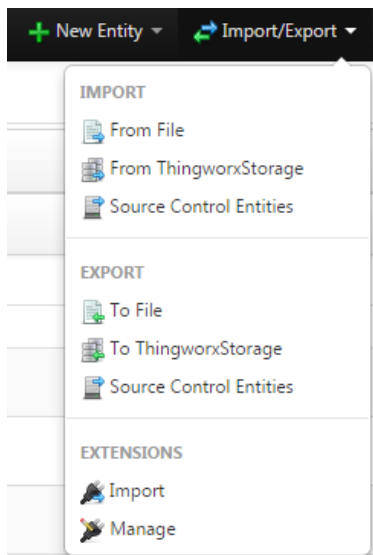# ThingWorx Applications Version Controlling

Introduction

Current version of ThingWorx (7.1.3) doesn't provide out of the box version controlling mechanism of ThingWorx applications.

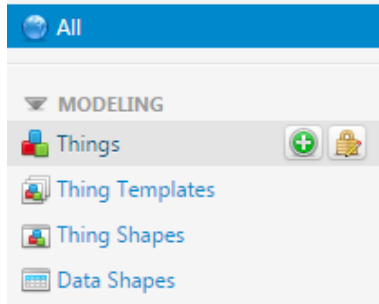It provides ways to import/export ThingWorx entities.

The aim of this document is to use available features of ThingWorx and provide a better way to manage version controlling. This document provides steps to use SVN as version controlling tool however any other version controlling tool can be used based on requirement.

Prerequisites

- Tortoise SVN client and ThingWorx are installed on same system
- SVN repository setup (Refer https://tortoisesvn.net/docs/nightly/TortoiseSVN_en/tsvn-repository.html for how to create new repository.)
- Basic knowledge of operating Tortoise SVN
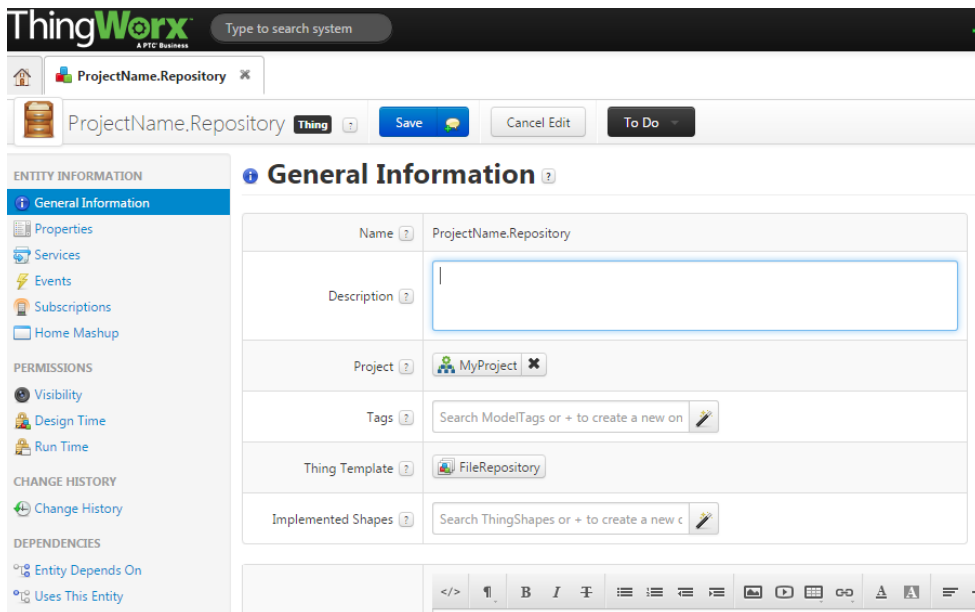- Basic knowledge of ThingWorx composer

Steps

1. Create new File Repository in ThingWorx using below steps
   a. First create a new Thing by click on plus icon of Things as shown below.

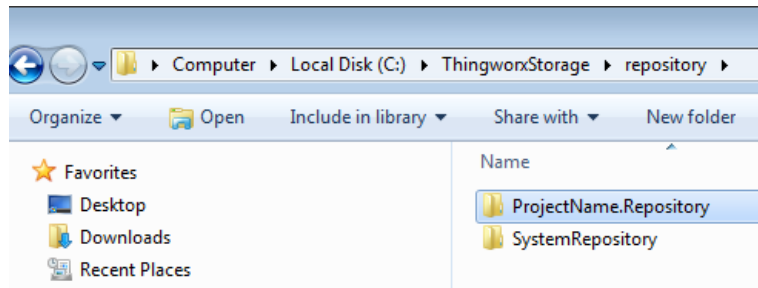b. Enter repository name, project name, select FileRepository in Thing Template as shown below and save it.

