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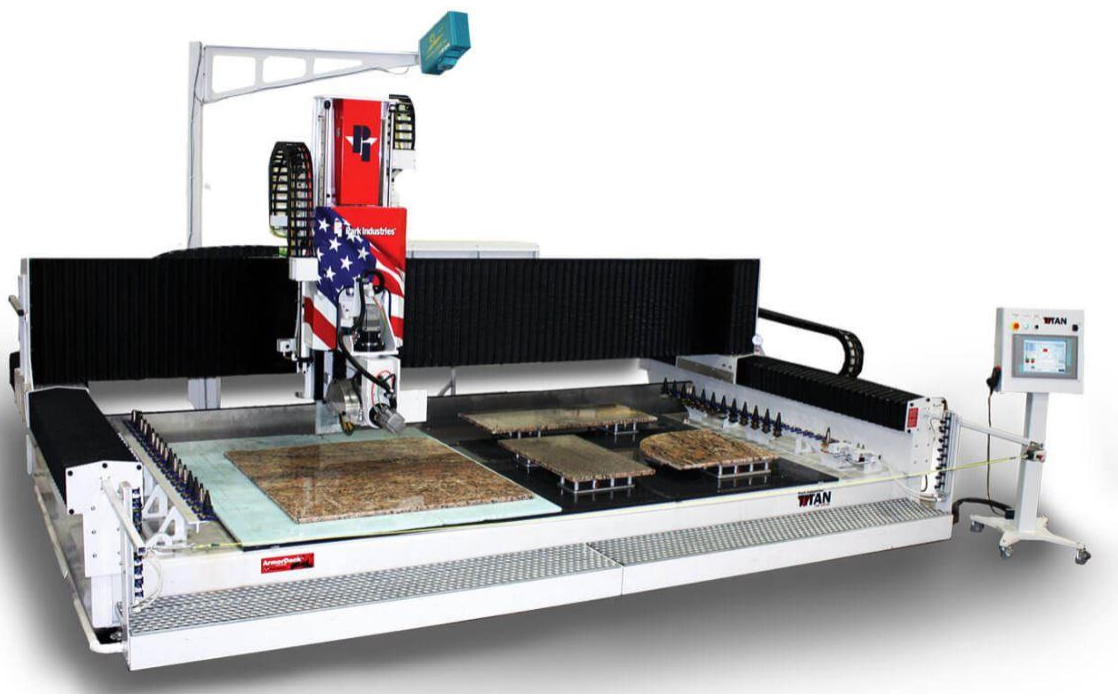
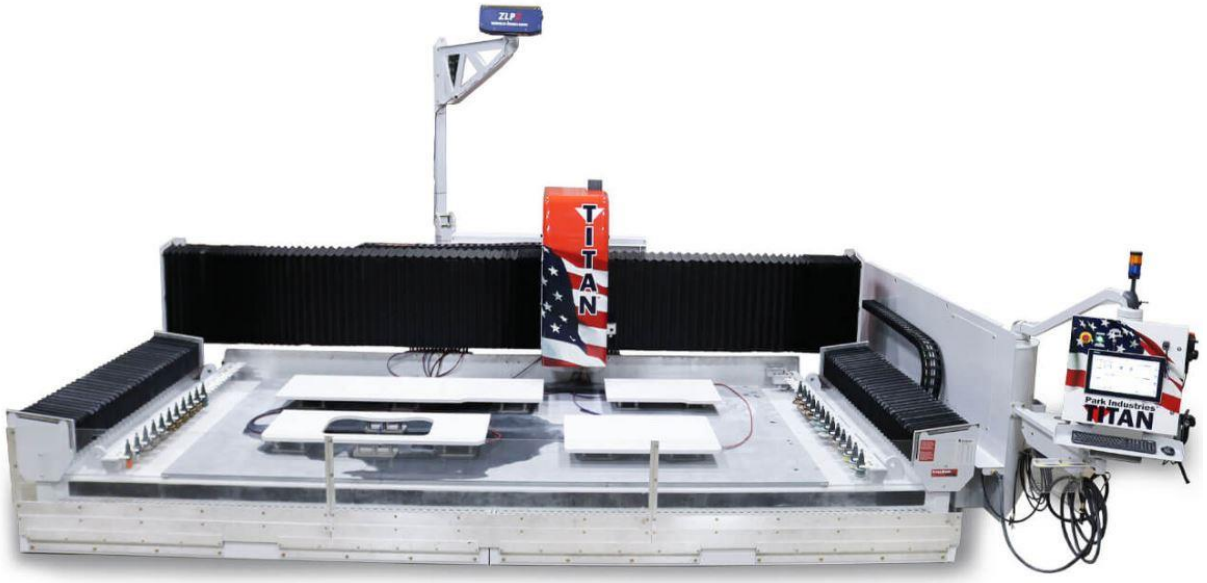
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CNC ROUTER SERIES



Titan Tab

Titan

If the commands under the Titan tab are greyed out or inactive you may need to enable the Titan as the active machine. This is done in the **Titan tab** by selecting **Machine Profile Select** and selecting the Titan as the active machine.

You can also choose the **MyParkConfig** tab, Select the desired machine tab from the window displayed (**Titan**) Check the **Machine Profile Active** box and then the Save All and Close button to complete activation.

This window is also used to configure the default machines for programming and the setup of the **Select Machine** shown above.

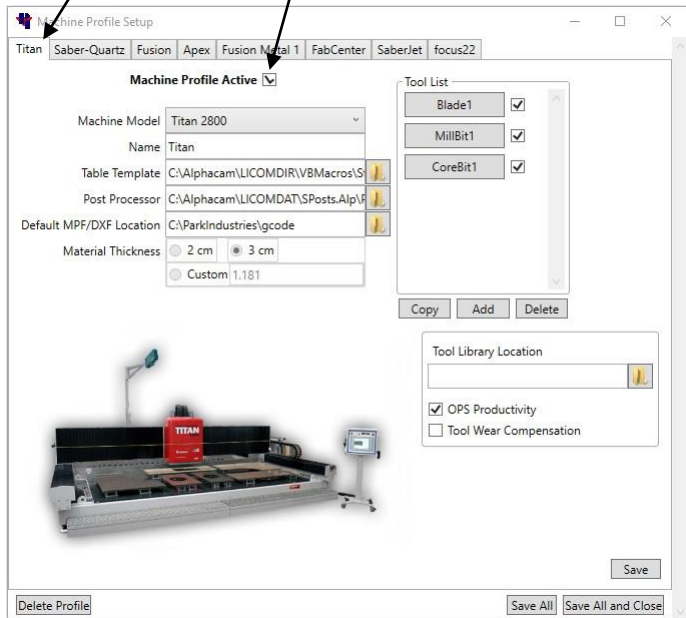
Table Template= the location of the machine table drawing (.ASD)

Default MPF/DXF File location= the “network path” to the Gcode folder on the machine.

Machine Model= the actual machine model that you are programming.

Post Processor= the location of post processor (.ALP) provided from Park Industries. Note: occasional updates may be available.























Name= Any name to identify that machine. This changes the name on the Select Machine section.



Titan Ribbon Bar

The Titan Commands are in the Titan tab on the ribbon bar. They have features for editing, layout, and programming the Titan. Below is a brief description of each function.

Note: Commands marked with an (F) means that the command is only used when programming a Titan “Fabrication Center”

	(F) Insert Slab Photo- Inserts a Photo into AlphaCam from the overhead camera. (Machine Option)	Pg. 6
	OPS Styles- A productivity reporting program (Machine Option)	Pg. 9
	Insert Table Template- Inserts drawing of the SABERjet table into the current AlphaCam session	Pg. 10
	Boundary- Creates joined parts from existing lines and arcs.	Pg. 11
	Align- Aligns and rotates to existing geometry.	Pg. 14
	Move Parts- Pick and move a part.	Pg. 15
	Rotate Parts- Pick and rotate a part.	Pg. 15
	(F) Join Parts – Moves and aligns a part to another with a specified distance in between.	Pg. 16
	Add Labels- Labels the edges of parts	Pg. 17
	Sink Cutouts- An automated method for cutting out sinks	Pg. 19
	(F) Backsplash- Creates backsplash drawings on existing countertops.	Pg. 20
	(F) Apron- Creates apron parts with miter cut detail.	Pg. 20
	(F) Undercut Miter- Applies cutting detail for an undercut miter.	Pg. 20
	(F) Overcut Miter- Applies cutting detail for an overcut miter.	Pg. 21
	(F) Auto Tool Path- Automatically applies Saw cuts to prepared geometry.	Pg. 22
	(F) Blade Cut to Arc	Pg. 23
	(F) Cook Top Depth- Changes the Saw blade cut depth.	Pg. 24
	(F) Blade Cut by 2 Points– Applies a manual Saw blade cut.	Pg. 25
	(F) Extend/Trim to Point– Modifies existing cut paths to a geometry.	Pg. 25
	(F) Extend/Trim by Distance.	Pg. 26
	(F) Reverse Cut Direction.	Pg. 27
	(F) Order of Cuts- Opens the Operations window to change the sequence of cuts.	Pg. 28

Titan Ribbon Bar

Continued



(F) Extend Cuts to Border- Extends Saw blade cuts to the edge of the material blank.

Pg. 29



(F) Manual Saw Cut- Applies a Saw cut manually. Tool Direction must be set first.

Pg. 30



Delete Toolpath- Deletes only toolpaths without selecting the geometry.

Pg. 31



Park / Pause Machine- Allows the programmer to have the machine stop and park after a cut.

Pg. 32



Send G-Code to the Machine- Creates/sends a program to the machine, also create a job report.

Pg. 33



(F) Adding tooling information on the Fab Center for the Saw Blade- Safety Distance

