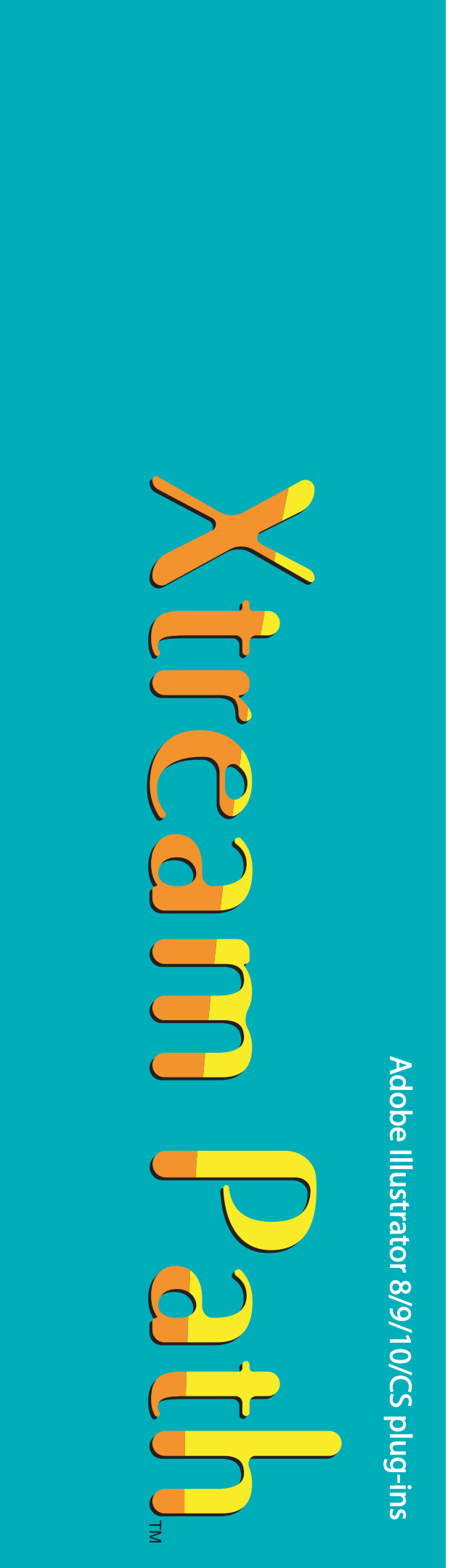

User's Guide

Prepared by
Peter Bauer
Author, Special Edition Using Adobe Photoshop CS and Adobe Creative Suite
Author, Special Edition Using Adobe Illustrator 10

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Getting Started

Introduction

Thank you for purchasing Xtream Path 1.5, a set of plug-ins for Adobe Illustrator 8/9/10/CS/CS2/CS3/CS4/CS5/CS6 . This User's Guide assumes you have a working knowledge of the Mac OS or Windows, printer drivers, fonts, and Adobe Illustrator 8/9/10/CS/CS2/CS3/CS4/CS5/CS6, and that they are set up correctly. For help with any of these subjects, see the appropriate documentation that came with your computer or other software.

This document will guide you through installation, and then delve into an explanation of each tool.

System Requirements

Macintosh
Mac OS 8, 9 or Mac OS X10.1-10.8 (Intel Mac supported, Rosetta mode is not supported)
Adobe Illustrator 8.0/9.0/10.0/CS/CS2/CS3/CS4/CS5/CS6

Windows
Windows 98/Me/2000/NT4.0/XP/Vista/7/8
Adobe Illustrator 8.0/9.0/10.0/CS/CS2/CS3/CS4/CS5/CS6

Note:
The OS version will depend on the version of Adobe Illustrator that you are using.

How to install Xtream Path 1.5

1) Locate the Xtream Path folder that you just purchased.
2) There are 6 separate folders inside the Xtream Path folder.
3) Choose the appropriate folder for your version of Illustrator and drag to the **Illustrator plug-ins** folder. For example, if you use Illustrator 10, you will

drag the "Xtream Path for_AI10" folder to the plug-ins folder.

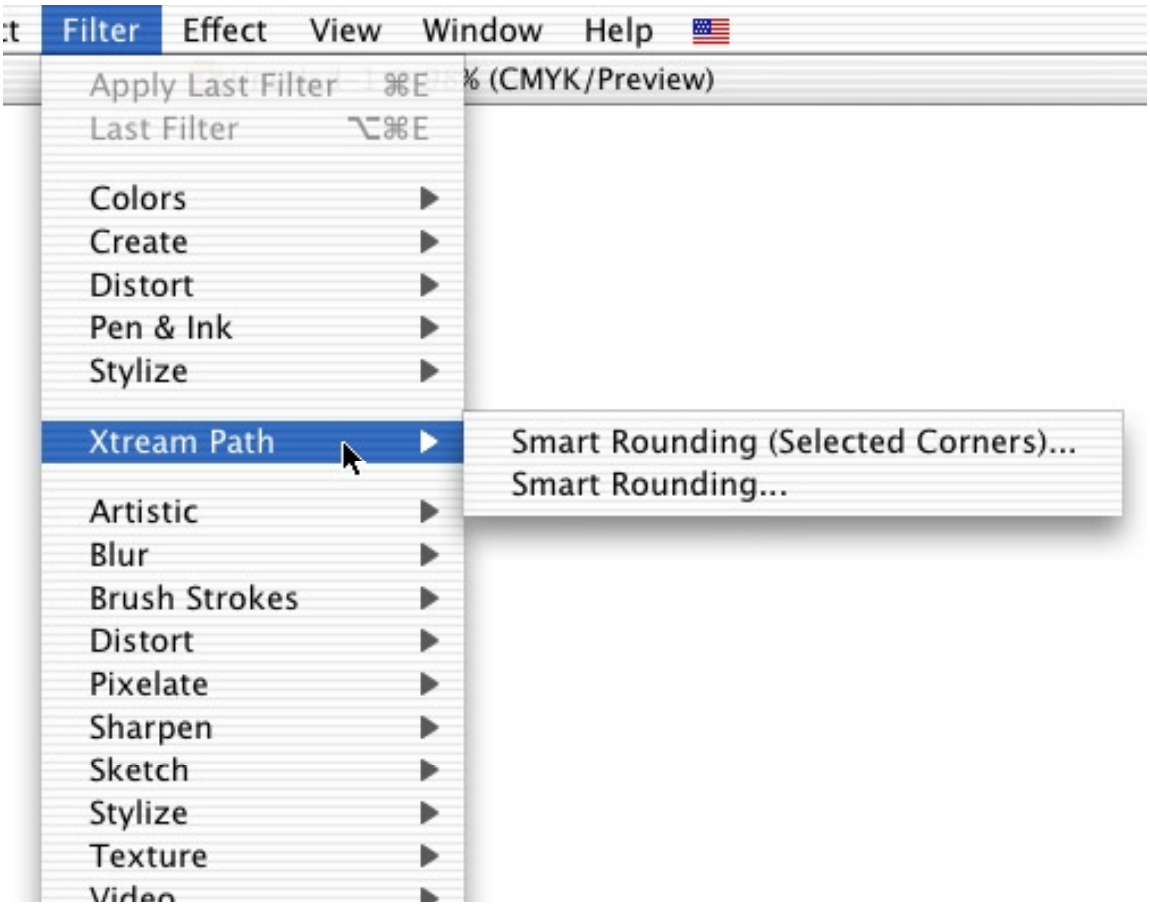
4) Start Illustrator.

Where Xtream Path is installed

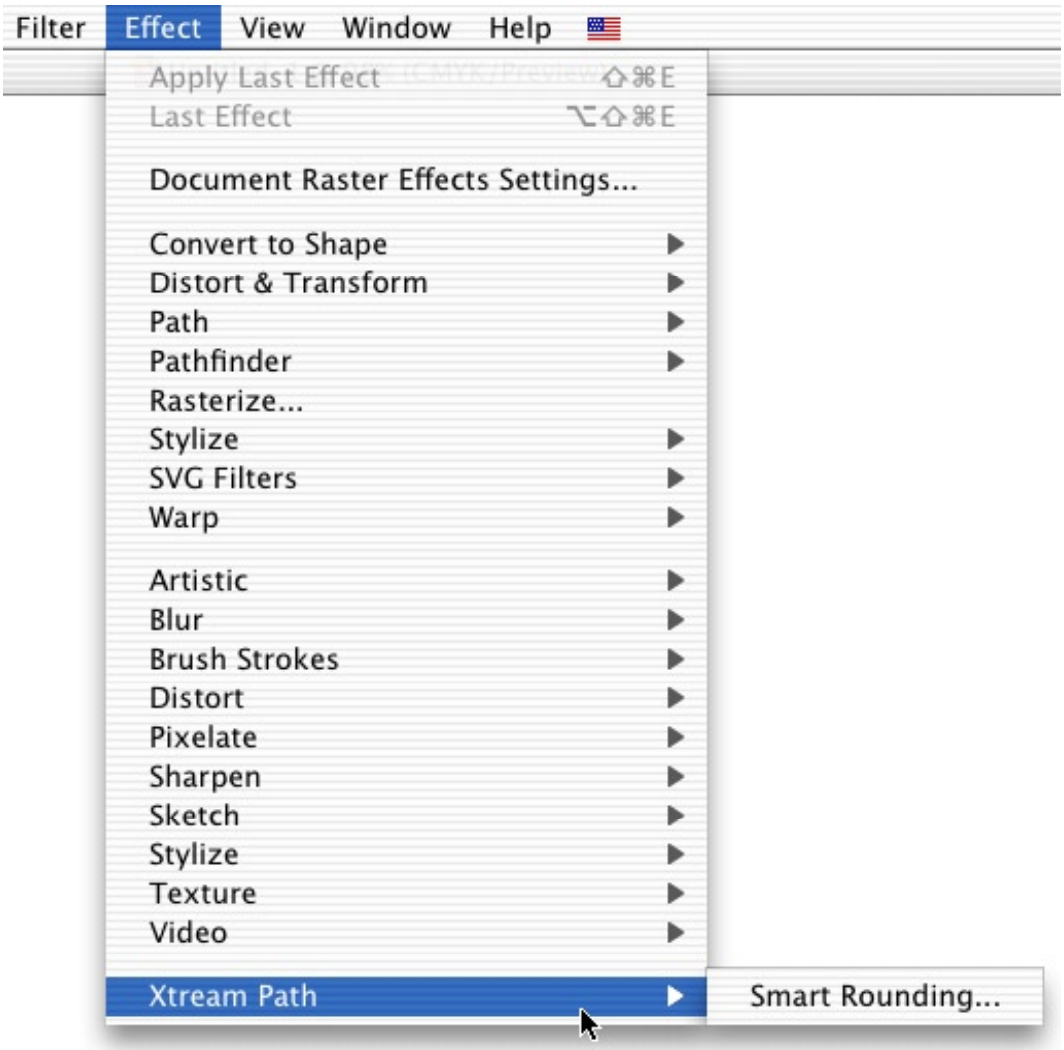
Under the Filter and Effect menu

There are two commands, **"Smart Rounding…"** and **"Smart Rounding (Selected Corners)…"** under the Illustrator Filter menu. Under the Effect menu in Illustrator 9 and 10, you'll find the Live version of **Smart Rounding** command. They both installed as sub menus of the Xtream Path menu. For the use of each command, refer to the **"Filter and Effect Commands"** section of this manual.

*The Effect menu does not exist in Illustrator 8.0, therefore you will only have access to **Smart Rounding** from the Filter menu.



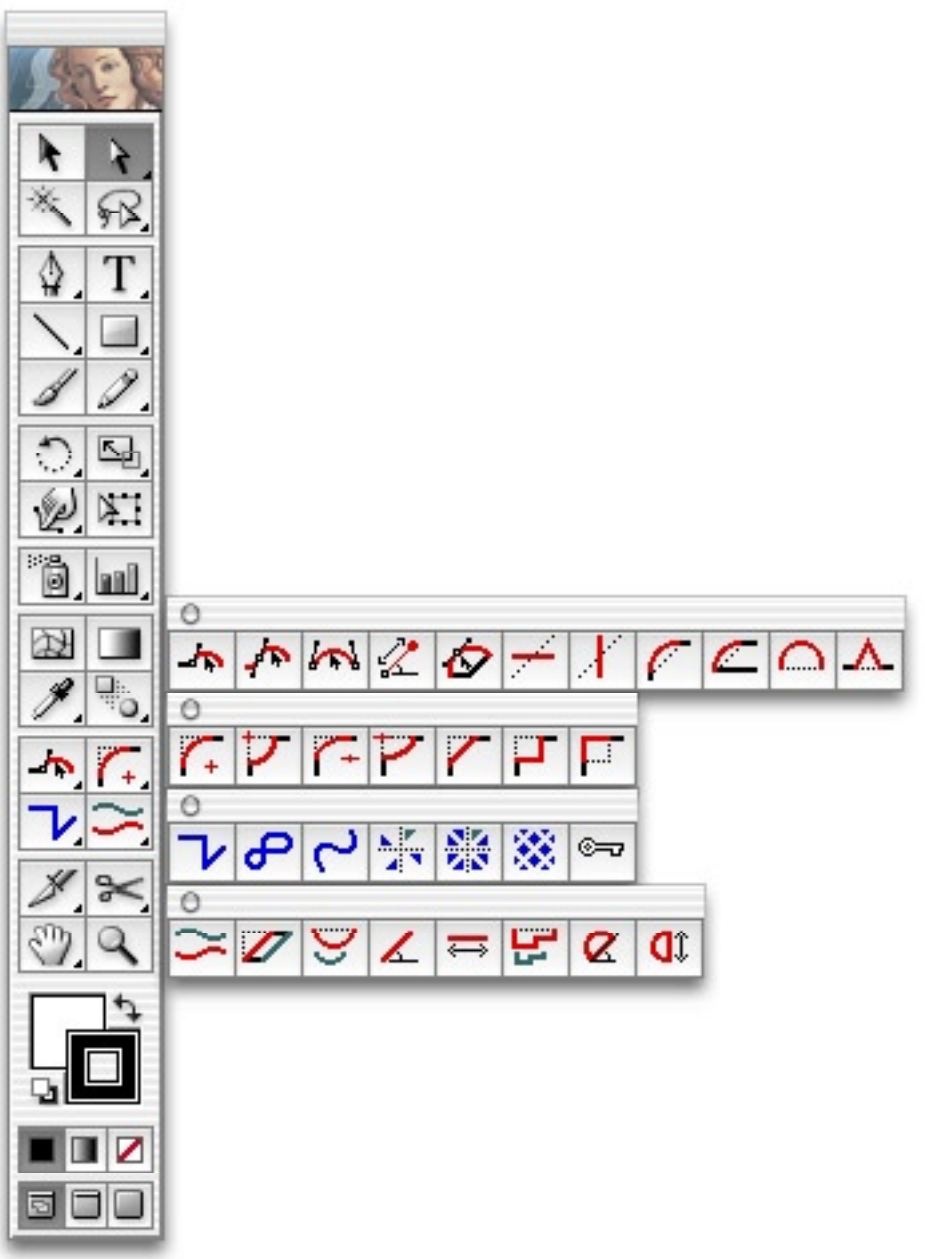
Effect menu


Filter
Effect
View
Window
Help
Apply Last Effect ⇧⌘E
Last Effect ⌥⇧⌘E
Document Raster Effects Settings...
Convert to Shape
Distort & Transform
Path
Pathfinder
Rasterize...
Stylize
SVG Filters
Warp
Artistic
Blur
Brush Strokes
Distort
Pixelate
Sharpen
Sketch
Stylize
Texture
Video
Xtream Path
Smart Rounding...

Getting Started

Illustrator Toolbox

Xtream Path installs a total of 33 tools categorized into 4 sections in the Illustrator Toolbox. For the use of each tool, refer to the Tools section of this manual.

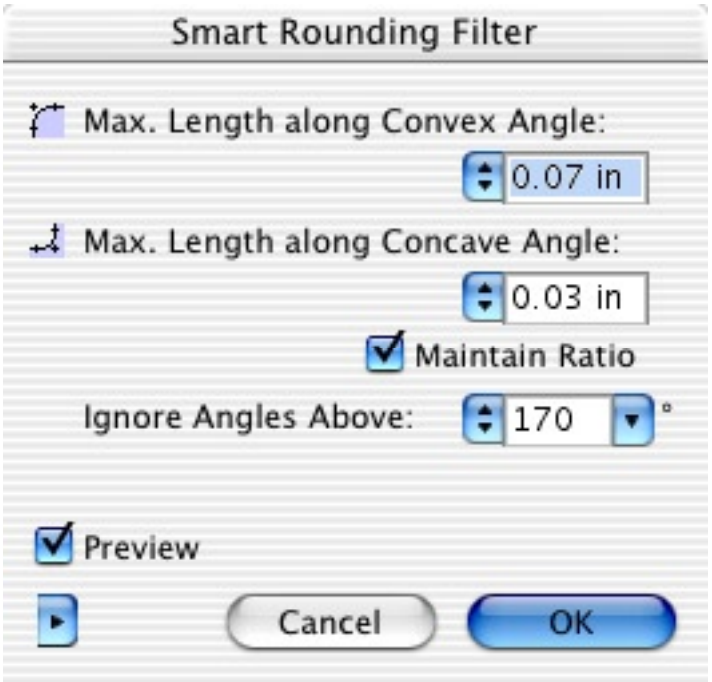


Filters and Effects

Smart Rounding Filter

The Smart Rounding filter adds a curve to any corner anchor point. By adding a pair of smooth points to replace the corner point, any angle can be rounded, regardless of path segment shape. The Smart Rounding filter gives you control over the shape of concave and convex corners independently.

