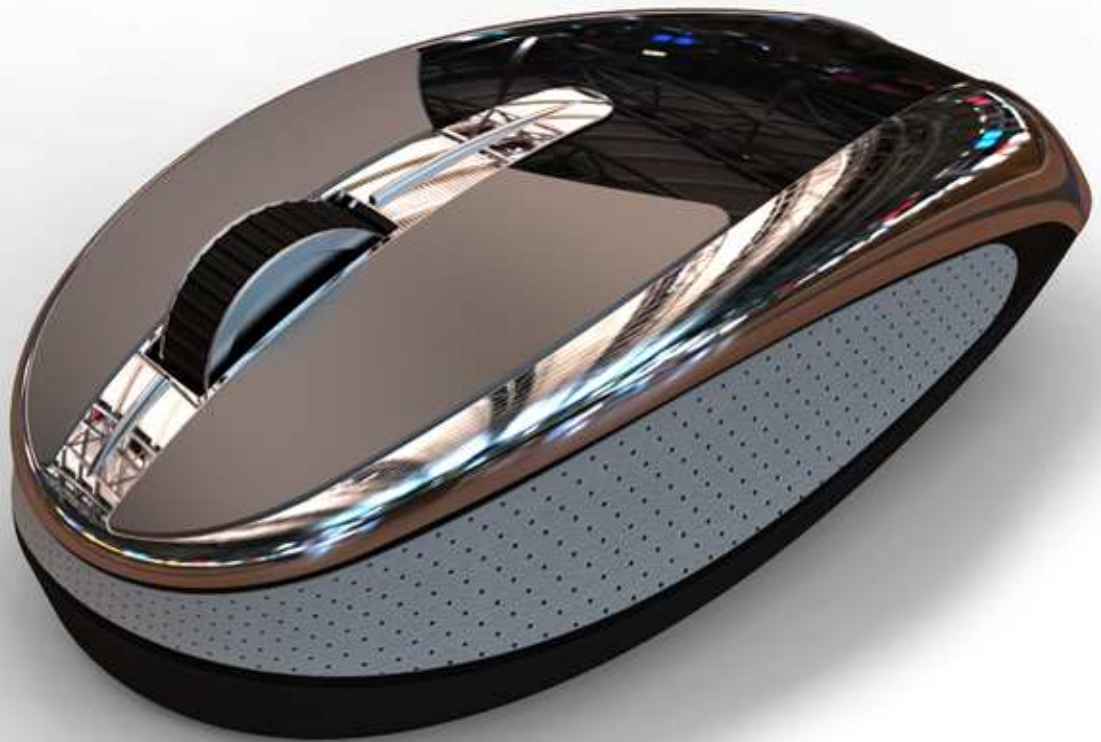




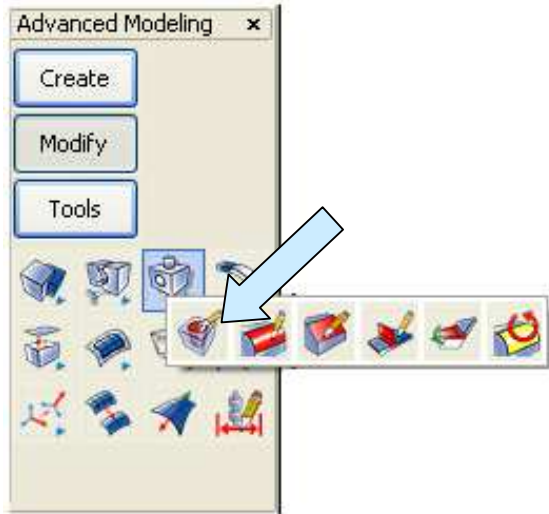
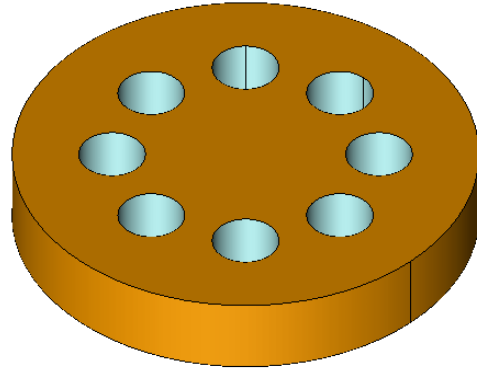
Tips And Tricks