Pg. 34



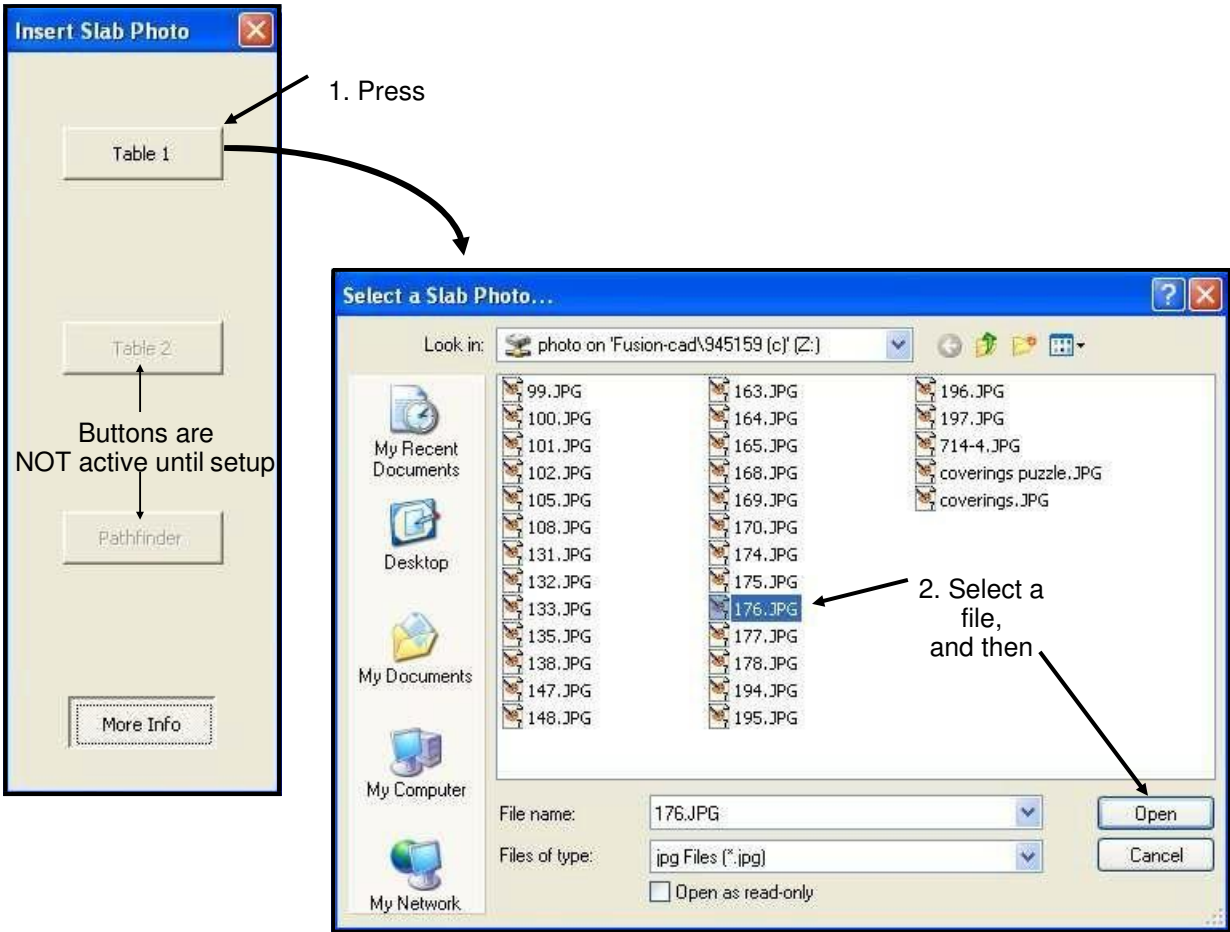
Insert Slab Photo

Inserts a Photo into AlphaCam. Usually from the over the table camera.

Selecting the command opens the **Insert Slab Photo** window. This window has three source buttons and a configure button.

Pressing a source button (**Table 1**) opens the **Select a Slab Photo** window which displays a list of photo files.

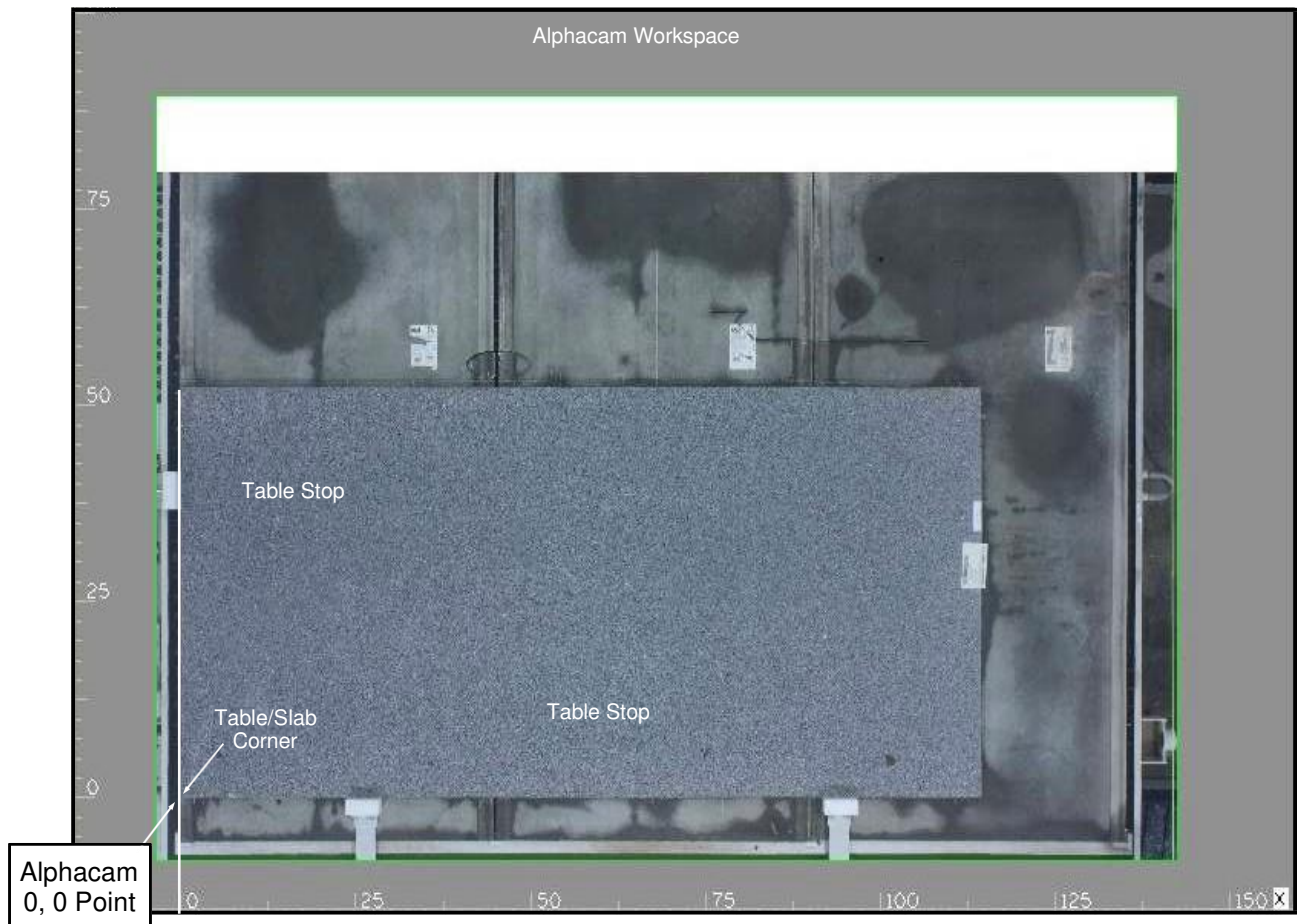
The user simply selects the desired file and then presses the **Open** button to load the photo into Alphacam. See next page for example of a loaded file.



Using the Command (cont'd)

The below example shows a Alphacam workspace after inserting a photo which was taken by the Fabcenters overhead camera. Notice that the slab/table's zero reference point aligns with Alphacam's zero point. To make this happen requires

some initial setup, but once set the two reference points will always align unless the table or camera moves.



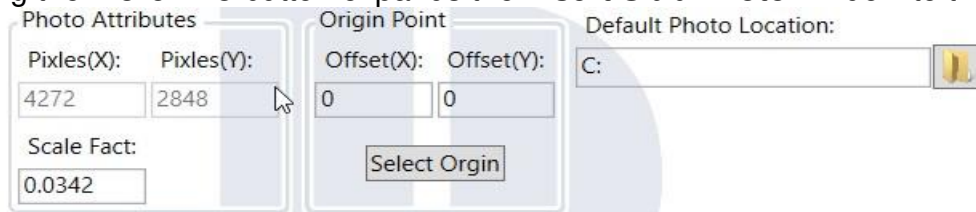
Initial setup information is presented on the next page.

Initial Setup

For the **Insert Slab Photo** feature to work properly, the user must first configure the following for each source: photo location, scale factor, and origin point. These parameters are displayed by pressing the **More Info** button located at the bottom of

the **Insert Slab Photo** window.

Pressing the **More Info** button expands the **Insert Slab Photo** window to the right



The first time the **Insert Slab Photo** window is opened, none of the buttons are active (button's title is grayed out). To activate a button the **Default Photo Location** parameter must be entered. This value is set to the path of the folder which holds the slab photo files. In this example the files are located on a networked computer which has been mapped to drive Z. Once the location is identified, the associated source button becomes active.

Once the photo location has been set, the next step is to photograph a test object. It is suggested to select an object which has straight sides and whole number (no fractions) dimensions. Example: 96" by 48" instead of 95 5/16" by 47 11/64". A four-by-eight sheet of OSB, plywood or foam insulation works good.

Next insert the test object photo into Alphacam. Each time a photo is inserted into Alphacam a scale factor value is applied to the source photo. This is done to ensure that object's dimensions in Alphacam are same as those of the actual object. The **Scale Fact** parameter is found in the **Photo Attributes** area (see above). A common method to find the dimensions is to use Alphacam's **Distance/Angle** command to measure the inserted object. If these dimensions are not the same as the original object, change the **Scale Fact** value, reload the photo and measure again. Repeat until the inserted photo's dimensions are the same as the object photographed.

After the **Scale Fact** value has been set, the **Origin Point** can be established. This parameter sets a X and Y Offset value needed to position the machine's zero point in the photo at Alphacam's zero point. The basic steps are: zero current origin values, **Save**, insert photo, click **More Info**, click on **Select Origin**, position crosshairs over photo's zero point, left click mouse, **Save**

The **Photo Attributes** area also contains source's pixel information. This is read only data.

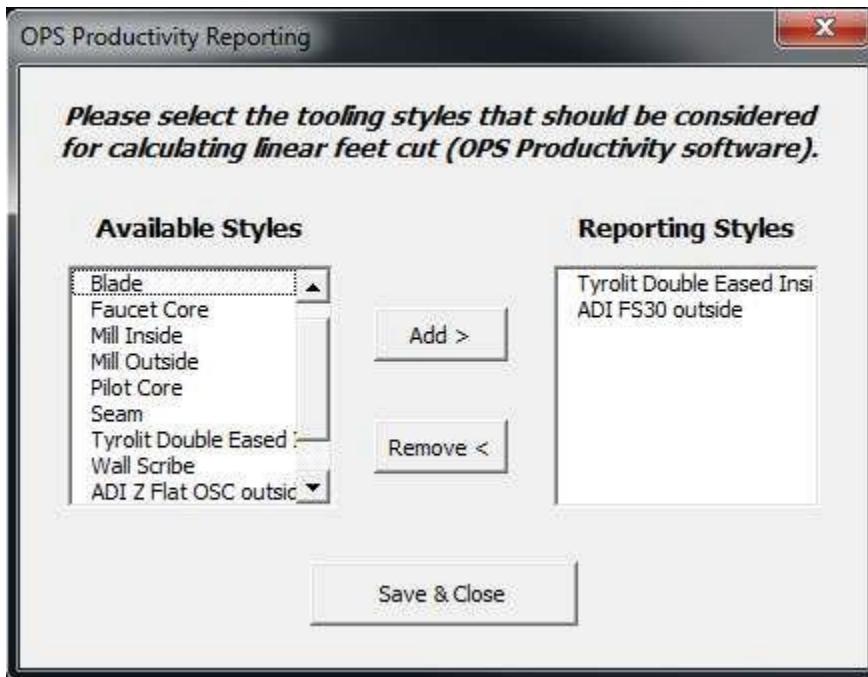


OPS - Styles

Allows us to choose which styles to use for linear footage calculation. These values



are then used in the OPS Productivity software for reporting.



Select the desired styles from the “Available Styles” window. Then click on the Add button to move them into the “Reporting Styles” window. The Remove button will transfer the selected style back to the Available window.

