will be able to set for instance the planned version or the feature area of your work items from within Word.

Simply click **Area and Iteration Path** from the WordToTFS ribbon tab. This will open the Area and Iteration Path task pane shown on the left.

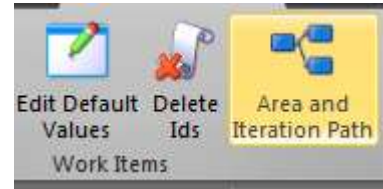


Figure 23 - View Area and Iteration task pane

The Area and Iteration tree from the connected team project will be shown. Select an Area or Iteration Path node and click **Insert Area/Iteration** to add it at the current text cursor position into the document. This could be inside a work item table:

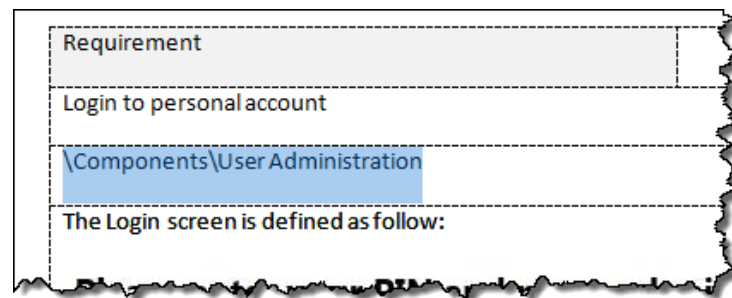


Figure 25 - Inserted Area Path node inside a work item table

Provide Feedback

You need further information, or help? Or you want to use WordToTFS at your project but you need some special functionality at the product? Or do you need a specialized template for your process template? Or just want to leave us your **Feedback**?

Contact us!



Figure 26 - Please Provide Feedback!

Configuration

We ship WordToTFS together with some default templates, which are shown under the “AIT GmbH” location at the templates manager. You can see how to configure other locations at the following

Add a Template Location

As mentioned in the user guide, a template location can be a local or a network directory or a web location. WordToTFS takes a local copy to the directory from each template location to ensure you also can use them offline.

Local and UNC location

A typical location folder contains 3 different types of files. (See later in this document how to customize them) First of them the “w2t” file, one per template. The w2t file contains the mapping between the TFS server fields and the Word table cells. We deliver WordToTFS with the following templates per default: MSF for CMMI (2010), MSF for CMMI (2008) and TeamSystemPro(2010). The second type is the word-table files as .xml. They contain the design and look of each of the work item types, such as task, requirement, bug etc. The last one is a location avatar as ico file. If you want to show an icon in the template manager you have to add it to the location folder and rename it to “favicon.ico”.

Add a location at the template manager:

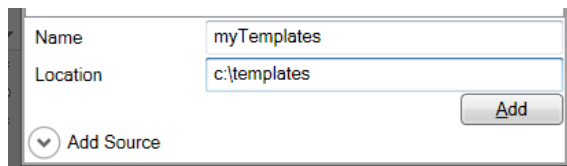


Figure 27 - Local directory

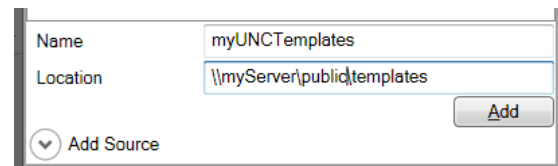
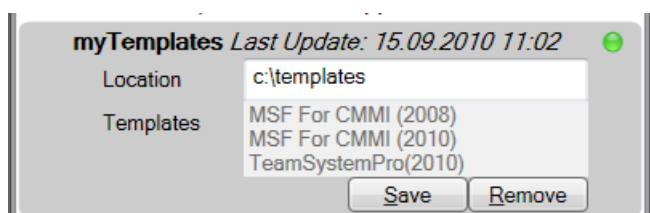


