

# AutoCAD Plant 3D Test Drive



# 1. Test Drive Overview and Setup

## 1.1 Introduction

This test drive is a self-paced overview to the new AutoCAD Plant 3D 2010 application. You are free to complete as many or as few of the exercises as you like based on your interests.

At the completion of each section, a link is provided to a series of online survey questions related to the exercise you just completed. These questions provide an opportunity for you to provide us with feedback related to the features you just worked with. Please take a few minutes to complete the survey questions, as they provide us with valuable information that will help us to improve our software offerings.

**Make sure to complete the remainder of the steps in this introductory section. Some setup steps are required before you can work through the remaining exercises.**

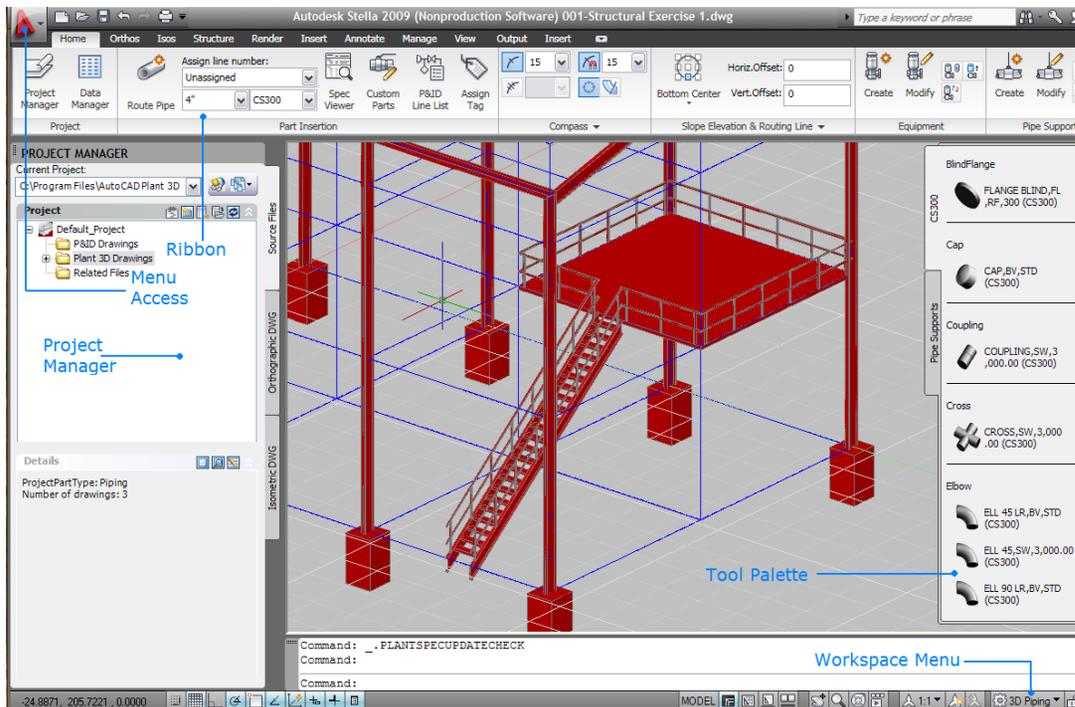
### Tips & Explanations

This section contains tips and more explanation about the task you are performing or about the objects you are creating or editing.

- **Work only on those exercises that are of interest to you**
- **Please remember to complete the surveys at the completion of each exercise section – we're here to learn from you!**

## 1.2 Application Environment

When you first launch AutoCAD Plant 3D 2010, several interface elements are loaded that facilitate the creation of piping models. Take a few moments to familiarize yourself with the application environment.



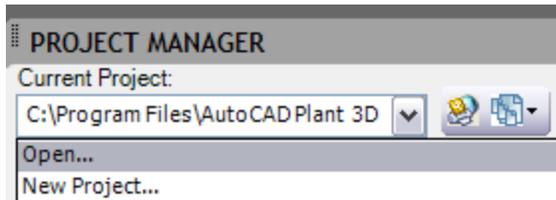
The Project Manager provides centralized access to all your project documents. Projects can include both P&ID and Plant 3D drawing files, as well as any other document types you would like associated with the project. While you are free to combine both P&ID and Plant 3D drawings in your project environment, it is important to note that Plant 3D drawings cannot contain P&ID content, and vice versa.

## Working with Projects

AutoCAD Plant 3D work flows require you to work in a project environment. Projects provide a convenient mechanism for organizing and accessing a collection of related drawing files. When a project is loaded, the Project Manager displays a list of drawing files that are part of the current project and loads a set of tool palettes with components that can be placed into project drawings.