With any object that includes one or more corner anchor points selected on the artboard, use the menu command Filter> Xtream Path> Smart Rounding to open the dialog box.



Here's how to control the Smart Rounding filter:

Maximum Length along Convex Angle
This field determines the maximum distance along the path for placement of a corner's new smooth anchor points. For complex paths, Smart Rounding may use a smaller value to avoid conflicts with existing anchor points.

Maximum Length along Concave Angle
This field is used to independently control the rounding of concave corners. As with convex corners, a smaller value may be used to avoid conflicts with other anchor points.

Smart Rounding Filter

TIP: While the Maximum Length fields measure in points, you can enter any of Illustrator's standard units of measure and Xtream Path will convert to point on the fly. For example, in the Maximum Length field enter 1 in and hit Tab or Return/Enter. The value is automatically converted to 72 pt.

Maintain Ratio When this option is selected, you can change the value in either field above and maintain the existing relationship between the two fields. For example, if the maximum length for convex angles is twice that of concave angles, changing either field results in a new value for the other field, maintaining the 2:1 ratio.

Ignore Angles Above
The value specified here determines which angles of the original object will be converted. Any existing angle equal to or greater than the value in this field is ignored. For example, if the maximum target angle is set to 90°, right angles are left unchanged. If you change the value to 91°, right angles are rounded.

Preview
Check this box to see the effect of the filter prior to its application. The artboard is automatically updated as you change values. When the filter is applied to extremely complex paths, you may want to uncheck Preview until you've entered your target values.

Cancel/OK
The cancel button terminates the filter dialog box without changing the selected object; the OK button applies the filter with the selected settings.

In the lower-left corner of the Smart Rounding dialog box is a triangle that gives access to the pop-up menu. Select Show Help from the menu to see instructions for Smart Rounding at the bottom of the dialog box. (When the help area is visible, the pop-up menu offers Hide Help instead.) You can also display information about Xtream Path and see a clickable link to the CValley homepage by selecting About this plug-in… from the pop-up menu.

Smart Rounding Filter

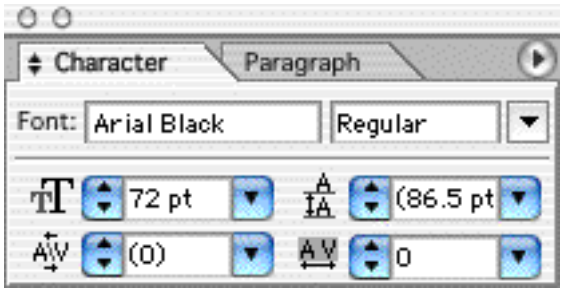
TIP: The Smart Rounding filter can be recorded in an Illustrator Action to simplify repeated application. Not only will recording the filter in an Action speed up its application, it ensures uniformity from object to object. If you've got a number of objects, or a number of illustrations, that need to have identical corners, record Smart Rounding in an Action and assign it to an F-key combination for one-step filtering.

Smart Rounding Demonstration

This short exercise shows just one of the many applications of the Smart Rounding filter.

1. Open a new Illustrator document, 800 by 600 pixels, RGB.
2. Select the Type tool. In the Character palette, select Arial Black as the font, and 72 points for the size. Set a line of point type.

3. In the Layers palette, drag the type object to the Create New layer button to duplicate it. Use the **Selection** tool to drag the new copy down, positioning it directly below the original type object. With the copy of the type object selected on the artboard, use the menu command **Type**> **Create Outlines**.



4. Use the appropriate keyboard shortcuts or commands from the View menu and hide both the bounding box and the edges (**View**> **Hide Bounding Box**, **View**> **Hide Edges**). This enables you to better see your preview.
5. Now, keeping the type object selected, choose the menu command **Filter**> **Xtream Path**>**Smart Rounding**.
6. In the Smart Rounding dialog box, check the **Preview** box, uncheck the **Maintain Ratio** box, and enter **Maximum Length along Concave Angle**: 0 and **Maximum Length along Convex Angle**: 8.

Smart Rounding Filter

By converting the type to outlines and using Smart Rounding, you've created a new, more casual look for your type. Experiment with the settings in the Smart Rounding dialog box to see how you can further customize the look.

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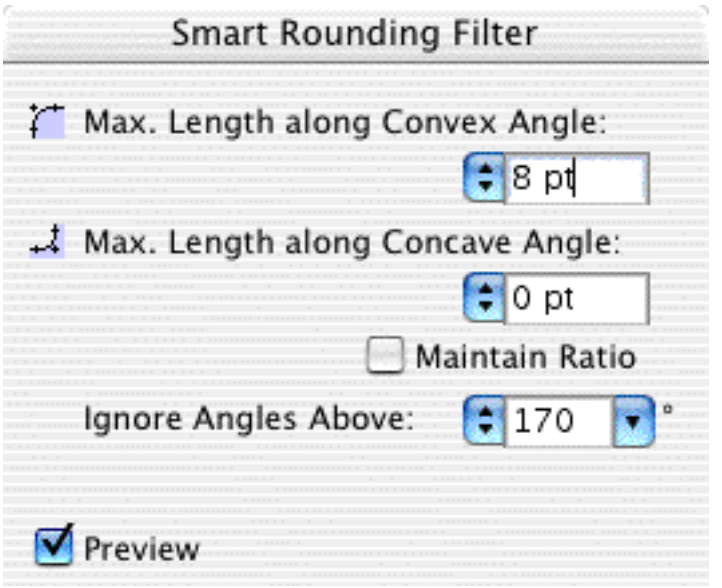
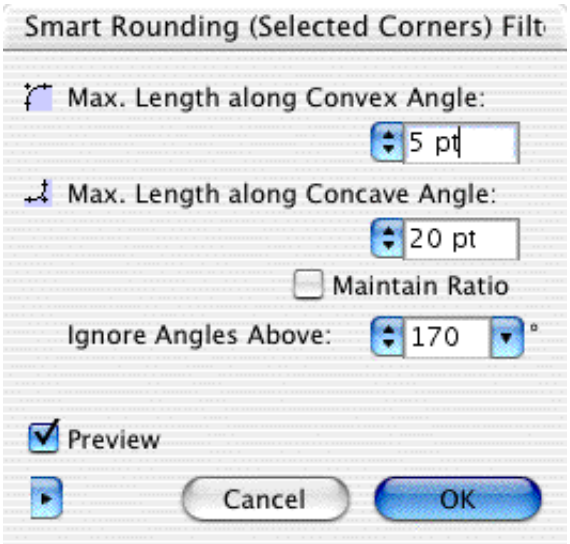


Smart Rounding (Selected Corners) Filter

Like the Smart Rounding filter, the Smart Rounding (Selected Corners) filter adds a curve to any corner anchor point. By adding a pair of smooth points to replace the corner point, any angle can be rounded, regardless of path segment shape. The filter gives you control over the shape of concave and convex corners independently. The difference between the two filters is basic: While Smart Rounding works on a selected object in its entirety, Smart Rounding (Selected Corners) is applied to one or more selected corner anchor points.

Select one or more anchors points of an object, then use the command Filter> Xtream Path> Smart Rounding (Selected Corners). You then apply the filter to the selected corners, leaving the unselected anchor points unchanged. In this example, the original object is shown in the middle. At the top, the star's inner corners are selected and the filter is being applied. At the bottom, the filter is being applied only to the star's outer corners.



Smart Rounding (Selected Corners) Filter

Here's how to control the Smart Rounding (Selected Corners) filter:

Maximum Length along Convex Angle
This field determines the maximum distance along the path for placement of a corner's new smooth anchor points. For complex paths, Smart Rounding (Selected Corners) may use a smaller value to avoid conflicts with existing anchor points.

Maximum Length along Concave Angle
This field is used to independently control the rounding of concave corners. As with convex corners, a smaller value may be used to avoid conflicts with other anchor points.

TIP: While the Maximum Length fields measure in points, you can enter any of Illustrator's standard units of measure and Xtream Path will convert to point on the fly. For example, in the Maximum Length field enter 1 in and hit Tab or Return/Enter. The value is automatically converted to 72 pt.

Maintain Ratio
When this option is selected, you can change the value in either field above and maintain the existing relationship between the two fields. For example, if the maximum length for convex angles is twice that of concave angles, changing either field results in a new value for the other field, maintaining the 2:1 ratio.

Ignore Angles Above
The value specified here determines which angles of the original object will be converted. Any existing angle equal to or greater than the value in this field is ignored. For example, if the maximum target angle is set to 90°, right angles are left unchanged. If you change the value to 91°, right angles are rounded.

Preview
Check this box to see the effect of the filter prior to its application. The artboard is automatically updated as you change values. When the filter is applied to extremely complex paths, you may want to uncheck Preview until you've entered your target values.

Smart Rounding (Selected Corners) Filter

Cancel/OK

The cancel button terminates the filter dialog box without changing the selected object; the OK button applies the filter with the selected settings.

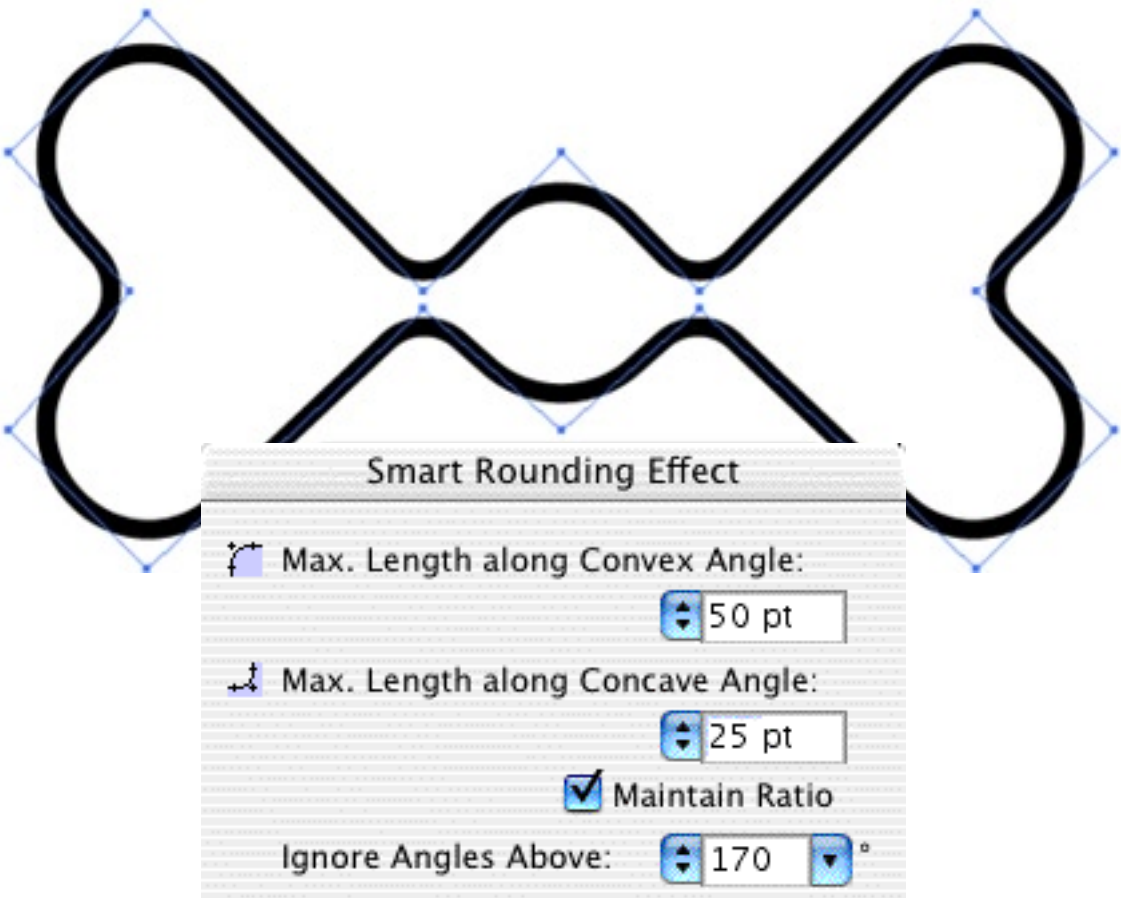
In the lower-left corner of the Smart Rounding (Selected Corners) dialog box is a triangle that gives access to the pop-up menu. Select Show Help from the menu to see instructions for Smart Rounding at the bottom of the dialog box. (When the help area is visible, the pop-up menu offers Hide Help instead.) You can also display information about Xtream Path and see a clickable link to the CValley homepage by selecting About this plug-in… from the pop-up menu.

TIP: The Smart Rounding (Selected Corners) filter can be recorded in an Illustrator Action to simplify repeated application. Not only will recording the filter in an Action speed up its application, it ensures uniformity from object to object. If you've got a number of objects, or a number of illustrations, that need to have identical corners, record Smart Rounding in an Action and assign it to an F-key combination for one-step filtering.

Smart Rounding Effect

Like the Smart Rounding filter the Smart Rounding effect adds a curve to any corner anchor point. By adding a pair of smooth points to replace the corner point, any angle can be rounded, regardless of path segment shape. The effect gives you control over the shape of concave and convex corners independently. The difference between the filter and the effect is this: While the Smart Rounding filter permanently changes the path of an object, the Smart Rounding effect alters the appearance of the object without making permanent changes. You can re-open the Smart Rounding effect dialog box and alter the settings using the Appearance palette.

With any object that includes one or more corner anchor points selected on the artboard, use the menu command Effect> Xtream Path> Smart Rounding to open the dialog box. Check the Preview box and you'll see the appearance of the object change as you change the values in the dialog box. Note that the selected object's path itself remains unchanged, despite the alteration of the object's appearance.



Smart Rounding Effect

TIP: When using the Smart Rounding effect (unlike the Smart Rounding Filter), you don't need to create outlines from type. Apply the effect to a type object and the type remains editable.

Here's how to control the Smart Rounding effect:

Maximum Length along Convex Angle
This field determines the maximum distance along the path for placement of a corner's new smooth anchor points. For complex paths, Smart Rounding may use a smaller value to avoid conflicts with existing anchor points.

Maximum Length along Concave Angle
This field is used to independently control the rounding of concave corners. As with convex corners, a smaller value may be used to avoid conflicts with other anchor points.

TIP: While the Maximum Length fields measure in points, you can enter any of Illustrator's standard units of measure and Xtream Path will convert to point on the fly. For example, in the Maximum Length field enter 1 in and hit Tab or Return/Enter. The value is automatically converted to 72 pt.

Maintain Ratio
When this option is selected, you can change the value in either field above and maintain the existing relationship between the two fields. For example, if the maximum length for convex angles is twice that of concave angles, changing either field results in a new value for the other field, maintaining the 2:1 ratio.

Ignore Angles Above
The value specified here determines which angles of the original object will be converted. Any existing angle equal to or greater than the value in this field is ignored. For example, if the maximum target angle is set to 90°, right angles are left unchanged. If you change the value to 91°, right angles are rounded.

Preview
Check this box to see the result of the effect prior to its application. The artboard is automatically updated as you change values. When the effect is applied to extremely complex paths, you may want to uncheck Preview until you've entered your target values.

Cancel/OK
The cancel button terminates the effect dialog box without changing the selected object; the OK button applies the effect with the selected settings.

In the lower-left corner of the Smart Rounding dialog box is a triangle that gives access to the pop-up menu. Select **Show Help** from the menu to see instructions for Smart Rounding at the bottom of the dialog box. (When the help area is visible, the pop-up menu offers Hide Help instead.) You can also display information about Xtream Path and see a clickable link to the CValley homepage by selecting About this plug-in… from the pop-up menu.

TIP: The Smart Rounding effect can be recorded in an Illustrator Action to simplify repeated application. Not only will recording the effect in an Action speed up its application, it ensures uniformity from object to object. If you've got a number of objects, or a number of illustrations, that need to have identical corners, record Smart Rounding in an Action and assign it to an F-key combination for one-step application of the effect.

Editing Smart Rounding Effect Demonstration

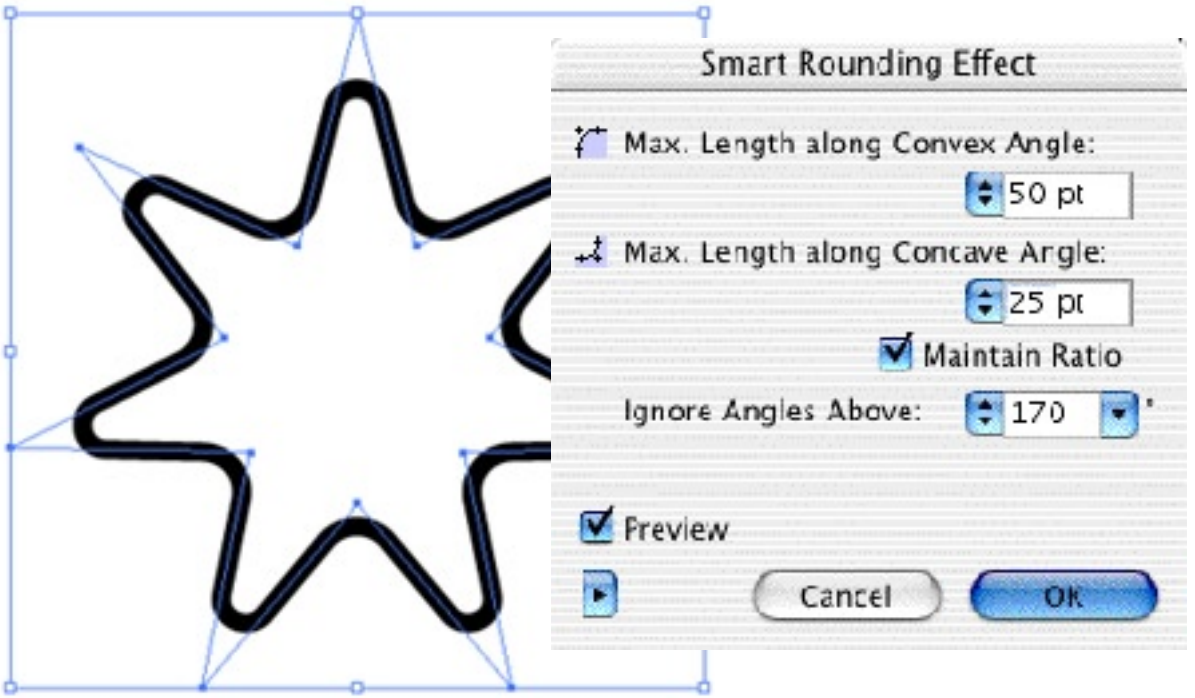
This short exercise shows how you can alter the Smart Rounding effect after it has been applied.