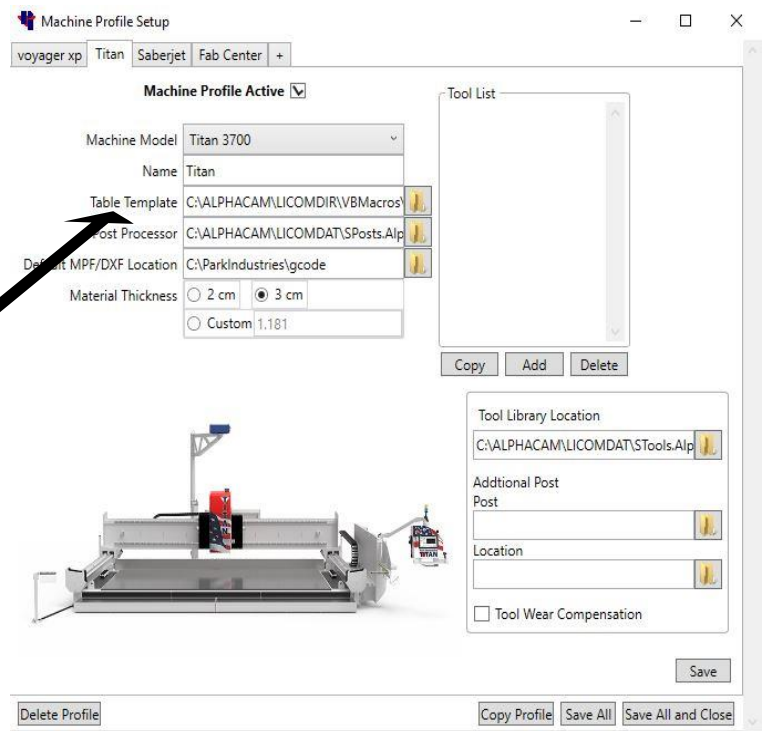
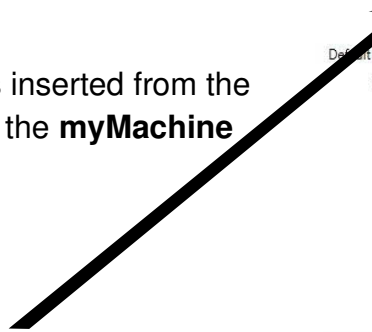
Table Template

Insert

Inserts a drawing of the Titan table into the current AlphaCam session.



This Table Template gets inserted from the location of the path set in the **myMachine** configuration screen.

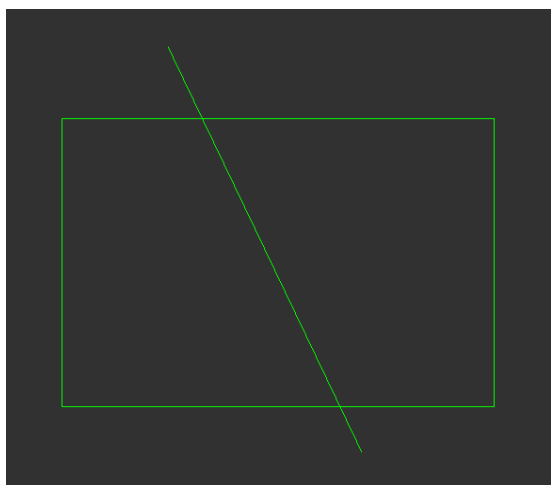




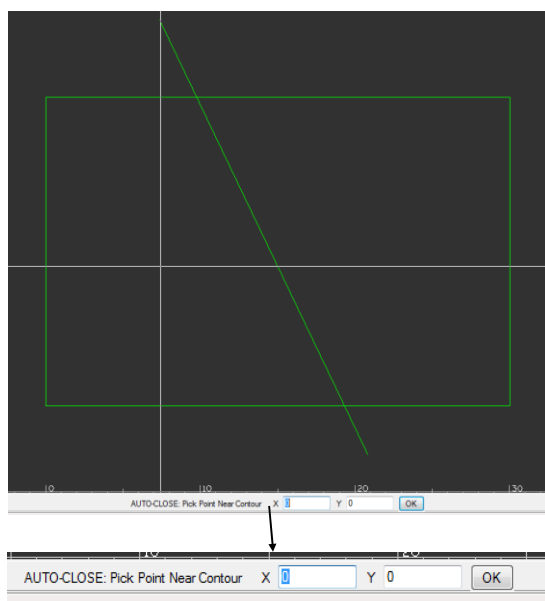
Boundary

Creates joined parts from existing lines and arcs.

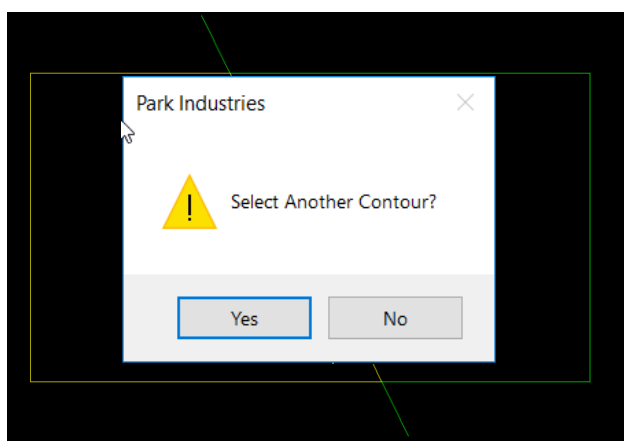
Boundary is made up from three different commands: First **Auto-Close Contours** allows creating a shape from existing lines and arcs. The second action is to **Move** the newly created shapes off the original segments used to define it. Then **Delete** is used to remove the original segments. Boundary can be used on shapes with or without a seam in them.



Starting with geometry to make independent shapes from. Choose the Boundary command.



When prompted to “Pick Point Near Contour”: Select inside of the shape that you want to become a separate part. That shape will become out-lined in yellow.



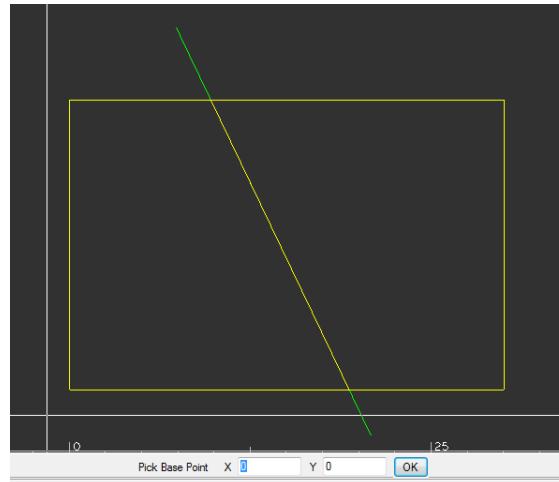
After creating the first part, you are given the choice to make another part or choose “no” when finished. As parts are created, they will be outlined in yellow



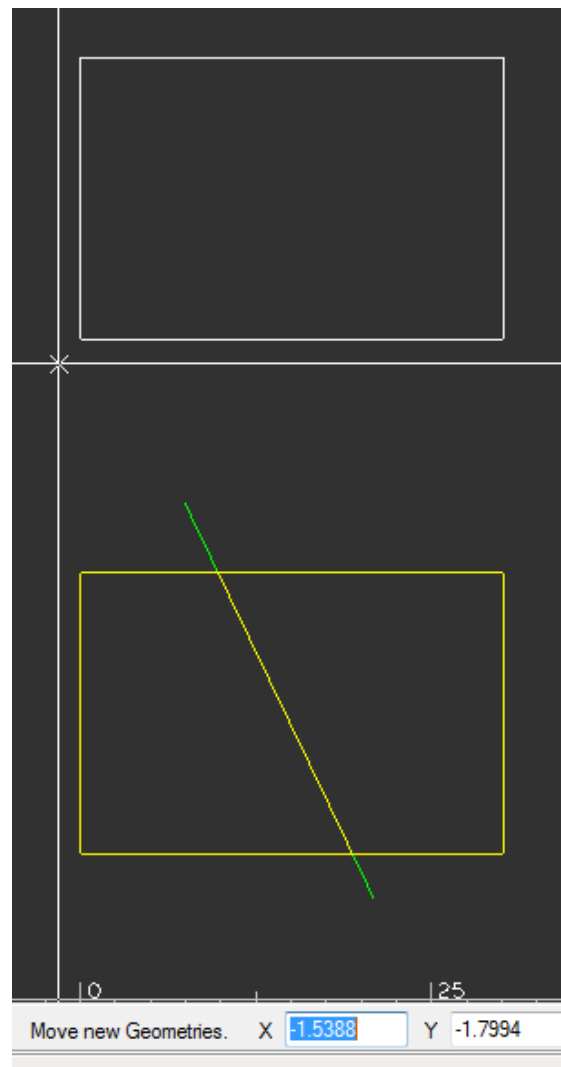
Boundary

(cont'd)

After choosing “No” to selecting another contour, you will be in the **MOVE** command. Click somewhere to “Pick Base Point”



“Move new Geometries” is the second part of the **MOVE** command. Move your cursor and parts to an open space in the screen and click to set them down.

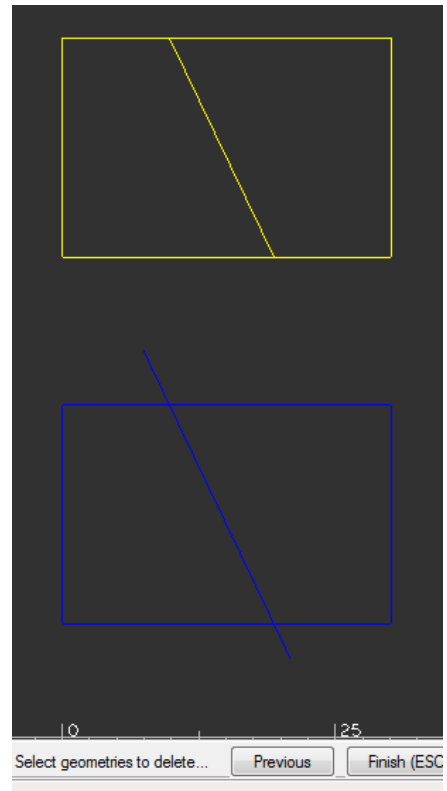




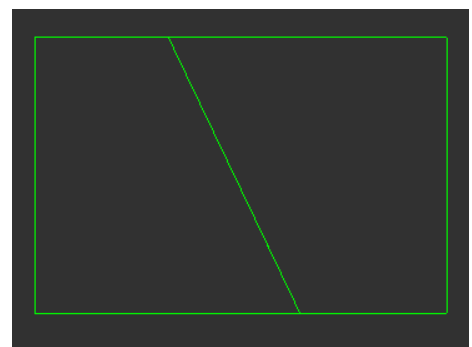
Boundary

(cont'd)

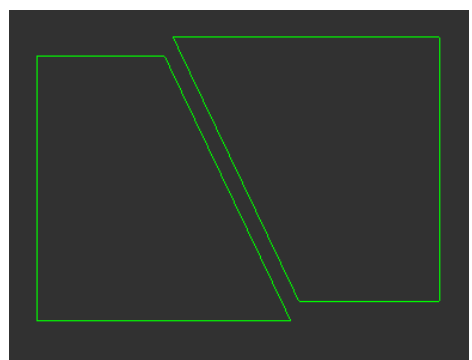
When moving is finished you are given the opportunity to **Delete** the original geometry. Select geometries to delete and Finish.

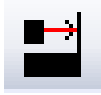


With the completion of the Boundary command, all new geometry is converted into geometry layer, joined, and common lines and arcs are removed.



