Converting PDMS/E3D for PlantSight

2024-03-11

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1. Introduction

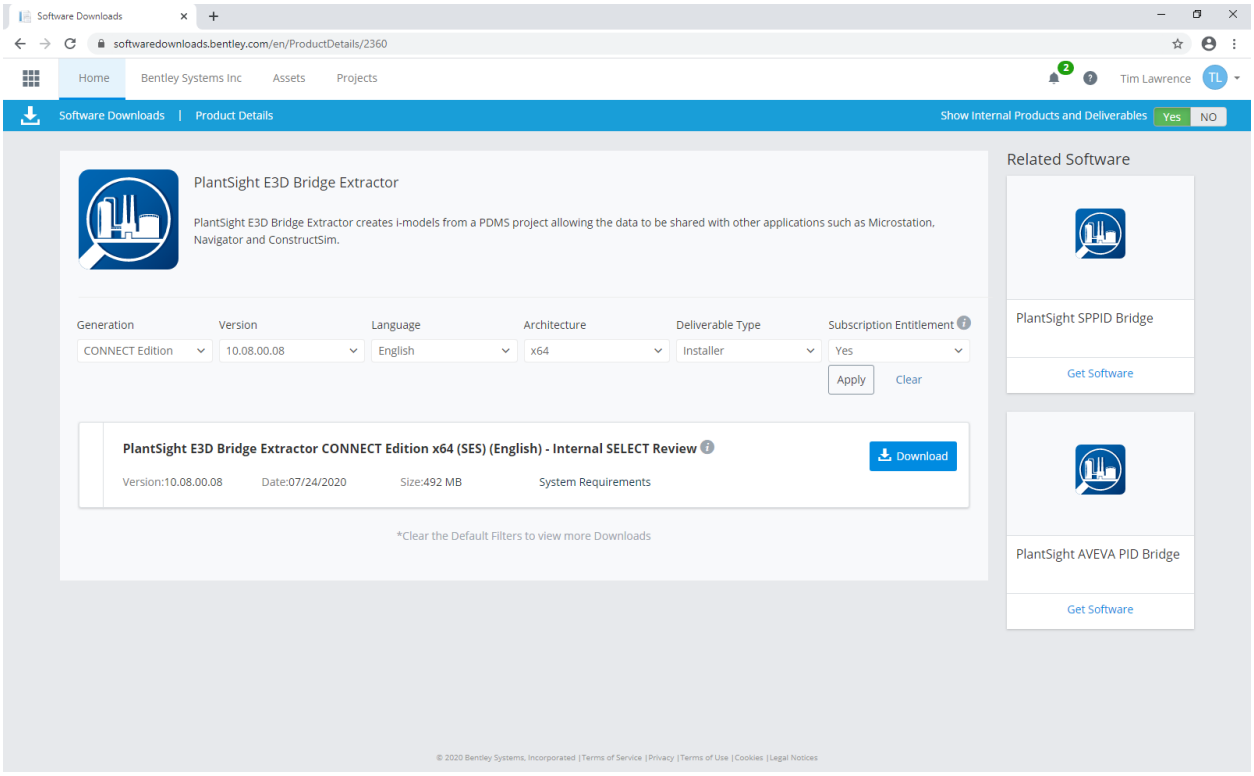
This document outlines the steps required to setup software required for using setup and use the E3D Bridge Extractor and the PlantSight Open 3D Model Bridge with PlantSight.

2. Software to download

2.1. E3D Bridge Extractor

Navigate to:

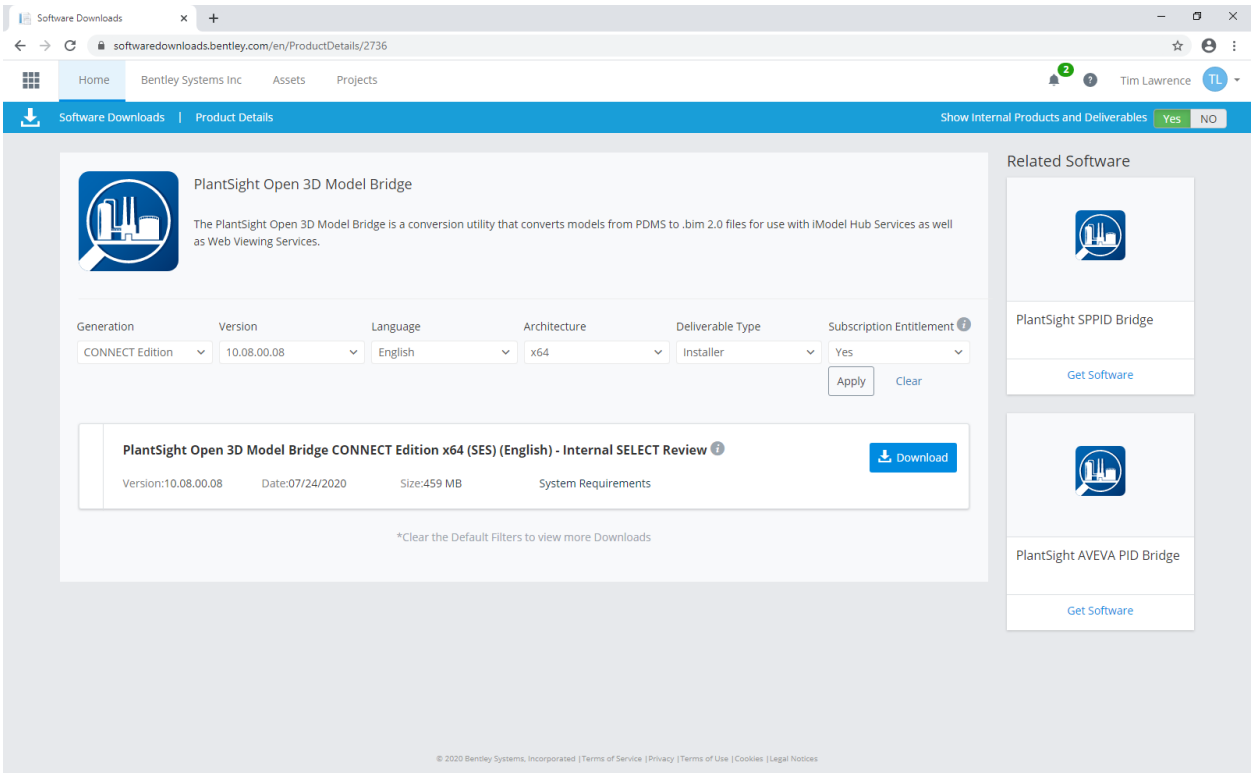
https://softwaredownloads.bentley.com/en/ProductDetails/2360



2.2. Open 3D Model Connector

Navigate to:

https://softwaredownloads.bentley.com/en/ProductDetails/2736



3. PDMS sample data

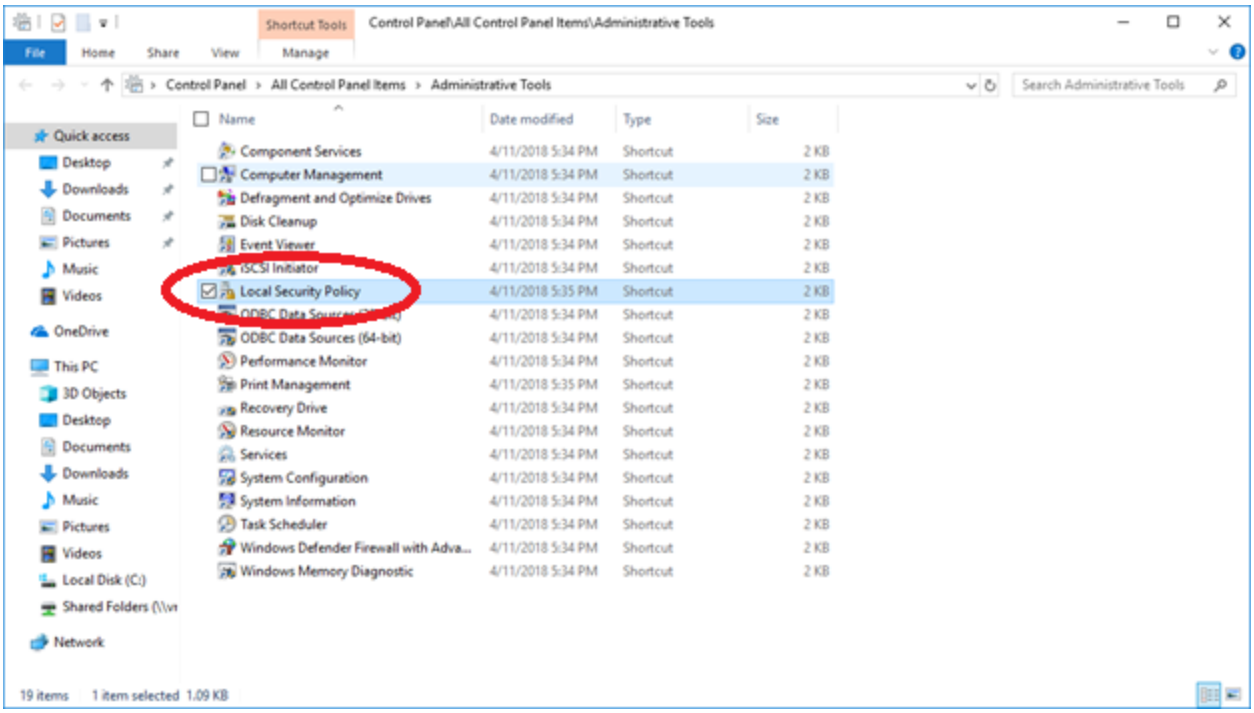
A copy of data exported from the PDMS Sample project can be found on the Teams site:

stabilizer.pdmx.xml.7z

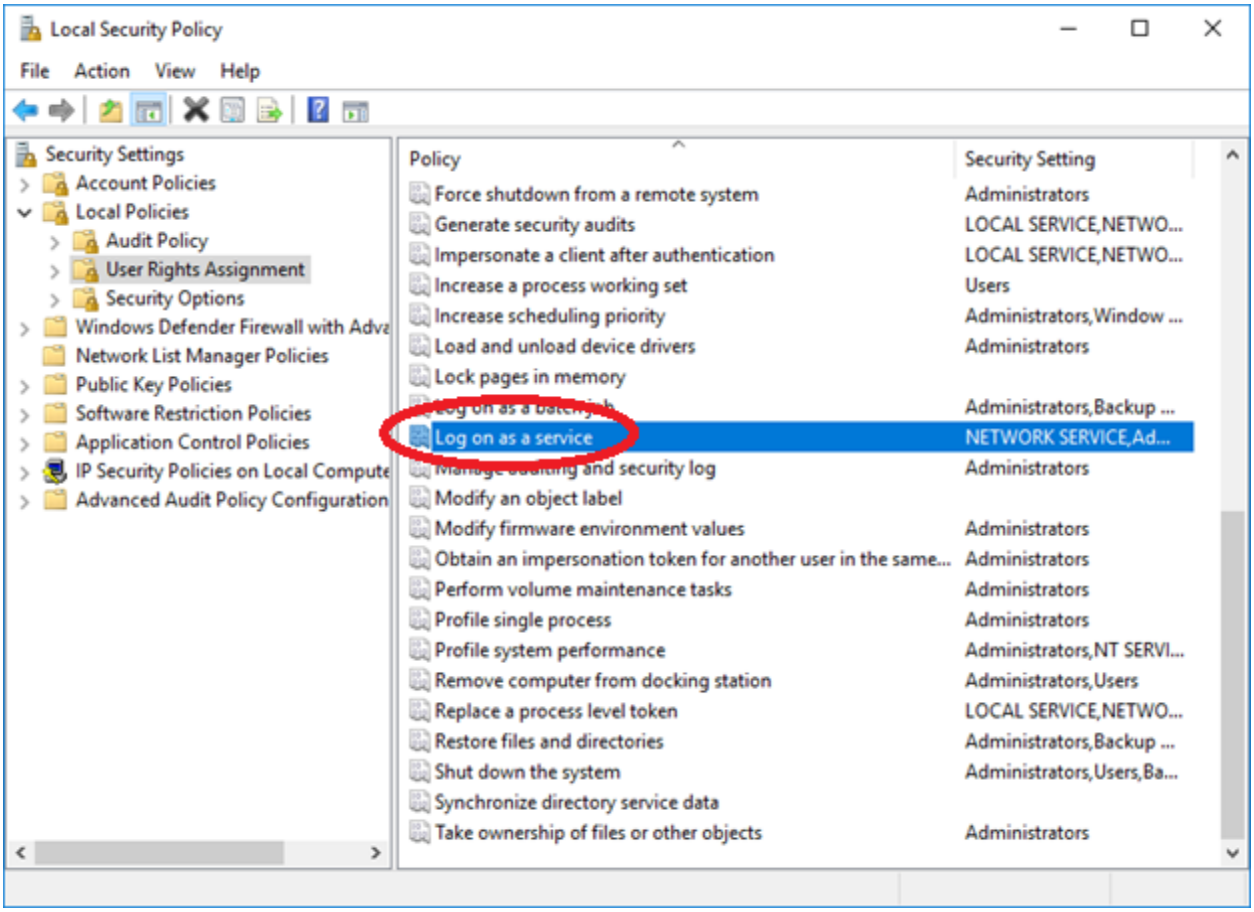
4. Set Logon as a Service

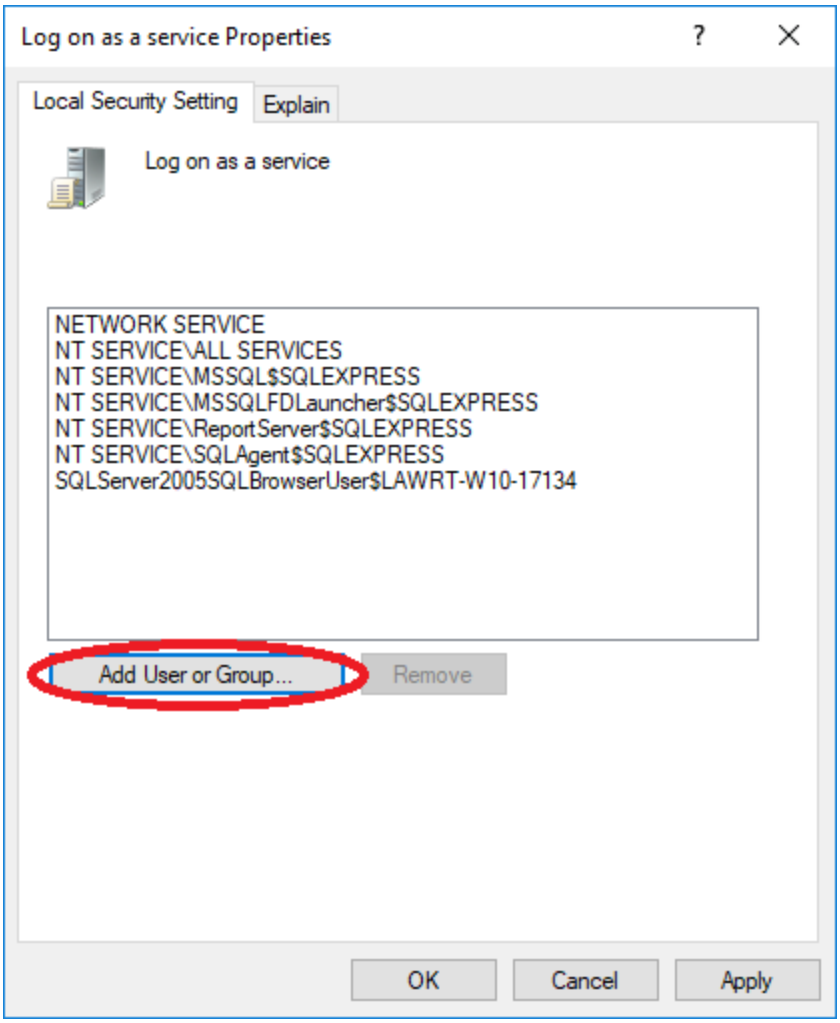
Before installing E3D Bridge Extractor, you must enable logon as a service for the current user. This is required as these programs are required to run as a service.

Open Administrative Tools, select Local Security Policy and open it

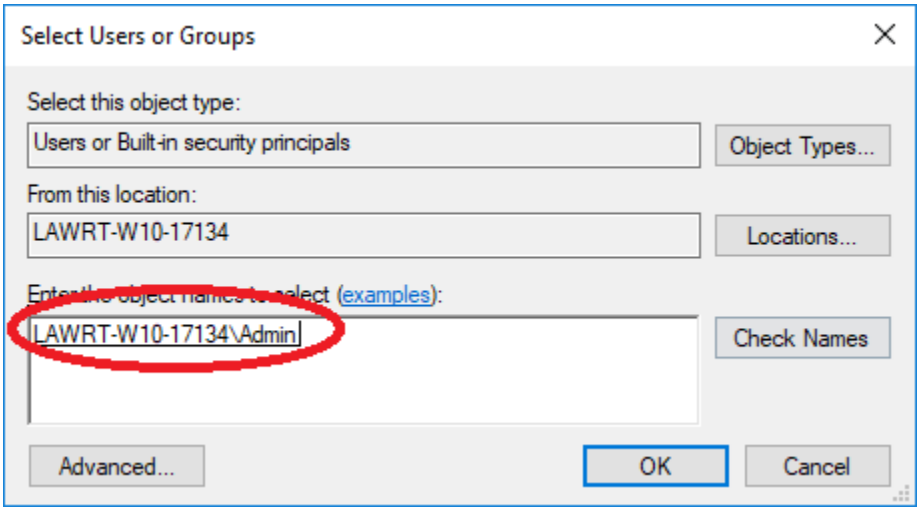


Go to Local Policies and User Rights Assignment, then select Log on as a service


Local Security Policy
File Action View Help
Security Settings
Account Policies
Local Policies
Audit Policy
User Rights Assignment
Security Options
Windows Defender Firewall with Adva
Network List Manager Policies
Public Key Policies
Software Restriction Policies
Application Control Policies
IP Security Policies on Local Compute
Advanced Audit Policy Configuration
Policy
Security Setting
Force shutdown from a remote system
Administrators
Generate security audits
LOCAL SERVICE,NETWO...
Impersonate a client after authentication
LOCAL SERVICE,NETWO...
Increase a process working set
Users
Increase scheduling priority
Administrators,Window ...
Load and unload device drivers
Administrators
Lock pages in memory
Administrators,Backup ...
Log on as a service
NETWORK SERVICE,Ad...
Administrators
Modify an object label
Modify firmware environment values
Administrators
Obtain an impersonation token for another user in the same...
Administrators
Perform volume maintenance tasks
Administrators
Profile single process
Administrators
Profile system performance
Administrators,NT SERVI...
Remove computer from docking station
Administrators,Users
Replace a process level token
LOCAL SERVICE,NETWO...
Restore files and directories
Administrators,Backup ...
Shut down the system
Administrators,Users,Ba...
Synchronize directory service data
Take ownership of files or other objects
Administrators



Add the user name and click OK



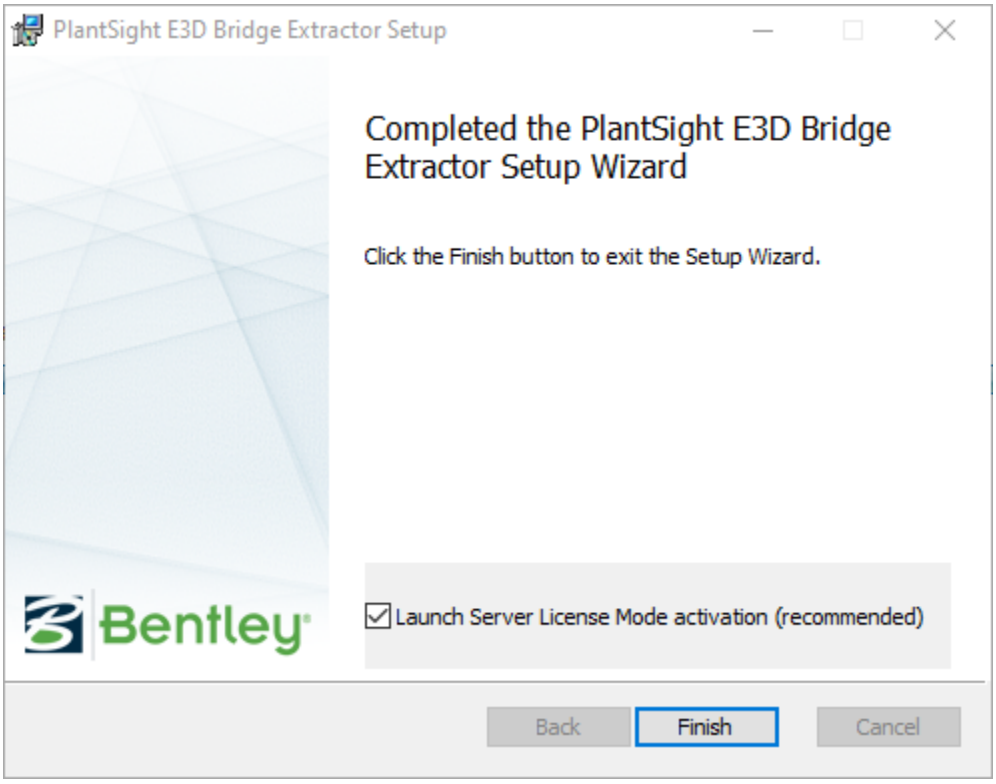
5. Software Installation and configuration

