

Pro/DESKTOP Tips

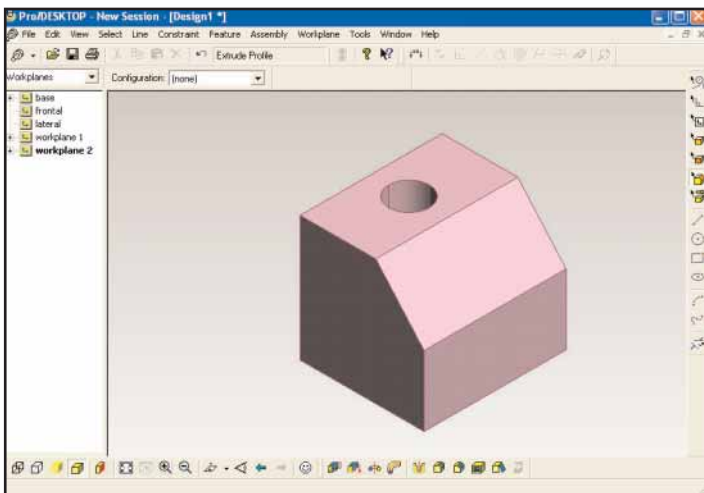


by
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Project Assembly with Pro/DESKTOP

One of the great advantages of Pro/DESKTOP as a design tool is its ability to create complete assemblies from individual design files. Here are the basic steps for creating an assembly in Pro/DESKTOP.

Creating 3 View Drawings from Pro/DESKTOP Designs.

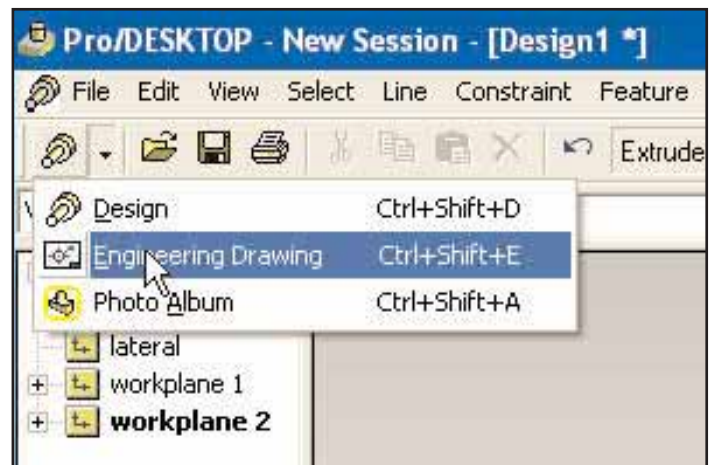


manufacture and inspection. These drawings should contain the dimensional and tolerance information required to produce the product in a manufacturing environment.

Producing an Engineering drawing in Pro/DESKTOP is very easy, and demonstrates one of the key benefits of 3D Solid Modeling. In a 2D CAD system the user has to try to visualize what their design looks like from different directions and then create the 2D geometry manually. With a simple click of the mouse, Pro/DESKTOP can automatically produce a drawing with the traditional orthographic views and add views of the project from any angle the user requires. Each and every view created is 100% accurate and dimensions can be added quickly and simply. The following few steps will demonstrate how to start this process...

Designing projects in 3D has many advantages because at any time during the design process the project may be rotated giving the designer an accurate view from all sides and angles. This offers a realistic view of how the design looks as it evolves. A team working collaboratively on a design project will be able to gain a better sense of what an evolving project will look like enabling better design decisions throughout the process.