You may choose to Move your parts away from each other for layout or processing.





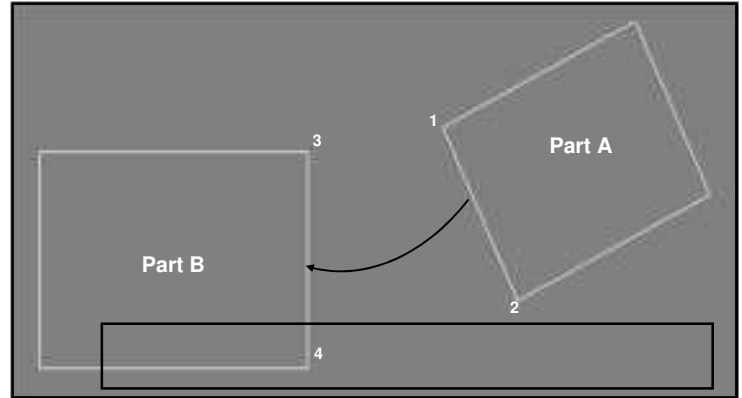
Align

Aligns and rotates to existing geometry.

Align process allows the edge of one part to be joined and aligned with the edge of another part. The first point selected in the part to-be-moved is joined and aligned with the first point selected in the move-to part. Some practice is required to become efficient at using this command.

Before the Command

In this example, line 1-2 of Part A will be joined with line 3-4 of Part B. Since point 1 is the first point selected in Part A and point 3 is the first point selected in Part B, the parts are joined at points 1 & 3 and

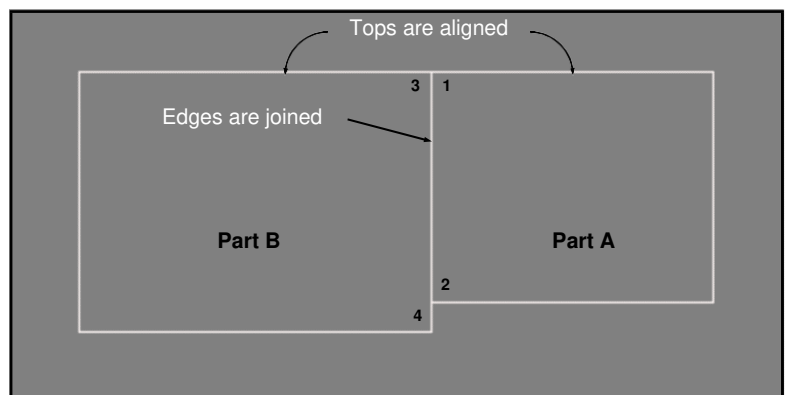


Steps to align and join the two parts are:

1. select the **Align and Join Pieces** command
2. select the geometry of the part to-be-moved and then press **ESC** or click **Finish (ESC)** Part A in this example
3. select join point on the part to-be-moved; Point 1
4. select end point of the line on the part to-be-moved; Point 2
5. select move to point on the move-to part; Point 3
6. select end point of the line on the move-to part; Point 4

When the last point is selected, the parts are joined & aligned, and the command is terminated.

After the Command





Move Parts

Pick and move a part.

Move - Allows a part to be moved.

After pressing the button, the basic steps are:

- select edge of part to move (basepoint)
- use either drag & drop (mouse) or select X & Y coordinates and then press **OK**.
- press **ESC** to cancel command or select another part to move.

Select part to Move or hit ESC to Cancel

Drag X Y



Rotate Parts

Pick and rotate a part.

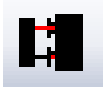
Rotate - Allows a part to be rotated around a center point.

After pressing the button, the basic steps are:

- select edge of part to rotate
- use either freehand rotate (mouse) or select a rotation degree value and then press **OK**.
- press **ESC** to cancel command or select another part to rotate.

Select part to rotate or hit ESC to cancel

Rotate or enter angle



Join Parts- Common Line Cuts

Moves and aligns a part to another at a specified distance in between.

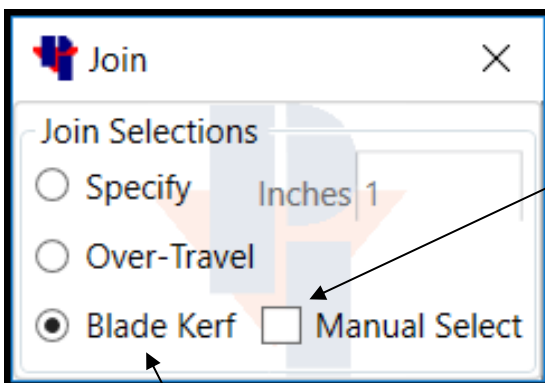
Join - Allows an edge of one part to be parallel with the edge of another part. The spacing between the parts is defined by the programmer in the selection fields.

This command is used before applying automatic tool paths.

The basic steps are:

- Select the desired edge of the part to be moved. Select edge of part to be moved.
- Select the desired edge of the part to align to. Select edge of part to align to.
- Press **ESC** to cancel command or select another part to move.

The software uses the closest endpoints to your selection unless Manual Select is checked.



Manual Select determines how the parts are joined.

When un-checked, the point closest to the selected edge on the first part is aligned to the point closest to the selected edge on the second part.

If checked, the point selected on first part is aligned to the point selected on the second part.

There are three choices to specify the distance between parts in the **Join Method**.

With Specify checked - The value input in the box is used.

With Over-travel checked - The value used will be a calculation of “Blade Diameter and Cut Depth” values set in the tool list, and the programmed “Material Thickness” defined in “AutoToolPath”.

With Blade Kerf checked - The Kerf value will be used from the blade that is checked in the tool select list.



Add Labels

Add Labels will apply the chosen label to the selected edge

To apply a label on a Closed Geometry: Choose the label name, then click on the edge to label. The label is then automatically placed on the inside. Right click when finished to select a new label.

To apply a label to an Open Geometry: Choose the label name, then click on the edge to label, and then click on the correct side of that edge to place the label. Typically, the label goes to the inside of the part. Right click when finished to select a new label.

Seam and Wall are set labels.

*(This is covered on the following page)

Profile and Other allow for user input

Profile allows the user to type a name into the library or choose a name from the dropdown. Then choose the **Profile** button and select the edge as instructed at the bottom of the screen.

Select edge to label...

Other allows the user to type a name into the library or choose a name from the dropdown. Then choose the **Other** button and select the location in the drawing area to place the label as instructed at the bottom of the screen, or type in X & Y coordinates and press OK.

Change **Font Size** Before applying the label

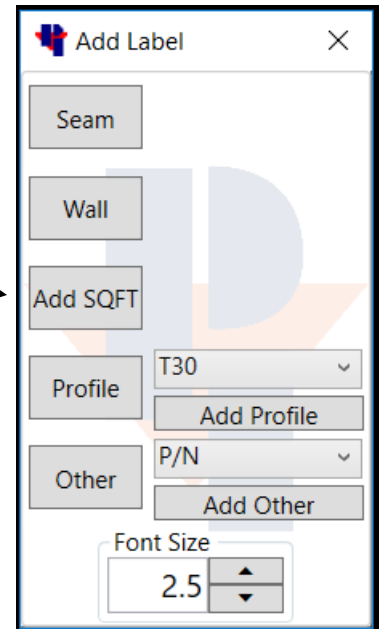
Select Location for Text or esc to cancel X 0 Y 0 OK



Add Labels

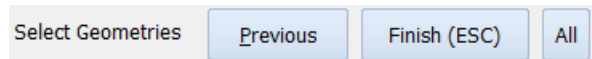
(continued)

Add SQFT - computes square footage of the selected part(s) and places the sqft. area label on the drawing.



Steps to add square foot label are:

1. Press the **Add SQFT** button.
2. Select a single closed geometry, or all edges of an open geometry, and then press Esc, or select the **Finish (ESC)** button.
3. Select the label location on the drawing by using the mouse (position & click)
OR
enter X & Y coordinates and then press **OK**.



Area = 35.69 sqft

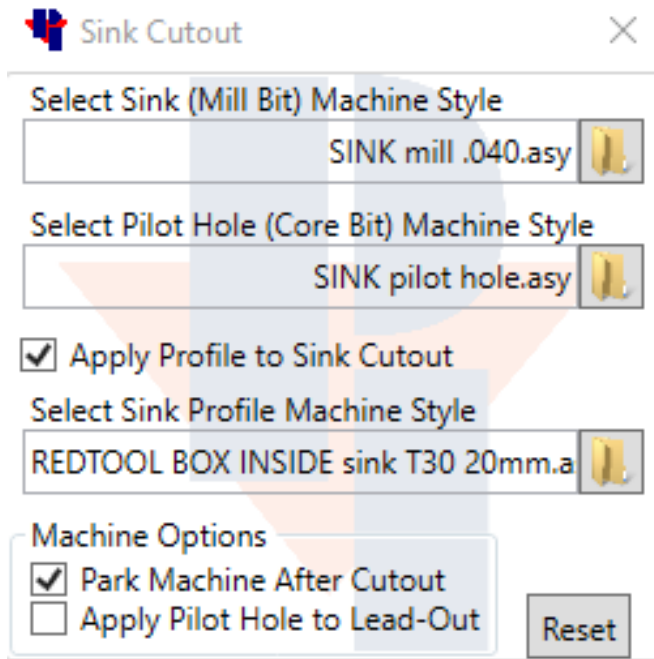


Sink Cutouts

The Sink Cutouts Command is a way to apply all necessary Styles to complete a sink. It also places all cuts in the proper order of Operations.



Clicking the “Sink Cutout” Icon opens a window like shown below.

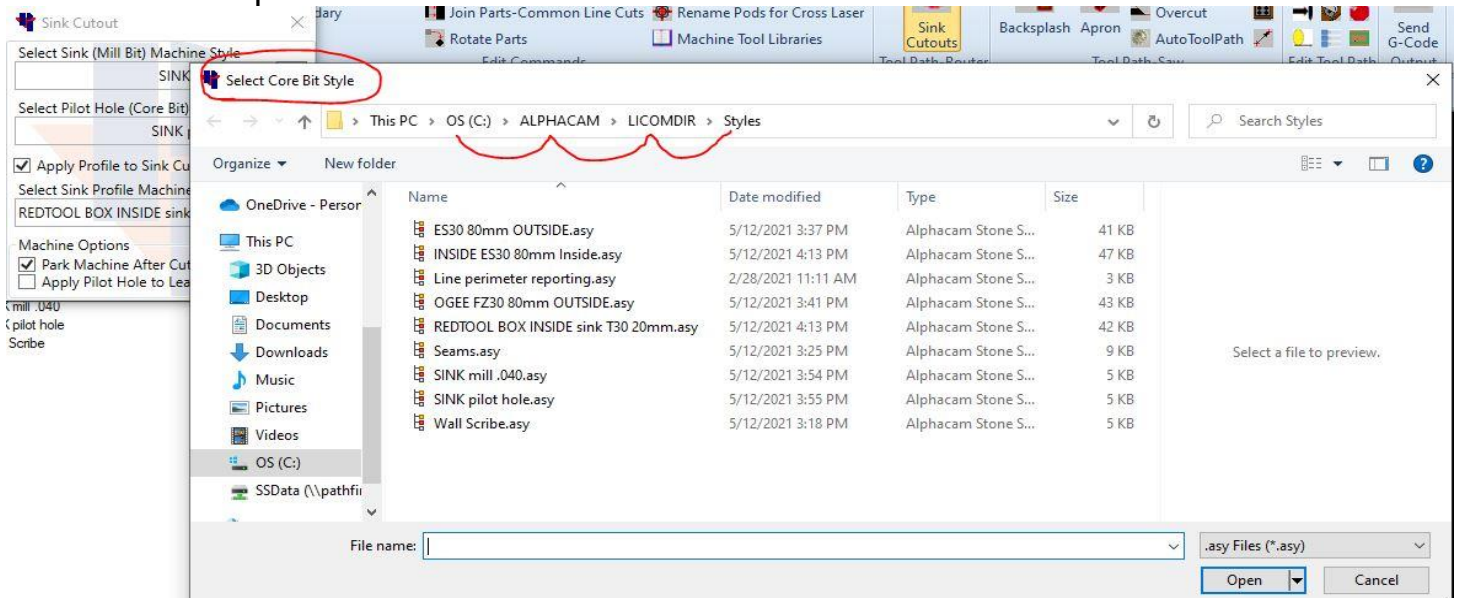


To setup: Add any or all styles into the corresponding spots with the yellow folder.