5.1. Installation of E3D Bridge Extractor

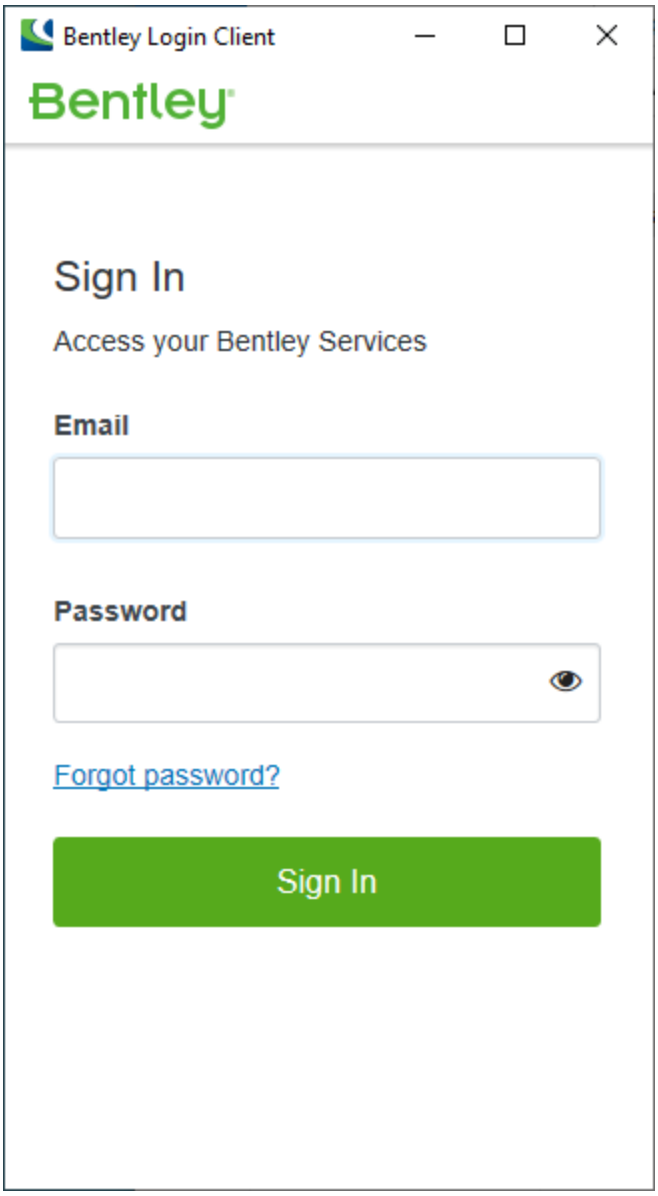
Install Setup_PlantSightE3DBridgeExtractorx64_10.xx.yy.zzz.exe.

5.1.1. Configure Licensing

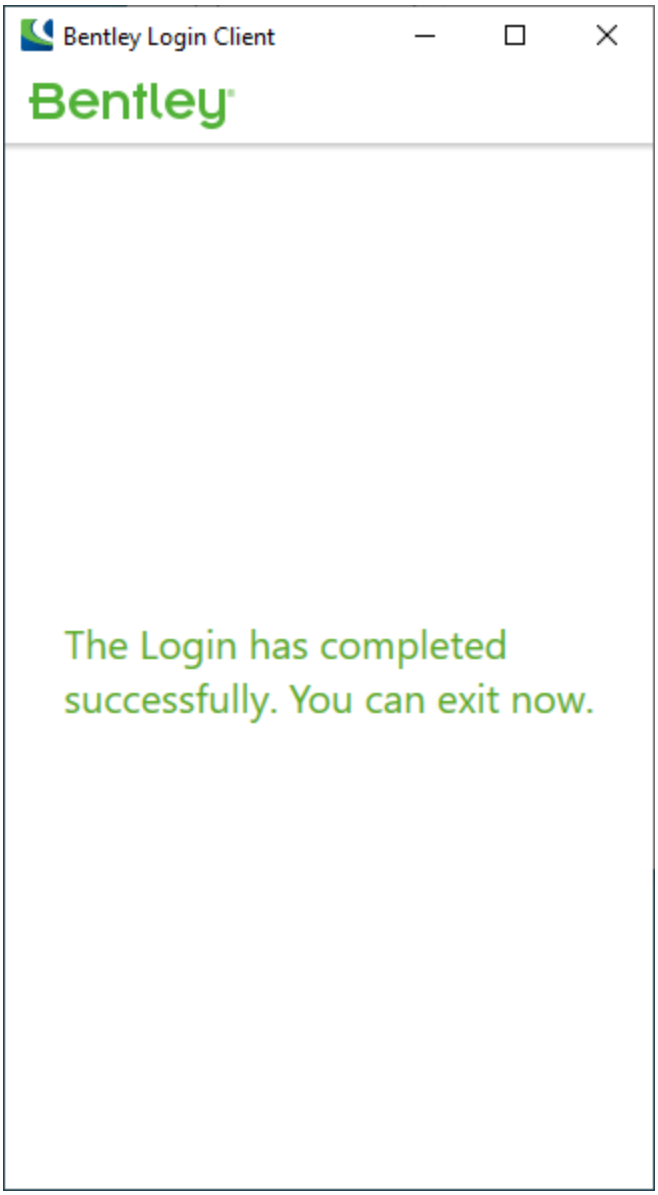
When the install finishes, you should configure the licensing. The licensing for E3D Bridge Extractor now uses SES licensing.



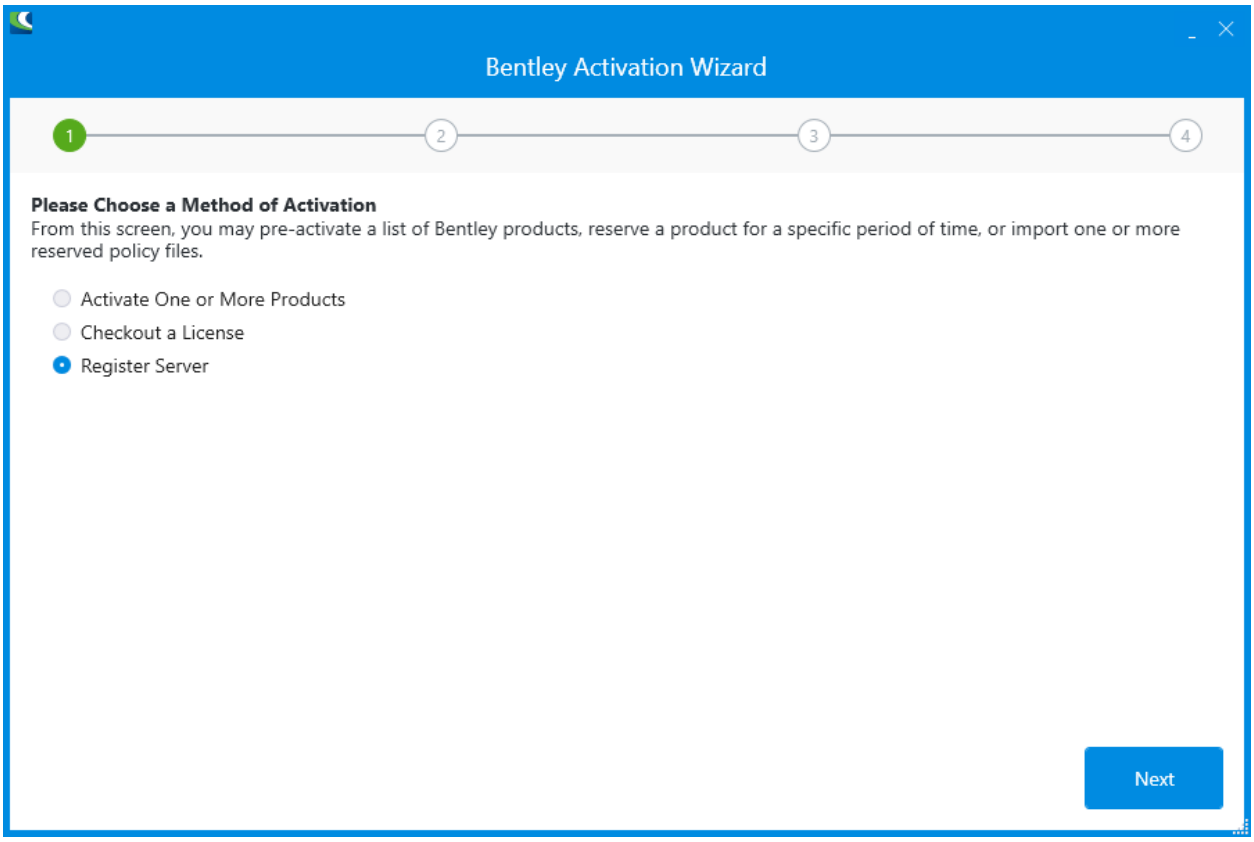
Clicking finish will bring up the Bentley Login Client. Enter the credentials you normally use for the CONNECTION Client.



