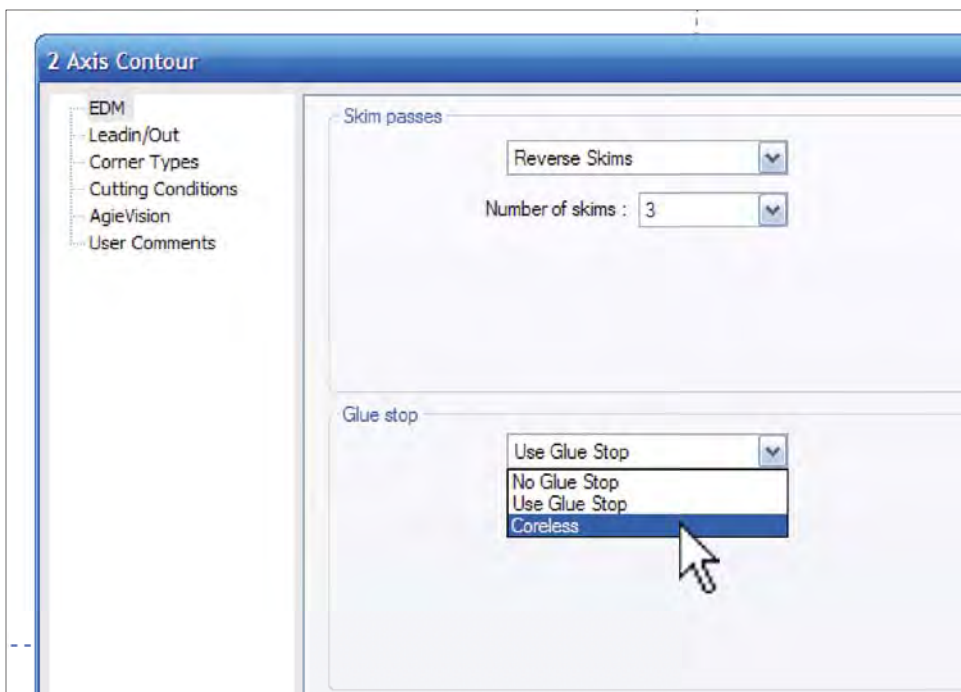


FAQ #20: What is coreless machining in wire EDM?

Q: What does Coreless mean?

A: Coreless machining is another term for “slugless” or “slug-free” cutting on a wire EDM machine. Essentially what it means is that when machining a part with a wire EDM, the wire only increments over by a little bit on each pass so there is no large block of material to fall out of the hole when the cut is finished. The material that normally would have fallen out has instead already been removed a little at a time, so there is nothing left to fall. On a wire EDM these cuts tend to take a long time to machine, but are often worth the extra time it takes in terms of finish on the part, and in parts with slugs that are too small to glue or attach a magnet to since there is no tab cut involved.

Coreless machining is only available for 2 Axis Inside features. To take advantage of this cutting method in BobCAD-CAM, select it from the **Glue Stop** drop-down box in the **EDM** page of the **2 Axis Contour** dialog box. Right click on **EDM 2X Inside** in the tree, and choose **Edit** to see the dialog.

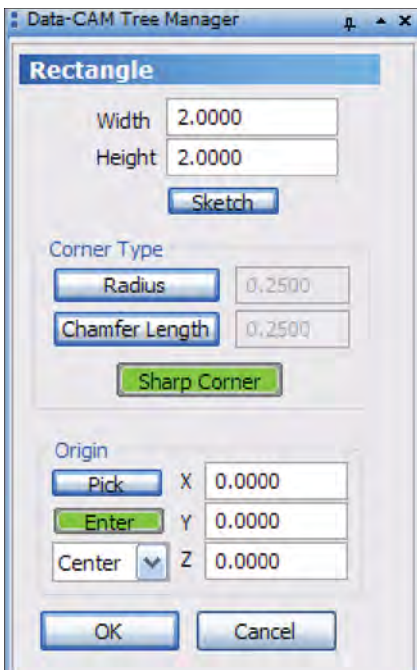
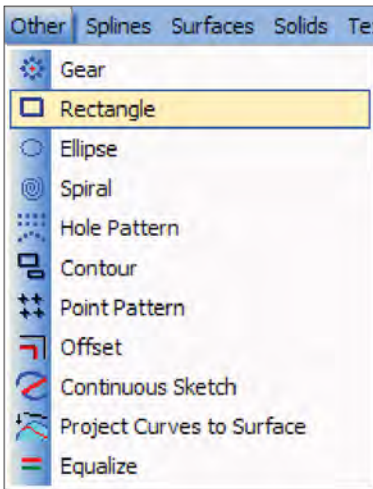


When the feature is computed, the wire path will appear to fill the entire shape.