Doctor Walt's Tips and Tricks # 10

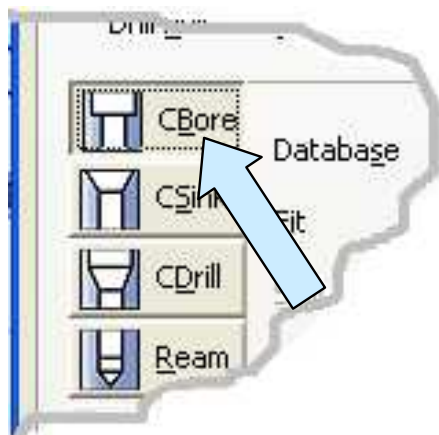
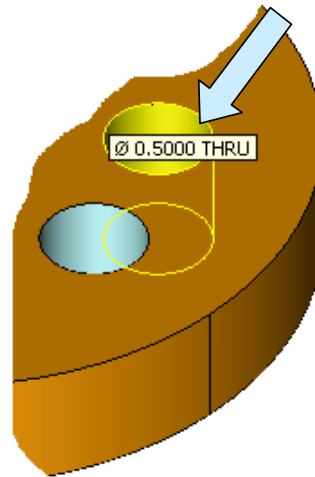
Using the Edit Hole Function with Pattern Recognition

Many of my customers have fallen in love with the powerful EDIT HOLE Function in KeyCreator. It provides what I like to call "Parametrics on the Fly" to astute users of our software. For our first exercise, we're going to work with the simple circular body illustrated to the right. This is available as a download file 'CirclePlate2' in this exercise.



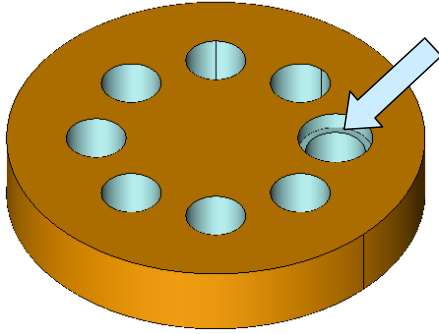
Now most of you have learned that if you want to change one of the holes on this plate to a counterbored style, you can make this happen by clicking on the EDIT HOLE Icon.

You then select one of the holes and hit the ENTER Key.



A large Dialog Box appears. You can select an alternate hole style like the counterbore, type in dimensional values, and click on the OK Button.

Select the top face of the part and hit the ENTER key and you have one hole modified.

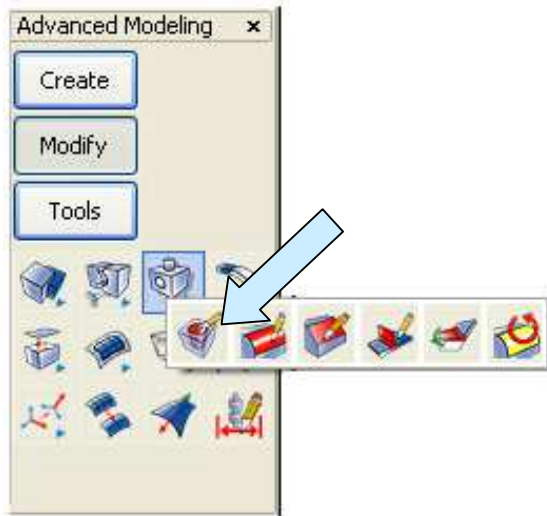


Your part will now look like this:

Now, in many cases you would want to modify all eight holes. You could do this by selecting one hole at a time, but you want to save some time to go fishing!

Let's look at an easier way to make the change globally.

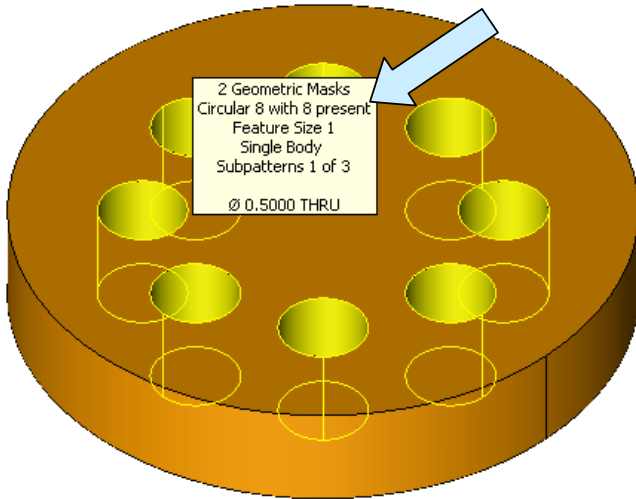
First, click on the UNDO Icon to revert to the part with eight simple through holes.



Now, once again, click on the EDIT HOLE Icon.

This time, click on the PATTERN Option on the Conversation Bar.