1. Create a new document, 800 by 600 pixels, RGB.

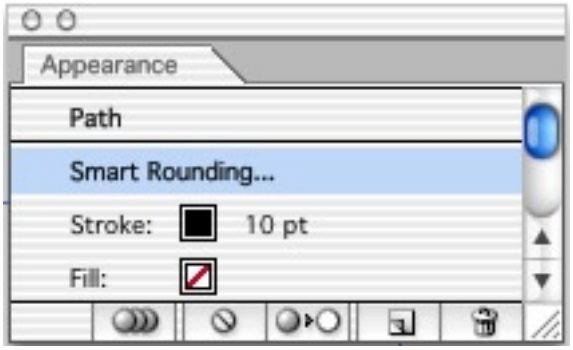
2. Select the Star tool and create a 7-point star on the artboard.

3. With the star object still selected on the artboard, use the menu command Effect> Xtream Path> Smart Rounding and modify the object's appearance by

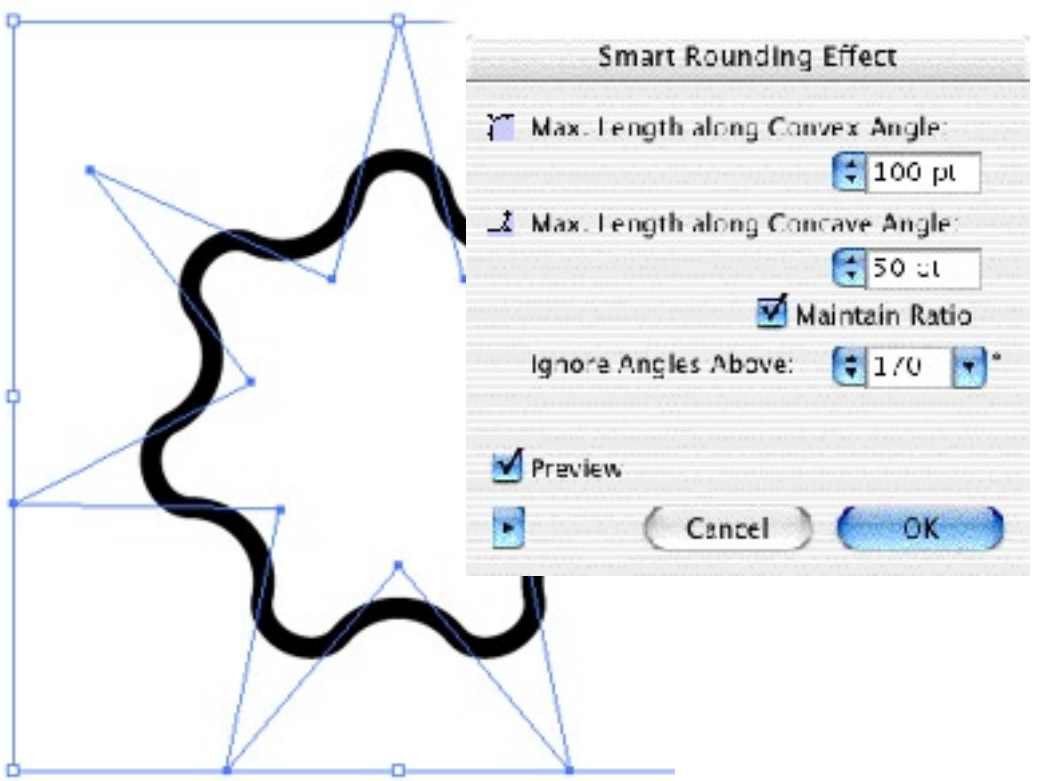
rounding the corners. Observe how the object's original path is still visible (with Preview checked in the Smart Rounding dialog box). Click OK to apply the effect.



4. Keep the now-modified star object selected on the artboard and (if it's not visible already) make Illustrator's Appearance palette visible. Double-click the Smart Rounding entry in the Appearance palette to re-open the effect's dialog box and make changes to the settings to further alter the look of the star object.



Smart Rounding Effect



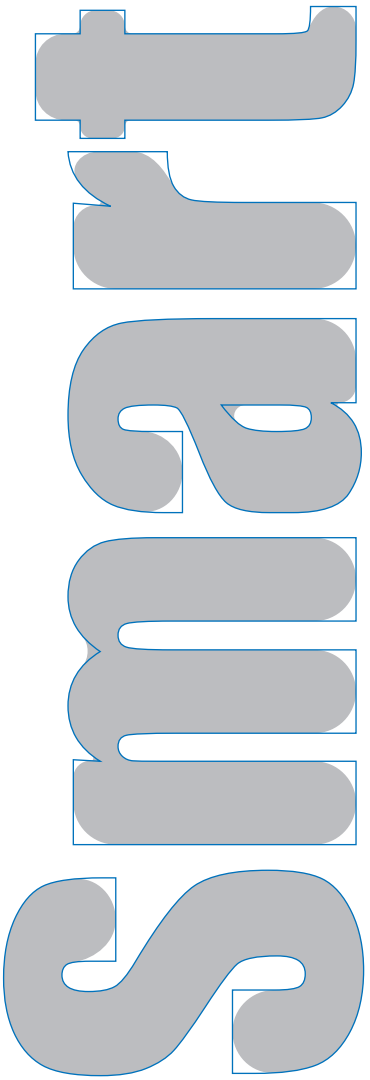
5. Click OK in the Smart Rounding dialog box to apply the changes.
6. In the Appearance palette, delete the Smart Rounding effect, restoring the object to its original appearance.

When using the Smart Rounding effect, you can return to the dialog box and change the settings at any time. The Smart Rounding filter, on the other hand, makes permanent the changes to an object's path.

TIP: Generally the Smart Rounding effect gives you more flexibility than the Smart Rounding filter. However, you'll want to choose the filter over the effect when you subsequently need to apply a different filter or effect directly to an object's path.

Smart

Smart



We are going to use this text to the left to round corners in this example. (If you use Smart Rounding from the Illustrator' s Effect menu, you can apply the effect without converting the text to outlines)

Select the text first and select Smart Rounding from the Effect menu (Effect>Xtream Path>Smart Rounding…) Check the Preview checkbox in the dialog box to determine the appropriate roundness. In this manual, we selected the following settings:

Max. Length along Convex Angle: 8 pt
Max. Length along Concave Angle: 4 pt
Ignore Angles Above: -170º ~ +170º

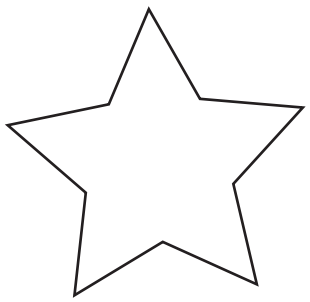
The figure on the left is the before and after text object placed on top of one another and shows how its corners are rounded compared to the original.

This is indeed a live effect so the text is fully editable even after the effect is being applied.

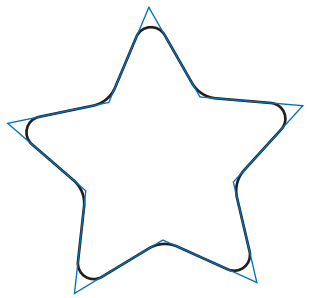
If you need to make changes to your artwork after you apply the effect, select the object and double click on "Smart Rounding…" in Illustrator's Appearance palette. This will make the Smart Rounding effect dialog box reappear on your screen. (Refer to the screen shot on the next page)

To expand the effect, select Expand Appearance from the Object menu in Illustrator.

To cancel the effect, select the Smart Rounding… layer in the Appearance palette and select Clear Appearance from the Option menu or drag it to the trash can at the bottom of the palette.



To the left, we are going to use a star shaped object to round its corners in this example.



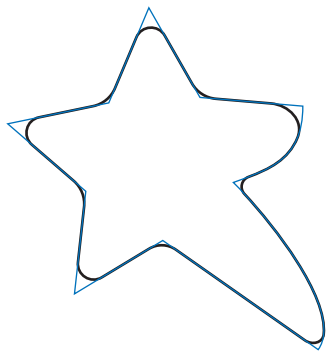
Select the path first and select Smart Rounding from the Effect menu (Effect>Xtream Path>Smart Rounding…) Check the Preview checkbox in the dialog box to determine the appropriate roundness. In this example, we selected the following settings:

Max. Length along Convex Angle: 12 pt

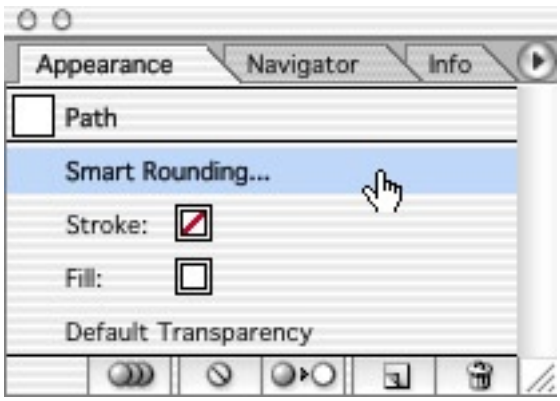
Max. Length along Concave Angle: 6 pt

Ignore Angles Above: -170º ~ +170º

*The star's points are rounded (although the path itself remains unchanged), while the inner angles are ignored because they're above 170°.



If you alter the path, the changes will be reflected in your artwork as you can see in the image to the left.



If you need to make changes to your artwork after you apply the effect, select the object and double click on "Smart Rounding…" in Illustrator's Appearance palette. This will make the Smart Rounding effect dialog box reappear on your screen.

To expand the effect, select Expand Appearance from the Object menu in Illustrator.

To cancel the effect, select the Smart Rounding…layer in the Appearance palette and select Clear Appearance from the Option menu or drag it to the trash can at the bottom of the palette.

Tools

About the Tool Palette

Selecting any of the Xtream Path tools opens the Xtream Paths tool palette. Some of the tools use the palette for numeric input, while others use the palette only to provide information about how to use the tool. Some features of the tool palette are constants:

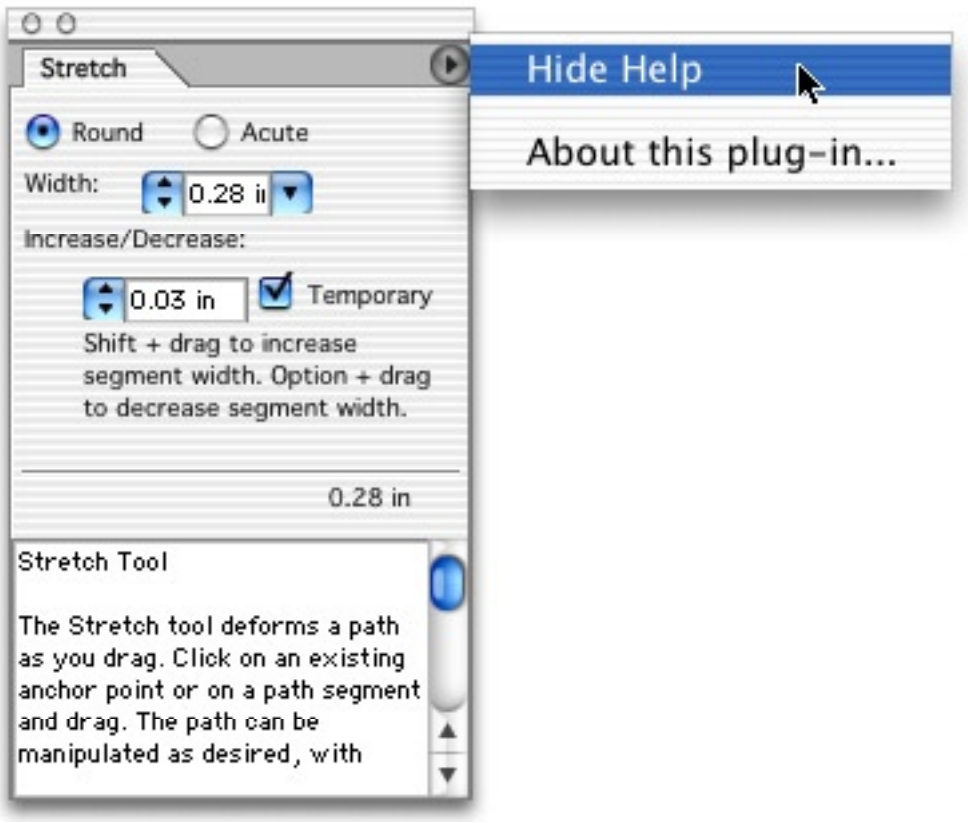
Palette Menu

In the upper-right corner of the palette is a triangle that gives you access to the palette's menu. In the menu you have the option of showing/hiding the Help section of the palette. You can also see information about Xtream Path and access a link to the plug-in's home page by clicking the About this plug-in… link.

Xtream Path Help

When you choose to show the Xtream Path's palette help, the palette expands to include a text area at the bottom. When visible, the help area shows information about using the selected tool.

About the Tool Palette



TIP: As the work area is changed and palettes are repositioned, it's possible to lose track of the Xtream Path tool palette. To restore the palette to its default location, simply double-click the Xtream Path tool in the Illustrator Toolbox.

Segment Direct Edit

The Segment Direct Edit tool allows you to reshape a path segment by simply clicking and dragging. Rather than editing control points and direction lines, you can edit the path directly by dragging the path segments. Only the path segment on which you click is altered.

The Segment Direct Edit tool is the most intuitive way to edit an object or path in Illustrator. Simply click on a path segment and drag. The path segment's new shape is previewed on the artboard as you drag. The farther you drag, the more the path segment is reshaped.

If you drag a straight path segment, Xtream Path automatically converts
It to a curve segment. After you release the mouse button, the reshaped path segment's new direction lines will be visible.

When you drag a curved path segment, Xtream Path converts bordering smooth anchor points to corner points, preventing any changes to neighboring path segments.

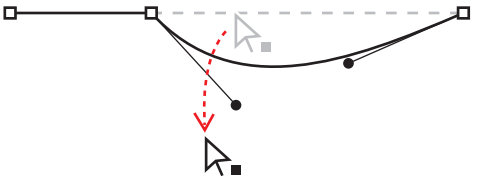
Hold down the **Shift** key and click on a path segment near a corner anchor point to convert that point to a smooth anchor point.

Segment Direct Edit

TIP: The Segment Direct Edit tool is used to edit path segments. When you position the tool over an anchor point rather than a path segment, it functions as Illustrator's Direct Selection tool.

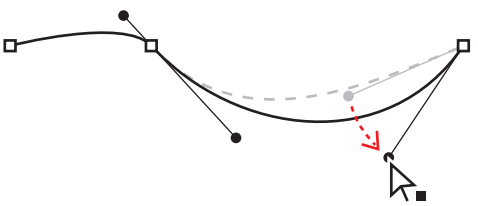
In the Xtream Path palette, you have the option of showing or hiding the direction lines for the path's anchor points. You can hide all direction lines, show only those for the path segment being edited, or show direction lines for all of the path' s anchor points. You can use the Segment Direct Edit tool to drag direction lines when visible. You can also elect to show the path segments direction lines while dragging.

TIP: Pressing the **Option** key (Mac) or **Alt** key (Windows) converts the Segment Direct Edit tool to Add Anchor point tool (if over a path segment) or Delete Anchor Point tool (if over an anchor point).

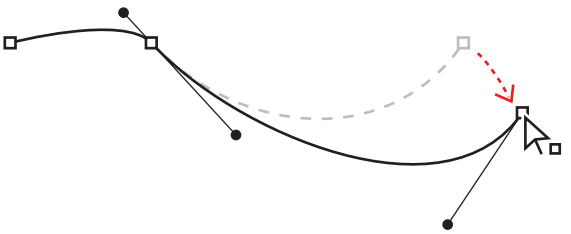


Drag a segment. The farther the cursor is from the point where you clicked, the more precise the control of the curve.

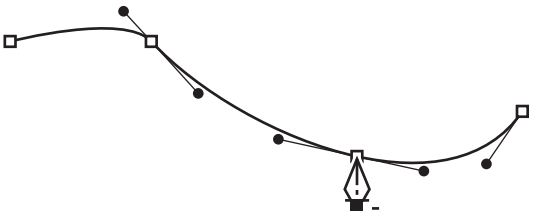
If you Shift-click on a path, the corner point closer to the click point will be converted to smooth point. You can achieve the same results by Shift-clicking the direction points.