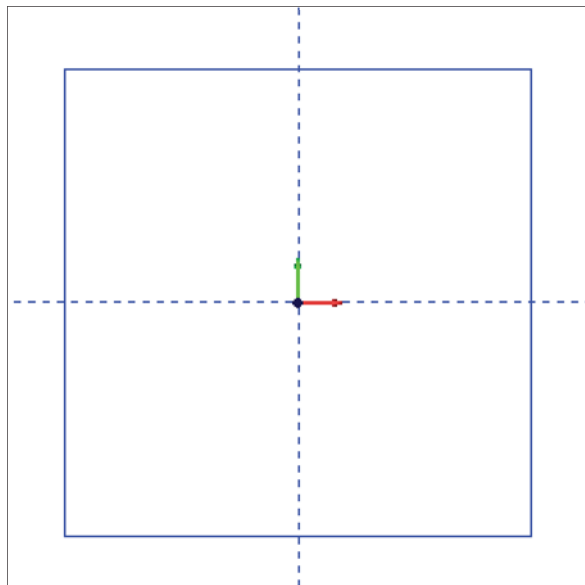
Example:

Step 1: Create a shape in the workspace.

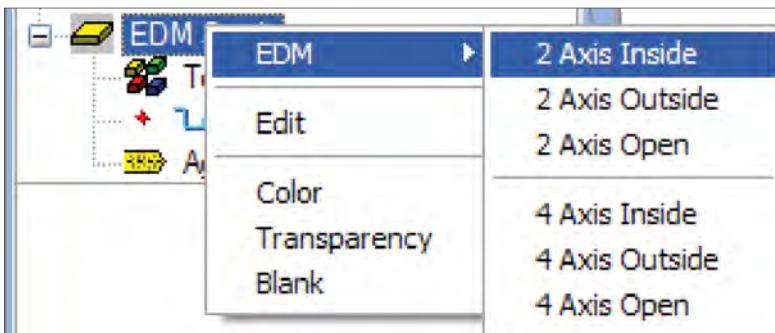
Click on the **Other** menu at the top of the screen, and choose **Rectangle**.



Click **OK** in the **Data-CAM Tree Manager** on the left of the screen to accept the default settings. A rectangle will appear on the screen as shown here.

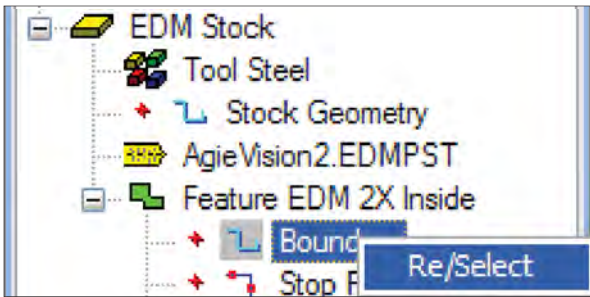


Step 2: Right-click on **EDM Stock** in the **CAM tree** and under **EDM**, choose **2 Axis Inside**. A new feature will be inserted under it in the tree.

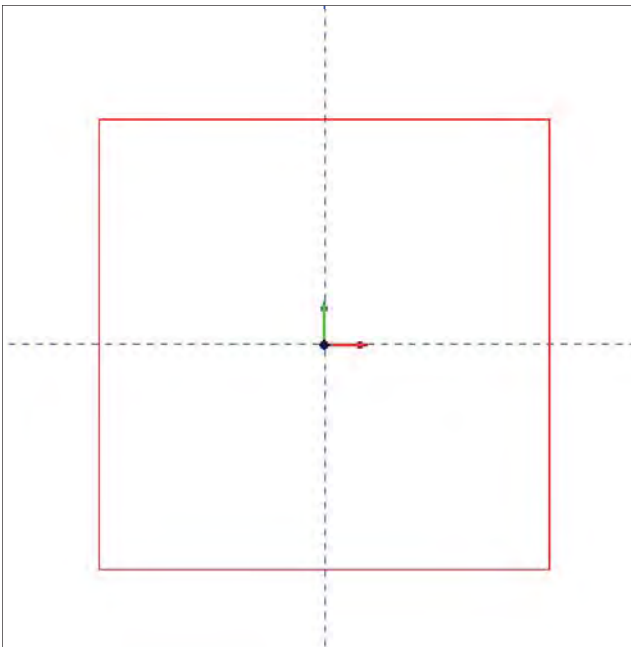


Step 3: Select the rectangle in the **Workspace** as the boundary geometry for the feature.