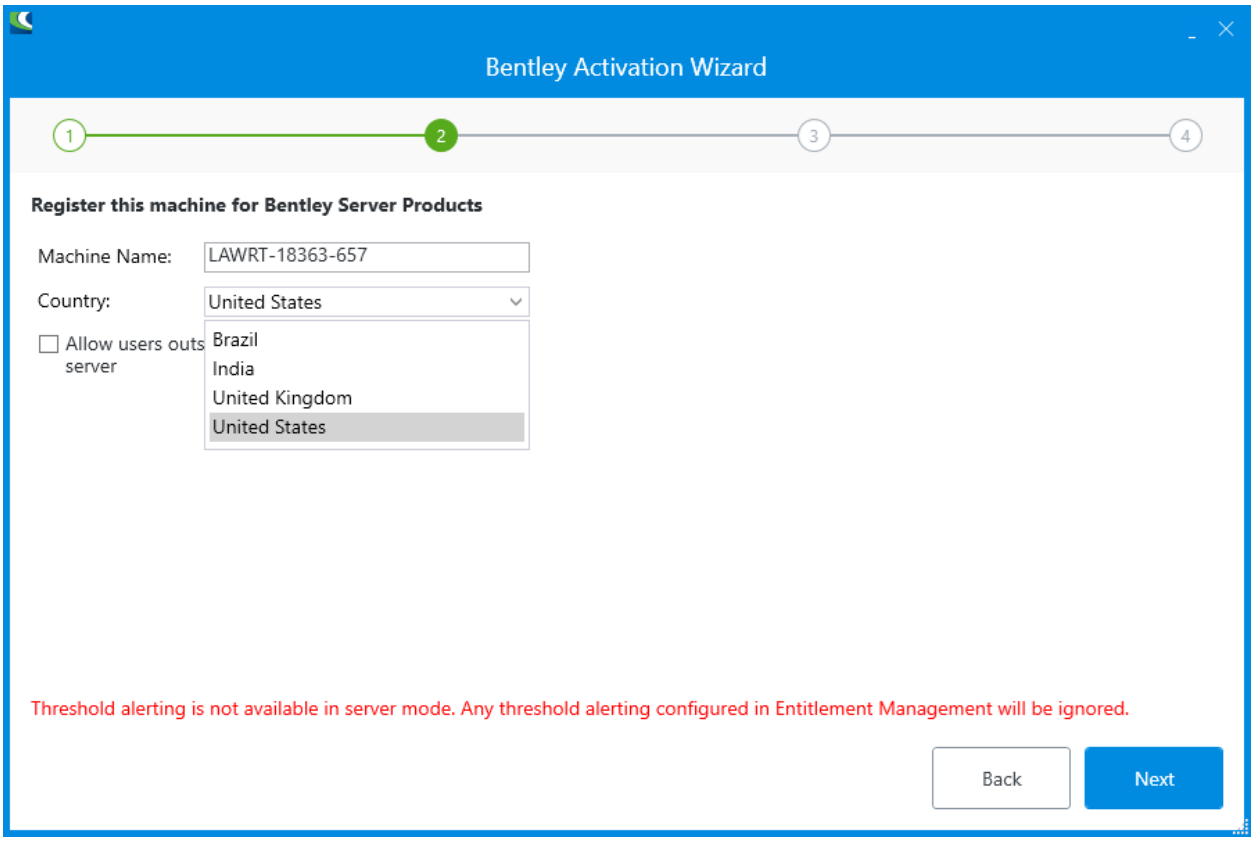
After entering your credentials, you should get this:



Closing this window will bring up the activation wizard where you will add the licensed products you will be using.

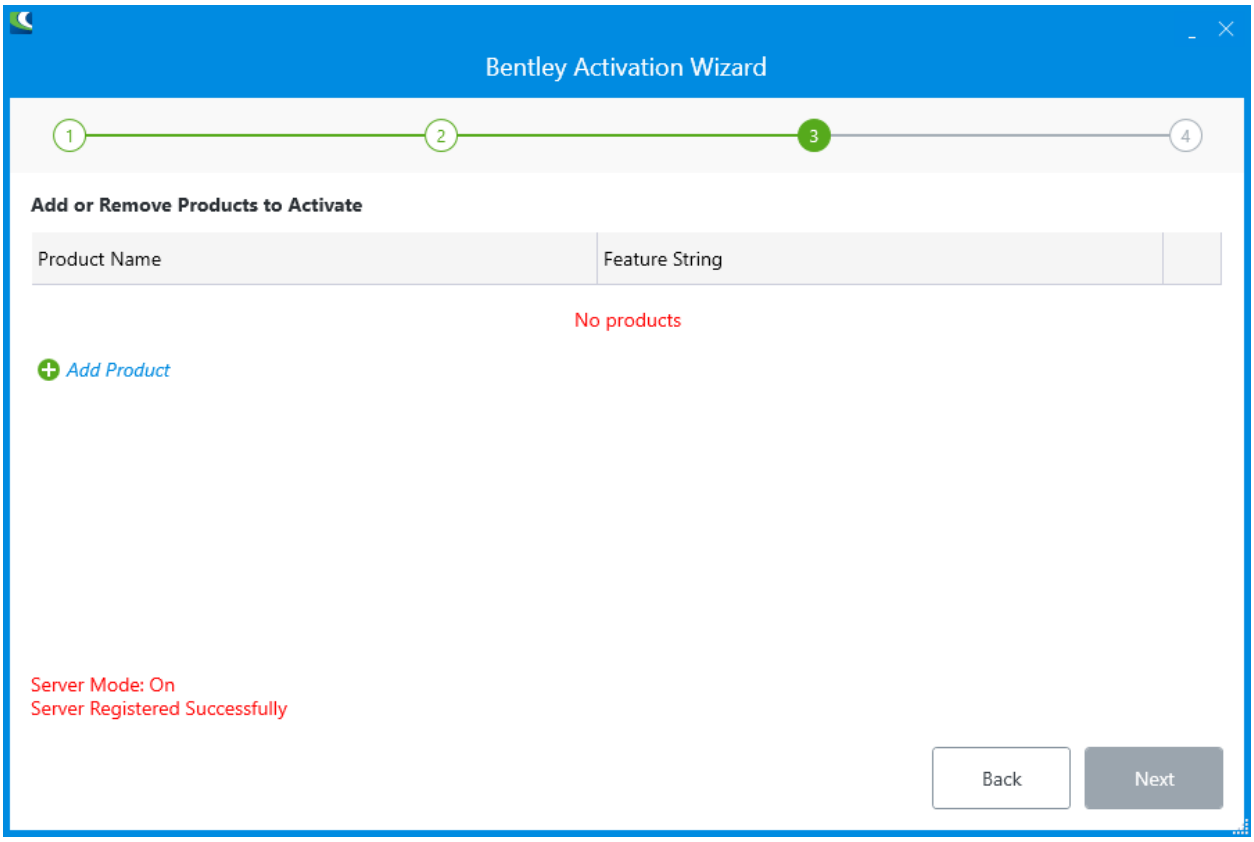


Select a country:



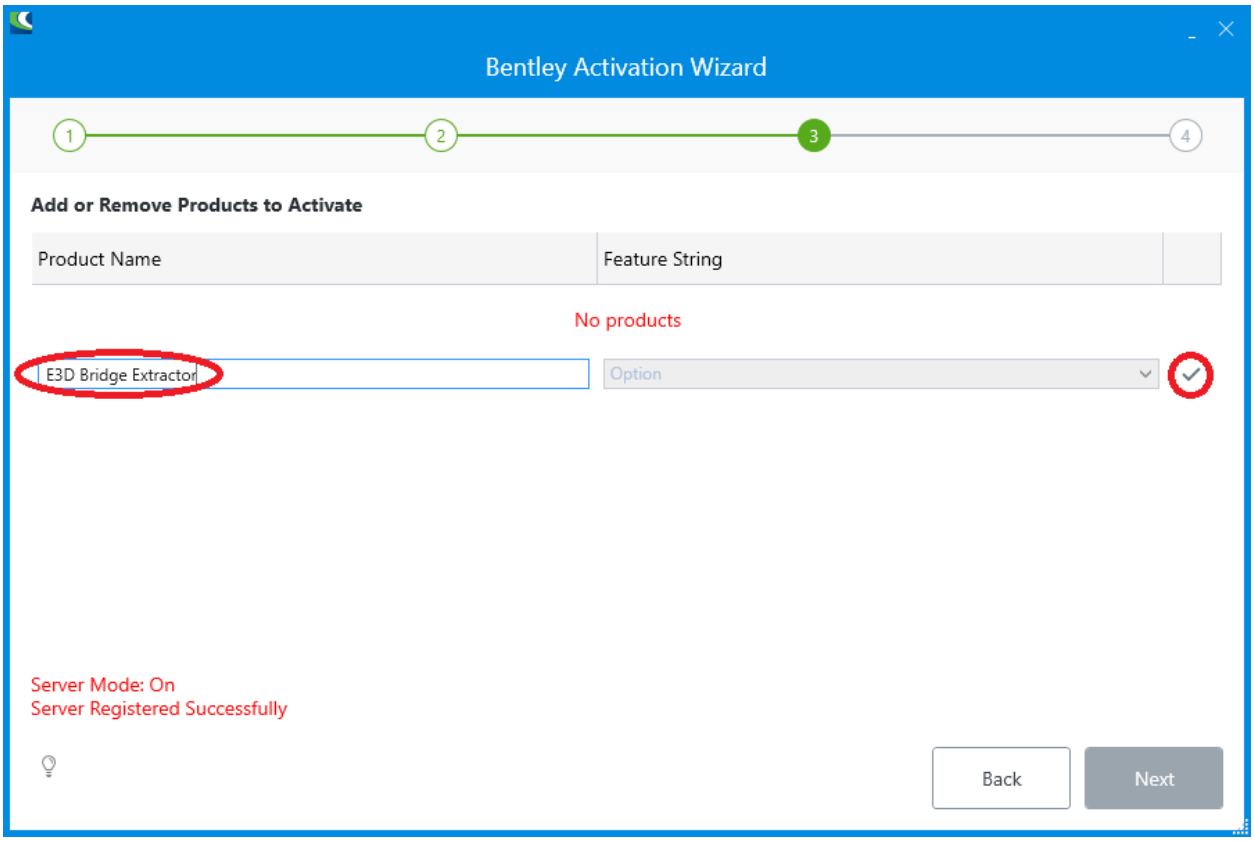
And click Next.

Now you will need to add the products that will be used. Note that when using server based licensing, all products used on this machine will have the usage against this user.