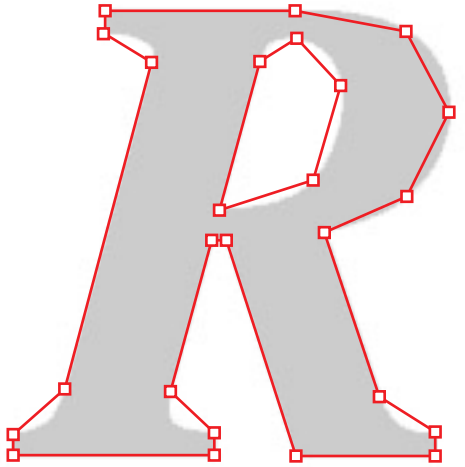
Drag a direction point instead of a segment.



You can also drag an anchor point.

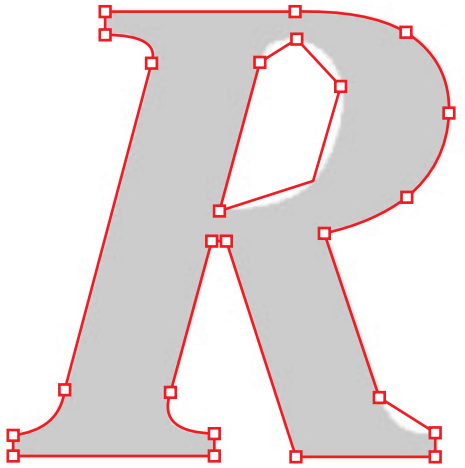


By Option/Alt-clicking on a segment, you can add an anchor point. To delete an anchor point, Option/Alt-click it.



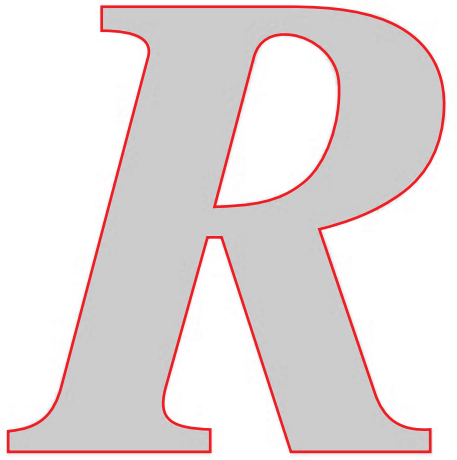
In this example, we will trace an image “R” using the Segment Direct Edit tool. This is tool is ideal for tracing logos.

First you want to save the underlying image in a different layer as a template. On a separate layer, use the Pen tool to draw straight lines as shown to the left.



Using the Segment Direct Edit tool, you can edit the shape of segments in order to adhere to the underlying image.

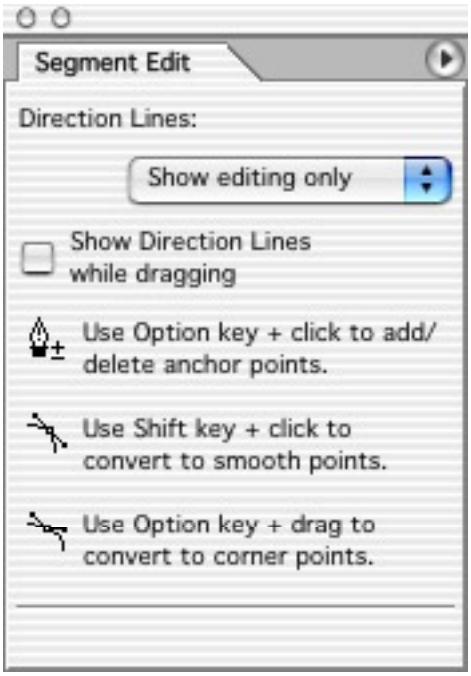
You can move anchor points if needed or Option/Alt-click to add or delete anchor points.



Shift-click on places that need to have smooth points so that the lines will flow smoothly. Switch between smooth point conversions and curve adjustments if needed.

Segment Edit

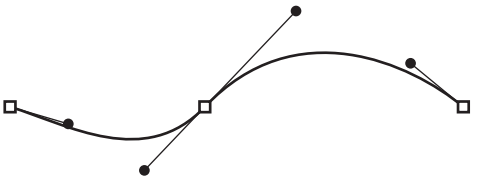
Use the Segment Edit tool to reshape a path segment while maintaining smooth anchor points. As you drag, the selected path segment is reshaped, as well as neighboring path segments connected by smooth anchor points. Adjacent path segments connected by a corner point are not altered when using the Segment Edit tool.



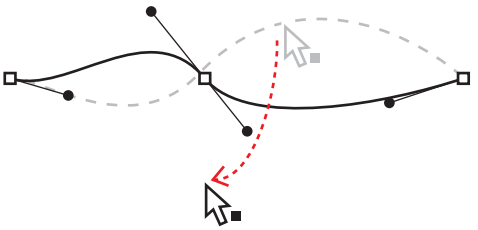
TIP: To edit a smooth path segment without altering neighboring segments, use the Segment Direct Edit tool rather than the Segment Edit tool.

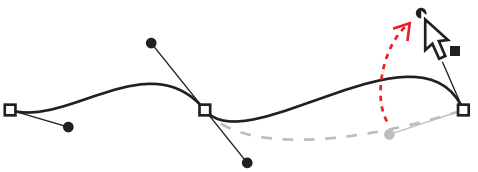
In the Xtream Path palette, you have the option of showing or hiding the direction lines for the path's anchor points. You can hide all direction lines, show only those for the path segment being edited, or show direction lines for all of the path's anchor points. You can also elect to show the path segments direction lines while dragging a path segment. When visible, direction lines can be dragged with the Segment Edit tool.

TIP: Pressing the **Option** key (Mac) or **Alt** key (Windows) converts the Segment Edit tool to Illustrator's Add Anchor point tool (if over a path segment) or Delete Anchor Point tool (if over an anchor point).

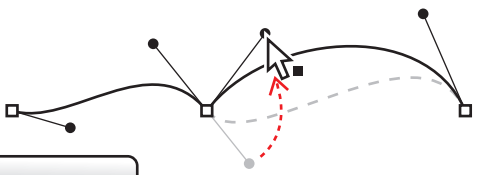


Drag a segment. The change of a selected segment's curve will be the largest as you approach closer to the initial click point.

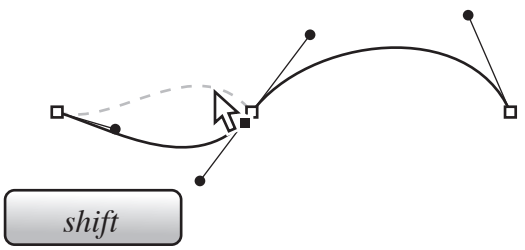




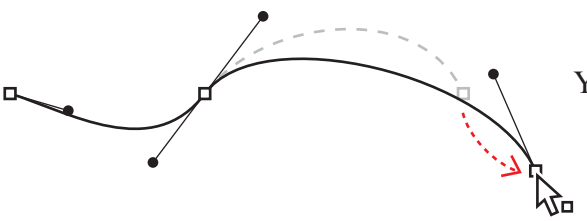
Drag a direction point as shown.



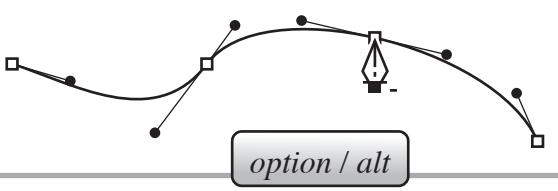
You can Option/Alt-click on a direction point and drag to convert it to a corner point.



If you Shift-click on a path, the corner point closer to the clicking point will be converted to a smooth point. You can achieve the same results by Shift-clicking the direction points.



You can also drag an anchor point.



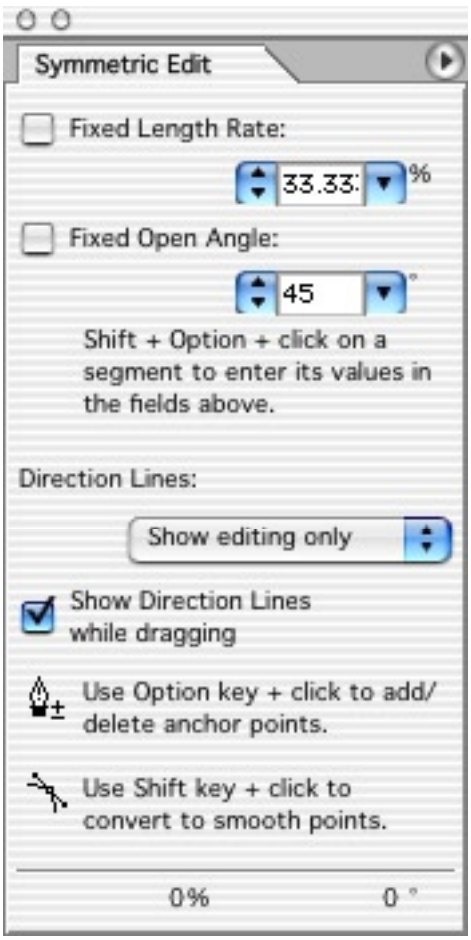
By Option/Alt-clicking on a segment, you can add an anchor point. To delete an anchor point, Option/Alt-click on an anchor point.

Symmetric Edit

The Symmetric Edit tool maintains the symmetry of a path segment while you drag. No matter where you click on the segment or where you drag, the curve remains symmetrical between the anchor points.

TIP: For precise control and moderate reshaping of a curve, click near the middle of the path segment and drag. For more dramatic changes, click near an anchor point and drag.

After reshaping a path segment with the Symmetric Edit tool, you can Shift-click on the segment to convert the nearest anchor point to a smooth point. Doing so will adjust the edited path segment to correspond to the flow of the adjacent path segment.



In the Xtream Path palette, you control the behavior of the tool with a pair of options:

Fixed Length Rate
When selected, this option determines how much change will be applied to a segment with a drag of a specific distance. It is the ratio of the direction line length to the path segment length. The greater the percent, the more a segment is altered as you drag. For substantial changes to large objects, a higher value reduces the distance you'll need to drag.

Fixed Open Angle
This value determines the shape of the curve when you first click on or drag a path segment. The angle refers to the anchor points' direction lines in relation

to the path segment after the alteration. The angle can range from 0° (which can convert a circle to a square) to 180°. Entering a specific value and clicking on a path segment gives you precise results. You can also continue to drag a path segment after the initial angle is applied.

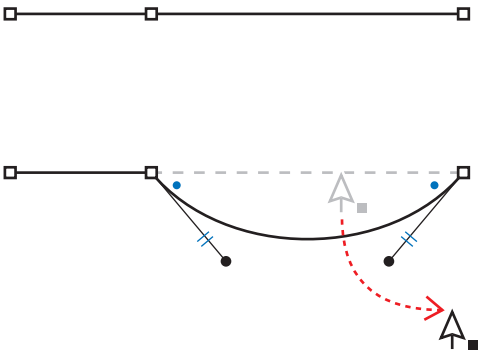
TIP: Hold down the Shift and Option keys (Mac) or the Shift and Alt keys (Windows) and click near an existing anchor point to load its values into the Fixed Length Rate and Fixed Open Angle fields.

Using the Fixed Length Rate in conjunction with the Fixed Open Angle option enables you to quickly create precise curves. For example, alternating concave and convex curves can convert a polygon to a gear shape. Click and drag a short distance inward/outward to create concave/convex curves.

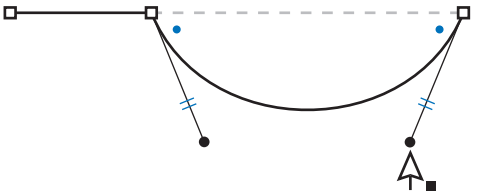
The Xtream Path palette also offers the option of showing or hiding the direction lines for the path's anchor points. You can hide all direction lines, show only those for the path segment being edited, or show direction lines for all of the path's anchor points. You can also elect to show the path segments direction lines while dragging a path segment. When visible, direction lines can be dragged with the Symmetric Edit tool.

When positioned over an anchor point or direction line rather than a path segment, the Symmetric Edit tool functions as Illustrator's Direct Selection tool. You can drag anchor points or direction lines to adjust the shape or an object.

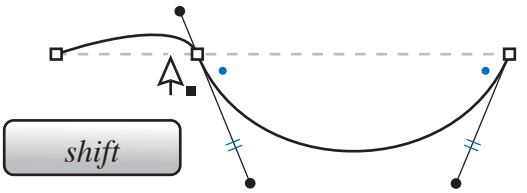
In addition, holding down the **Option** key (Mac) or the **Alt** key (Windows) converts the Symmetric Edit tool to the Add Anchor Point tool (when over a path segment) or the Delete Anchor Point tool (when over an existing anchor point).



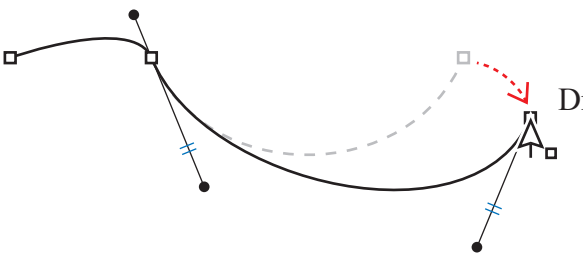
Drag a segment.
The segment will behave according to the fixed values in the palette if they are selected. (In case of Fixed Opening Angle, it is possible to reverse the opening direction by dragging)
Controlling the shape of a curve will depend on the direction and length of your drag.



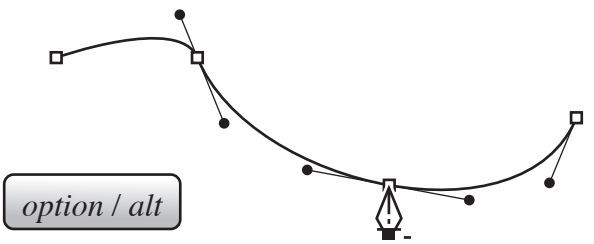
Drag a direction point.
The segment will behave according to the fixed values in the palette if they are selected. (In case of Fixed Opening Angle, it is possible to reverse the opening direction by dragging)



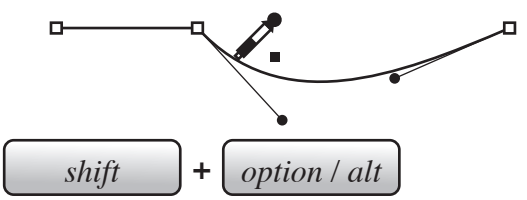
If you Shift-click on a segment, the corner point closest to the clicking point will be converted to a smooth point.
You can achieve the same results by Shift-clicking the direction points.



Drag an anchor point.



By Option/Alt-clicking on a segment, youcan add an anchor point. To delete an anchor point, Option/Alt-click on an anchor point.



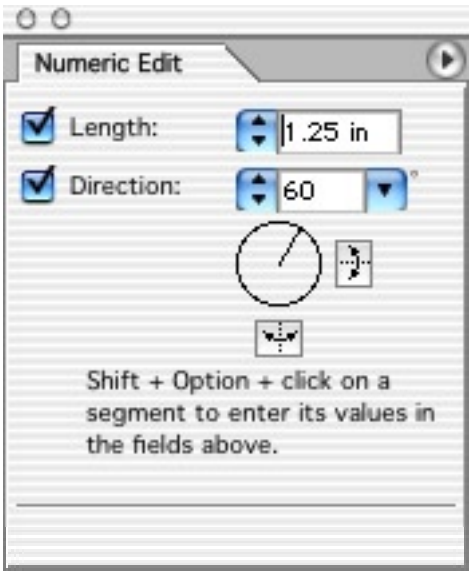
Shift-Option/Alt-clicking on a line enters the values of the nearest anchor point into the palette.

Numeric Edit

The Numeric Edit tool applies the settings of the Xtream Path palette to the path segment on which you click. The anchor point nearest the point clicked is altered. The values you enter into the palette's fields determine the length and angle of the nearest anchor point's direction lines.

You can duplicate another anchor point's direction line using the Numeric Edit tool. Hold down the Shift and Option keys (Mac) or the Shift and Alt keys (Windows) and the Numeric Edit tool becomes an eyedropper. Click on the curve you want to duplicate near the anchor point. That loads the nearest direction line values into the palette. To apply those values to another path segment, simply click on it near the anchor point you want to change.

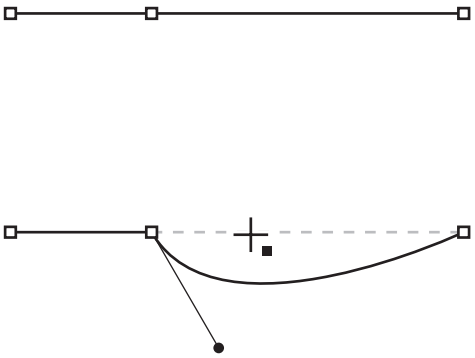
The **Length** field determines the length of the direction line. A length of zero deletes the direction line. The Direction field determines the angle of the direction line relative to the artboard, not the path segment. You can change the length or direction of a direction line individually. If either box is unchecked in the Xtream Path palette, the direction line will maintain its original length or direction.



Numeric Edit

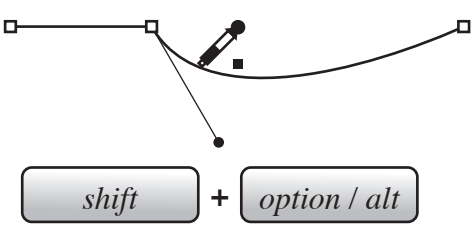
There are several ways to manually change values in the Xtream Path palette for the Numeric Edit tool:

• Double-click in either the Length or Direction field and type a number.
• Use the up/down arrow buttons to the left of each field to change the existing value.
• Click anywhere in the circle below the Direction field.
•Drag the line in the circle below the Direction field.
• Use the buttons to the right and below the circle to switch to the horizontal or vertical inverse of the current Direction value.