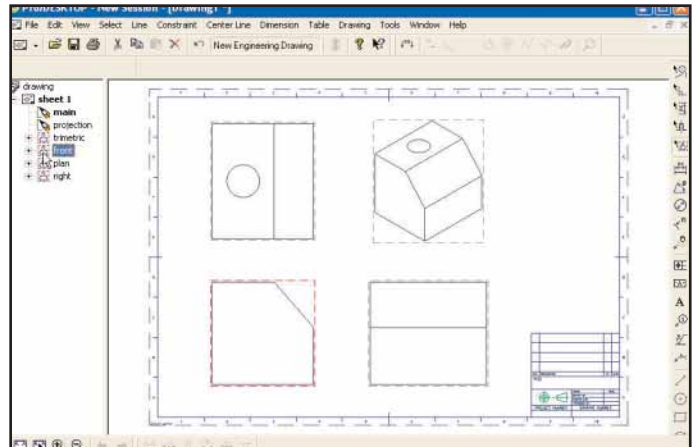
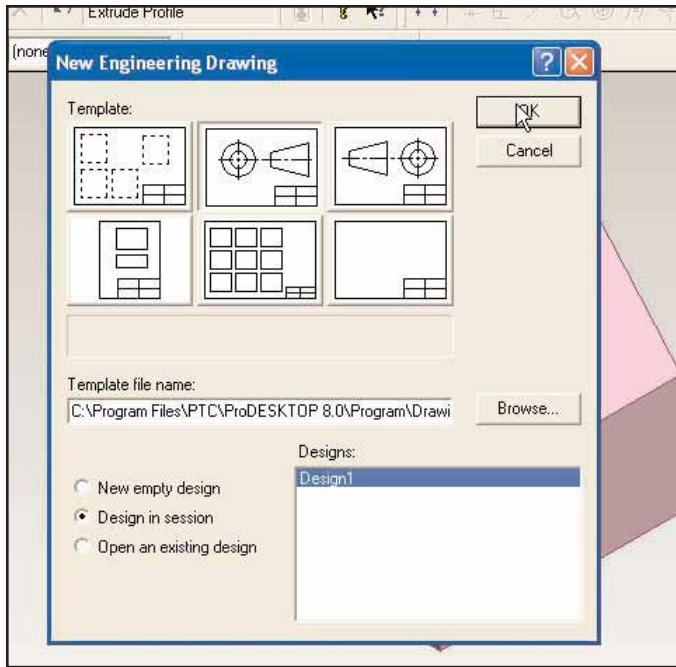
In some cases the 3D design can be produced directly via Computer Numerically Controlled machines (CNC), however nearly all manufacturing process still require an Engineering drawing to effectively communicate the design as an aid to



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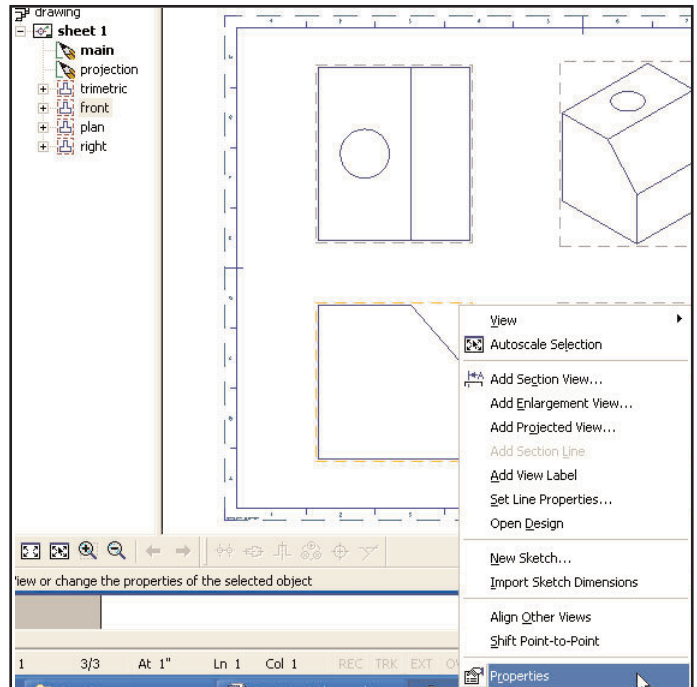
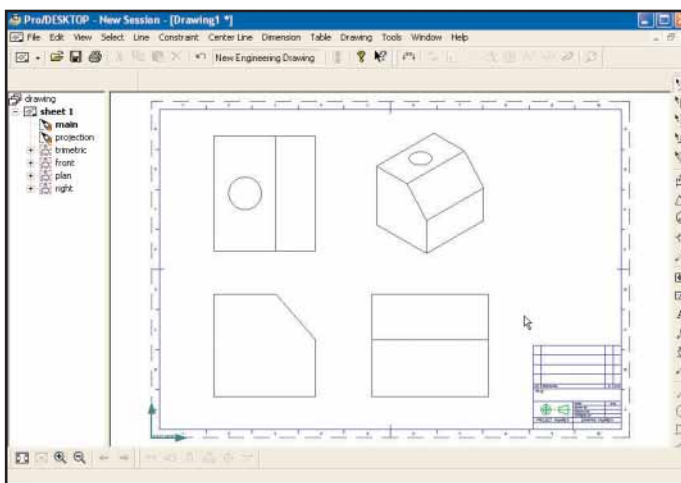
In this example, a simple block incorporating a hole and a beveled edge is used to show how differing views and hidden lines will be rendered in the 3 view drawing.

A new drawing has been created showing Front, Plan, Right and Trimetric views.



To show the hidden lines in the drawing, click on any of the views in the left hand history column. Dotted selection lines will now appear around each of the views.

