Import Requirements into TestLink

Purpose of the tool

If you want to create a lot of requirements in TestLink easily, the easiest way is to use tables.

TestLink is able to use XML to import requirements. This document explains how to import requirements into TestLink using XML files. Excel is used as XML editor to add new requirements.

Version information

- ➢ **Excel Filename** : 01-ImportRequirementsIntoTestLink.xls

- ➢ **Applicable Excel Macro Version :** 2010403

- ➢ **Works with :**

  - ✓ TestLink 1.9.3
  - ✓ TestLink 1.9.4
  - ✓ TestLink 1.9.5
  - ✓ TestLink 1.9.6
  - ✓ TestLink 1.9.7
  - ? TestLink 1.9.8
  - ? TestLink 1.9.9

Summary

Requirements declaration using Excel

To declare requirements, the excel pattern named "01-ImportRequirementsIntoTestLink.xls" must be used. This file could be used to update existing tests or to create new tests.

Excel pattern overview

Requirement Path (folders)		Requirement Generation		Requirement Content			
Folder Name	Folder ID	Requirement ID	Requirement Title	Requirement Content	Req Status	Req Type	Requirement expected_coverage
parent1	parent1						
sub folder 1	sub1						
		Req-SandBox-1	The title of the requirement Req-SandBox-1	Description of the Requirement. Could be on multiline, but import with display it without Carriage Return	F	3	1
		Req-SandBox-2	The title of the requirement Req-SandBox-2	A requirement title could not be longer than 100 caracters by defaut. You should edit const.inc.php to modify the value	F	3	1
parent1	parent1						
sub folder 2	sub2						
		Req-SandBox-3	The title of the requirement Req-SandBox-3	I don't know what to expect for this requirement	F	3	1
		Req-SandBox-4	The title of the requirement Req-SandBox-4	Still no imagination	F	3	1

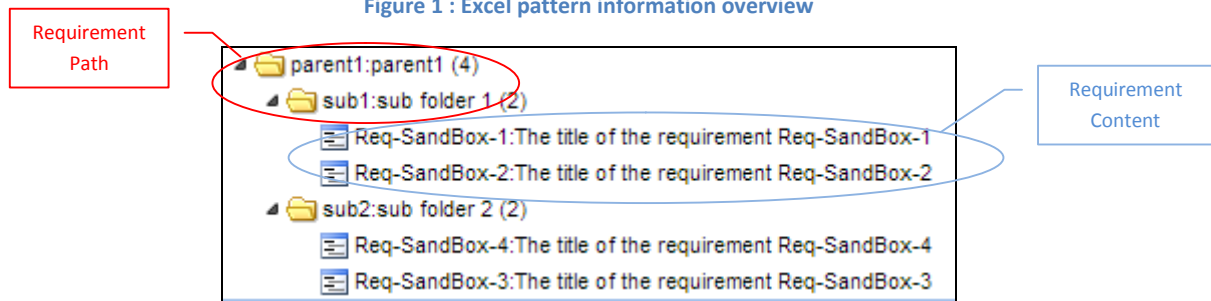**Figure 1 : Excel pattern information overview**

Figure 2 : imported results overview

- The "Requirement Path" section (Yellow columns headers) can be used to declare folders trees in TestLink (folders are named "Requirement Specification Operations" in TestLink GUI).

- The "Requirement Content" section (Blue columns headers) can be used to declare requirements in TestLink (requirements are named "Requirement Operations" in TestLink GUI).

- The "Requirement Path" section and the "Requirement Content" section **must not** be filled on the same line.

- All "Requirement Content" provided after a "Requirement Path" section will be inserted in the last declared "Requirement Path" folder.

- Consecutives lines in the "Requirement Path" section are considered as a "subfolders" (tree) declaration.

- The "Requirement Path" **must provide the path from the root directory** each time a folder path is declared in the file. "Folder Name" and "Folder ID" **must be** declared several times in the same file if the same folder is used for several sub-folders (see "parent1" example in figures above).