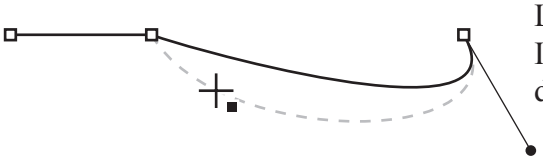
Length: 50 pt
Direction: -60º

Set the values in the palette as above, click near the intended anchor point on the segment. If the direction line is displayed already, you can also click on it instead.



By Shift + Option clicking on a segment, the values of the direction line of the anchor point which is the closest to the clicking point, will be entered in the fixed value fields in the palette. You can also Shift + Option-click on a direction point.

With the same settings, you can click on a segment close to another direction point to adjust the length and angle.



Length: 0 pt
If you change the Length value to 0 pt, the direction line will disappear.

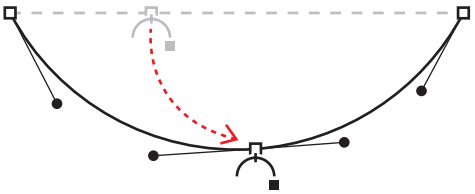
Arc Edit

Click on a smooth anchor point with the Arc Edit tool and drag to produce a smooth arc through that anchor point. Hold down the Shift key and drag a smooth anchor point to convert it to a corner point at which two arcs meet. Shift-dragging or Shift-clicking will convert a corner anchor point into a smooth anchor point and create an arc.

You can also click on a smooth point along an arc and reposition the anchor point by dragging with the Arc Edit tool.

TIP: The Option key (Mac) or Alt key (Windows) converts the Arc Edit tool to the Add Anchor Point tool or Delete anchor point tool, depending on whether it's over a path segment (add) or an existing anchor point (delete). Adding and deleting anchor points is a good way to control arcs along complex paths.

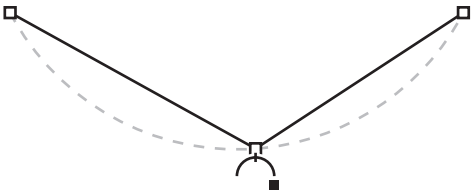
In the Xtream Path palette, you have the option of showing or hiding the direction lines for the path's anchor points. You can hide all direction lines, show only those for the path segment being edited, or show direction lines for all of the path's anchor points.



Shift-click or drag a corner point.

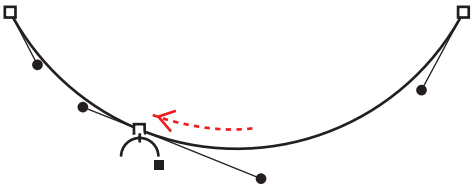
Segments that are connected to that point will automatically form an arc.

shift Drag a corner point to convert it to a smooth point

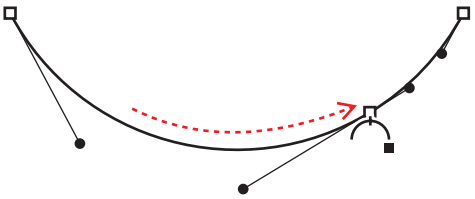


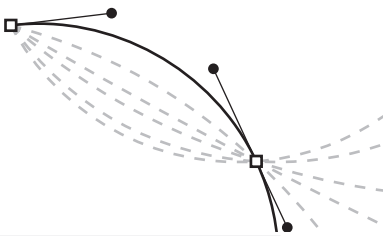
Shift clicking on a smooth point will switch to a corner point.

shift Drag a smooth point to convert it to a corner point

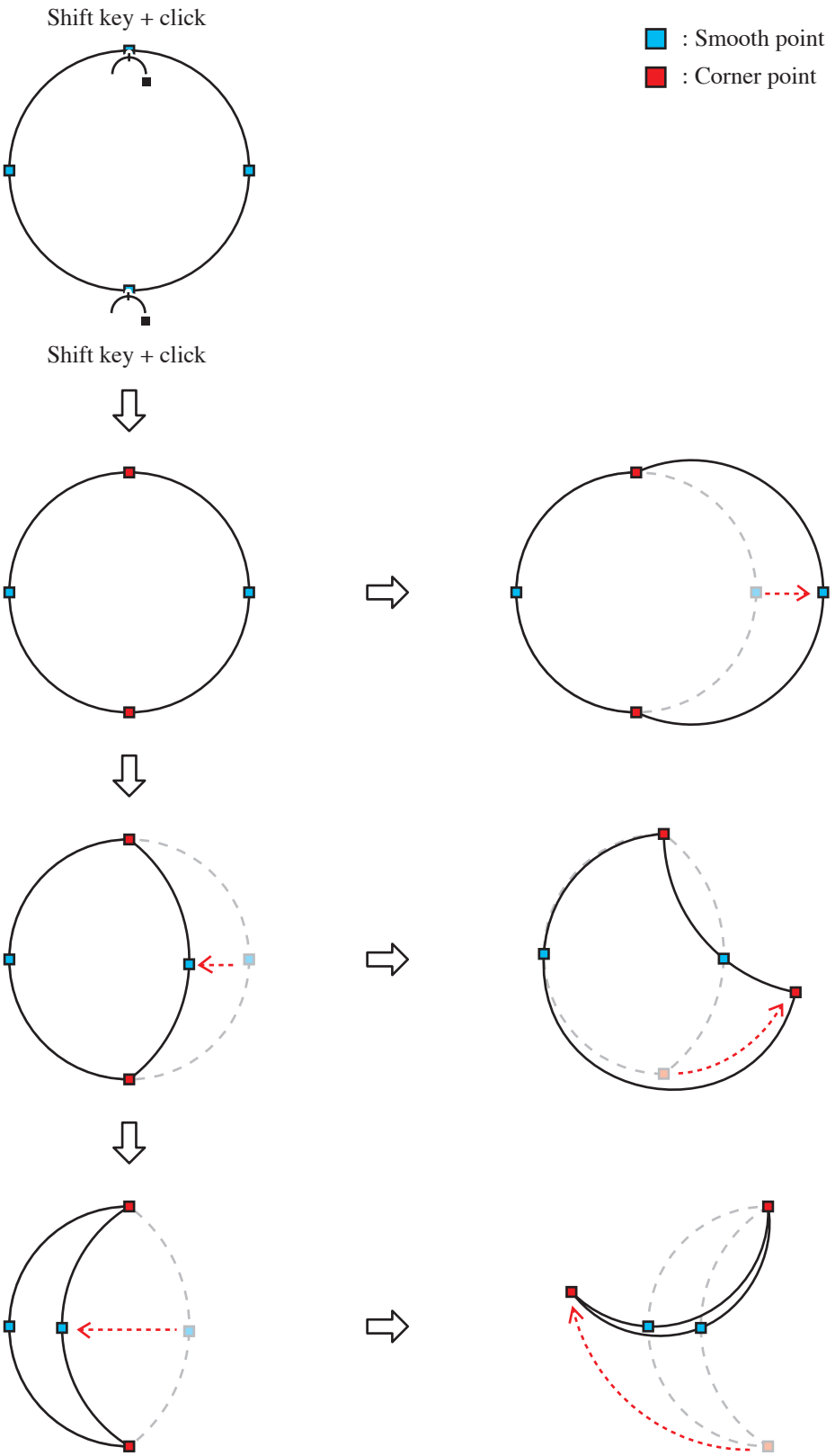


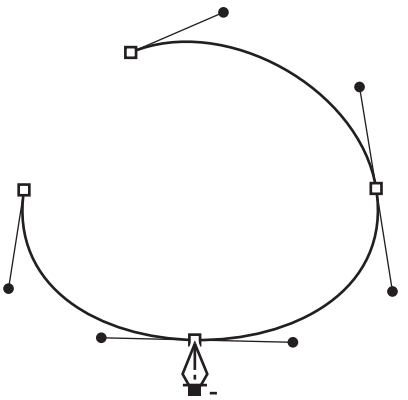
The length and direction of direction lines will be adjusted automatically to maintain an arc shape even if you move the anchor point.





In the example below, we have an oval with four anchor points. Shift-click two of those as shown below to make them turn into corner points using the Arc Edit tool. Now let's observe how this will affect when you drag each anchor point.

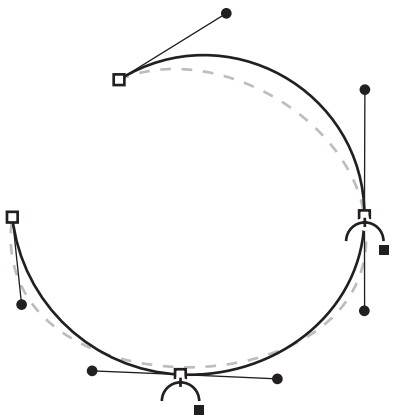




If the curvature of a curve segment exceeds a certain arc shape*, it is better to add an anchor point to make adjustments easily as shown in the image.

*If the segment is approximately a quarter of a circle (central angle is 90º) or half a circle, that would be a good yardstick to add an anchor point.

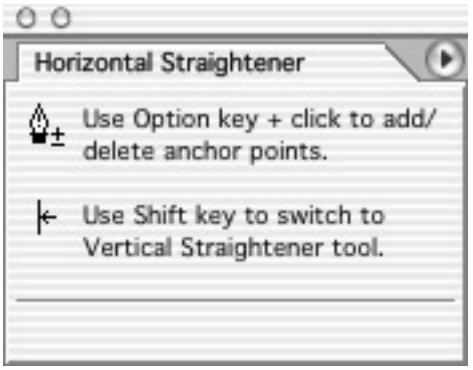
To add an anchor point, Option/Alt-click on a segment. To delete one, Option/Alt-click on the anchor point.



Click or drag anchor points to make adjustments
as necessary.

Horizontal Straightner

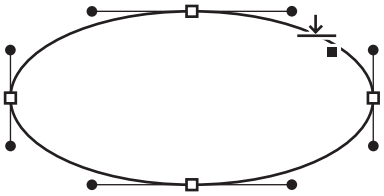
Click on a path segment with the Horizontal Straightener tool and it becomes parallel to the top and bottom of the artboard. The neighboring anchor points are shifted to the left and right of the point clicked, moving only vertically. If either of the neighboring anchor points is a smooth point, it's converted to a corner anchor point. Where you click on the path segment determines where the path segment will be redrawn.



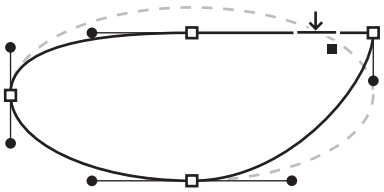
After clicking on a path segment, you can drag it vertically to reposition it.

TIP: Hold down the Shift key and the Horizontal Straightener tool becomes the Vertical Straightener tool.

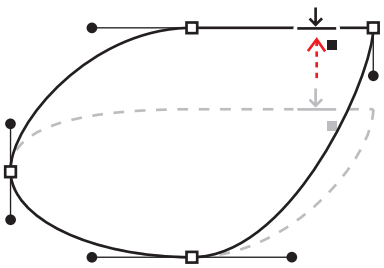
When the **Option** key (Mac) or **Alt** key (Windows) is pressed, the Horizontal Straightener tool functions like the Add Anchor Point tool (when over a path segment) or the Delete Anchor Point tool (when over an existing anchor point).



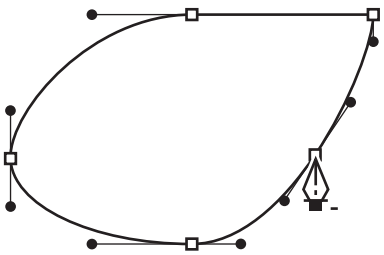
When you click on any segment….



…..the segment will turn into a straight horizontal line.

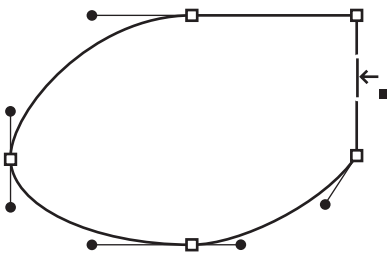


You can keep dragging and move the segment while maintaining its horizontality.



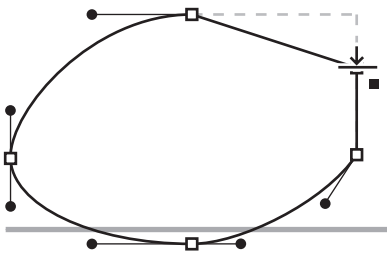
option / alt

To add an anchor point, Option/Alt-click on
a segment. To delete one,
Option/Alt-click on the anchor point.



shift

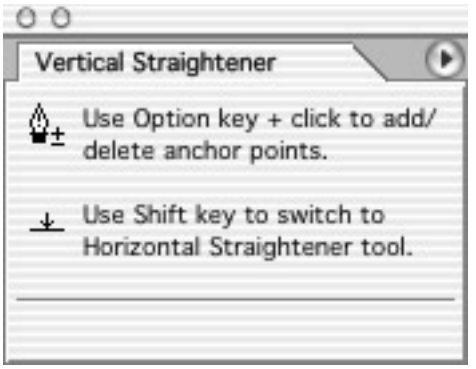
Holding down the Shift key switches to the Vertical Straightener tool.



It allows you to drag vertically on an anchor point.

Vertical Straightner

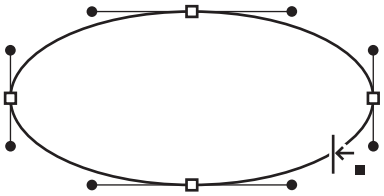
Click on a path segment with the Vertical Straightener tool and it becomes parallel to the left and right edges of the artboard. The neighboring anchor points are shifted above and below the point clicked, moving only horizontally. If either of the neighboring anchor points is a smooth point, it's converted to a corner anchor point. Where you click on the path segment determines where the path segment will be redrawn.



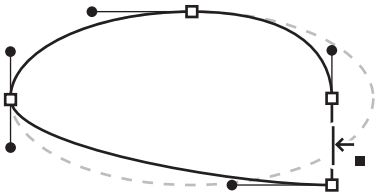
After clicking on a path segment, you can drag it horizontally to reposition it.

TIP: Hold down the Shift key and the Vertical Straightener tool becomes the Horizontal Straightener tool.

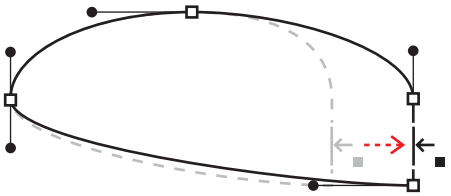
When the Option key (Mac) or Alt key (Windows) is pressed, the Vertical Straightener tool functions like the Add Anchor Point tool (when over a path segment) or the Delete Anchor Point tool (when over an existing anchor point).



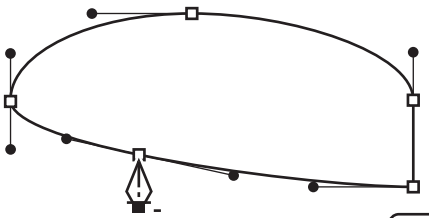
When you click on any segment….



…..the segment will turn into a straight vertical line.

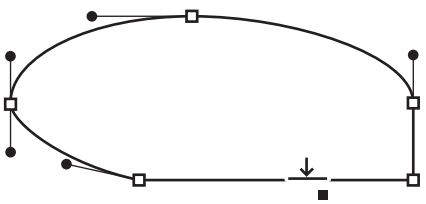


You can keep dragging and move the segment while maintaining its verticality.



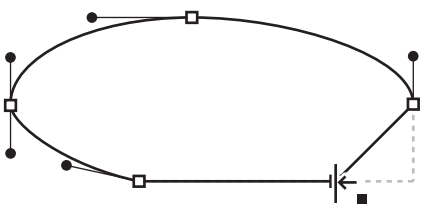
option / alt

To add an anchor point, Option/Alt-click on a segment. To delete one, Option/Alt-click on the anchor point.



shift

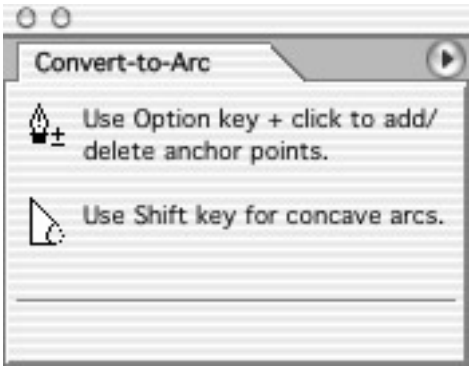
Holding down the Shift key switches to the Horizontal Straightener tool.



It allows you to drag horizontally on an anchor
point.

Convert-to-Arc

Click on a path segment with the Convert-to-Arc tool to create a smooth arc from that segment. The arc will use the existing anchor points, converting corner anchor points to smooth points.

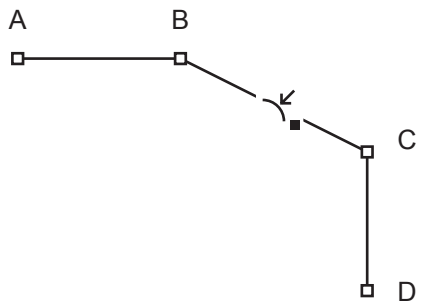


TIP: Shift-click on a path segment to create the inverse of the arc.

The radius of the arc will be determined by the direction lines of the anchor points. If the direction lines at either end of the path segment angle toward each other, a convex arc is created. If the direction lines angle away from each other, a concave arc is created. If the direction lines are parallel, the Convert-to-Arc tool cannot be used.