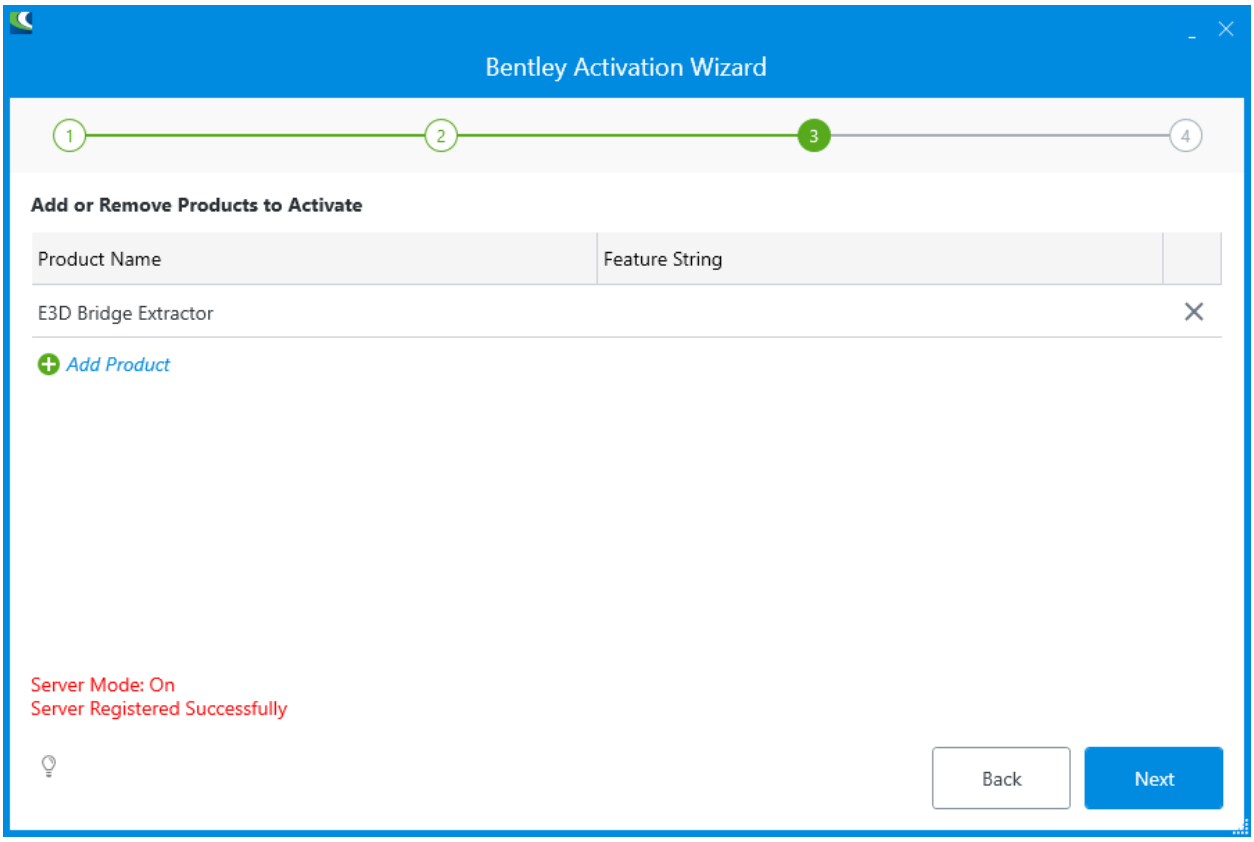


Click “+ Add Product”

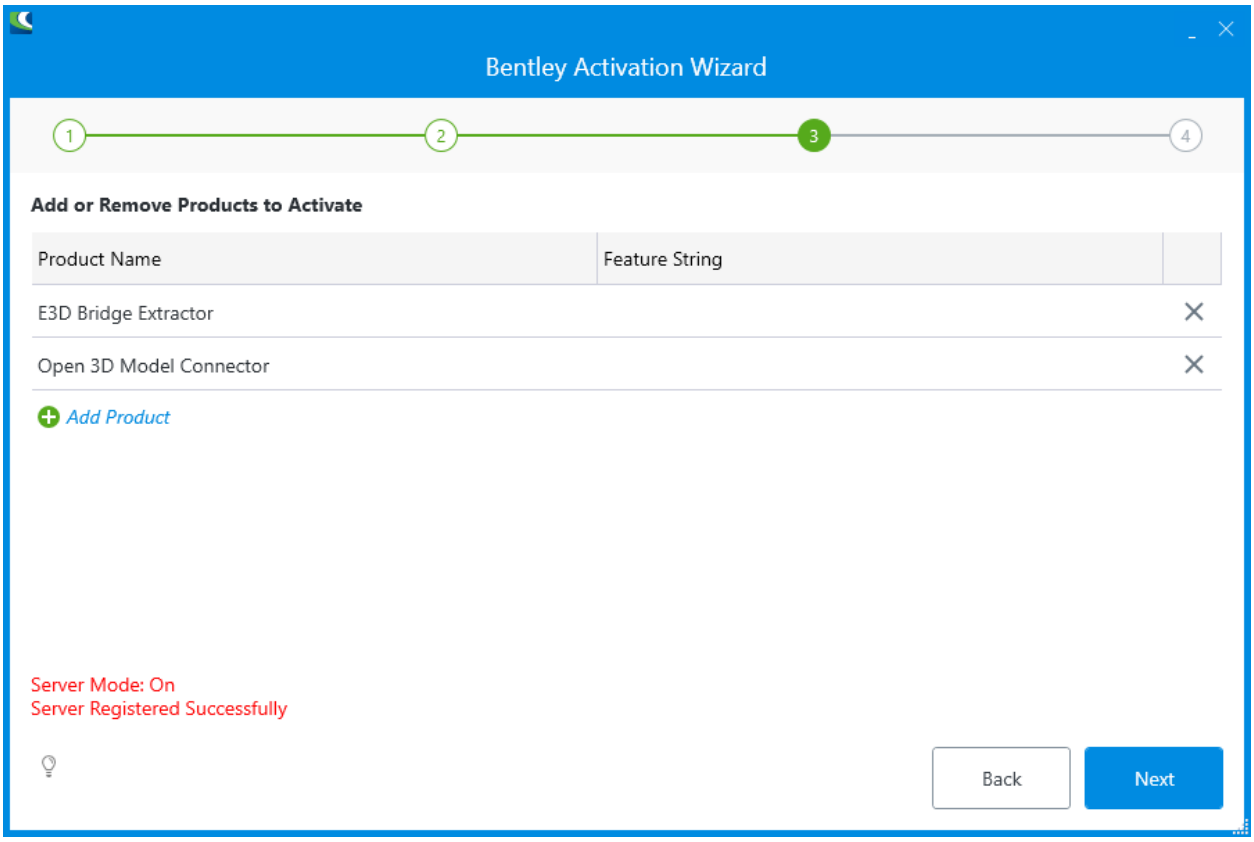
Type in “E3D Bridge Extractor”. Make sure the selection is in the text box and then click the check mark at the right.



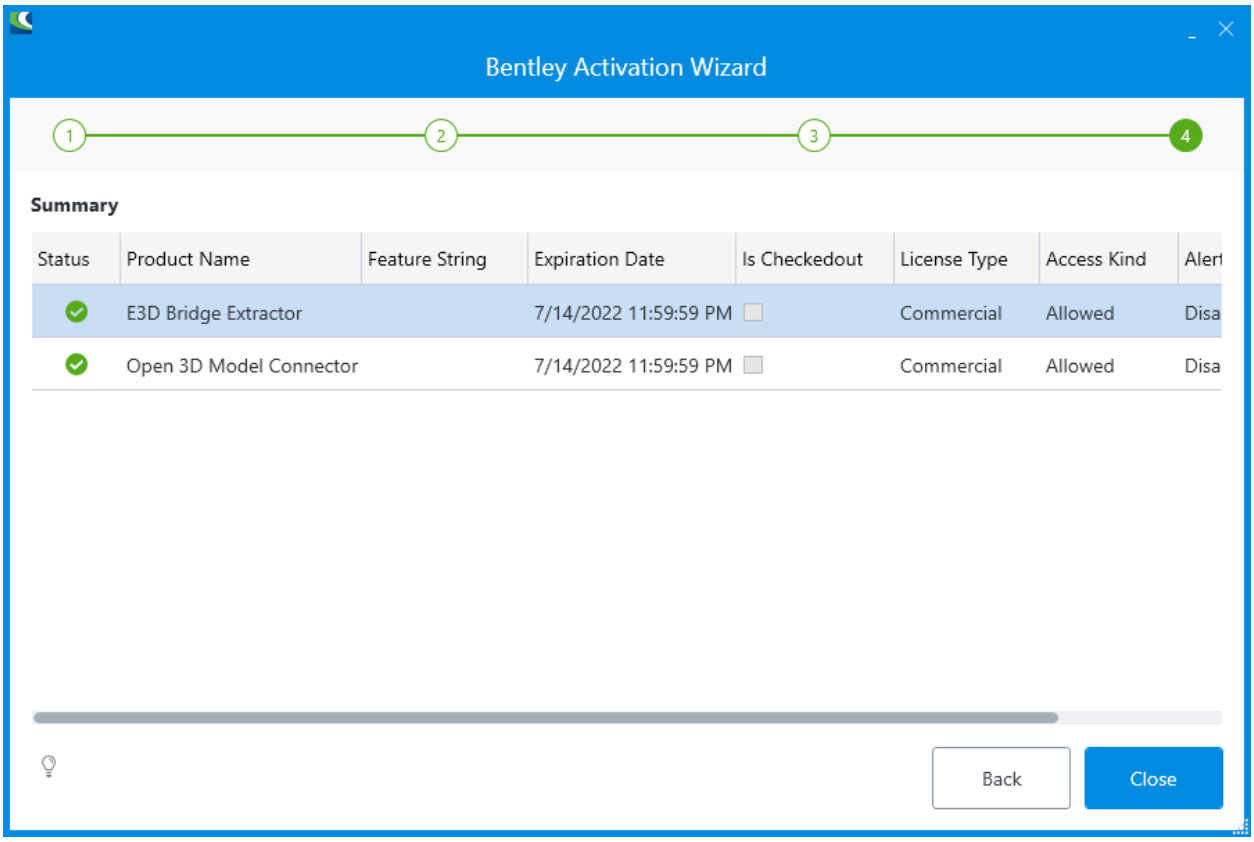
You should then have this:



Click the “+ Add Product” again and this time add “Open 3D Model Connector”. After adding this product, the wizard should look like this:



Click Next. You should see that the status for both products is labeled with a green checkmark.



Press close and the install of the PlantSight E3D Bridge Extractor should be complete.

5.2. Installation of Open 3D Model Bridge

Install Setup_PlantSightOpen3DModelBridgex64_10.xx.yy.zzz.exe.