Figure 28 - UNC path

Name	Date modified	Type	Size
MSFForCMMI(2008).Requirement.xml	26.08.2010 15:31	XML Document	44 KB
MSFForCMMI(2008).w2t	26.08.2010 15:31	W2T File	2 KB
MSFForCMMI(2010).Requirement.xml	26.08.2010 15:31	XML Document	34 KB
MSFForCMMI(2010).Risk.xml	26.08.2010 15:31	XML Document	34 KB
MSFForCMMI(2010).Task.xml	26.08.2010 15:31	XML Document	34 KB
MSFForCMMI(2010).w2t	03.09.2010 11:21	W2T File	8 KB
TeamSystemPro(2010).Requirement.xml	26.08.2010 15:31	XML Document	34 KB
TeamSystemPro(2010).Task.xml	26.08.2010 15:31	XML Document	35 KB
TeamSystemPro(2010).w2t	26.08.2010 15:31	W2T File	5 KB

Figure 29 - The templates directory

The result:



Web locations

If you want to provide a worldwide available web location, you need a little bit of extra effort. The location folder is just the same as shown above, but you have to link to an additional mapping file as shown below. Link to this files full web path, like this:

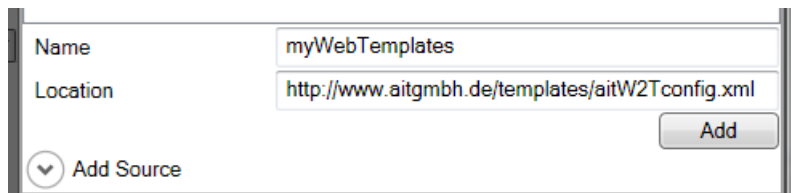


Abbildung 1 - Configuring a template location in the web

The referenced xml file contains a list of w2t files. Like the local or unc location, these w2t files are the representation of the specific templates. The web xml file may look like this:

```
<?xml version="1.0" encoding="utf-8" ?>
<ArrayOfWebTemplatesConfigModel xmlns:asi="http://www.w3.org/2001/XMLSchema-instance" xmlns:xsd="http://www.w3.org/2001/XMLSchema">
  <WebTemplatesConfigModel Path="HTTP://www.aitgmbh.de/templates/383FF0c38MI (2010) .w2t"/>
  <WebTemplatesConfigModel Path="HTTP://www.aitgmbh.de/templates/TeamSystemPro (2010) .w2t"/>
</ArrayOfWebTemplatesConfigModel>
```

Figure 30 - An example of a configuration xml file

Customization

WordToTFS templates are full customizable. Let's start with the w2t files, because they are the heart of the mapping between TFS server fields and word table cells.

The w2t files

Each template in WordToTFS is the representation of a w2t file, which can contain one or more work item types. Each work item type has its own xml node, and contains fields, converters and links.

Node <MappingConfiguration>

The highest node in the xml file describes the global attributes of the template.

ShowName	Name used in WordToTFS to show template
DefaultMapping (True False)	Used to preselect the template. No longer needed
UseStackRank (True False)	Determines if there is a use for stack ranking work items – when set to True, all work items will get a stack rank that represents the order inside the currently published document

Nodes <Mappings>, <Mapping>

Each mapping contains one work item type like "Task", "Bug" and "Requirement"

WorkItemType	The TFS work item type, to connect, such as requirement or bug
MappingWorkItemType	The Word work item type. Maybe, you want to call a (tfs) requirement "workToDo" in word
RelatedTemplate	The xml table style file. See below on how to customize these
AssignRegularExpression	A regular expression to find the <i>MappingWorkItemType</i> . In default, just type the same as in <i>MappingWorkItemType</i>
AssignCellRow	The row and column for defining the type keyword. The cell wich contains <i>MappingWorkItemType</i> (In Word, the left cell in the first column is col=1 and row=1)
AssignCellCol	

ImageFile	An image to show in “new” button. If not customized, just type “standard.png”
Fields/Field	See below
Converters/Converter	See below
Links/Link	See below

Example:

```
<Mapping WorkItemType="Task" MappingWorkItemType="Task"
  RelatedTemplate="TeamSystemPro(2010).Task.xml"
  AssignRegularExpression="Task" AssignCellRow="1" AssignCellCol="1"
  ImageFile="standard.png"></ Mapping>
```

Nodes <Fields>, <Field>

The node field(s) contains one or more field definitions specifying the mapping between word cells and TFS fields.