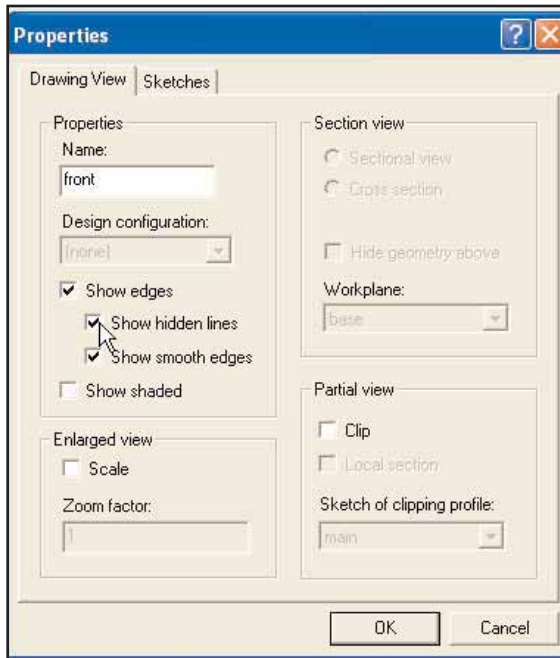
With the Design page open move the mouse to the dropdown menu in upper left hand corner of the page. Select Engineering Drawing.



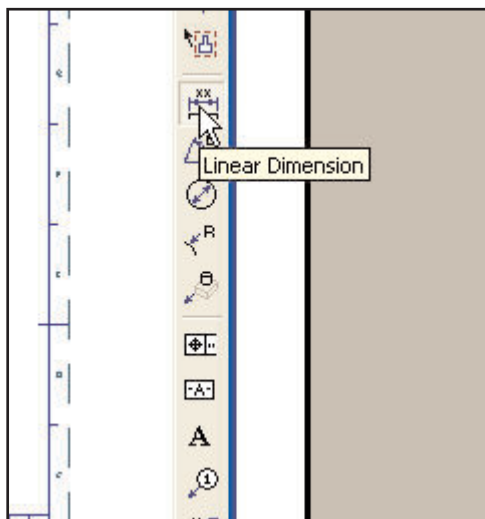
The New Engineering Drawing dialog box will appear; click OK.

Right click on a dotted red line and select Properties. You will need to do this to each of the drawings.

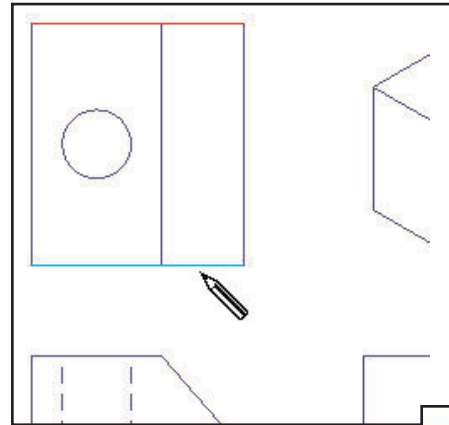
In Properties, check Show Hidden Lines. Hidden lines will now appear in that view.



To Dimension the drawing, move your mouse pointer to the tool bar at the right-hand side of the screen. Select Linear Dimension.

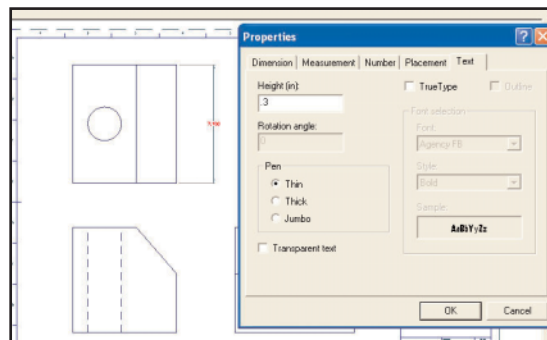
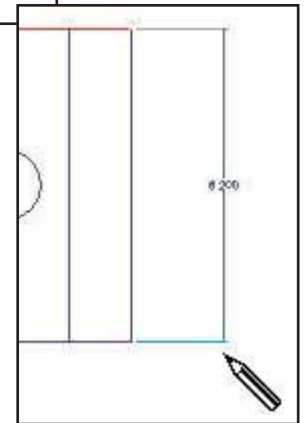


To begin dimensioning, select one side of the Drawing. It will turn red. As the mouse pointer is moved toward the other side of the object, it will turn blue. Hold down the left mouse button and pull away from the drawing—a dimension line will appear.



To enlarge the size of the text, click on the number in the dimension dialog box. A Properties box will appear, select the Text tab. A number around .3 is an easy to read text size.

One of the great features of Pro/DESKTOP is that it allows the designer to switch back and forth between Design and Drawing views. Drawings are automatically updated as modifications are made in 3D design.



And there you have it, a complete set of dimensioned drawings which can be utilized in the in the planning and construction of student projects.