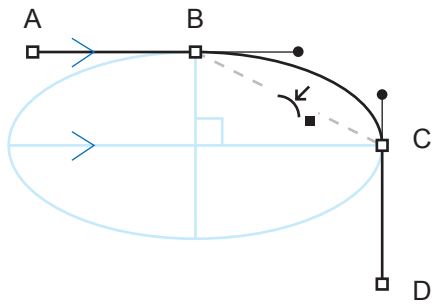
For example, clicking the tool on one side of a rectangle or square would not produce an arc because Xtream Path would have no way to calculate a smooth arc between the parallel sides of the object.

When the **Option** key (Mac) or **Alt** key (Windows) is pressed, the Convert-to-Arc tool functions like the Add Anchor Point tool (when over a path segment) or the Delete Anchor Point tool (when over an existing anchor point).

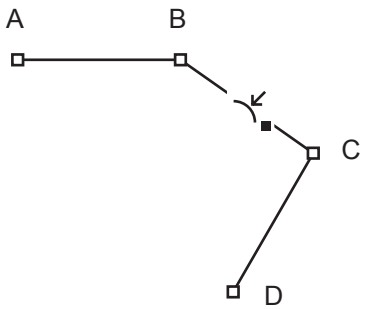


The segment AB and CD are perpendicular to each other as shown.

If you click on the segment BC with the Conver-to-Arc tool….

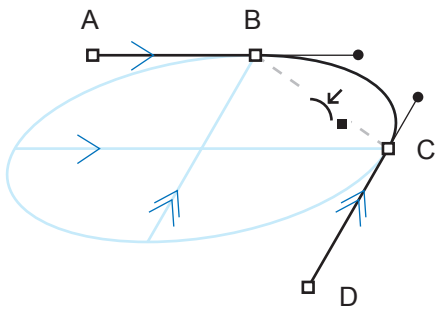


it will form an arc (quarter of an oval).

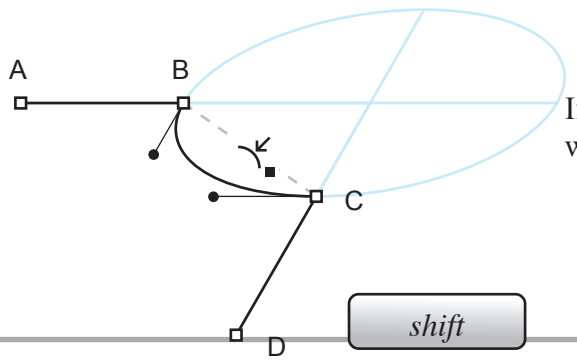


In this example, the segment AB and CD are not perpendicular to each other as shown.

If you click on segment BC….

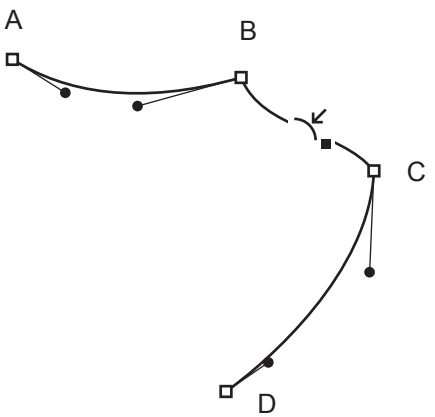


it will form a sheared arc.



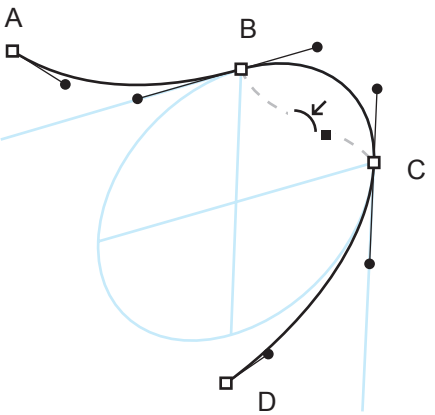
If you Shift-click on the segment, it will create the inverser of the arc.

shift



When the segment AB and CD are curved lines as shown:

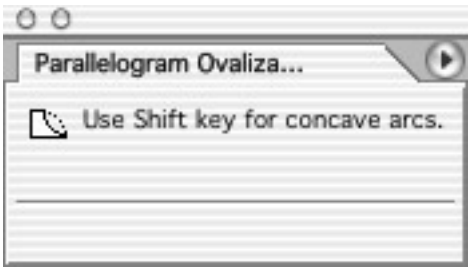
If you click on segment BC….

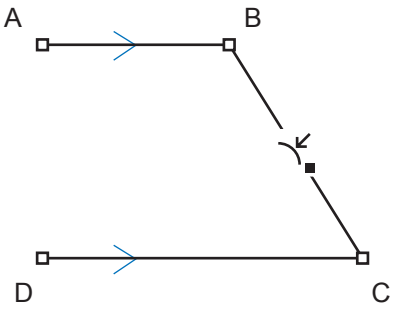


...when the adjoining segments are curved lines, the arc will be formed based on the cross point of the tangent lines (or direction lines) as shown here.

Parallelogram Ovalization

Use the Parallelogram Ovalization tool to create arc from a path segment between two parallel segments. However, you cannot convert a segment that is perpendicular to the parallel segments, such as the side of a rectangle or square. By default, the Parallelogram Ovalization tool forms a convex arc. Use the **Shift** key with the tool to create a concave arc.

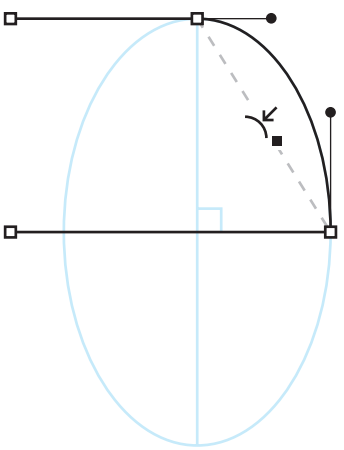




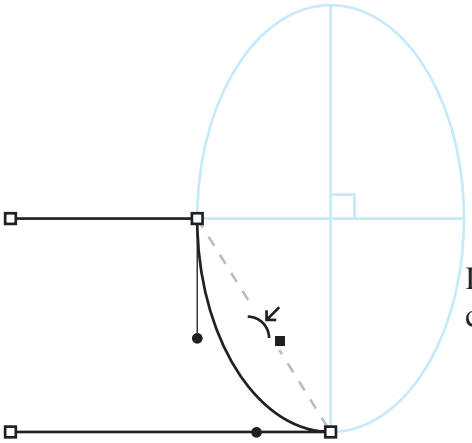
The adjoining segment AB and DC must be straight and parallel to each other. If you click on the segment BC with the Parallelogram Ovalization tool…..

Note!

In order for this tool to work, the segment AB and DC must be parallel to each other and the segment BC cannot be perpendicular to AB. The segment BC does not have to be a straight line.



….the segment BC will be converted to a quarter of an oval.

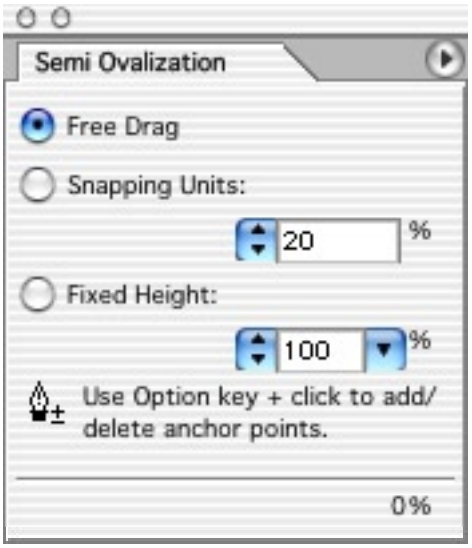


If you Shift-click on the segment, it will create a concave arc.

shift

Semi Ovalization

The Semi-Ovalization tool creates half-ovals from the selected path segment. When you click on a path segment, a smooth anchor point is added in the middle of the segment and the adjoining anchor points are converted to smooth points if necessary. The half-oval flows smoothly through the three anchor points. The original segment can be curved or straight.



The Xtream Path palette offers three ways to control the Semi Ovalization tool:

Free Drag

You can drag the path segment as you wish, creating a convex or concave curve. The distance dragged will be shown at the bottom of the Xtream Path palette as you drag, expressed as a percent of the distance between the path's original anchor points. A negative number indicates a concave curve.

Snapping Units

Specify an increment to which the curve will "snap" as you drag. The distance between the path segment's anchor points is 100%, and you can specify a snapping distance in relation to that length.

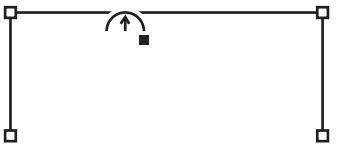
Fixed Height

You enter a percentage of the distance between the path segment's anchor points as the diameter of the new semi-oval. Enter 100%, for example, and click on a path

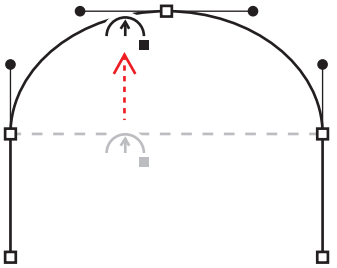
segment to create a semi-circle. Enter 50% and click on a path segment and the half-oval will have a 2:1 aspect ratio.

When working with a fixed height of 100%, it's simple to create basic shapes from squares and rectangles. A square rotated 45° becomes a heart with two clicks or a clover leaf with four clicks.

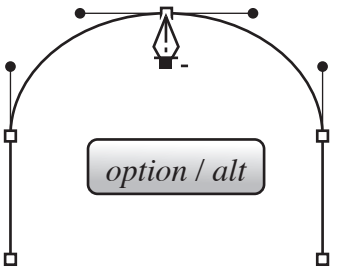
When the **Option** key (Mac) or the **Alt** key (Windows) is depressed, the Semi Ovalization tool functions like Illustrator's Add Anchor Point tool (when over a path segment) or the Delete Anchor Point tool (when over an existing anchor point).



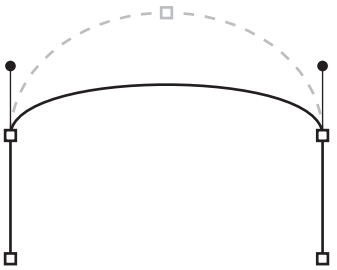
When you drag a segment using the Semi Ovalization tool……..



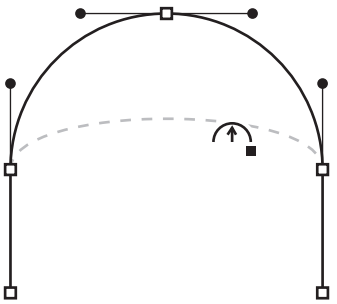
...the segment will become a half oval.



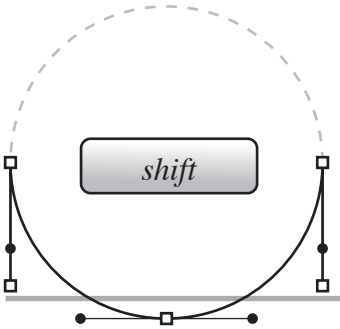
To add an anchor point, Option/Alt-click on a segment. To delete one, Option/Alt-click on the anchor point you want to delete.



If you want to change the height % of the half oval, delete the anchor point you added first (in case Undo does not work).



Check to select Fixed Height and set it at 100%. When you click on the segment, it will become a perfect half circle.



When the Shift key is depressed on the segment, the direction of the curve will be inversed.

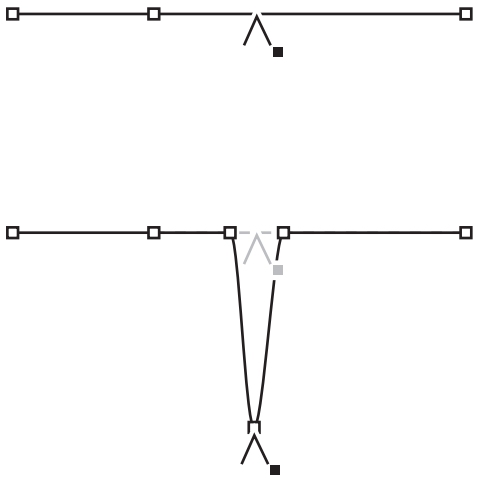
Stretch

The Stretch tool deforms a path as you drag. Click on an existing anchor point or on a path segment and drag. The path can be manipulated as desired, with anchor points added as necessary

In the Xtream Path palette, you specify Round, which results in a smooth anchor point at the apex of your drag, or Acute, which produces a corner anchor point and a shape peak.

The distance along the original path that's replaced by the Stretch tool can be specified in the palette using the Width field. In addition, you can press the Shift key to increase the Width as you drag or press the **Option** key (Mac) or **Alt** key (Windows) while dragging to decrease the Width. If desired, you can press either key repeatedly while the cursor is stationary to change the value. The Width value is updated at the bottom of the palette as you make changes.

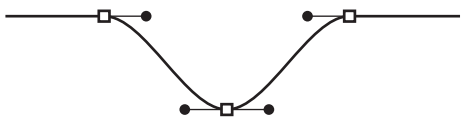
When the Temporary option is selected in the Xtream Path palette, any changes to the Width value you make while dragging are not retained and the field returns to its pre-drag value when the mouse button is released. When the Temporary option is not selected, the value showing when you release the mouse button remains in the Width field.



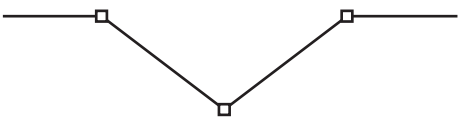
Select Round and set it at 20 pt.
Drag the segment.

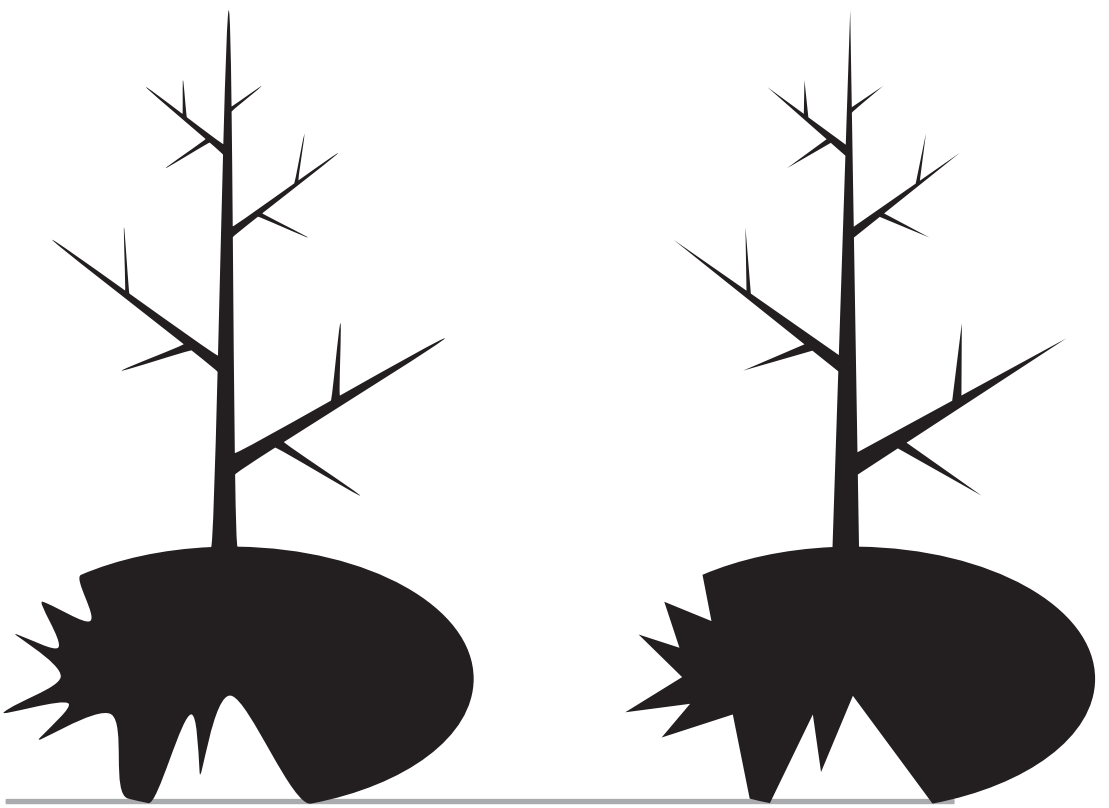
This will stretch the segment based on the width you set at. The clicking point will be the center of this width. Clicking on the anchor point will result
the same.

Round selected



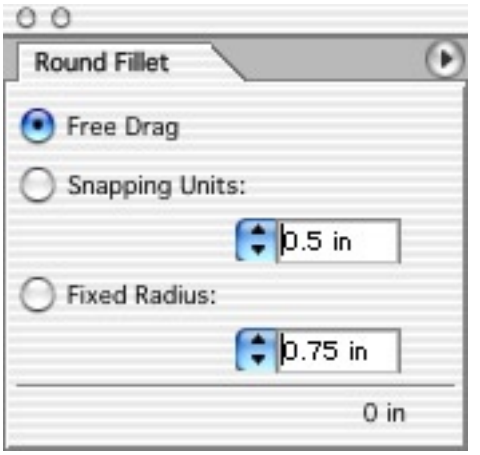
Acute selected





Round Fillet

The Round Fillet tool creates smoothly-rounded corners, converting corner anchor points to smooth points. You can also use the Round Fillet tool to create curves by dragging outside the corner. You can convert corners of any angle, but the tool can only be used with anchor points that join two straight path segments.



