

There are several ways that you can copy features in Pro/ENGINEER. If the features are to have common distances between the original and the copy then you may want to create a pattern of the feature (see page 46). If you want to just make a single copy of a feature or group of features, then copy and paste would be a good method of accomplishing the task. You can also create a copy of features by mirroring.


A common question is when to use pattern and when to use copy. Use pattern when you want to create multiple instances of a single feature, or group. With the copy function, you can create one copy of multiple features and groups. Copy can be used when you want to recreate a feature from within a model, or from a different model entirely. Why recreate the wheel when you can just copy it from another model?

To copy a feature, simply select the feature, then hold down the CTRL+C. This is exactly like Windows.

Next, select the surface you want to place the feature on and select CTRL+V to paste. If you do not select the placement surface first, then you will need to select the **Placement** option from the dashboard (it will be highlighted in red). Select **Edit** and then pick a surface onto which you will place the sketch.

Once you have selected the surface for the sketch, you can select the **Sketch** button, and then click where you want the sketch to be placed.

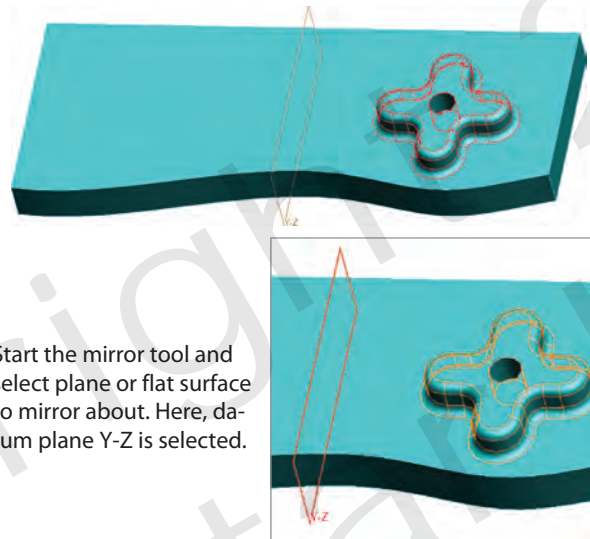
If you are copying rounds, you will be asked to select edges instead of placing a sketch. If you are copying holes, you will need to select a placement surface and will need to drag the X and Y handles to the appropriate surfaces if the placement surface is not the same as the original.

 To create a mirror copy of a feature, you can simply select the feature to mirror and then select the mirror icon.

After selecting the mirror tool, select the plane to mirror about. This can be a datum plane or any flat surface. If you want the copy to be independent of the original, select the **Options** menu from the dashboard then uncheck the box.

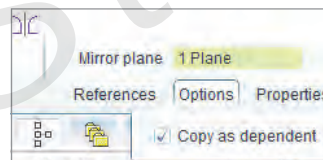
Mirror Copy:

Select feature(s) or a group. Here, a group is selected.

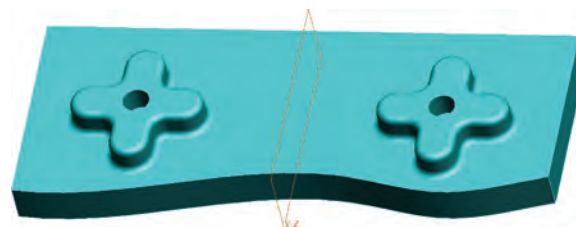


Start the mirror tool and select plane or flat surface to mirror about. Here, datum plane Y-Z is selected.

Set the Option to be dependent or independent.

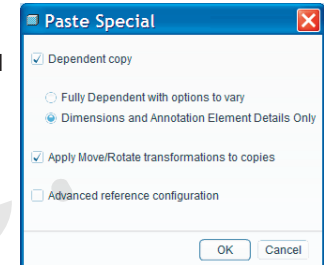


Finish the feature out. The result is below.



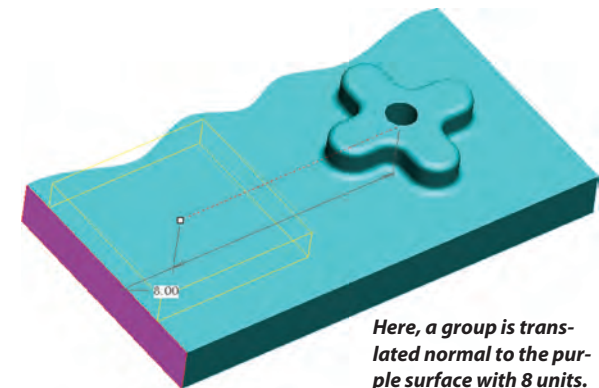
Paste Special gives you more options and more control of the copy. It gives you the option to make copies dependent or independent of the original and allows translation (move) and rotation of copies.

Start off by copying a feature(s) just like normal. Instead of selecting CTRL+ V to paste, select the Paste Special option from the EDIT pull down menu or the icon at the top of the screen.



This brings up more control options. On this screen you can make copies dependent on the original, move or rotate the copy, or select new references for the copy.

From the dashboard, you can push, pull or rotate the copy. The first two icons control whether we are moving the copy, or rotating the copy. You will be prompted to select a plane to which the copy will move perpendicular, or an edge to which the copy will move parallel. Enter the value of rotation or translation.



Here, a group is translated normal to the purple surface with 8 units.