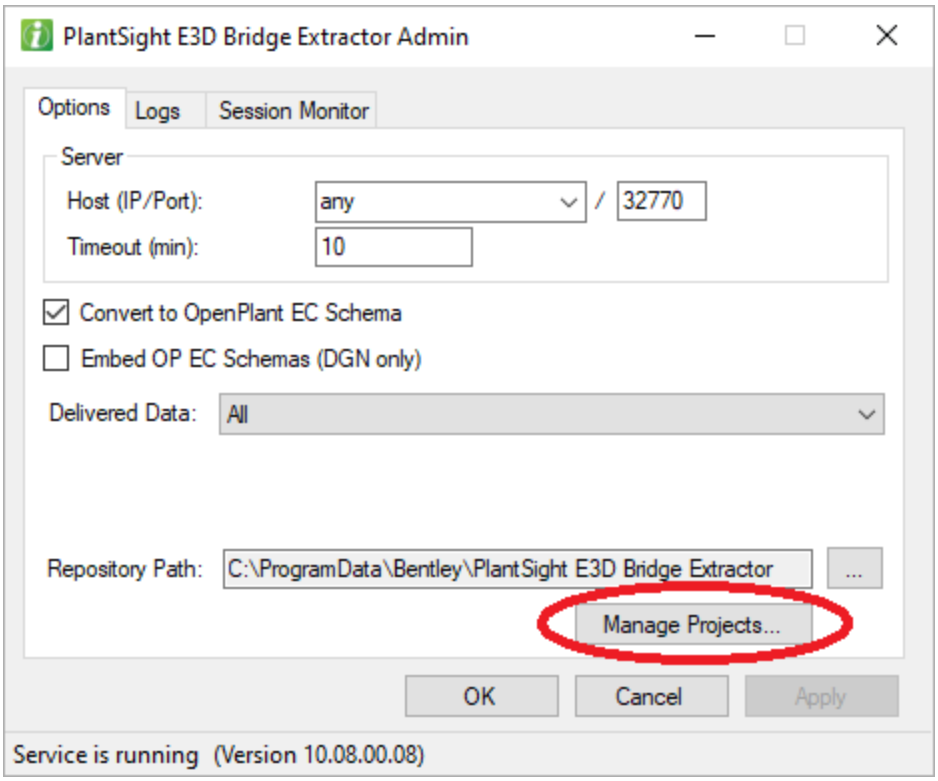
6. Configure PlantSight E3D Bridge Extractor

To configure E3D data, run “PlantSight E3D Bridge Extractor”

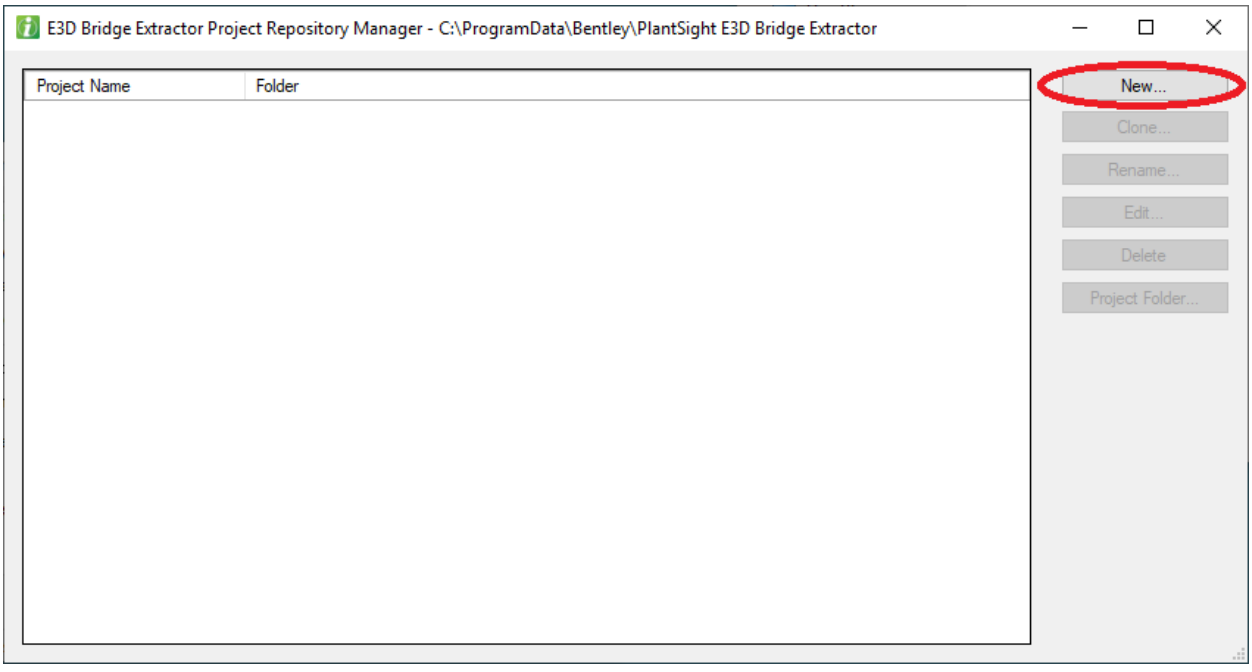
Ensure that the “Convert to OpenPlant EC Schema” checkbox is enabled.

If the Convert to OpenPlant EC Schema option is not selected, select and hit apply. You will be asked to restart the service and you should accept this.

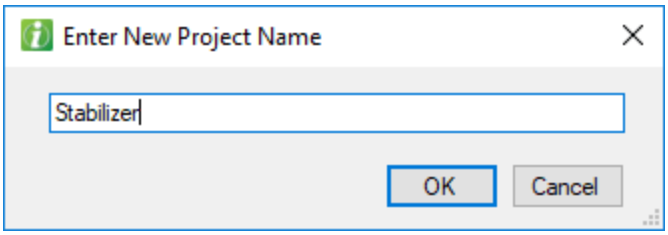
Click on “Manage Projects”



Then Click on New…

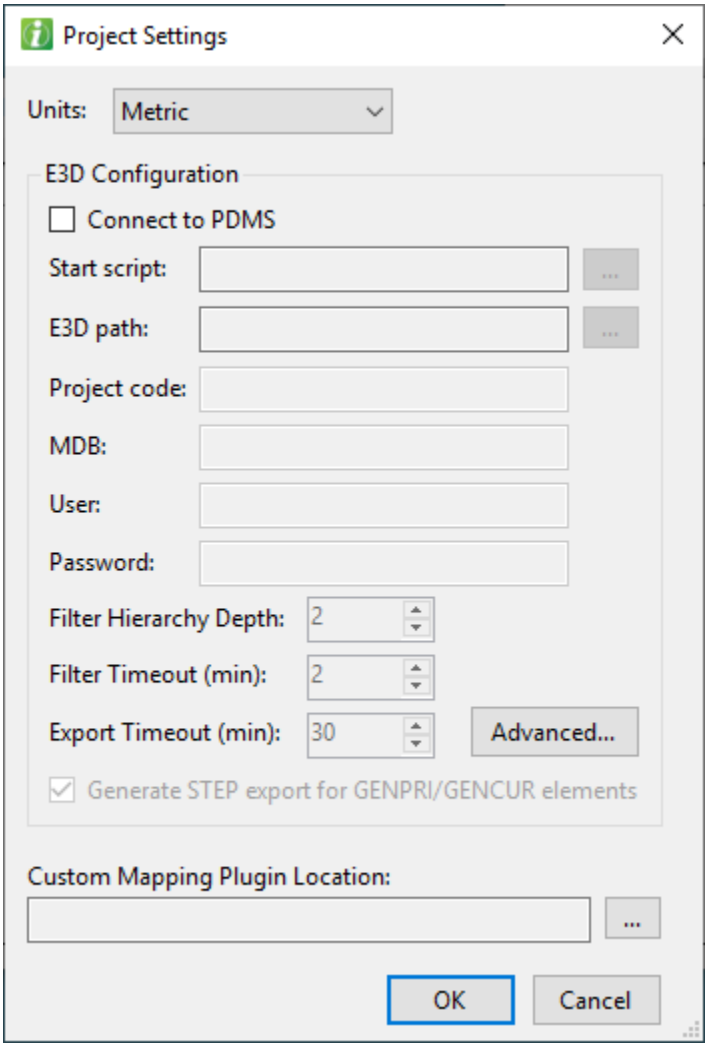


Name it “Stabilizer”