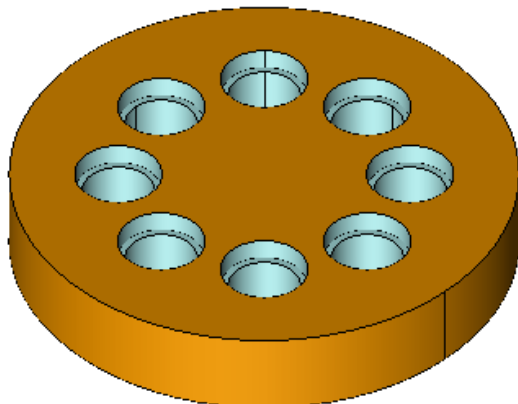
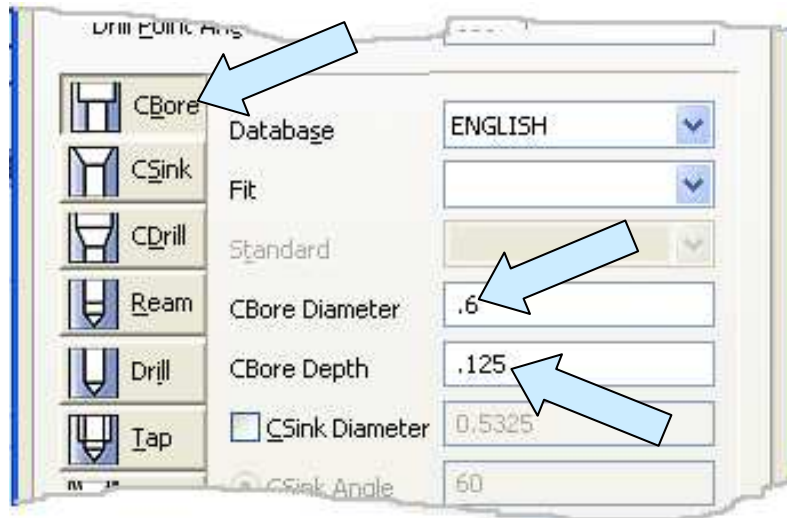
Move the cursor over one of the holes and notice that all eight holes highlight at once!

Click the mouse while the holes are highlighted then click on the ACCEPT Button twice.

The Edit Hole Dialog Box appears. Select the hole type (like counterbore) that you want and enter the dimensions.

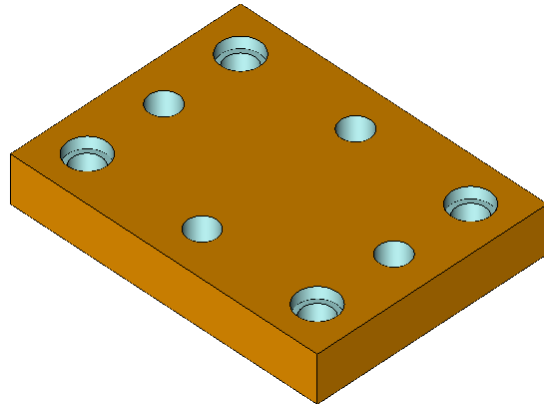
Then, click on the OK Button.

Click on the top face of the part and then on the ACCEPT Button.



All four holes instantly update in one operation!

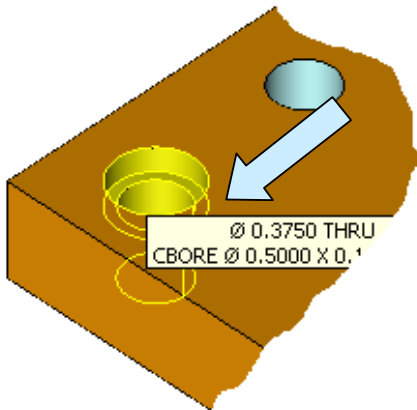
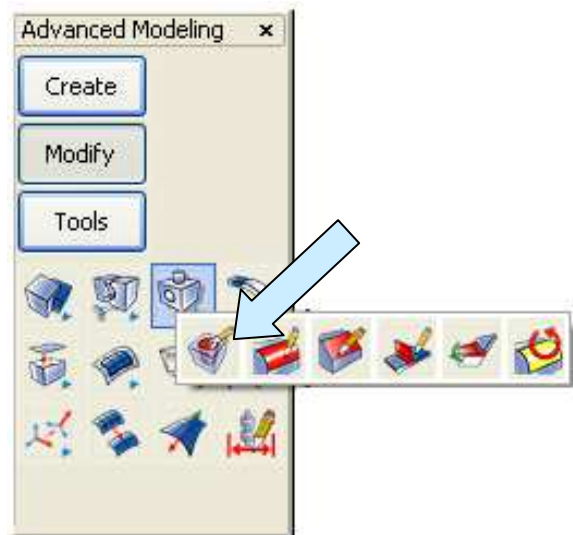
For our next exercise, we're going to use the simple rectangular plate illustrated to the right.