The Xtream Path palette offers three ways to control the Round Fillet tool:

Free Drag

You can drag the corner anchor point to create a convex curve at the corner. The distance dragged will be shown at the bottom of the Xtream Path palette as you drag, expressed as the radius of the curve.

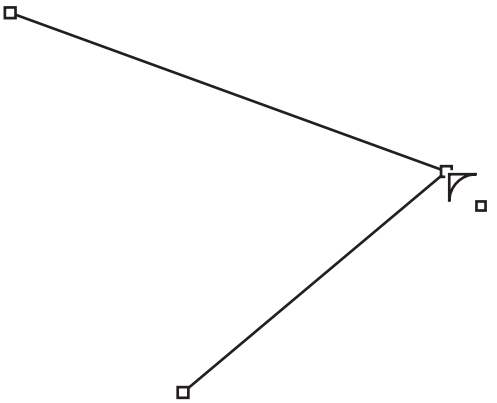
Snapping Units

Specify an increment to which the curve will "snap" as you drag. The distance is measured as the radius of the curve.

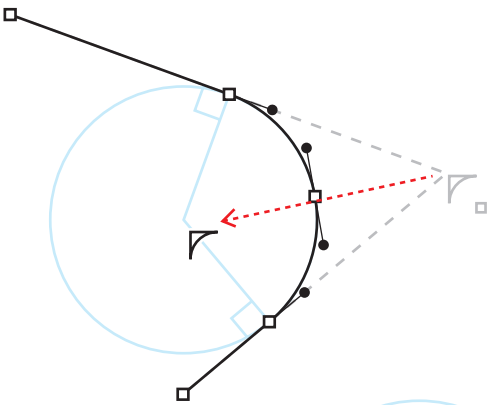
Fixed Radius

You enter a fixed distance for the radius of the curved corner. Click and drag a short distance and the curve will snap to the desired shape.

TIP: If you need to make a set of matching corners, but don't know the radius to use Fixed Radius, use Free Drag to create the first corner, but hold down the Option key (Mac) or the Alt key (Windows) before releasing the mouse button. That inserts the distance you just dragged into the Fixed Radius field, enabling you to use that feature to exactly replicate your first corner.

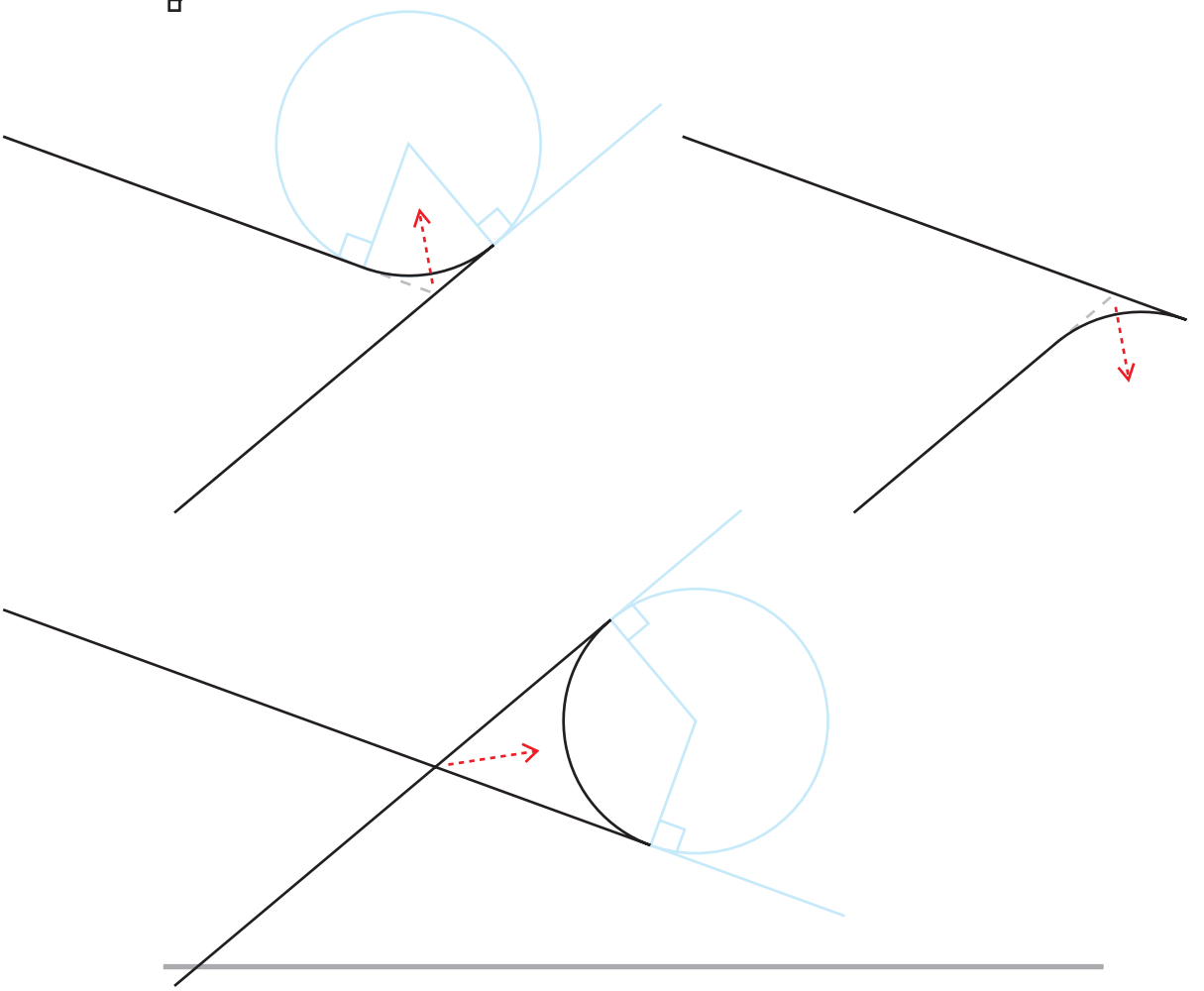


You can drag the anchor point which is at the vertex of a corner made up of two straight segments as shown.



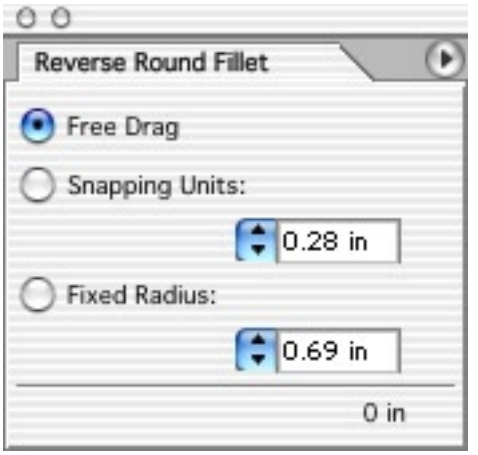
Not only you can round the corner inward but you can also drag in the direction of exterior angle and round the corner.

If you want to visually determine the value of the radius by dragging, the value of the radius will be loaded into the field at the time you release the mouse while pressing the Option/Alt key.



Reverse Round Fillet

The Reverse Round Fillet tool converts corners into concave curves (drag toward the inside of the corner) or it can be used to extend a straight path and adding a convex curve to replace the original corner.



The Reverse Round Fillet tool is used exclusively with anchor points that join two straight path segments, but those paths can meet at any angle and do not need to form a right angle. The direction that you drag determines the new shape of the corner.

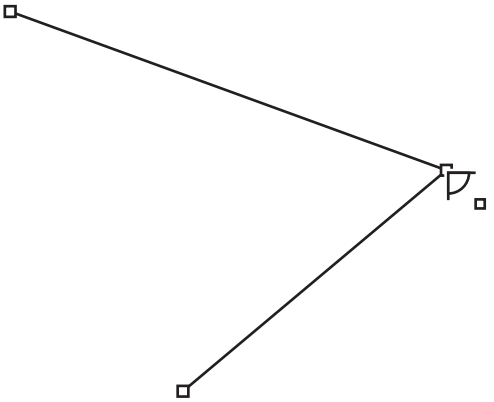
The Xtream Path palette offers three ways to control the Reverse Round Fillet tool:

Free Drag
You can drag the corner anchor point to create a convex curve at the corner. The distance dragged will be shown at the bottom of the Xtream Path palette as you drag, expressed as the radius of the curve.

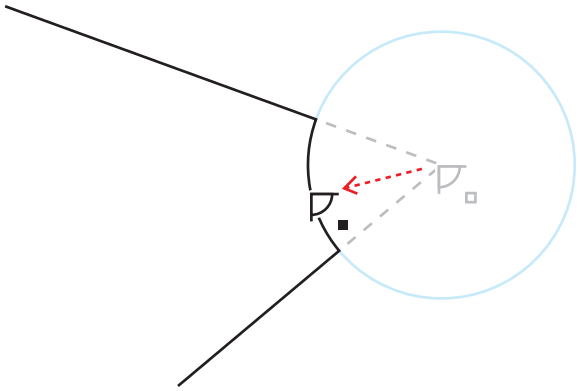
Snapping Units
Specify an increment to which the curve will "snap" as you drag. The distance is measured as the radius of the curve.

Fixed Radius
You enter a fixed distance for the radius of the curved corner. Click and drag a short distance and the curve will snap to the desired shape.

TIP: If you need to make a set of matching corners, but don't know the radius to use Fixed Radius, use Free Drag to create the first corner, but hold down the Option key (Mac) or the Alt key (Windows) before releasing the mouse button. That inserts the distance you just dragged into the Fixed Radius field, enabling you to use that feature to exactly replicate your first corner.

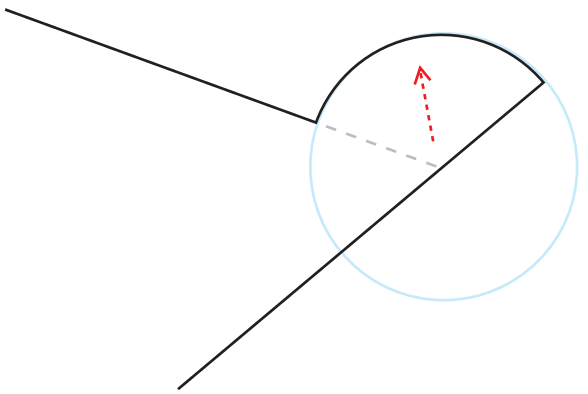


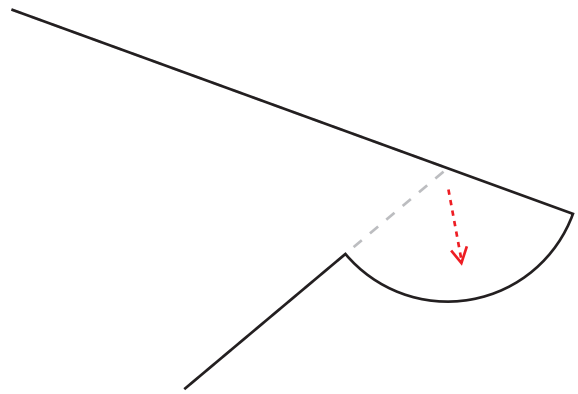
You can drag the anchor point at the vertex of a corner made up of two adjoining straight segments using the Reverse Round Fillet tool.

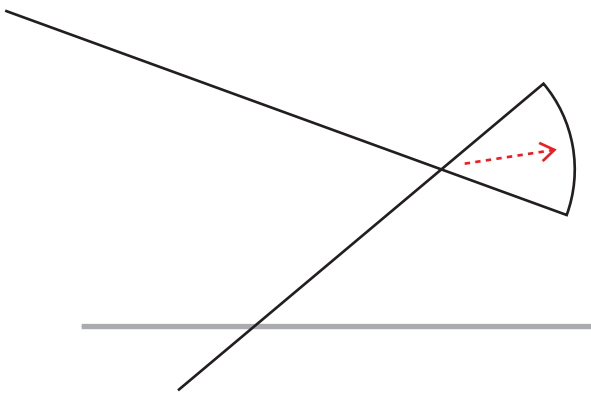


Not only you can round the corner inward but you can also drag in the direction of exterior angle and round the corner.

If you want to visually determine the value of the radius by dragging, the value of the radius will be loaded into the field at the time you release the mouse while pressing the Option/Alt key.

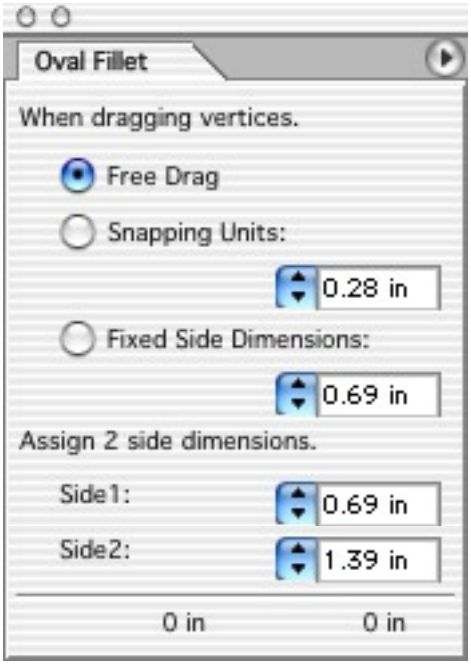






Oval Fillet

The Oval Fillet tool converts corners into convex arcs. You can drag the tool to create the arc as you'd like, or you can create an arc to specific dimensions. The Oval Fillet tool is used only with a pair of straight path segments that join at a corner anchor point.



You can click on one path segment, hold down the mouse button, and drag to the adjoining segment. Xtream Path then creates an ovoid arc based on a parallelogram formed by the two path segments and an imaginary pair of complementary path segments.

The Xtream Path palette offers several ways to control the Oval Fillet tool:

Free Drag

You can drag the corner anchor point to create a concave curve at the corner. The distance dragged will be shown at the bottom of the Xtream Path palette as you drag, expressed as the distances of the sides of the curve. Hold down the Shift key to create a symmetrical curve.

Snapping Units

Specify an increment to which the curve will "snap" as you drag. The increment

is the distance from the original corner point to the start of the new curved path segment.

Fixed Side Dimensions

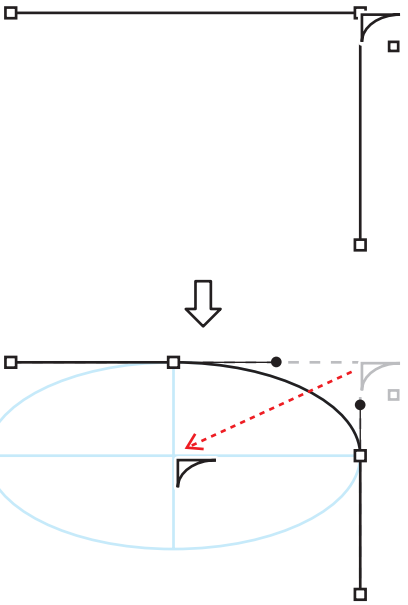
You enter a fixed distance for the curved corner. Click and drag a short distance and the curve will snap to the desired shape. The distance entered is from the original corner anchor point to the start of the new curved path segment. The same distance is used for both sides of the original corner.

Side 1/Side 2

If you require an asymmetrical curved corner, enter different distances for the two sides of the corner, then click the first path segment and drag to the second.

With Free Drag selected, you can hold down the Option key (Mac) or the Alt key (Windows) while releasing the mouse button to enter the distance dragged into the Side 1 and Side 2 fields. If you hold down the Shift and Option keys (Mac) or the Shift and Alt keys (Windows) when you release the mouse button, the distance dragged will be entered into the Fide Side Dimensions field.

TIP: The Oval Fillet and Reverse Oval Fillet tools enable you to create asymmetrical curved corners. If symmetry is required, use the Fixed Side Dimension option or use Xtream Path's Round Fillet and Reverse Round Filler tools.

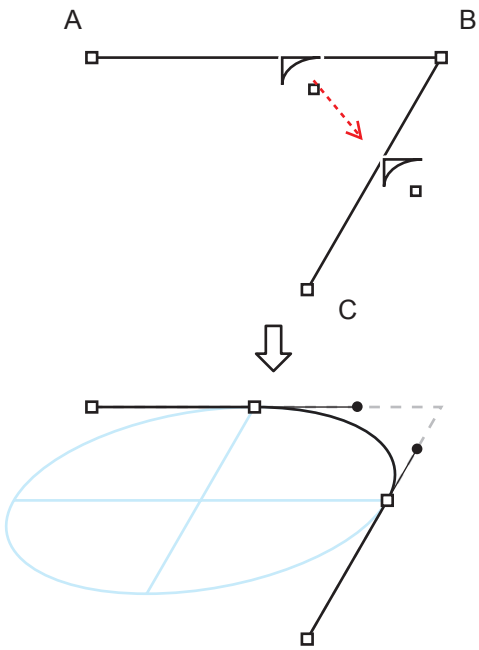


You can drag the anchor point at the vertex of a corner made up of two adjoining straight segments using the Oval Fillet tool.

Not only you can round the corner inward but you can also drag in the direction of exterior angle and round the corner.