Choose a yellow folder next to the desired type of style that you would like to add into that spot for use.

Having the check mark applied in the “Park Machine After Cutout” will turn on a “Park/ Pause Machine” after the “Mill Bit” style.

The window shown below will open up and once you get into the saved styles on the PC, choose which ones you have built for dropping sinks or cooktops





Backsplash

Creates backsplash drawings on existing countertops.

Selecting this command opens the **Backsplash Tools** window which provides the user with an easy-to-use function to create backsplash.

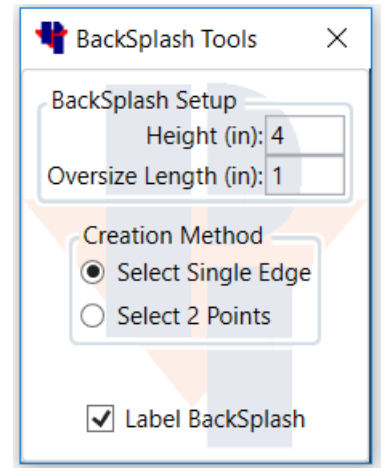
This window provides the user with the ability to edit Backsplash **Height** and **Override Length** parameter values, select the **Creation Method**, and whether to enable/disable the **Label Backsplash** option.

Steps to create a backsplash are:

1. Have geometry on your screen. Select the **Backsplash Tools** command and it will open the selection window.



2. In the **Backsplash Tools** window, change Backsplash **Height** and **Override Length** fields to the desired values. Select the appropriate **Creation Method** & **Label Backsplash** option.



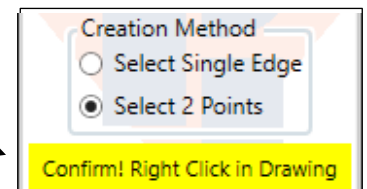
3. Select edge of part when using **Select Single Edge**, or pick starting and ending points for **Select 2 Points**.

Select Edge for Backsplash...

Select Starting Point of the Backsplash

*If changing the **Creation Method**, first right click in the drawing.

4. After making your selection, a backsplash will be created parallel to the edge selected and placed a blade kerf apart (depending on which blade is active), and a label added (if option was enabled).



To end this command, right click or press esc.

Workspace after backsplash was created.





Apron and Overcut/Undercut Miters

When using the **Apron** feature, it creates the aprons and applies Miter properties. Manual **Undercut** and **Overcut** Miters only apply the miter property to existing parts.

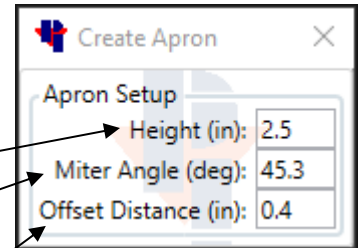
These commands must be used before applying the toolpaths.



Apron - This command creates an apron and assigns a miter property to both edges (apron and original part).

After pressing the button, the basic steps are:

- Change **Height** to desired value
- Change **Miter Angle** to desired value
- Change **Offset Distance** to desired value. This is how far away the Apron is placed from the original part.
- Select the edge you wish to apply an Apron
- Press **ESC** to cancel command or select another



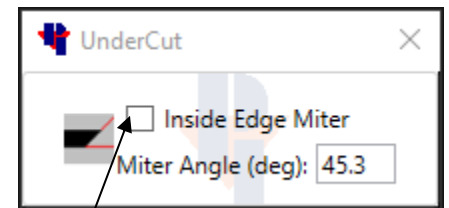
Select Edge for Apron...



Undercut - Assigns an undercut miter at the **Miter Angle** degree value to the selected edge.

After pressing the button, set **Miter Angle** and then:

- Select part's edge
- Press **ESC** to cancel command or select another



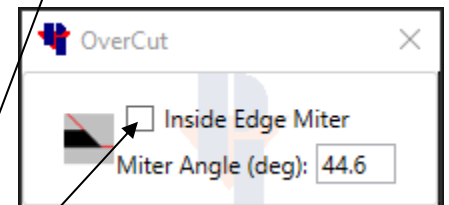
Select Edge of Miter



Overcut - Assigns an overcut miter at the **Miter Angle** degree value to the selected edge.

After pressing the button, set **Miter Angle** and then:

- Select part's edge
- Press **ESC** to cancel command or select another



Select Edge of Miter

***NOTE-** When **Inside Edge Miter** is checked, you can assign a Miter property to an inside geometry such as a cutout.

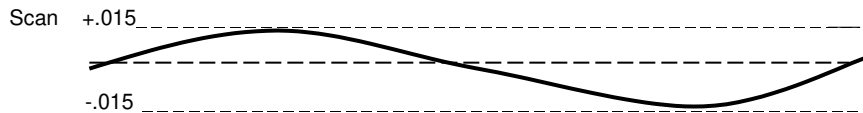


Auto ToolPath

Automatically applies Saw cuts to prepared geometry. Choosing this button opens the window shown below.

Material Thickness – Should be set to the thickness of material being processed. This a key parameter used by the software to position the blade cuts and prevent over cuts into adjacent parts. Ensure this value is set to actual material thickness before applying tool paths.

Simplify Wall Scans and Tolerance - If the digitized wall scribe geometry has peaks and valleys that are within a \pm distance (Half of the **Tolerance** value) of a line drawn through the wall scan's search window, the software will simplify the cut and generate longer length tool paths instead of many shorter toolpaths. This will flatten out your geometry \pm by the tolerance value. This field enables/disables the simplify wall scans feature.

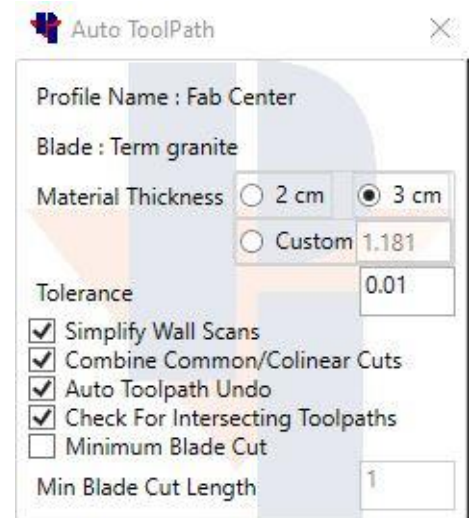


Combine Common/Collinear cuts - A **Common Line Cut** occurs when the straight edges of two parts are nested together (using the Join Parts-Common Line Cuts feature) one blade kerf apart. Only one blade tool path is required to cut the two edges. A **Collinear Cut** occurs when two edges that are next to each other are lined up in the same parallel line and are also less than a 1.25" apart. The software will combine the two cuts and create one longer toolpath. This field enables/ disables the common line cutting feature.

Auto ToolPath Undo – With this is enabled, and you currently have toolpaths applied to your parts in your drawing, by pressing the **Auto ToolPath** button again it will remove all the previous toolpaths that were applied.

Check for Intersecting Toolpaths - When checked, the software will show instances of toolpaths intersecting by encompassing them with 3 green circles on each toolpath where they intersect.

Minimum Blade Cut - When checked, Auto ToolPath will not place any blade cuts that are less than the value set in the **Minimum Blade Cut Length** field. (1 inch is the smallest value allowed.)





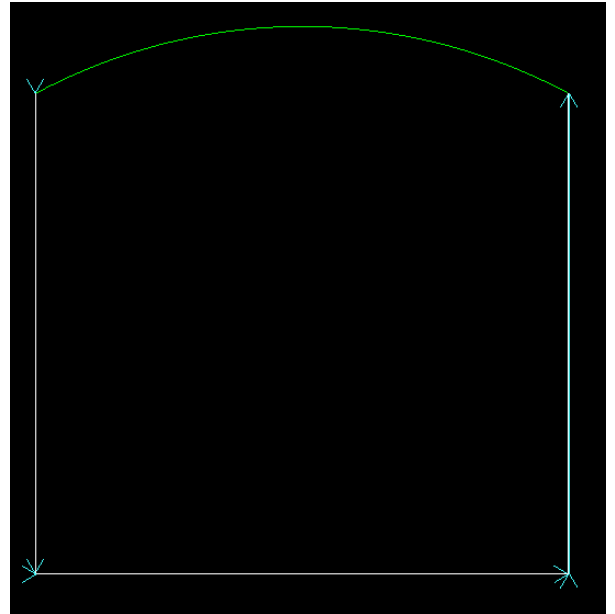
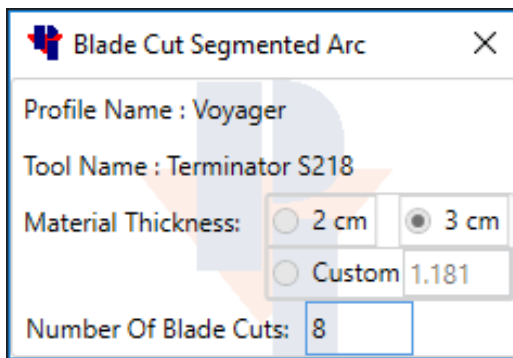
Blade Cut to Arc

Applies multiple straight blade cuts around an arc.

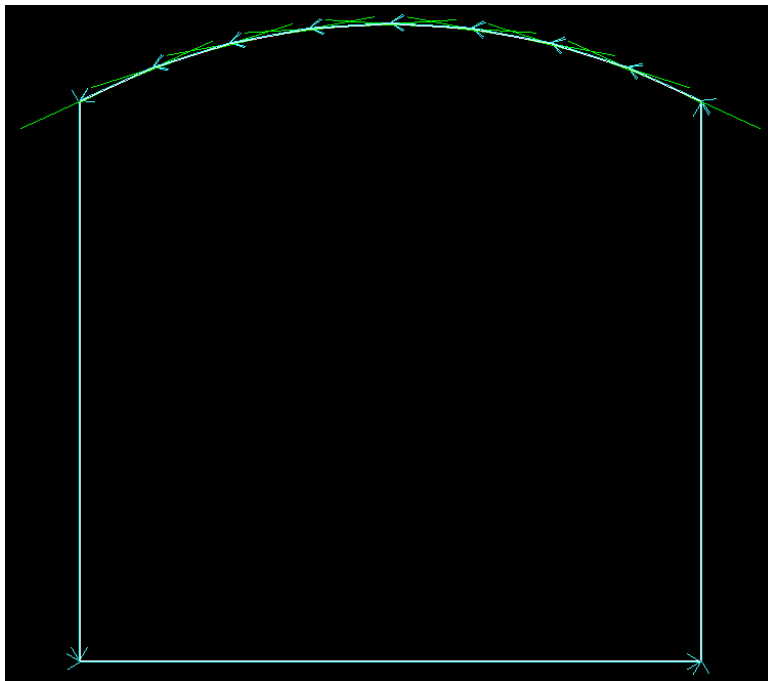
First, apply toolpaths to the part using the Auto ToolPath button. The Auto ToolPath function will apply cuts to all sides of the shape that are possible. In this example, the three straight sides have cuts applied.