It is available as a download as file 'RectPlate1.'

Now, let's assume that our first task is to modify the four simple holes so they are the same as the four counterbored holes.

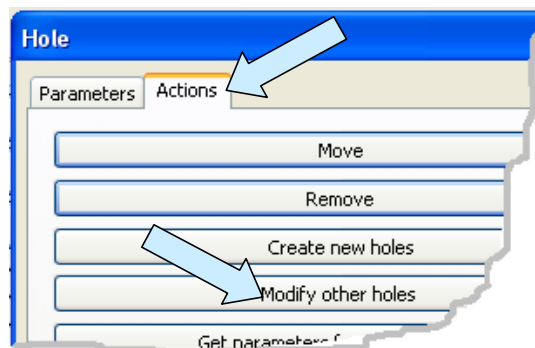
Click on the EDIT HOLE Icon.

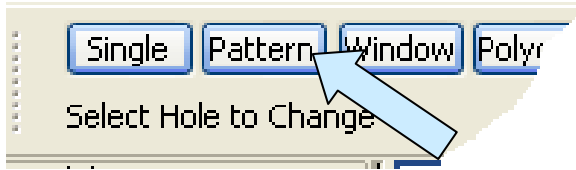


Move your cursor over one of the counterbores and notice that the characteristics of the hole appear in the tool tip. Click on the highlighted hole. Then, click on the ACCEPT Button.

The EDIT HOLE Dialog Box appears.

Click on the ACTIONS Tab at the top of the box and then on the MODIFY OTHER HOLES Option.

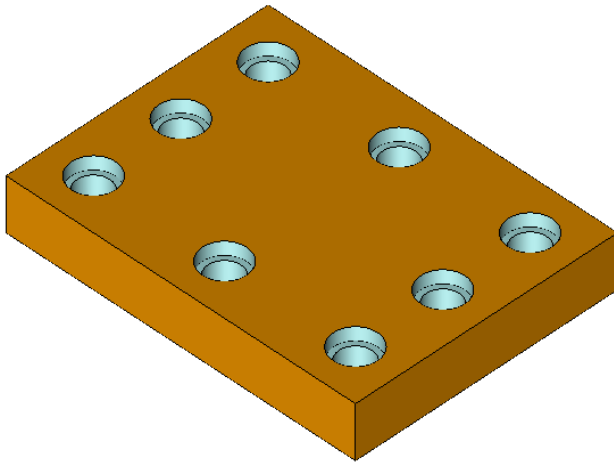
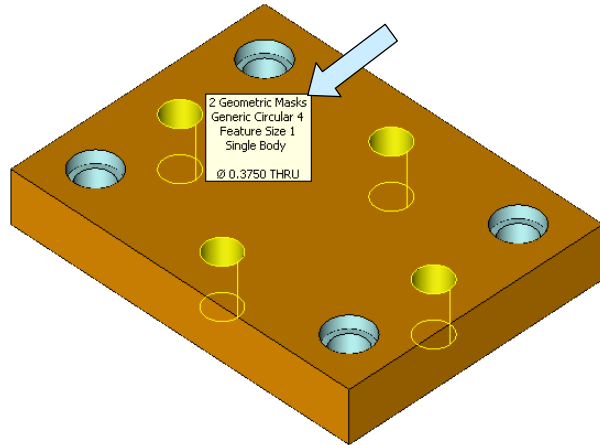




Click on the PATTERN Option on the Conversation Bar.

Move the cursor over one of the simple holes and all four highlight. Click while they are highlighted.

Click the ACCEPT Button twice, select the top face of the part, and click the ACCEPT Button twice again.

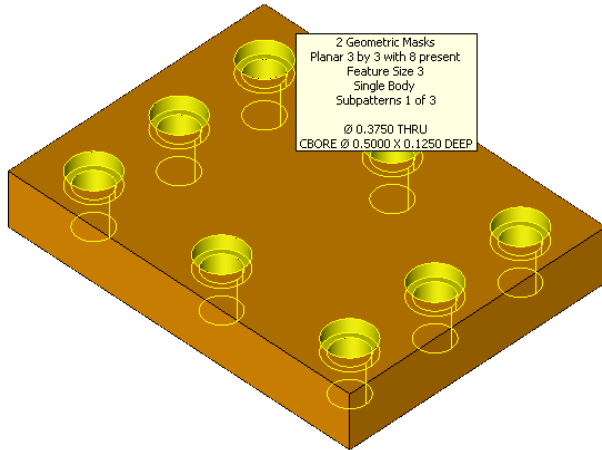


Your part will now look like this:

Now, let's suppose that you want to remove some of the holes.