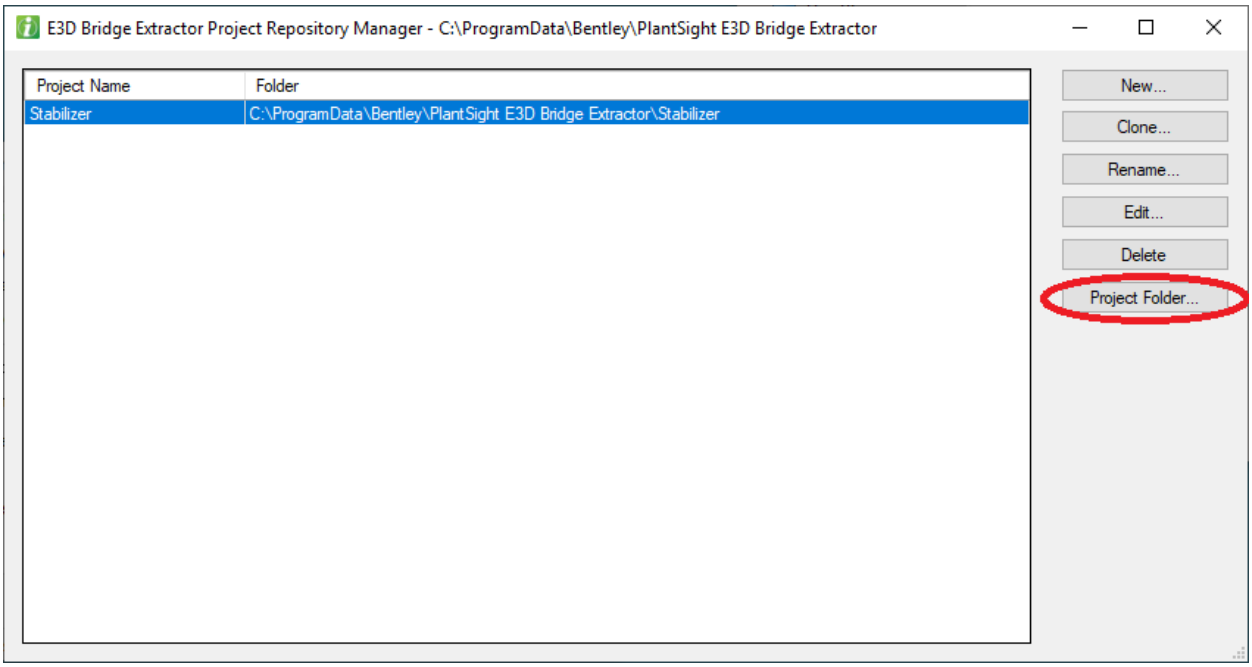
Click OK

Change the units to Metric

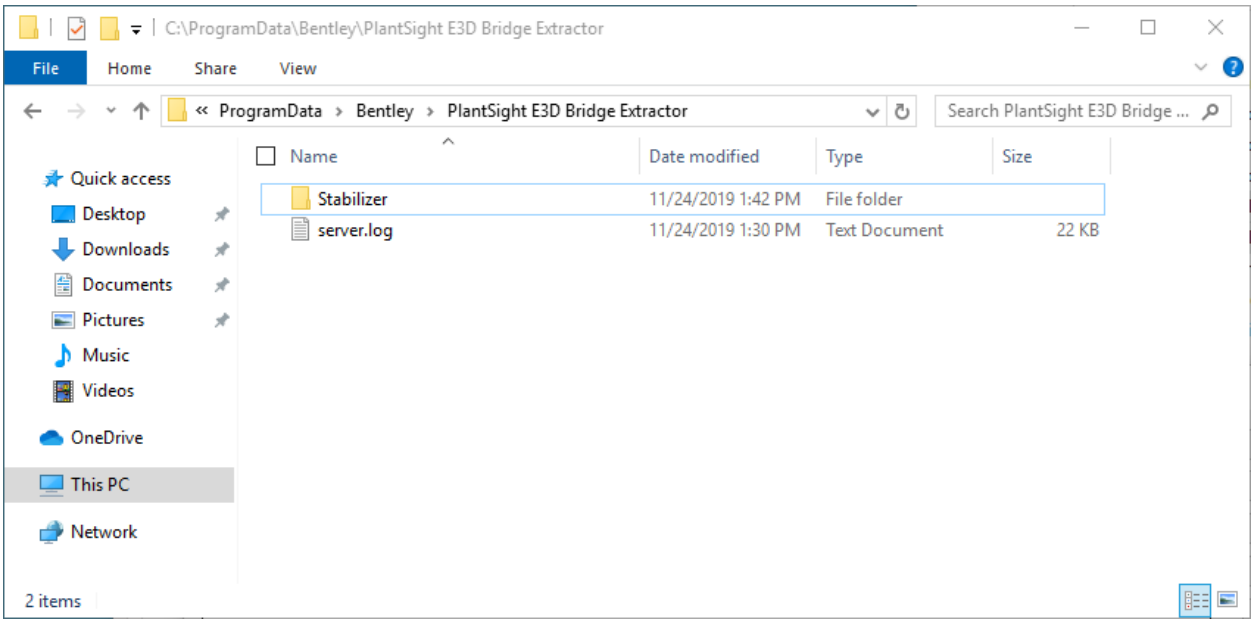


Click OK.

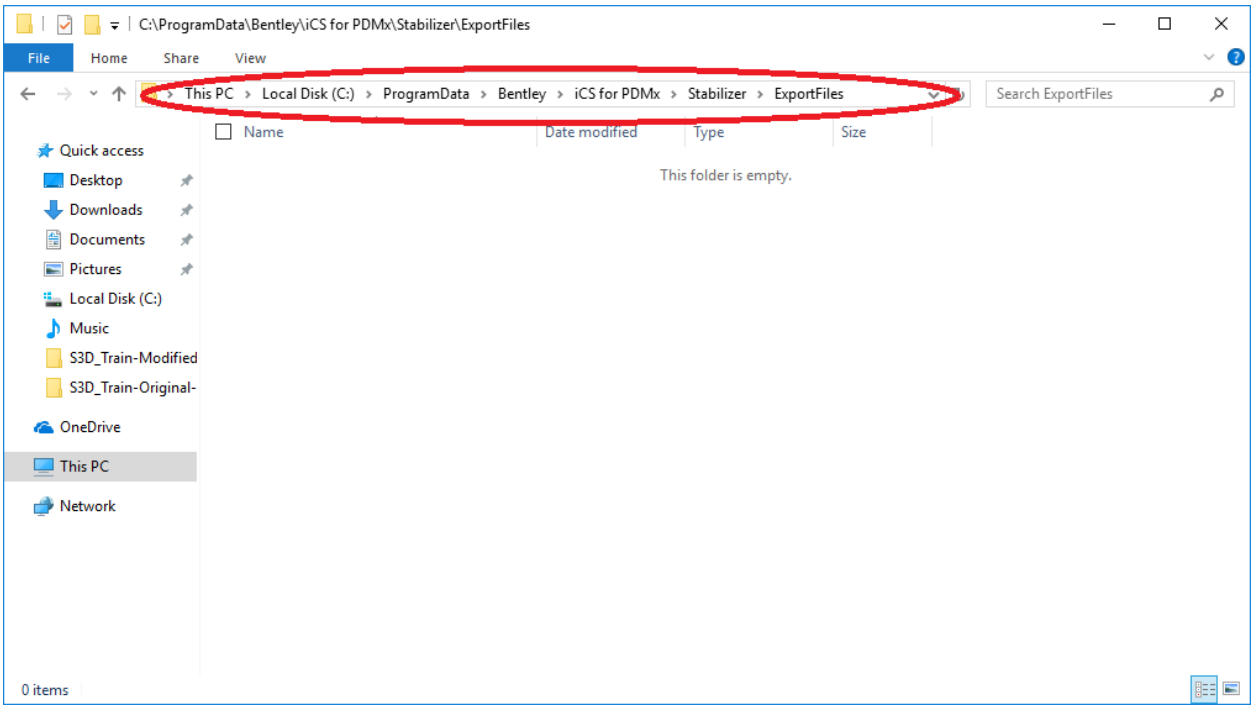
We do not need to configure this project to connect to E3D as we will use models that have already been exported from E3D.



Click Project Folder and Windows Explorer will open up to the Stabilizer project folder.

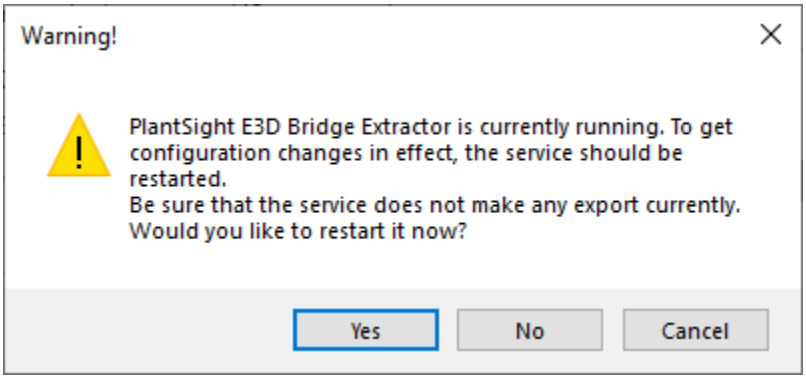


Go into the Stabilizer folder and then the Export Files folder.

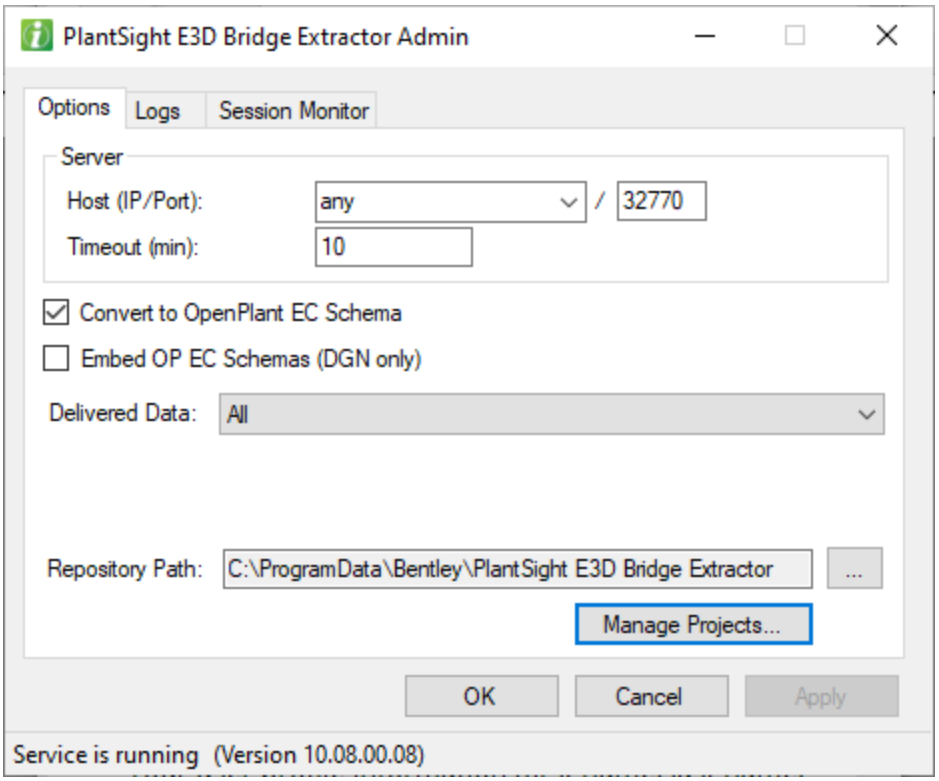


Copy stabilizer.pdmx.xml to this folder

Close the Project Repository Manager, then click OK to close the PDMx Admin. You may get this message:



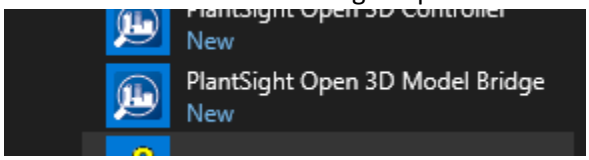
If so, click Yes.



