Overview

This document describes how to define an XML Schema Refactoring for QTAssistant configuration to provide a solution to a question posted <u>here</u>.

Install and Configure QTAssistant

QTAssistant may be installed on any version of Windows operating system running XP SP3 or above, 32-bit (x86) or 64-bit (x64), with Microsoft .NET Framework 4 and/or .NET Framework 3.5 SP1.

Download the latest version of QTAssistant from <u>http://paschidev.com/Secure/Downloads/QTSetup40.zip</u> (registration is required).

Download the zip file containing the material used to illustrate this document from http://paschidev.com/Secure/downloads/xsd-structure-to-csv-as-path-type-cardinality.zip; extract the files on your local computer.

Install and run QTAssistant. Once started, close the feature browser to return to QTAssistant's empty environment. For more information on QTAssistant's shell and the XSR module see the online help <u>here</u> or the embedded help by pressing the F1 key.

How to Export XPaths described by an XSD

Objective

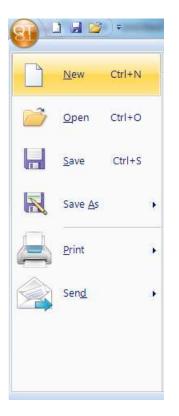
Sample Files

The zip file contains the following files:

| File name | Description | |
|--|---|--|
| CardinalityTemplate.xtmt | eXtensible Traceability Matrix (XTM): file used to capture traceability between data presented in tabular format and XML Schema trees. | |
| XTM-AppendAll-Parent.xsdSample XML Schema file used to illustrate an Append All test case usi with abstract types and abstract elements (substitution groups); prov extensions to types defined in XTM-AppendAll.xsd | | |
| XTM-AppendAll.xsd | Sample XML Schema file used to illustrate an Append All test case using elements with abstract types and abstract elements (substitution groups); provides base definitions and the root element. | |
| XTM-AppendAll.xsr | A pre-configured XML Schema Refactoring (XSR) file. | |

Step 1: Create and Save an XSR file.

Click New from the Application Menu.



Double-Click XML Schema Refactoring file type.

| ategories: | Available Types: |
|---|--|
| General CTM Enterprise Tools XML Builder XML Schema Refactoring | Traceability Matrix XML Schema Refactoring |
| n empty XML Schema Refactorin | ile. |

Step 2: Create an XML Schema File Collection

http://paschidev.com/Secure/Documentation/XsrCreateXmlSchemaCollection.html

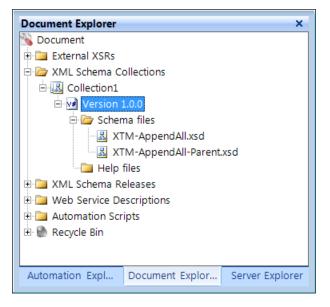
Step 3: Add XML Schema Files to Version 1.0

Right click on the Version 1.0 files and click on *Add Schema Files...*

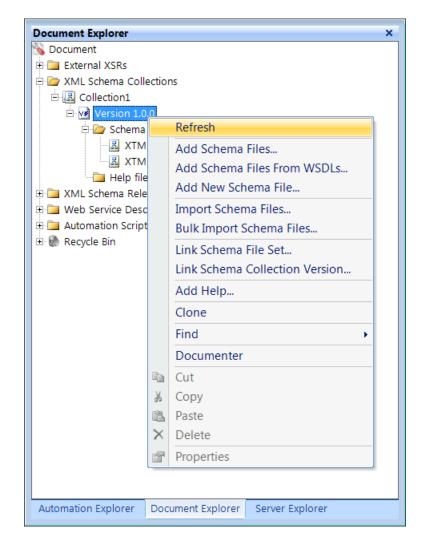
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| | | Add New Schema File | |
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| | | Bulk Import Schema Files | |
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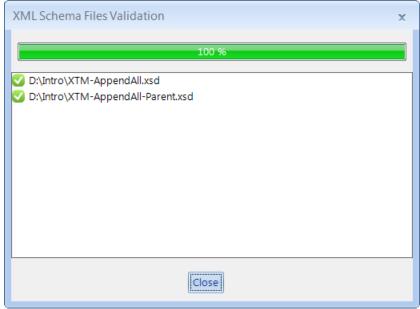
Browse to the folder where your XSD files are stored (for illustration, browse to the folder with the sample files and select all the XSD files) and select the one you want to load.

| Select XML Schema Files | | × |
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After loading the files, validate them to make sure your sources are OK. Right click on the Version 1.0 files and click on *Refresh*





Files with errors will be marked with a red stop sign. You'll have to double click on the file(s) with the errors, then close the dialog and fix the errors in the provided XSD editor.