Click on the EDIT HOLE Icon and once again click on the PATTERN Option on the Conversation Bar.

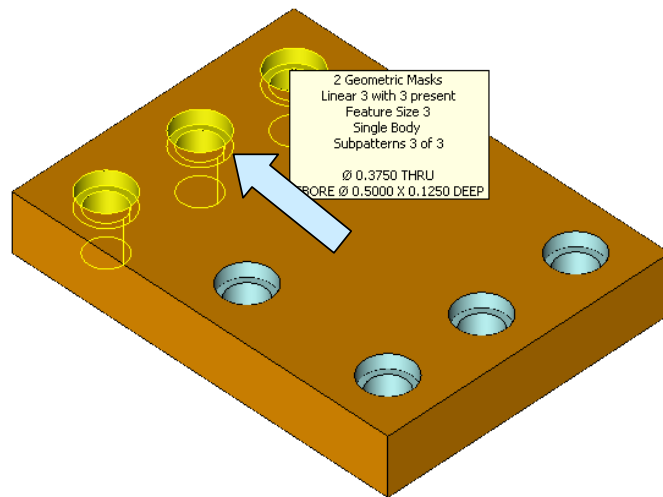




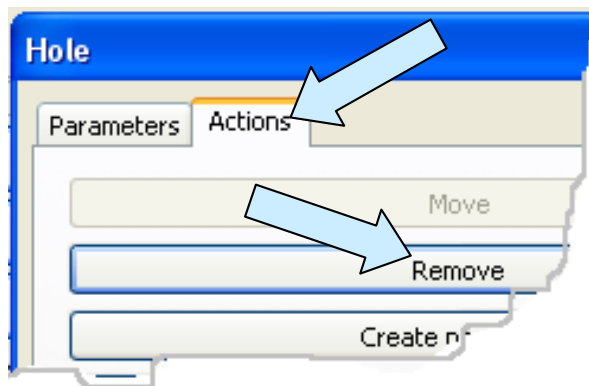
If you move the cursor over one of the holes, they all highlight.

While the holes are all highlighted, touch the accent key (It looks like this ` and is positioned above the TAB key on your keyboard.)

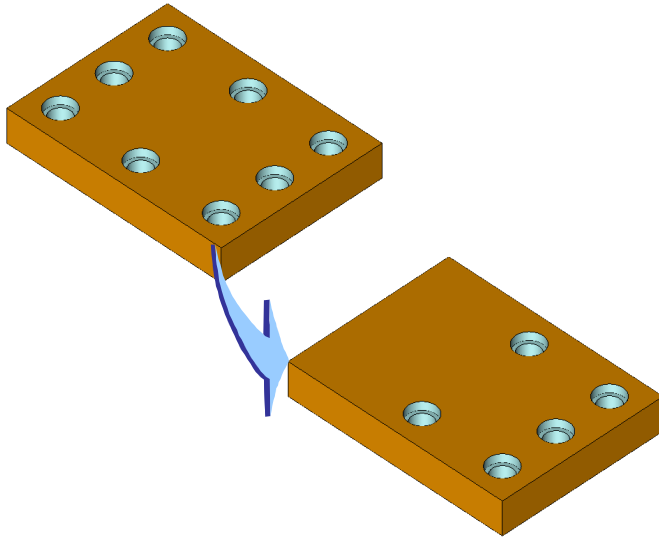
Notice that you can toggle through alternate pattern options by hitting the key additional times. Where you position your cursor while toggling also influences the selection.



Click on the highlighted pattern that you want, click on the ACCEPT Button twice, and the Edit Hole Dialog Box appears.



This time, click on the ACTIONS Tab at the top of the box and then on the REMOVE Option.



You now have a plate with three less holes.

We could just as easily have used the pattern selection to modify the hole type or in conjunction with another function like TRANSFORM FACES to move the three holes.

Remember to take advantage of the PATTERN Option when using solids modification tools in KeyCreator. It gives you great leverage since you can identify geometric patterns on the fly and act on the set of features in one operation. It is important to note that unlike most of our competitors, we can identify a pattern even if the original holes were created not using a pattern feature. This is exceptionally useful when working on imported parts from other applications since we don't need the pattern feature from the competitors feature tree to effect a modification. That's the power of KeyCreator in action!