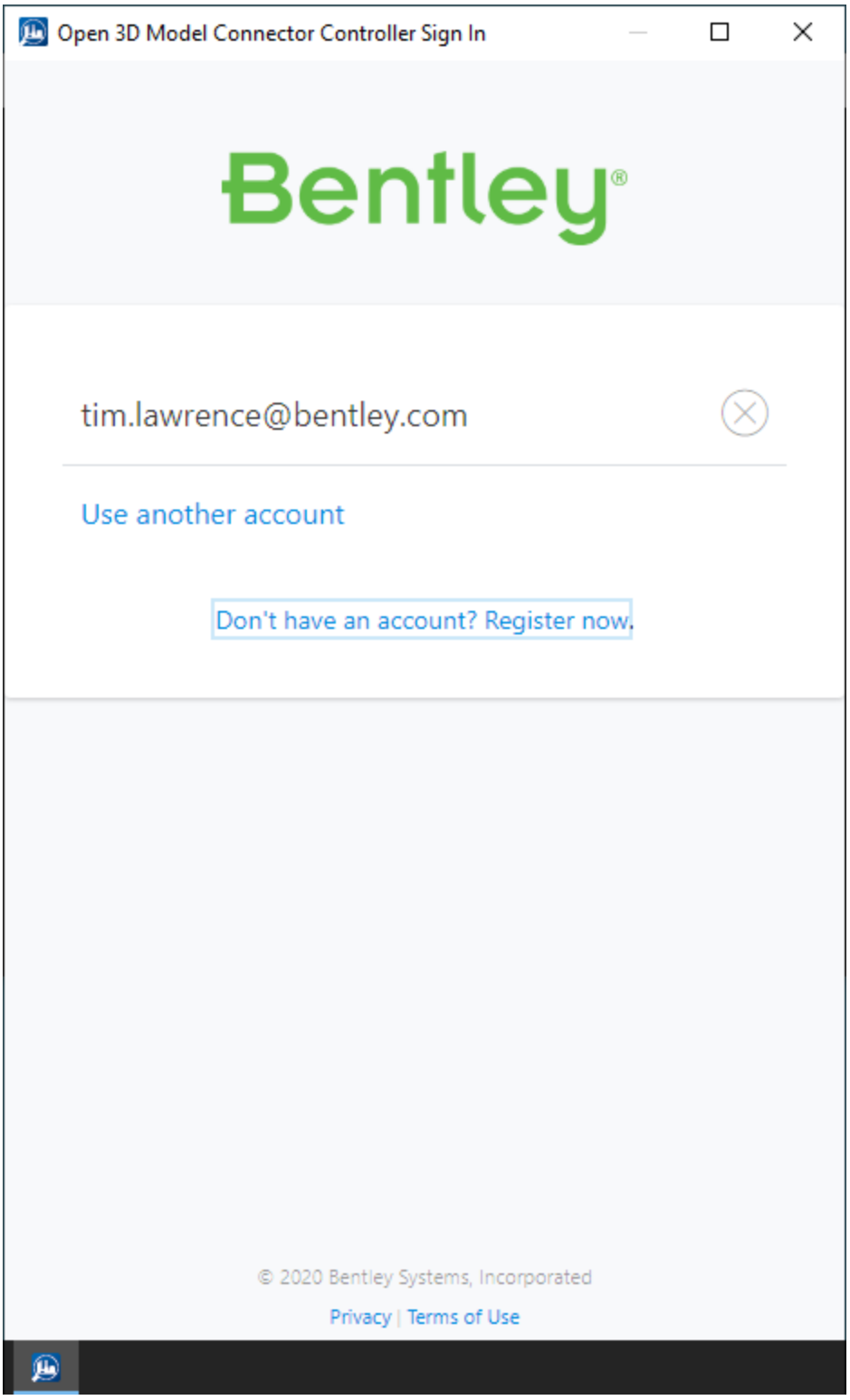
You can see that the default value is 32770.

7. Run the Open 3D Model Connector

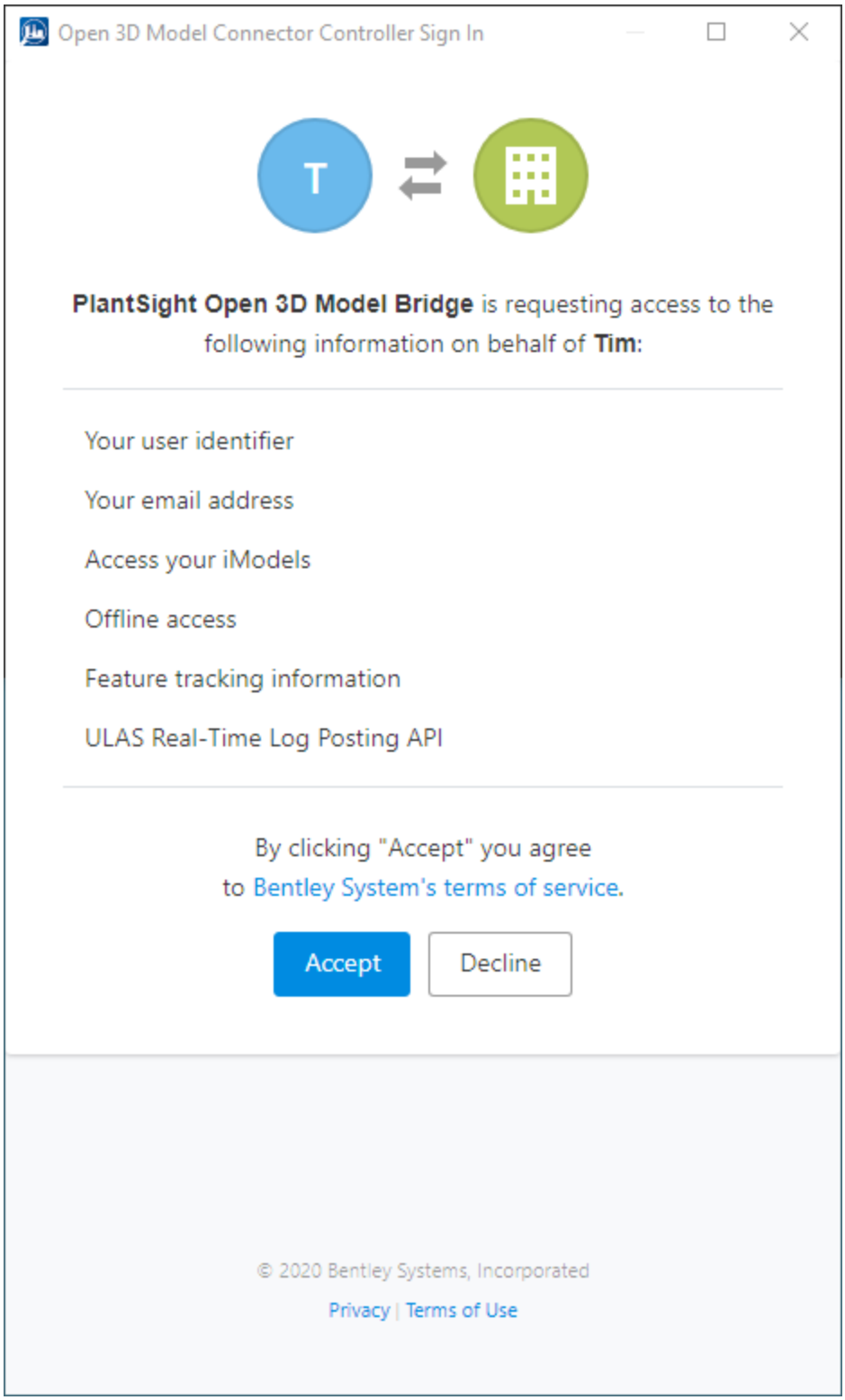
In the start menu find PlantSight Open 3D Model Bridge.



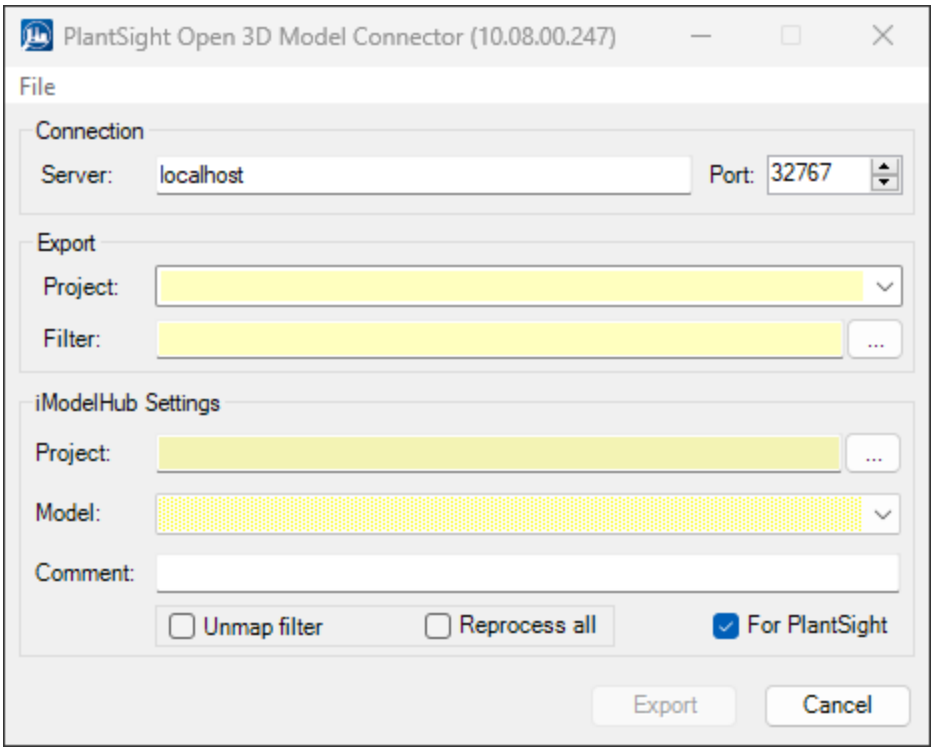
The first time you run it, you will need to authenticate:



Then accept the permission request:



Then the connector will appear:



The additional check boxes are:

Unmap filter: This is used when you want to remove a synchronized filter from the iModel. Selecting this and running the connector will result in the content from the filter to be removed from the latest changeset in the iModel.

Reprocess all: In order to utilize changes in a new connector release when your source models have not changed, select this option which will force the synchronization on all elements. Normally if the source data has not changed, a connector run will skip over the synchronization.

For PlantSight: If you are using PlantSight for this iModel and are using the aggregation capabilities, select this option in order to have the iModel Connector create the functional staging model that is required for aggregation.