Name	Name of the TS field, such as “System.Id”
FieldValueType (PlainText/HTML/BasedOnFieldType)	If the TFS field type is HTML and you activate HTML at this point, you can format the text and add pictures to the word cell. You also need it on System.ID field if you want to have web access links on them. <i>BasedOnFieldType</i> handles value based on the TFS field type. Currently is applicable only for ‘Microsoft.VSTS.TCM.Steps’ field for Test Case work item.
Direction (OtherToTfs/TfsToOther/SetInNewTfsWorkItem)	Normal fields are “ <i>OtherToTfs</i> ”, to write to TFS server. Fields like Id, Rev and State are reported from TFS to Word. And fields which only be set in TFS but not be shown in Word are “ <i>SetInNewTfsWorkItem</i> ”.
MappingTableRow	The word column and row of the word table cell
MappingTableCol	
TestCaseStepDelimiter	String value, which is possible to apply only to ‘Microsoft.VSTS.TCM.Steps’ TFS field type. This string is delimiter between ‘Title’ and ‘Expected Result’ Test Case step. When this attribute is not defined then the default value is ‘->’.
DefaultValue	See below

Example:

```
<Field Name="System.Id" FieldValueType="HTML" Direction="TfsToOther"
  MappingTableRow="2" MappingTableCol="5" ></Field>
```

BasedOnFieldType FieldValueType handling

Currently BasedOnFieldType supports only the ‘Microsoft.VSTS.TCM.Steps’ TFS field for Test Case work item type. In Word document must exists numbered list where each item represents one-step in TFS Test Case Work Item. ‘TestCaseStepDelimiter’ configuration attribute separates the step ‘Title’ and ‘Expected Result’ in TFS step field. Example:

Template configuration definition:

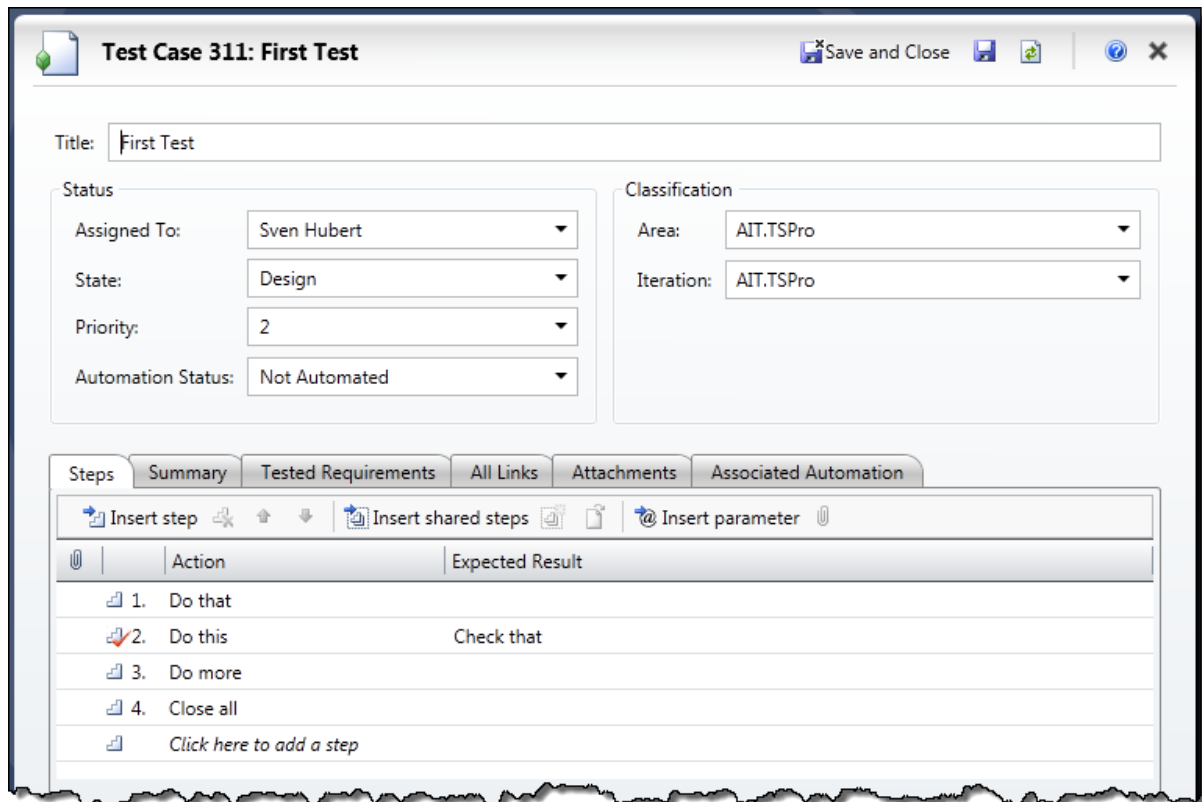
```
<Field Name="Microsoft.VSTS.TCM.Steps" FieldValueType="BasedOnFieldType" Direction="OtherToTfs" MappingTableRow="3" MappingTableCol="1" TestCaseStepDelimiter="->"/>
```