Select the Blade Cut to Arc icon.



Enter the desired number of blade cuts to cut out the Arc and then select the arc. Press Esc or right-click to end the command.




The result is eight straight blade cuts that follow the shape of the Arc.

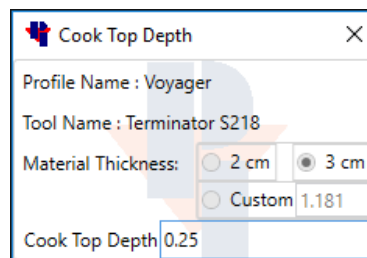


Cook Top Depth

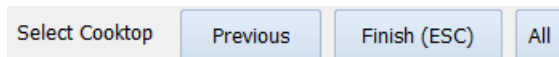
Changes saw cuts to the depth specified by the **Cooktop Depth** field.

The steps to change the cook top depth are:

- Apply toolpaths (AutoToolPath button).
- Press the **Cook Top Depth** button. 
- Change the value in the Cook Top Depth field if needed.
- Select the blade tool paths that you want to change the cut depth on.

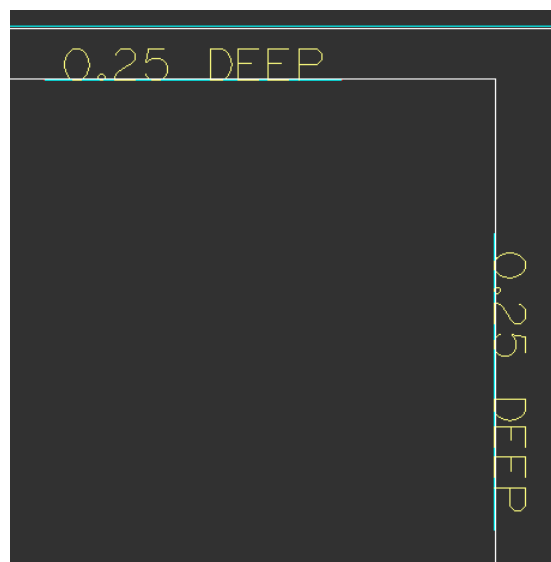
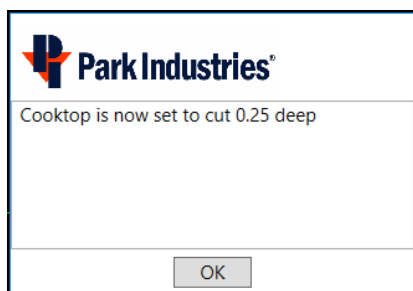


*Note: You may either select each blade cut individually or use a selection window over all the blade cuts you want to change.



- Press **ESC** or click the **Finish (ESC)** button.

This dialog box appears for each blade cut selected when complete, and labels are added to the blade cut(s).



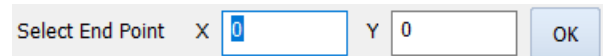
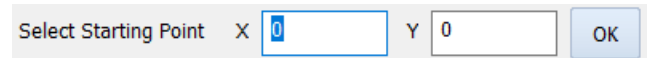
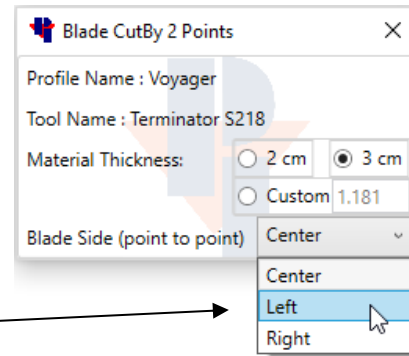


Blade Cut by 2 Points

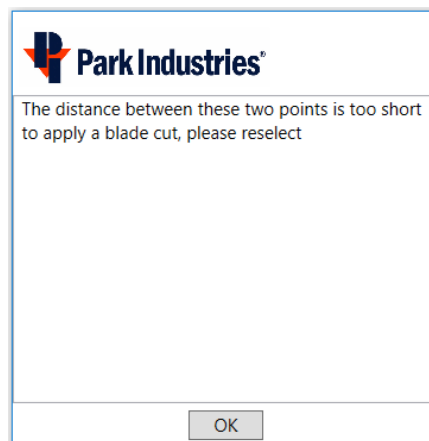
NOTE: you can not add a tightcut on any blade cut. Only Auto Toolpath can place tightcuts in a program

The steps to assign a two-point blade cut are:

- Press the **Blade Cut by 2 Points** button.
- Select the blade side.
- Select starting point – either use the mouse to select a point or enter X & Y coordinates and then press **OK**.
- select end point - either use the mouse to select a point or enter X & Y coordinates and then press **OK**.



Note: The distance between the points selected must be long enough to allow the blade to cut at full depth or you will get the following message.





Extend/Trim to point or Distance

Changes the length of a toolpath

First apply toolpaths to the part using the Auto Toolpath button. Then you may use one of the following commands to change the length of the toolpaths.

Extend/Trim to point



- First select the Extend/Trim to point icon. Then select toward the end of the toolpath to change.
- You can either click on a location for a different length, or you may type in X and Y values.

Select Path To modify

Select X Y

Extend/Trim by Distance



- First select the Extend/Trim by distance icon. This window will open on your screen.
- Enter a distance in the window.

Extend/Trim By Distance

Distance:

*Note: If the value is a positive, you will get the prompt to **Extend**.

Please Select Toolpath to Extend by 0.25 inches.

If the value is a negative, you will get the prompt to **Trim**.

Please Select Toolpath to Trim by 0.25 inches.

- Select the Toolpath toward the end that you wish to change the distance of.



Reverse Cut Direction

First apply toolpaths to the part using the Auto Toolpath button. Then you may change the direction of the cuts.

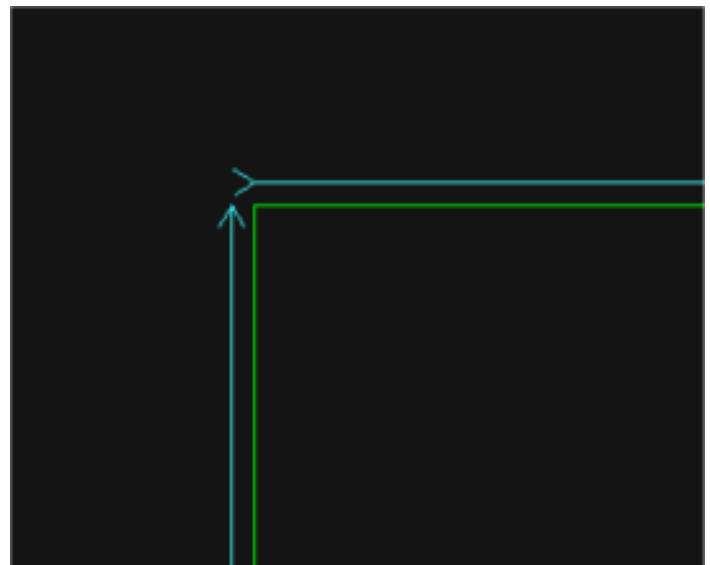
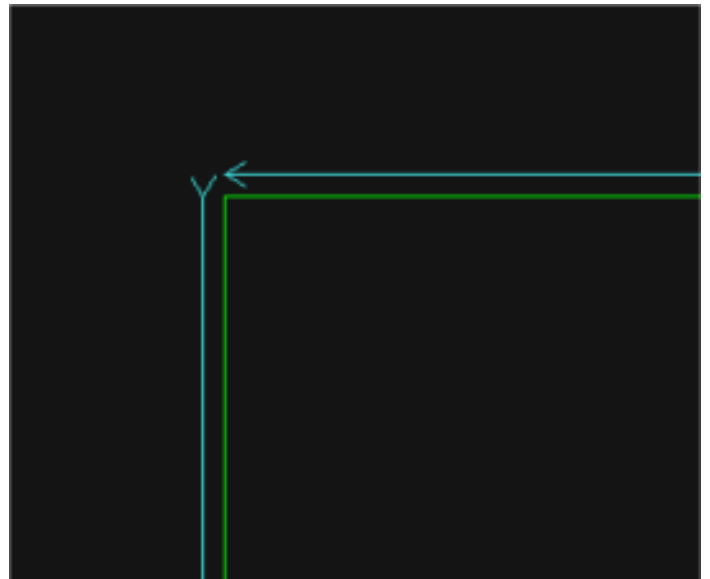
*Turn on **Show Tool Path Arrows** to display the current direction.

Show Tool Path Arrows



Click on the Reverse Cut Direction icon.

Select each tool path to change the direction on.



*Note: You are not allowed to reverse a blade miter toolpath.



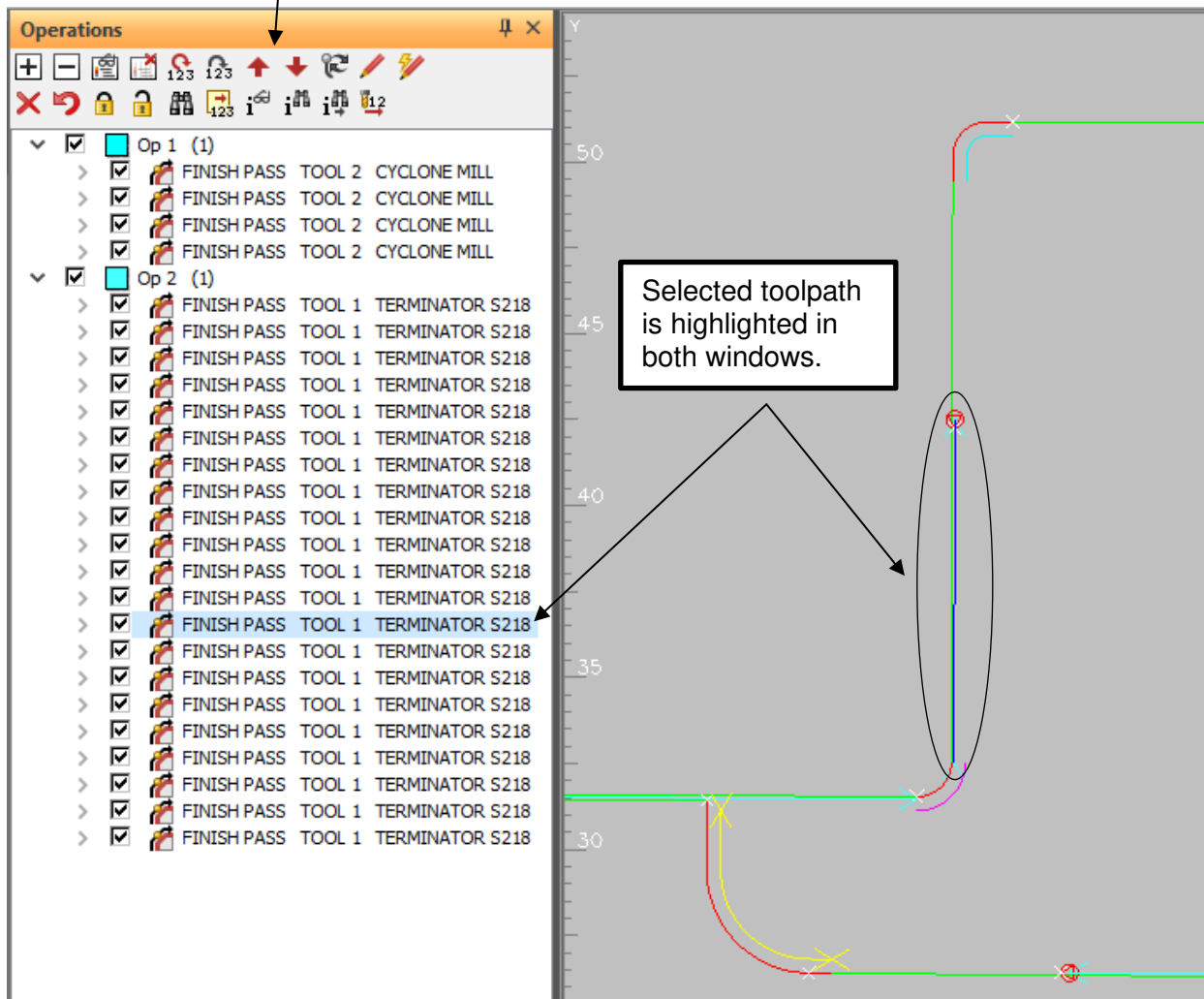
Order of Cuts

Opens the Operations window to view or to change the sequence of cuts.