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Excel columns content explanations

(Red = mandatory, Black = Optional)

- Columns used for a Requirement Path declaration

  - **Folder Name** : requirement identifier (must be unique)
  - **Folder ID** : requirement title

- Columns used for a Requirement Content declaration

  - **Requirement ID** : requirement identifier (must be unique)
  - **Requirement Title** : requirement title (must be unique)
  - **Node_order** : Number used to display requirement tree. If not filled, automatically generated by TestLink during import.
  - **Requirement Description** : Requirement content description
  - **Status** : Requirement Status. If not filled, automatically set to « Draft » by TestLink during import. Has to be filled with one of the following value :

Status in TestLink	Draft	Review	Rework	Finish	Implemented	Valid	Not Testable	Obsolete
Letter to use in Excel	D	R	W	F	I	V	N	O

  - **Type** : Requirement Type. If not filled, automatically set to « Use Case » by testlink during import. Has to be filled with one of the following value :

Type in TestLink	Informational	Feature	Use Case	User Interface	Non functional	Constraint	System Function
Number to use in Excel	1	2	3	4	5	6	7

  - **Expected Coverage** : Number of tests (in testcases) that must be rattached to the requirement to cover the requirement. If not filled, automatically set to 0 by testlink during import. 0 is not a valid value during import but is invalid if requirement is edited in TestLink GUI later.

XML file generation

When all Requirements have been written in Excel, just click on 'Requirement Generation' button to execute the Excel Macro. Of course, macro execution must be allowed for the '01-ImportRequirementsIntoTestLink.xls' file.

If there is a problem with the content, the popup should explain why the generation failed.
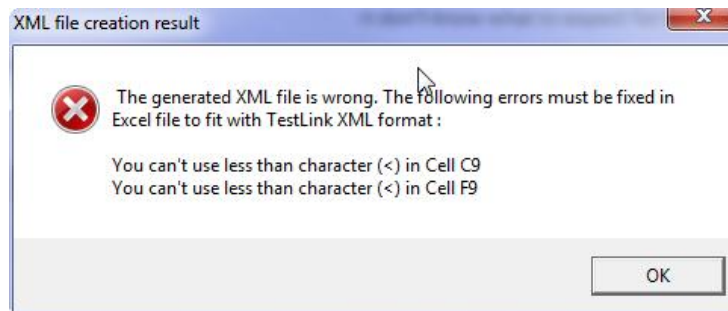

Figure 3 : XML file generation result KO

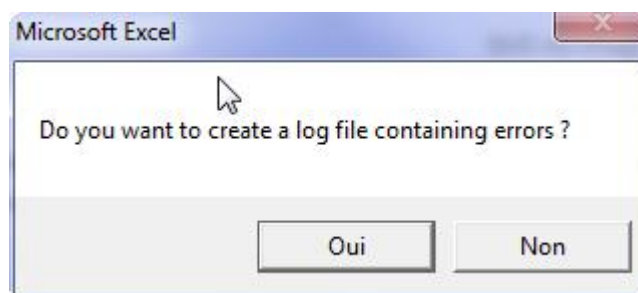A log file containing all errors can be created if needed.

Figure 4 : Save the log file

The log file is created in the same Excel file folder, with the Excel file name (with a .log suffix).

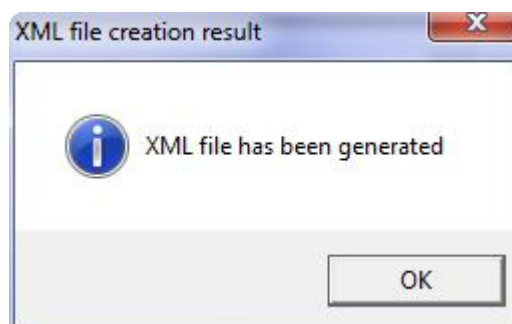If everything is OK with the file content, a popup will appear with the following text displayed

Figure 5 : XML file generation result OK

The XML file is created in the same Excel file folder, with the Excel file name (the .xls suffix is replaced by a .xml suffix).