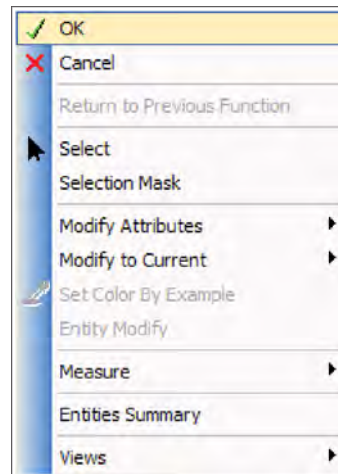
Right click on **Boundary** under **Feature EDM 2X Inside** and choose **Re/Select**.



Click somewhere above and to the left of the rectangle and while holding the mouse button down, drag it past the opposite corner in the lower right. Release the mouse button and the rectangle will be selected.

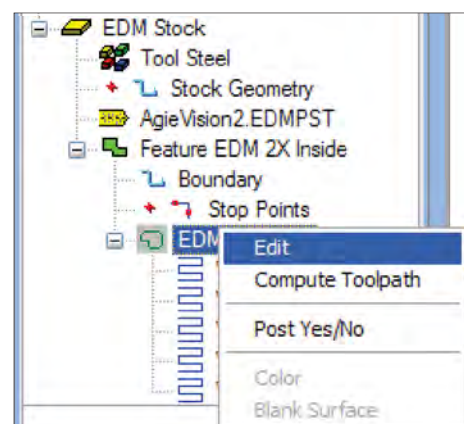


Right click anywhere in the **Workspace** and click **OK** in the pop-up menu. The boundary selection will be complete.

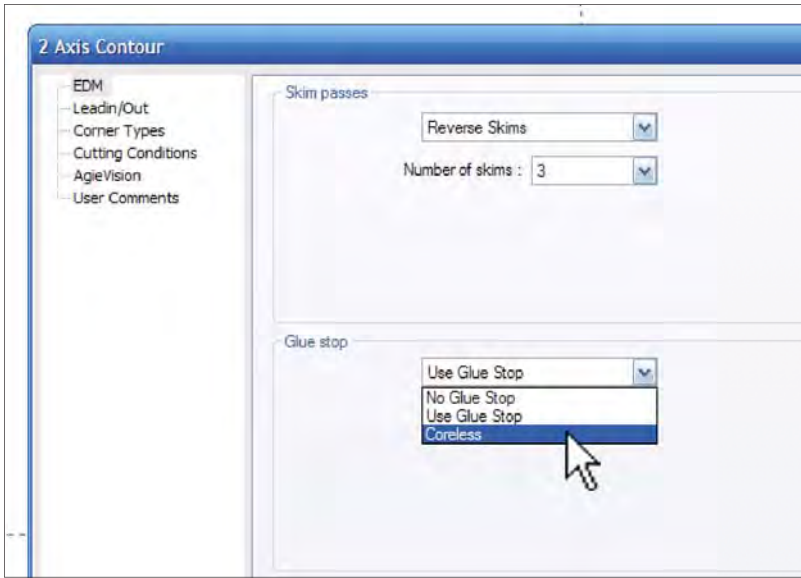


Step 4: Set the feature up for coreless machining.

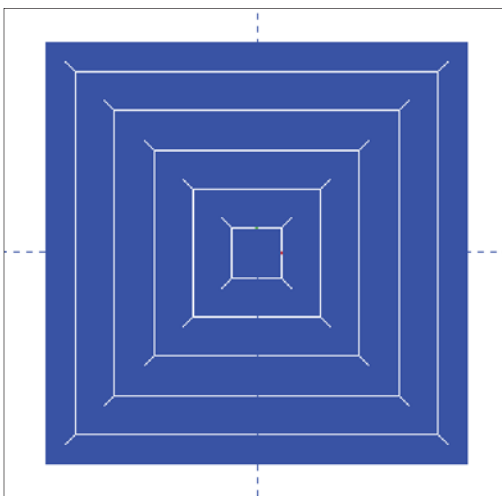
Right-click on **EDM 2X Inside** in the tree and choose **Edit** from the menu.



In the dialog that will appear, in the **EDM** page, choose **Coreless** from the drop-down box in the **Glue Stop** section. Click **OK** on the box.



BobCAD-CAM will then automatically compute the wire path.



The finished wire path shown at left will appear to fill the entire shape.

Below is a close-up of the center of the completed coreless wire path.