Work Item defined in Word document where Test Case steps define as numbered list:

Test Case	2	Sven Hubert	Design
First Test		311	3
<ol style="list-style-type: none"> 1. Do that 2. Do this -> Check that 3. Do more 4. Close all 			

You can use the “->” characters to separate action steps from expected results.

TFS result:



Default value

If you want to provide a default value to a cell/field, you have to add the sub node “DefaultValue”. On creating a new work item at word, these values are used to prefill the table, and you also be able to edit the default values through the “Edit default Values” button.

Show Name	The label used in default values pane
<Value>	The default value to use

Example:

```
<DefaultValue ShowName="Title">Task Title</DefaultValue>
```

OLE Support

OLE objects are converted into images which are attached to the work item by default. This behavior can be changed by specifying the attribute 'HandleAsDocument' to true. This causes the complete field contents to be attached as micro Word document to the work item. The work item field will contain a view in HTML which should not be changed by the user in TFS as it will be overwritten during the next publish in Word. The micro Word document contains all original OLE objects and is used during import and refresh in Word.

The attribute 'HandleAsDocumentMode' can be set to 'OleOnDemand' which reduces the behavior of attaching a micro Word document to the cases where OLE objects are actually contained in the work item table.

A sample:

```
<Field Name="AIT.Common.Description" FieldValueType="HTML" Direction="OtherToTfs"
MappingTableRow="3" MappingTableCol="1" HandleAsDocument="true" HandleAsDocumentMode="OleOnDemand">...</Field>
```

Converters/Converter

A converter can help you to show the values in the right way.

Field Name	TFS field name to convert
Text	TFS Value
MappingText	Word Value

Example:

```
<Converters>
  <Converter FieldName="Microsoft.VSTS.Common.Severity">
    <Values>
      <Value Text="1 - Critical" MappingText="1" />
      <Value Text="2 - High" MappingText="2" />
      <Value Text="3 - Medium" MappingText="3" />
      <Value Text="4 - Low" MappingText="4" />
      <Value Text="4 - Low" MappingText="" />
    </Values>
  </Converter>
</Converters>
```

Nodes <Links>, <Link>

In this version we also provide parent and child relations to other work items.

Type (Parent/Child)	Parent, if you want to type a parent id into this cell, child if you want to type one or more child id's to this cell
Direction	TfsToOther
MappingTableRow	The affected cell
MappingTableCol	
RemoveOnEmpty (true/false)	Removes all work item links if true and cell is empty.

Example:

```
<Links>
```

```
<Link Type="Parent" Direction="OtherToTfs" MappingTableRow="2"
MappingTableCol="2" RemoveOnEmpty="true"/>
</Links>
```

In case of w2t failure

If there are errors in a w2t file, it can't be correct serialized, and therefore it isn't shown at the template manager. All other templates from the same location will be shown correct.

The Table xml Files

The Layout and design is provided through table xml files. To generate these files, just create a blank word file with a table, and save it as "Word Xml File". The simplest work item table is a simple table with some rows and cols. But you also can use background color, merge cells, invisible borders, font size, type and color and so on. Save them in the same folder as your other template stuff, the w2t file and the optional favicon, and generate the entry for the file at the w2t mapping definition. Ensure that the filename is written right at the *RelatedTemplate* – Tag at the Mapping – Node.

Additional you have to make sure you have the right amount of cells. As example, your word file contains a table with 5 columns and 2 rows as shown below, you can't map a TFS field to col 1 with row 3.

row 1, col 1					
Nonexisting cell					

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