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Requirements Import into TestLink

XML file generated by the macro must be used during the import process.

1) Select the folder representing the root directory where all folders and requirements will be inserted. This can be the root directory or a folder in the folder tree.
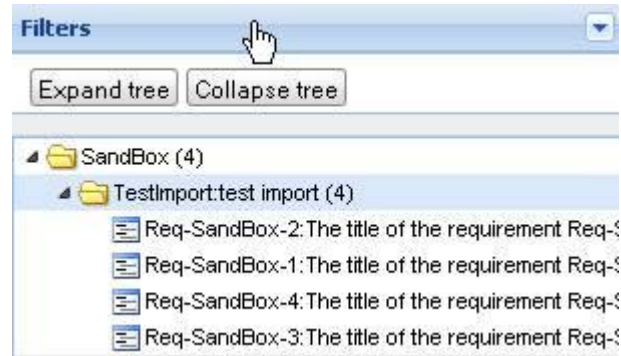

Figure 6 : select destination folder for requirements import
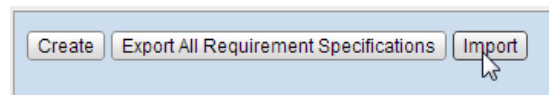
2) Select the import button

Figure 7 : Select import menu when the root directory is selected

Figure 8 : Select import menu when a folder is selected

3) Configure the import options

Figure 9 : Requirements import options

4) Upload the file to import data

Doc ID	Title	Result
parent1	parent1	Created - Req. Spec. - Doc ID:parent1
sub1	sub folder 1	Created - Req. Spec. - Doc ID:sub1
Req-SandBox-1	The title of the requirement Req-SandBox-1	Created - Requirement - Doc ID:Req-SandBox-1
Req-SandBox-2	The title of the requirement Req-SandBox-2	Created - Requirement - Doc ID:Req-SandBox-2
parent1	parent1	Updated - Req. Spec. - Doc ID:parent1
sub2	sub folder 2	Created - Req. Spec. - Doc ID:sub2
Req-SandBox-3	The title of the requirement Req-SandBox-3	Created - Requirement - Doc ID:Req-SandBox-3
Req-SandBox-4	The title of the requirement Req-SandBox-4	Created - Requirement - Doc ID:Req-SandBox-4

Figure 10 : import Requirements result

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Tips and problems

- **<u>Generate a Testcases XML file</u>** with Excel has been tested with Excel 2003, Excel 2007 and 2010 versions.

- If your **<u>requirements titles</u>** are longer than 100 characters, titles will be reduced by TestLink during import. You have to modify const.inc.php to reconsider the value of title field size (max is 255 caracters)

- If your **<u>XML requirement file</u>** is bigger than 400Kb, you have to edit custom_cfg.inc.php to change "$tlCfg->import_file_max_size_bytes" parameter. To set new limit file size to 1Mb, modify this parameter from '409600' to '1024000'.

- During **<u>import into Testlink</u>**, don't use "Import" function from "Requirement Operation" section but use only "Import" function from "Requirement Specifications Operation". If not, a mysql error message will be displayed.

- During **<u>import into TestLink</u>**, TestLink doesn't accept that two requirements have the same name (event if "DocID" are differents and the duplicate option is set to "has the same Doc-ID"). For requirements that have the same name (best example is "N/A" when few requirements had been deleted), you can concatenate "requirement DocID" with the name in the name field.

- In **<u>import result log view</u>**, you can search for "ok", "skipped", "updated" or "duplicate" keywords to verify that TestLink import comportment is coherent with your needs.

Document Changelog

Excel File Version	Major Changes
20120314	Initial Release
20130530	Import has been successfully tested within TestLink 1.9.7
20130916	Update How To information
20140129	Update How To information
20140403	The XML generation is now done by a macro, not anymore via the Excel "save As" function. Update How To information to explain the use of the new "requirement path" columns Delete Export from TestLink explanations cause the macro based solution forbids the use of exported data.