For example:

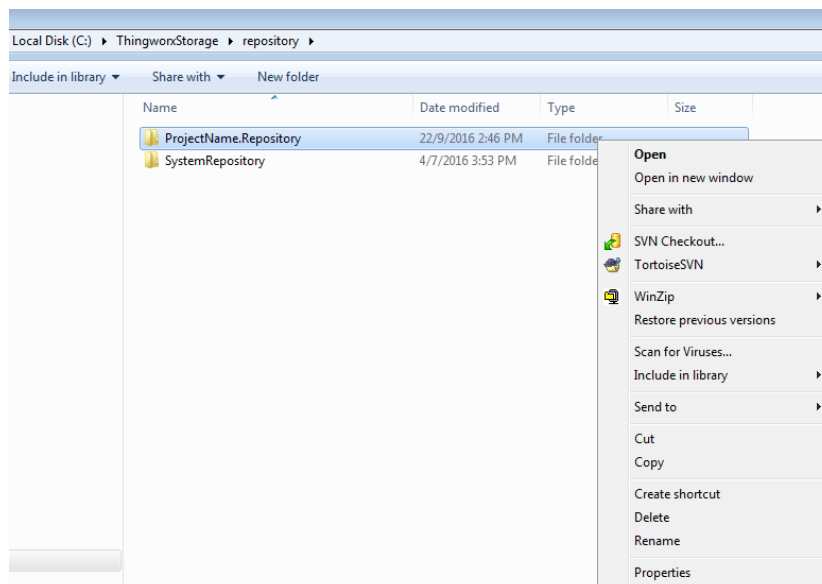| Name	ProjectName.Repository
Project	MyProject
Thing Template	FileRepository

c. Create folder for repository in ThingworxStorage. Make folder name same as typed in "Name" field in previous step.
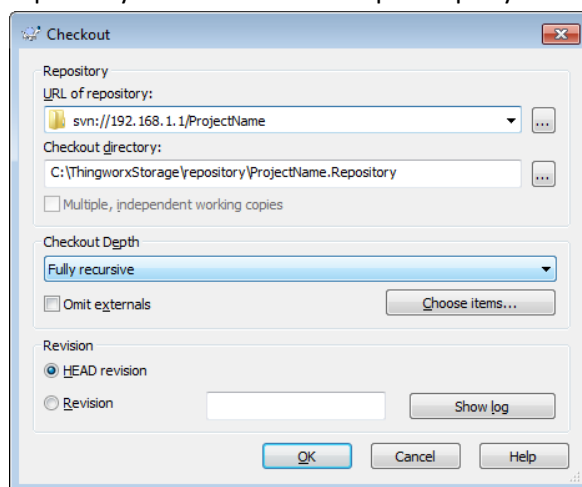
For example – if your ThingworxStorage path is 'C:\ThingworxStorage' then create 'ProjectName.Repository' folder under 'C:\ThingworxStorage\repository' path.
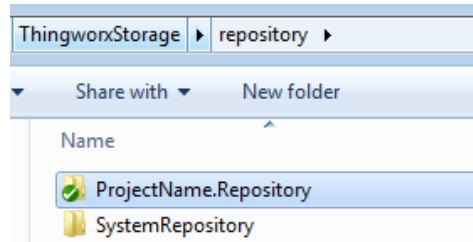
d. Now map 'C:\ThingworxStorage\repository\ ProjectName.Repository' with SVN repository by right click on 'ProjectName.Repository' folder and select SVN Checkout.
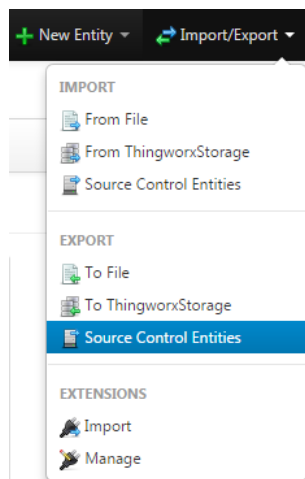