To view the order of the cuts: Click to select the first (top) toolpath in the operation window. Use your keyboard up and down arrow keys to see the corresponding toolpaths highlighted in the drawing window.

To change the order of cuts: Click to select a toolpath or operation in the operation window. Use the **Red Arrows** at the top of the operation window to move the selected toolpath or operation up or down.

Red “Move Up” and “Move Down” arrows





Extend Cuts to Border

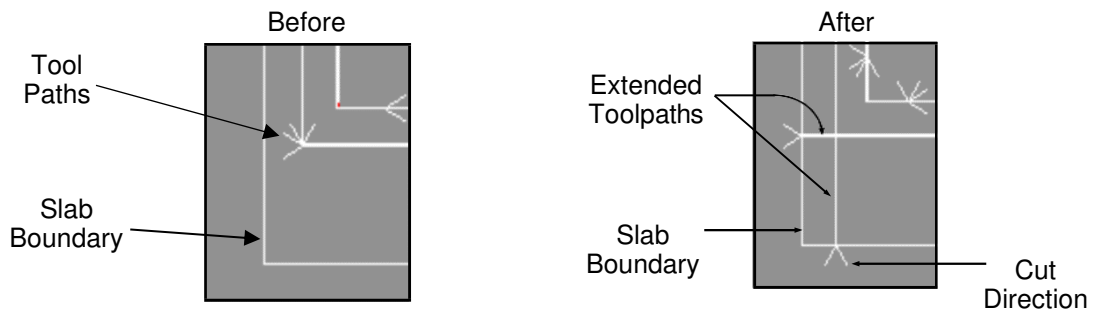
Extends Saw blade cuts to the edge of the material border after all cuts have been applied.



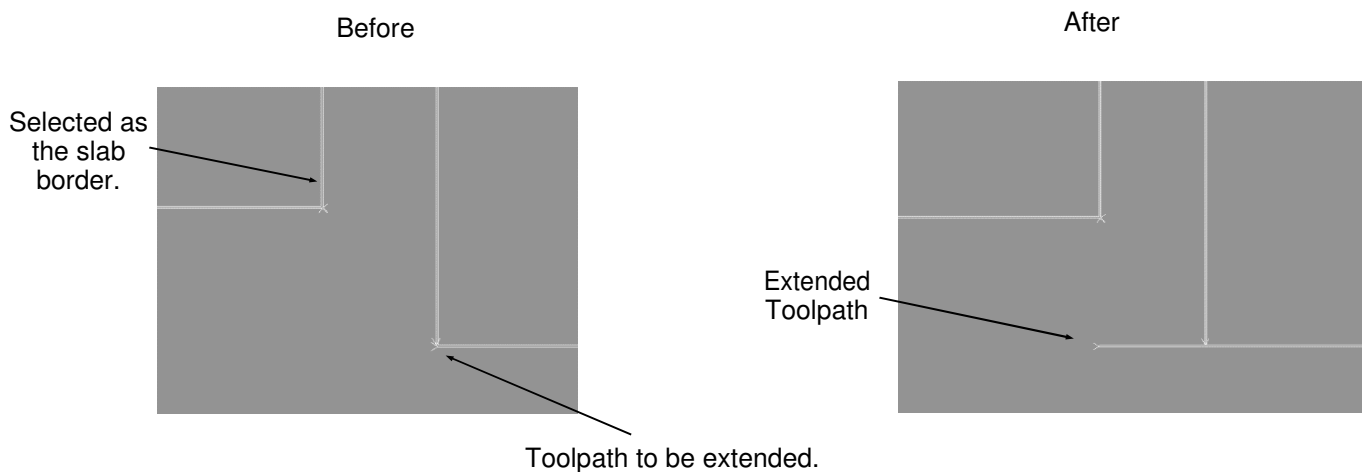
Extend Cuts to Border - This command extends blade cut toolpaths to the slab border and starts the cut at the border line.

The steps to extend cuts are:

- Press the **Extend Cuts to Border** button.
- Select the slab border first. Select Border To Extend To...
- Select the tool path toward the end that you want to be extended. Select ToolPath to Extend...
- Continue to select toolpaths to extend or press ESC to finish.



Note: You may also pick the edge of a part as the slab border.





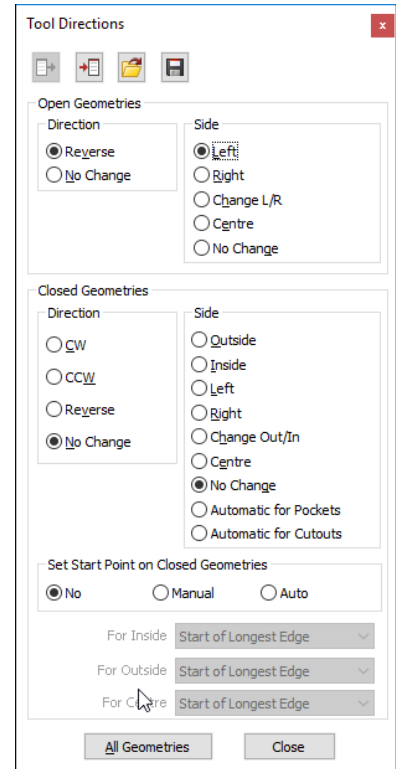
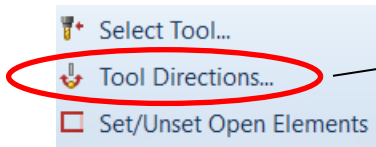
Manual Saw Cut

Manual Saw cut Command

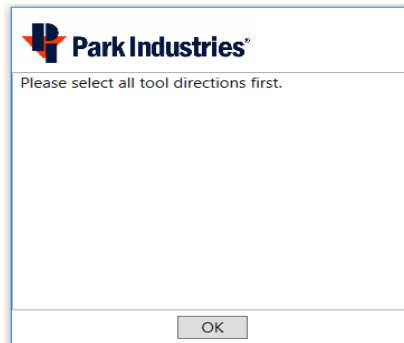
This command allows a user to manually apply a blade tool path to either an individual geometry or part. It is manual because the user (not AutoToolPath button) is building each toolpath required to complete the job.

Extreme caution must be used, as to not cause any unwanted overcuts into other parts, or any other unwanted cuts or movements.

Before using this command, tool direction must be set first. Your settings may be different for each application. (**Tool Directions** in the **Machine** tab).

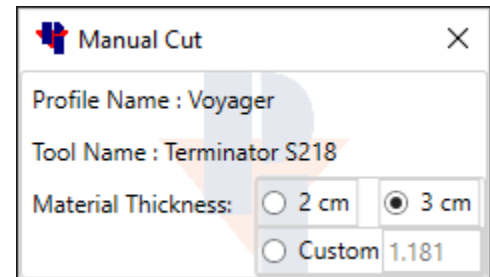


*Alphacam generates this message if attempting to apply a toolpath without first setting tool direction.



Manual Saw Cut - Use to manually apply a blade toolpath to a geometry or part. Once the tool directions are set, the basic steps are:

- Press the **Manual Saw Cut** button.
- Select the material thickness (if needed).
- Select parts or geometries to apply cuts to.
- Press **ESC** or **Right Click** when finished.



These toolpaths will be populated in the **Operations** window.

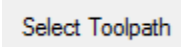


Delete Toolpath

Deletes only toolpaths without selecting the geometry.

The Delete Toolpath command may be easier to use in some instances than Alphacam delete. It allows the user to simply click on toolpaths and they are removed.

The steps to Delete a toolpath are:

- Press the **Delete Toolpath** button.
- Select the toolpath. 
- Select another or press ESC to finish.



Park / Pause Machine

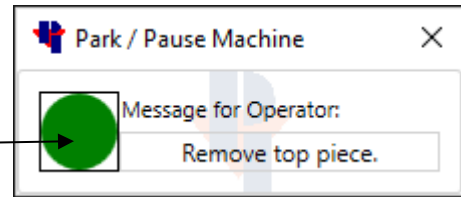
Allows the programmer to have the machine park and pause after a cut.



Selecting this command allows the user to create G-Code commands which park and pause the machine after a cut. The command is assigned to a tool path and then executed after the cut is made. A message is displayed in the machine's message center indicating when a Park Pause is reached in the program.

The steps to use this command are:

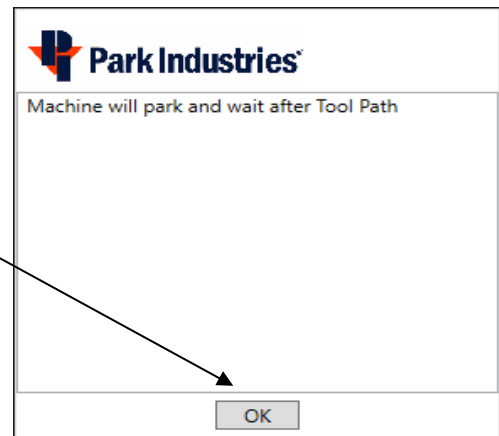
2. Select the Park / Pause Machine button. Change the message to be displayed on the machine if desired in the pop-up window and click on the "Green" park and pause icon. It will change from "Green" to "Red".



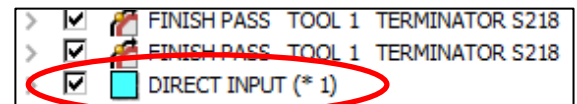
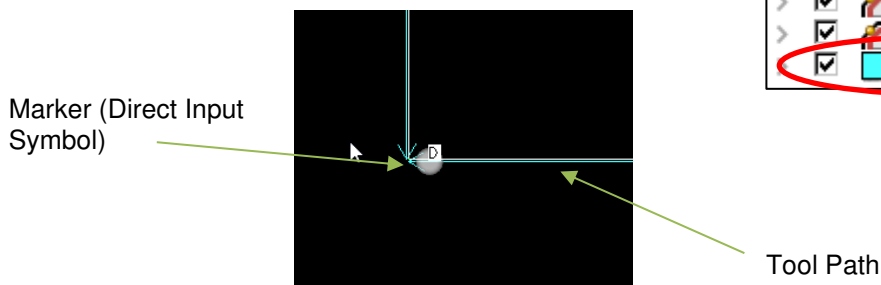
3. Select the Toolpath in the drawing to Park and Pause after.