Step 4: Open the Documenter for Version 1.0

Right click on the Version 1.0 files and click on Documenter

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Step 5: Install the XTM Template

Note: This is one time exercise. I provide one to simplify your setup.

Click on *Install Template...*.

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|---------------------|---------------------|-----------|--|-----------------|---------|--------------------|
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Browse to the folder where you stored your files from the zip and select the provided template.

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Step 6: Create a New XTM File Using the template Click on *New...*.

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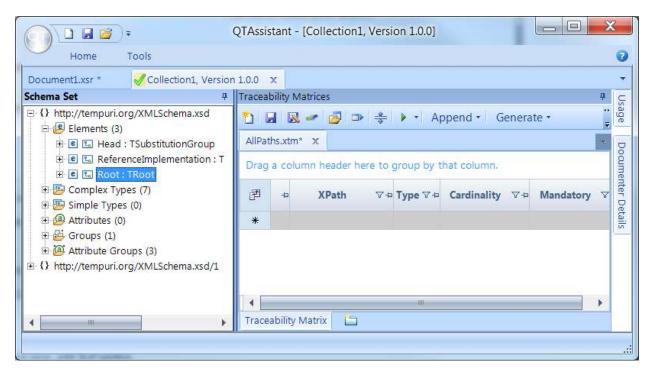
Double click on Cardinality Template

| QTAssistant - New File | |
|------------------------|--|
| Categories: | Available Types: |
| XML Schema Refactoring | Cardinality Template Local name Mandatory Traceability Test Matrix |
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Specify a file to save the XTM file (this stores the metadata required to generate the Excel file)

| New QTAssistant Trace | eability Matrix File | Search Intro | × × |
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| File name: | III III III | | 12 |
| Save as type: | TAssistant Traceability Matrix (*.xtm) | | 1 |
| Hide Folders | | Save | Cancel |

You should get something like this.



Step 7: Generate all XPaths

Drag and drop your root element(s) from the Schema Set to XTM file.

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Click on Append All

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| 3 | 89 | http://tempuri.org/XMLSchema.xsd:Root/http://tempuri.org/XML Schema.xsd:XsiTypeElem [xsi:type='http://tempuri.org/XMLSchema.xsd:TExtendingBaseXsiT ype1']/http://tempuri.org/XMLSchema.xsd:Elem2 | E | 01 | False | |
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Step 8: Fix any namespace prefixes that are missing, or assign different values

Click on the XSR document tab. Press F4 to display the Properties tool window. Click on the Document node to set its properties; click on Aliases property.

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Enter your preferred aliases.

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To see the effects of the aliases, you will have to close and reload the XTM (a known issue, it is not an automatic refresh).

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Step 9: Export to Excel

Click on Export to Excel

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| 3 | 69 | base:Root/base:XsiTypeElem [xsi:type='base:TExtendingBaseXsiType1']/base:Elem2 | E | 01 | False | |
| 4 | 69 | base:Root/base:XsiTypeElem [xsi:type='base:TExtendingBaseXsiType1']/base:Elem3 | E | 0n | False | |
| 5 | 89 | base:Root/base:XsiTypeElem [xsi:type='base:TExtendingBaseXsiType1']/@useful1 | A | 01 | False | |
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Choose an Excel file.

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The generated file is automatically loaded (assuming you have Excel installed).

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| 5 | base:Root/base:XsiTypeElem[xsi:type='base:TExtendingBaseXsiTy 1']/base:Elem3 | | | 0n | False |
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| 13 | base:Root/base:XsiTypeElem[xsi:type='base:TExtendingBaseXsiTy 2']/base:Elem1 | | | 11 | False |
| 14 | base:Root/base:XsiTypeElem[xsi:type='base:TExtendingBaseXsiTy 2']/base:Elem2 | | | 01 | False |
| 15 | base:Root/base:XsiTypeElem[xsi:type='base:TExtendingBaseXsiTy 2']/base:Elem3 | | | 0n | False |
| 16 | base:Root/base:XsiTypeElem[xsi:type='base:TExtendingBaseXsiTy 2']/@useful1 | | | 01 | False |
| 17 | base:Root/base:XsiTypeElem[xsi:type='base:TExtendingBaseXsiTy 2']/@useful2 | | | 11 | False |
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Step 10: Use Excel to convert to CSV

Note: Unfortunately, I can't recommend another approach right now.

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The generated file looks as below.

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