

# Reusing Plant 3D Equipment Models

## AutoCAD Plant 3D 2014

It is often necessary to model an item of equipment in Plant 3D to represent a vessel or a tank or perhaps a pump or other piece of equipment to which piping is to be connected.

### Equipment Modelling

There are essentially 3 ways to model equipment, using:

- The 'Create Equipment' window to build a simple model using parametric shapes
- The 'Convert Equipment' command to convert a 3D AutoCAD model to a Plant Equipment Model
- The 'Convert Inventor Equipment' command to import an Inventor export file as a Plant Equipment Model

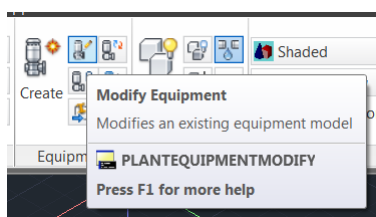
Once the geometry of the equipment model has been created, the position, type and rating of piping nozzles are specified in Plant 3D to complete the model definition.

Frequently, multiple copies of the same model may be required within a project. Or perhaps the same equipment model may be required for a subsequent project.

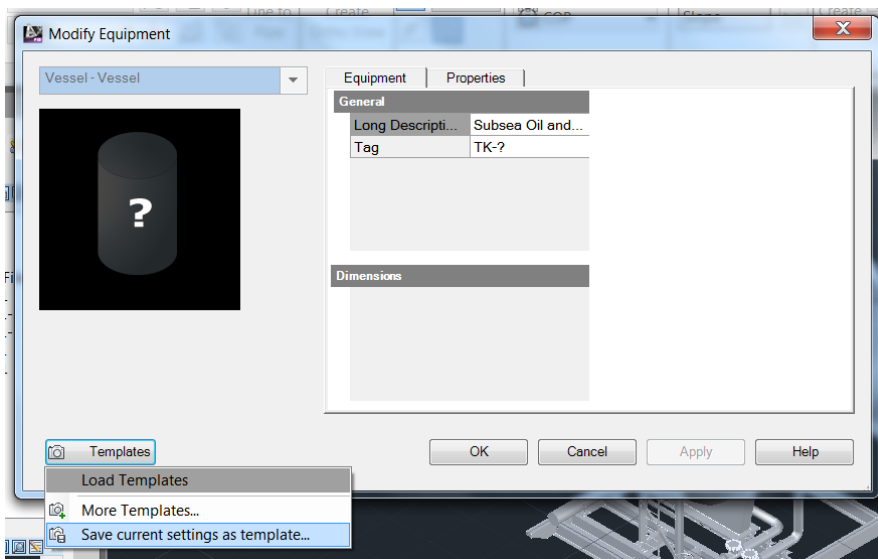
### Equipment Templates

To facilitate reuse, a plant equipment model may be saved to an Equipment Template.

Once the equipment model has been fully defined, it may be saved as a template using the 'Modify Equipment' window.



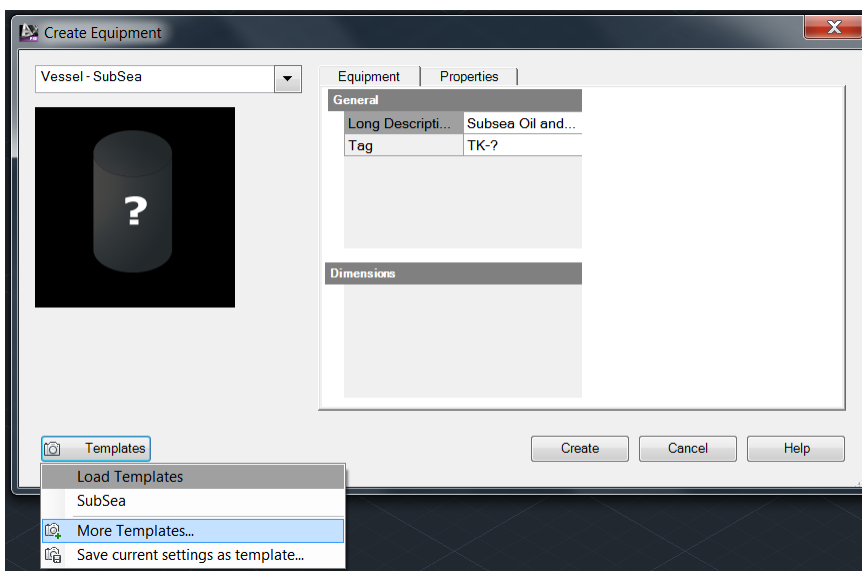
The 'Templates' button on this window provides an option to save the current settings as a template. The template is saved as a .peqs file to the Windows folder that is selected by the user.



The default location for this folder is the 'Equipment Templates' folder within the current Plant 3D project. However, the template may be saved to any folder.

To make equipment models available to other projects, a library of equipment template files may be created on a network drive that is not a part of any specific project.

To create an equipment model from a template the appropriate Equipment Template is loaded into the 'Create Equipment' Window by choosing the 'Templates' button.

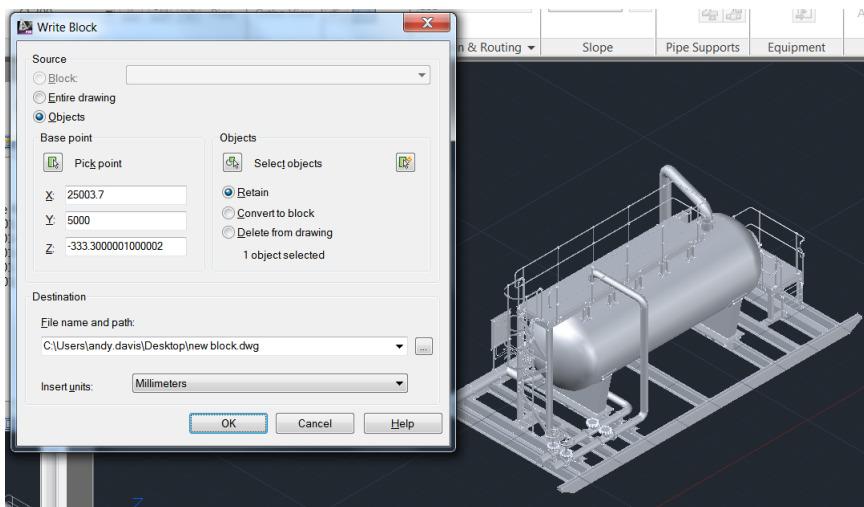


Equipment templates that are stored within the current project are listed below 'Load Templates'; the 'More Templates...' option provides a mechanism to browse for templates in any location.

## Equipment Assemblies or Blocks

An alternative way to reuse a fully defined Plant Equipment Model is to save the model into a new drawing file as a block. This mechanism may also be used to save any part of a Plant Model as an assembly for subsequent reuse within the same or another project.

The model is saved by running the AutoCAD command WBLOCK to first select and then save the Plant Equipment Model or assembly as a block into a new drawing.



Again, to make these models or assemblies available to other projects, a library of drawing files may be created on a network drive that is not a part of any specific project.

To reuse the model, the block is inserted into the current Plant drawing from the saved drawing file and exploded. An exact copy of the data that was saved within the block is then recreated within the project. However, any Tags that were saved within the block must be updated.