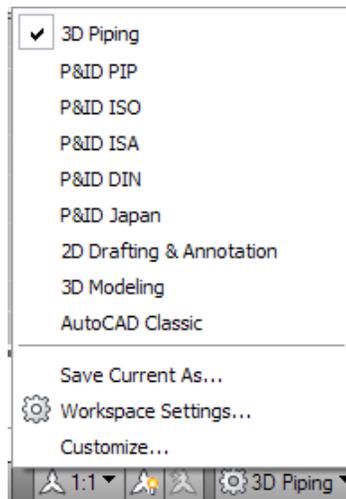
When AutoCAD Plant 3D is initially launched, a default project is loaded so you can start working with Plant 3D immediately without having to set anything up. For those interested in setting up projects, refer to the CAD manager/administrator exercises.

1. From the Current Project drop-down in the Project Manager, choose Open.



2. From the Open dialog box, navigate to the following file to open:  
*C:\AU Plant 3D Test Drive\Test Drive Project\Project.xml*

3. Verify that the current workspace is set to 3D Piping.



## 2. Structural Modeling

## 2.1 Introduction

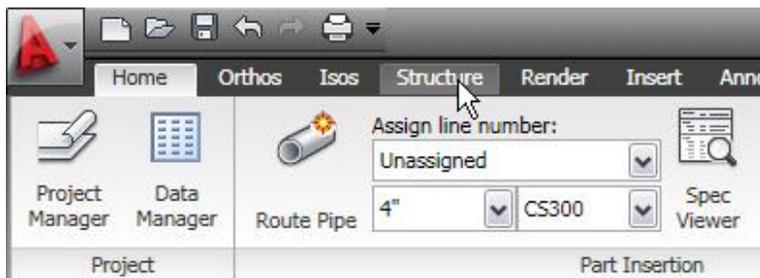
AutoCAD Plant 3D provides a basic structural modeler that allows you to construct a variety of simple structural elements, including:

- Structural members
- Footings
- Ladders
- Ladder cages
- Stairs and railings
- Plates

## 2.2 Creating a Work Grid

In this exercise, you'll create a work grid that will be used for positioning member elements in subsequent exercises.

1. From the Project Manager tree, double-click the **001 – Structural** drawing to open it.
2. At the command prompt, type LAYER to bring up the Layer dialog box, then set the current layer to **Grid**.
3. Select the **Structure** tab from the Ribbon.

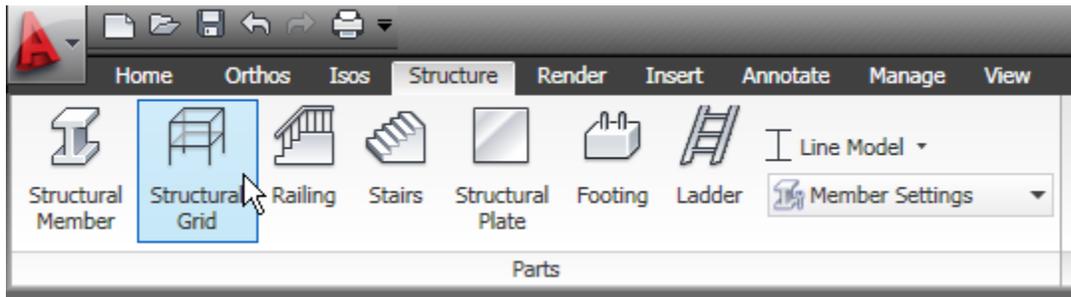


## Tips & Explanations

The structural modeling capabilities included in Plant 3D are fairly rudimentary, and not designed to take the place of a full-featured structural modeling application. The included structural capabilities are mainly intended to function as an environment for creating volumetric representations of structural elements in your Plant 3D models. If you require more robust structural capabilities, consider a dedicated structural application such as Revit Structure.



- Click the **Structural Grid** button to launch the Create Grid dialog box.

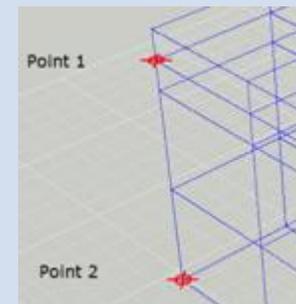


- In the Create Grid dialog box, enter the following values:
  - Grid Name: **Base1**
  - Axis Value: **0,300,600**
  - Row Value: **0,300,600,900**
  - Platform Value: **0,240,480,550,620**
  - Font Size: **10**
- In the Create Grid dialog box, click the - > buttons next to Row Value (Local Y) and Platform Name (Local Z) to update the grid label with the appropriate values you entered in the previous step.

### Tips & Explanations

The Create Grid dialog box provides an environment for creating a structural grid (working frame) that is useful when creating your structural model.

In the following structural exercises, many steps will ask you to pick two points in the drawing, with labeled callouts as depicted in the following screenshot:



These points reference end points that appear on the structural grid.