Select Toolpath to Pause and Park after

4. Click **OK** on the message window.



5. A marker (letter "D" with a shaded white dot) is placed at the end of the selected tool path, and a "Direct Input" appears at the end of that operation in the "Operations Project Manager".



Note: **User Defined Code** (View-Display Options) must be enabled to see the "shaded white dot"



Send G-Code to the Machine

Creates and sends the program to the machine and can also create a job report.

After a layout and all cut paths are completed, clicking this button will send the program to the machine or to the location that is set in the configuration. You will then have the option to generate a printable Job Report. The Send G-Code command will also do an automatic save on the file.

Information window for job sheet

Job Information

Bar Code Size: 5

Report Output Display Options:
 Tool List Sort Tools
 Black & White

Report Header Image: [Browse]

Job Notes:
 Type Job Notes Here


Save Location:
 \\C:\Alphacam\LICOMDIR\Reports\Export [Browse]

OK Cancel

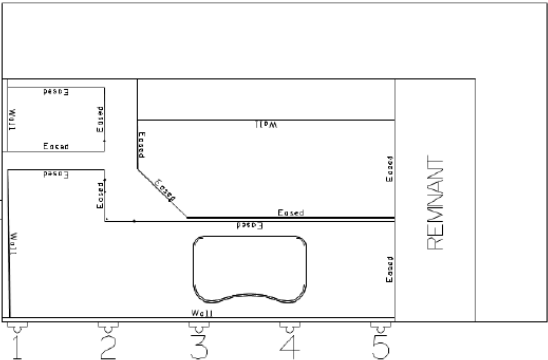
Job Name: Johnson.Slab1

Machine Name: Voyager XP

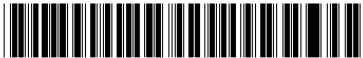
Approx Processing Time: 00:30:54



Park Industries®
Precision. Performance. Peace of Mind.



REMNANT




JOHNSON.SLAB1

Job Notes:
 Slab #2744
 Return remnant to wise
 Save sink cut out for customer

Tooling Used:

T1-TERMINATOR.S218 T2-CYCLONE MILL



1/1

In the PI Reports page, you can choose your options and type in any Job Notes that the operator will see on the report page. You can also set a default Save Location. Click on OK to finish and create the Job Report. You may print the Report so the Operator can scan the bar code at the machine.

*The file name cannot contain spaces or symbols if using a bar-code scanner.

Adding Tool information on the Fab Center with Tool Examples

Setup the tool and parameters for every tool type. Each Fab Center Machine Profile may have up to 20 tools saved in Alphacam, but there can only be ONE BLADE active at a time. You may add tools in the **Machine Profile Setup** window, or you may also add tools in the Titan (Fab Center tab) by pressing the **Tool Select** button.

On the Fab Center - **ALL BLADES** must have a **tool number of 201**

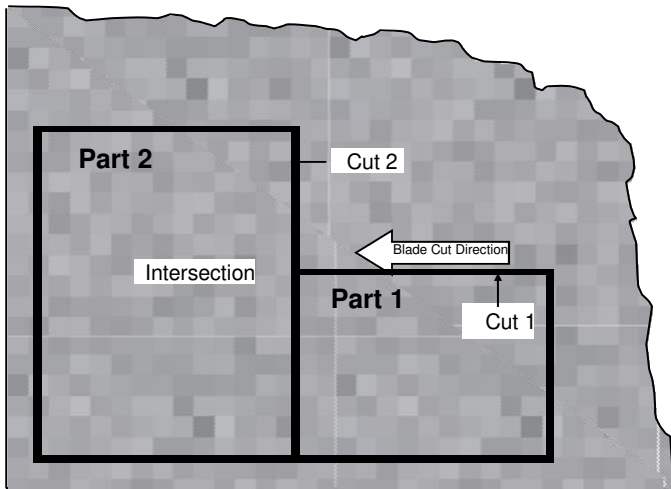
The screenshot shows a dialog box titled "Term granite" with a close button (X) in the top right corner. The dialog is divided into several sections:

- Tool Identification:** Name: Term granite; Number: 201 (highlighted with a red box); Diameter: 14.937 inches; RPM: 1700 (If Only VFD Controlled); Rapid Plane: 2 inches; Final Cut Depth: -0.125 inches; Blade Kerf: 0.135 inches; Safety Distance: 1 inches.
- Feeds and Cuts:**
 - Straight Feeds:** Down Feed: 10 inches/Min; Cut Feed: 70 inches/Min.
 - Miter Feeds:** Down Feed: 10 inches/Min; Cut Feed: 30 inches/Min.
 - Straight Step Cutting:** Step Cutting: ; Depth Per Cut: 0.4 inches; Bidirectional: .
 - Miter Step Cutting:** Step Cutting: ; Depth Per Cut: 0.4 inches.
- Buttons:** Save, Save and Close.

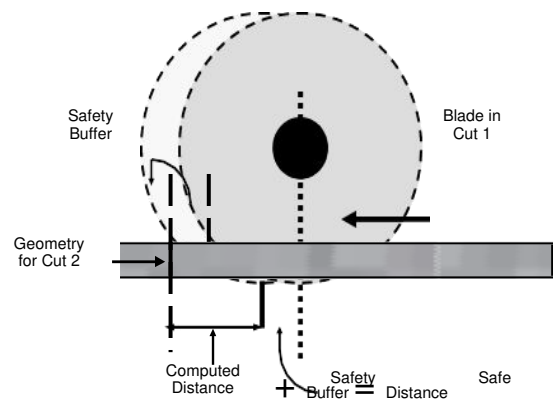
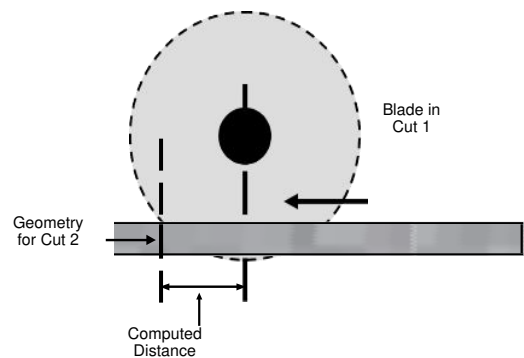
Safety Distance detail

Safe Distance Explanation

In the example below, as the blade finishes cut 1 of part 1 it approaches cut 2 of part 2. The blade motion must stop before reaching the intersection point.



Given the correct tooling parameters, the software computes the distance required to prevent the blade from cutting into an intersecting geometry shown as computed distance in the top figure. If the machine tool parameters match the program tool parameters, and the correct material thickness is used, the blade will always stop before entering the next geometry. But since this does not always happen in the real world, a safety buffer can be used. (See bottom figure).



Safety Distance is a value added to the computed blade over travel stop distance to help prevent the blade from cutting into an intersecting geometry. This compensates for varying stone thickness, blade diameter, and other factors.

**** Important Note: Tight Cut does not use Safety distance!!!**

F1	F2	F3	F4		F5	F6	F7	F8		F9	F10	F11	F12
Unknown/ Help	Various	Ortho On/Off	Close & Finish		Quadrant	End of	Middle of	Center of		Intersect of	Tangent to	Perpend to	Parallel to

F1	F2	F3	F4		F5	F6	F7	F8		F9	F10	F11	F12
Unknown/ Help	Various	Ortho On/Off	Close & Finish		Quadrant	End of	Middle of	Center of		Intersect of	Tangent to	Perpend to	Parallel to

F1	F2	F3	F4		F5	F6	F7	F8		F9	F10	F11	F12
Unknown/ Help	Various	Ortho On/Off	Close & Finish		Quadrant	End of	Middle of	Center of		Intersect of	Tangent to	Perpend to	Parallel to

F1	F2	F3	F4		F5	F6	F7	F8		F9	F10	F11	F12
Unknown/ Help	Various	Ortho On/Off	Close & Finish		Quadrant	End of	Middle of	Center of		Intersect of	Tangent to	Perpend to	Parallel to

F1	F2	F3	F4		F5	F6	F7	F8		F9	F10	F11	F12
Unknown/ Help	Various	Ortho On/Off	Close & Finish		Quadrant	End of	Middle of	Center of		Intersect of	Tangent to	Perpend to	Parallel to

F1	F2	F3	F4		F5	F6	F7	F8		F9	F10	F11	F12
Unknown/ Help	Various	Ortho On/Off	Close & Finish		Quadrant	End of	Middle of	Center of		Intersect of	Tangent to	Perpend to	Parallel to

Keyboard Shortcuts

Geometry		View		Action	Hotkey
Arc	A	3-D	V	3-D	V
Circle	Ctrl+C	Ghost Tools	Ctrl+G	Add-Ins	`
Common Line Removal	Shift+R	Zoom All	Z	Apply Style	Shift+S
Enclosing Rectangle	Alt+R	Zoom Previous	Ctrl+B	Arc	A
Line	L	Zoom Window	W	Break	B
Rectangle	R			Change	Shift+C
Text	Ctrl+T	CAD		Circle	Ctrl+C
		Dimension	Ctrl+D	Clear Memory	Ctrl+Delete
Edit		Distance/Angle	U	Common Line Removal	Shift+R
Break	B	Hide Parts	H	Copy	C
Change	Shift+C	Show All Parts	Alt+H	Cut	Alt+C
Copy	C	User Layers	Ctrl+U	Delete	D
Cut	Alt+C			Dimension	Ctrl+D
Delete	D	File		Distance/Angle	U
Explode	X	New	Ctrl+N	Enclosing Rectangle	Alt+R
Extend	E	Open	Ctrl+O	Explode	X
Extend By Distance	Ctrl+E	Save	Ctrl+S	Extend	E
Fillet	F			Extend By Distance	Ctrl+E
Join	J	Add-Ins/Macros		Fillet	F
Keep	K	Add-Ins	`	Ghost Tools	Ctrl+G
Mirror	I			Input CAD	Ctrl+I
Move	M	Machine		Insert	Shift+I
Offset	O	Apply Style	Shift+S	Join	J
Redo	Ctrl+Y	Tool Direction	Shift+T	Keep	K
Rotate	Ctrl+R			Line	L
Scale	S	3D		Mirror	I
Trim	T	Project 3D to 2D	P	Move	M
Undo	Ctrl+Z	Set Material	Shift+M	New	Ctrl+N
				Offset	O
Home				Open	Ctrl+O
Clear Memory	Ctrl+Delete			Project 3D to 2D	P
Input CAD	Ctrl+I			Rectangle	R
Insert	Shift+I			Redo	Ctrl+Y
				Rotate	Ctrl+R
				Save	Ctrl+S
				Scale	S
				Set Material	Shift+M
				Text	Ctrl+T
				Tool Direction	Shift+T
				Trim	T
				Undo	Ctrl+Z
				User Layers	Ctrl+U
				Zoom All	Z
				Zoom Previous	Ctrl+B
				Zoom Window	W
				Hide Parts	H
				Show All Parts	Alt+H