e. Type your repository URL and select folder by click on browse button next to the URL of repository. Select Checkout Depth as per your need. Click on OK.
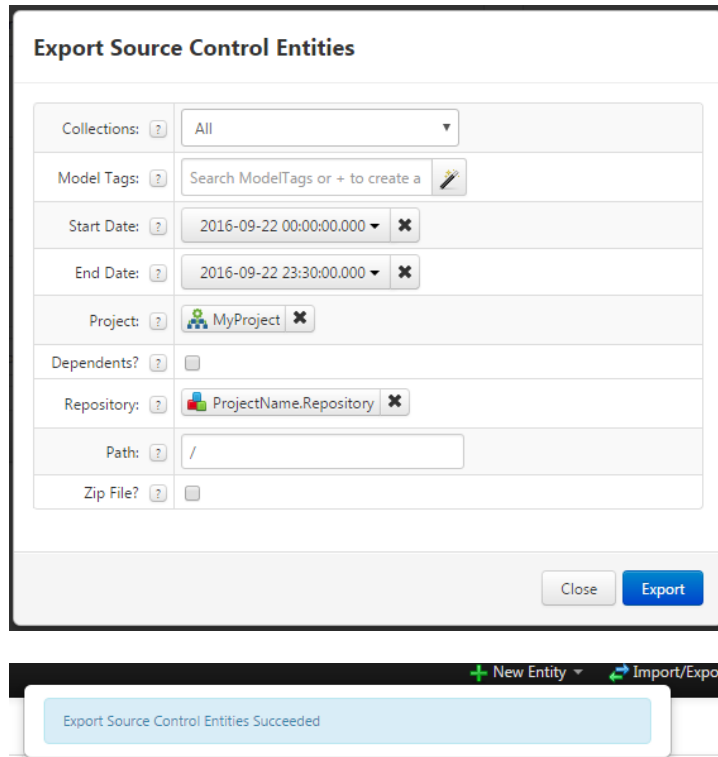

If all goes well, you will see green tick on 'ProjectName.Repository' folder as below.
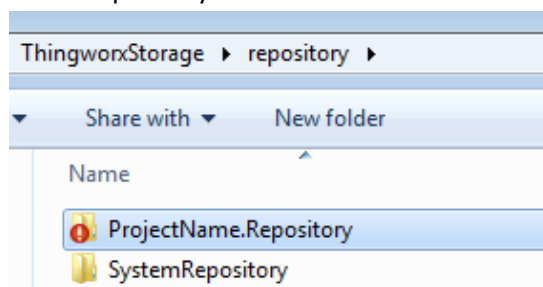
     f. Mapping is completed between ThingWorx and SVN now. You can now work on ThingWorx application changes and then follow steps for exporting your changes.

2. Export your changes from Thingworx to SVN.

     a. Go to ThingWorx Composer, click on Import/Export from header section and select 'Source Control Entities' under Export.
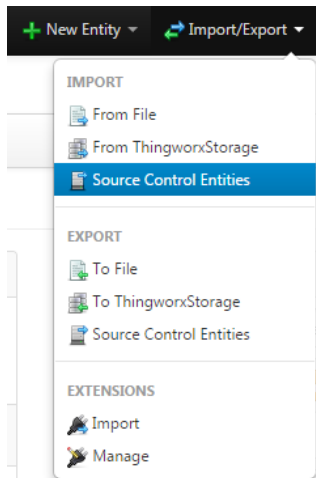

     b. Select on Start Date, End Date, Project and Repository. Click on Export button. All exported files going to be placed under 'C:\ThingworxStorage\repository\ProjectName.Repository'.
Note: Ensure that you select appropriate Start Date, End Date and Project value.

Export Source Control Entities

Collections: All

Model Tags: Search ModelTags or + to create a

Start Date: 2016-09-22 00:00:00.000 ✖

End Date: 2016-09-22 23:30:00.000 ✖

Project: MyProject ✖

Dependents?: ☐

Repository: ProjectName.Repository ✖

Path: /

Zip File?: ☐

Close   Export

+ New Entity ▾   ⇄ Import/Export ▾

Export Source Control Entities Succeeded

c. Go to the directory 'C:\ThingworxStorage\repository\ProjectName.Repository'. You will see your repository with red icon.
    Select repository folder and do SVN commit.

ThingworxStorage ▸ repository ▸

▾   Share with ▾   New folder

Name

⊘ ProjectName.Repository
📁 SystemRepository

3. Import latest code from SVN to Thingworx.
    a. Go to directory 'C:\ThingworxStorage\repository\ProjectName.Repository' and take SVN update by right clicking on any blank area of ProjectName.Repository window.

    b. Go to ThingWorx Composer, click on Import/Export from header section and select 'Source Control Entities' under Import.

Select 'ProjectName.Repository' and click on Import All.