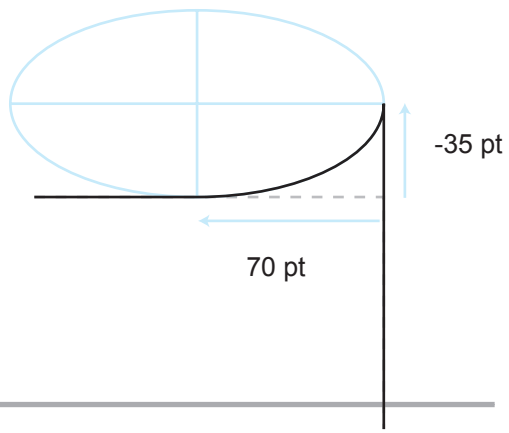
If you want to visually determine the size by dragging, the value of each side dimension will be loaded into the field at the time you release the mouse while pressing the Option/Alt key.

shift If you Shift-drag, the major and minor axes will be the same length



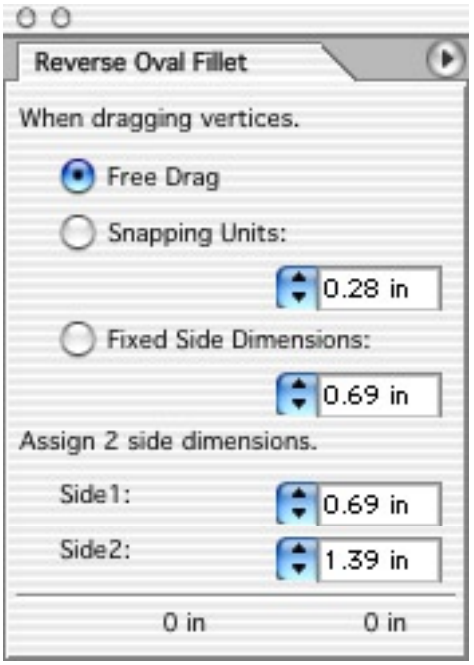
If you are using the fixed value, you can click on the straight segment AB and drag over to the straight segment BC.

When assigning 2 side dimensions at the bottom, not only you can round the corner inward but you can also round the exterior angle of a corner by assigning negative values to the dimensions.



Reverse Oval Fillet

The Reverse Oval Fillet tool converts corners into concave arcs. You can drag the tool to create the arc as you'd like, or you can create an arc to specific dimensions. The Reverse Oval Fillet tool is used only with a pair of straight path segments that join at a corner anchor point.



You can click on one path segment, hold down the mouse button, and drag to the adjoining segment. Xtream Path then creates an ovoid arc based on a parallelogram formed by the two path segments and an imaginary pair of complementary path segments.

The Xtream Path palette offers several ways to control the Reverse Oval Fillet tool:

Free Drag

You can drag the corner anchor point to create a concave curve at the corner. The distance dragged will be shown at the bottom of the Xtream Path palette as you drag, expressed as the distances of the sides of the curve. Hold down the Shift key to create a symmetrical curve.

Snapping Units

Specify an increment to which the curve will "snap" as you drag. The increment is the distance from the original corner point to the start of the new curved path segment.

Fixed Side Dimensions

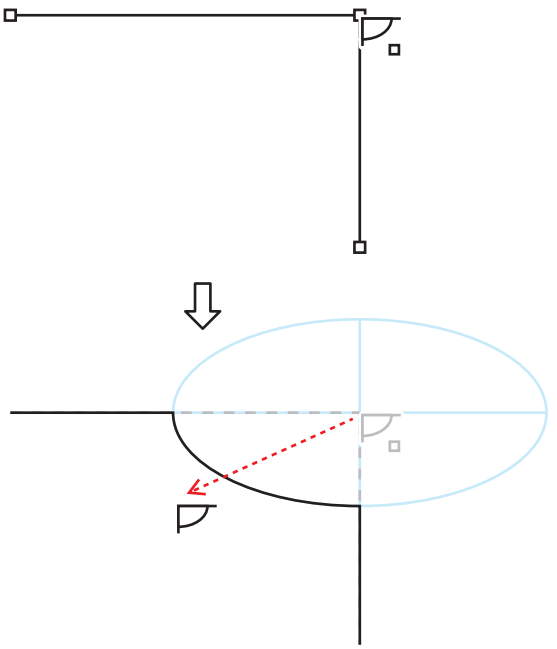
You enter a fixed distance for the curved corner. Click and drag a short distance and the curve will snap to the desired shape. The distance entered is from the original corner anchor point to the start of the new curved path segment. The same distance is used for both sides of the original corner.

Side 1/Side 2

If you require an asymmetrical curved corner, enter different distances for the two sides of the corner, then click the first path segment and drag to the second.

With Free Drag selected, you can hold down the Option key (Mac) or the Alt key (Windows) while releasing the mouse button to enter the distance dragged into the Side 1 and Side 2 fields. If you hold down the Shift and Option keys (Mac) or the Shift and Alt keys (Windows) when you release the mouse button, the distance dragged will be entered into the Fide Side Dimensions field.

TIP: The Oval Fillet and Reverse Oval Fillet tools enable you to create asymmetrical curved corners. If symmetry is required, use the Fixed Side Dimension option or use Xtream Path's Round Fillet and Reverse Round Filler tools.

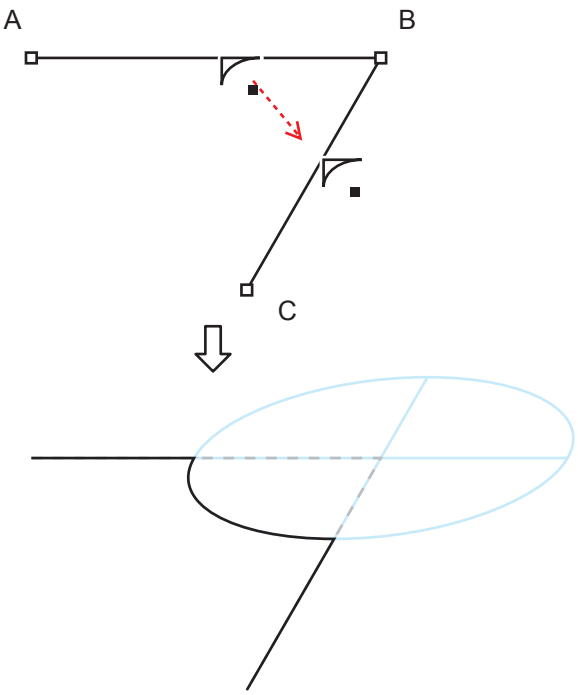


You can drag the anchor point at the vertex of a corner made up of two adjoining straight segments.

Not only you can round the corner inward but you can also drag in the direction of vertical angles and round the corners.

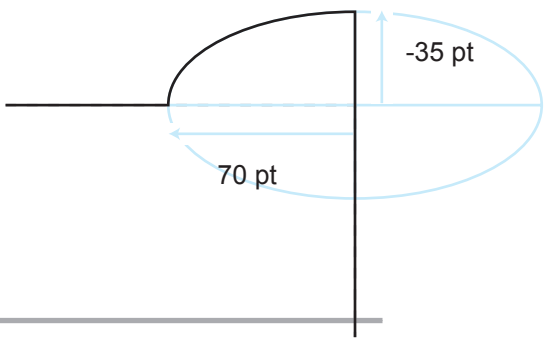
If you want to visually determine the size by dragging, the value of each side dimension will be loaded into the field at the time you release the mouse while pressing the Option/Alt key.

shift If you Shift-drag, the major and minor axes will be the same length



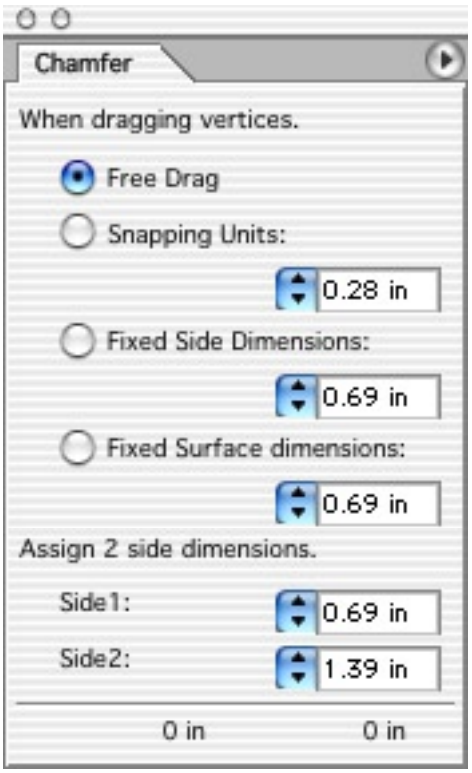
If you are using the fixed value, you can click on the straight segment AB and drag over to the straight segment BC.

When assigning 2 side dimensions at the bottom, not only you can round the corner inward but you can also round the vertical angles of a corner by assigning negative values to the dimensions.



Chamfer

The Chamfer tool bevels corners. You click on a corner point and drag. Xtream Path will create a straight path segment diagonally between the original segments. If you drag inward from the corner, the original segments are shortened according to the distance dragged. If you drag outward from the corner, one (or both) original path segments is extended.



To use the Chamfer tool, you must click on a corner anchor point connecting two straight path segments. The tool cannot be used on an anchor point for a curved path segment.

The Xtream Path palette offers several ways to control the Chamfer tool:

Free Drag

You can drag the corner anchor point and see the new path segment previewed on the artboard. Release the mouse button when the bevel is correct. Hold down the Shift key while dragging to produce a symmetrical relationship between the new path segment and the original segments. (You can see the distances dragged at the bottom of the Xtream Path palette.)

Chamfer

Snapping Units

Specify an increment to which the bevel will "snap" as you drag. The increment is the distance from the original corner point to the start of the new path segment.

Fixed Side Dimensions

You enter a fixed distance for the start of the beveled corner. Click and drag a short distance and the tool will snap to the desired distance. The distance entered is from the original corner anchor point to the start of the new path segment. The same distance is used for both sides of the original corner.

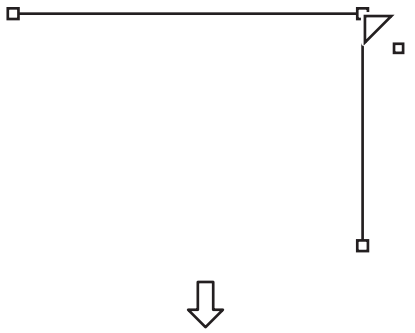
Fixed Surface Dimension

This option enables you to specify a length for the new path segment.

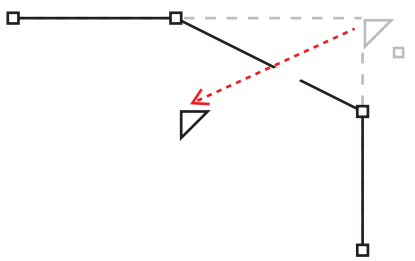
Assign 2 Side Dimensions

You can specify different lengths for the two new path segments. To use this option, assign the lengths, then click on one path segment (Side 1) and drag to the adjoining path segment (Side 2).

With Free Drag selected, you can hold down the Option key (Mac) or the Alt key (Windows) while releasing the mouse button to enter the distance dragged into the Side 1 and Side 2 fields. If you hold down the Shift and Option keys (Mac) or the Shift and Alt keys (Windows) when you release the mouse button, the distance dragged will be entered into the Fixed Side Dimensions field and the length of the new segment will be entered into the Fixed Surface Dimension field.



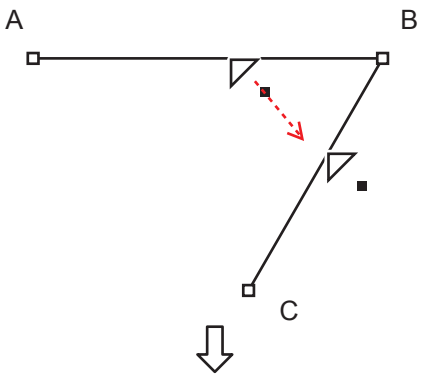
You can drag the anchor point at the vertex of a corner made up of two adjoining straight segments.



Not only you can angle the corner inward but you can also drag in the direction of vertical angles and round the corners.

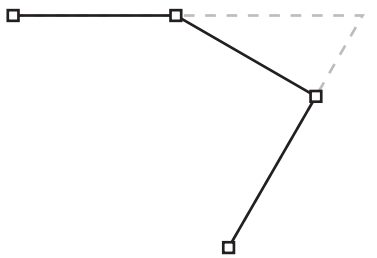
If you want to visually determine the size by dragging, the value of each side dimension will be loaded into the field at the time you release the mouse while pressing the Option/Alt key.

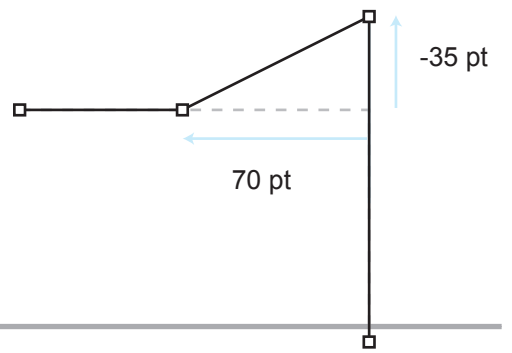
shift 2 sides will be equal in length if you Shift-drag



If you are using the fixed value, you can click on the straight segment AB and drag over to the straight segment BC.

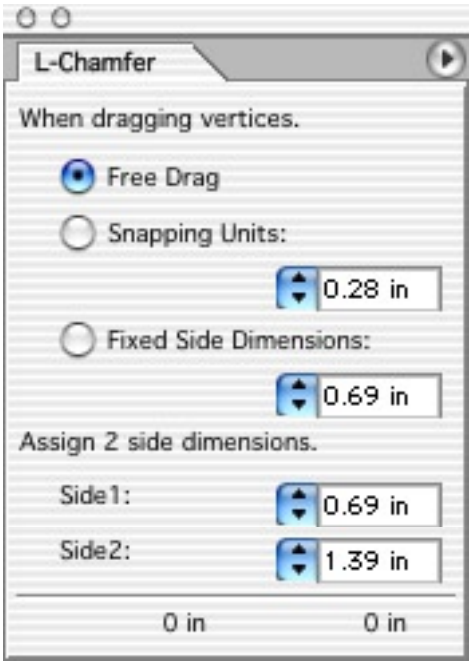
When assigning 2 side dimensions at the bottom, not only you can angle the corner inward but you can also drag in the direction of the vertical angles of a corner by assigning negative values to the dimensions.





L-Chamfer

The L-Chamfer tool converts a corner anchor point into a pair of path segments that create an L shape. An angle is formed from two new path segments. The angle of the new segments to each other and the original path segments is based upon the angle between the original segments. You can drag inward from a corner point or outward. If you drag outward along one existing path segment, that segment is extended and the L shape is formed from the new end point. If you drag directly outward from the corner point, a rectangle, parallelogram, or square will extend from the original corner point.



To use the L-Chamfer tool, you can click on a corner anchor point connecting two straight path segments and drag. (The tool cannot be used on an anchor point for a curved path segment.) You can also click on one path segment and drag to the adjoining path segment. The new path segments will use the values assigned for Side 1 and Side 2 in the Xtream Path palette.

The Xtream Path palette offers several ways to control the L-Chamfer tool:

Free Drag

You can drag the corner anchor point and see the new angled path segments previewed on the artboard. Release the mouse button when the new shape

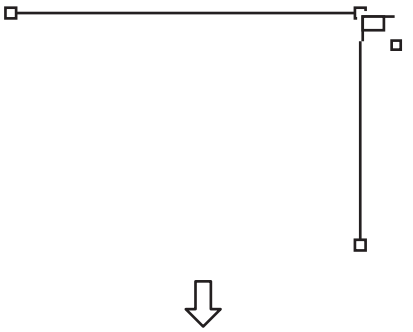
is correct. Hold down the Shift key while dragging to produce a symmetrical relationship between the new path segments and the original segments. (You can see the lengths of the new segments at the bottom of the Xtream Path palette.)

Snapping Units
Specify an increment to which the tool will "snap" as you drag. The increment is the length of one or both of the new path segments.

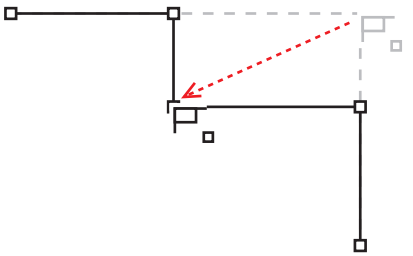
Fixed Side Dimensions
You enter a length for the two new path segments.

Assign 2 Side Dimensions
You can specify different lengths for the two new path segments. To use this option, assign the lengths, then click on one path segment (Side 1) and drag to the adjoining path segment (Side 2).

With Free Drag selected, you can hold down the Option key (Mac) or the Alt key (Windows) while releasing the mouse button to enter the distance dragged into the Side 1 and Side 2 fields. If you hold down the Shift and Option keys (Mac) or the Shift and Alt keys (Windows) when you release the mouse button, the distance dragged will be entered into the Fixed Side Dimensions field.



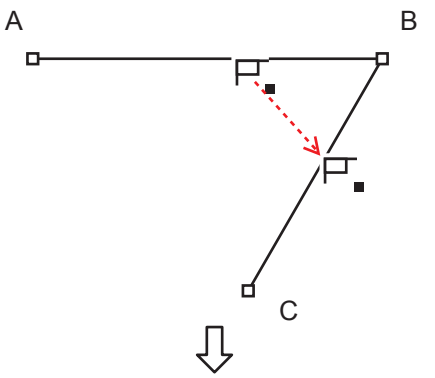
You can drag the anchor point at the vertex of a corner made up of two adjoining straight segments.



Not only you can make L-shapes on the interior angle of a corner but you can also drag in the direction of vertical angles and make L-shaped corners.

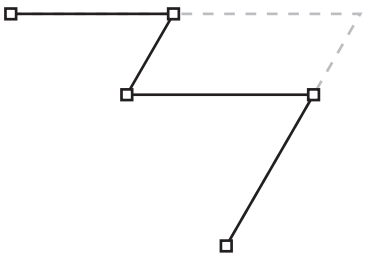
If you want to visually determine the size by dragging, the value of each side dimension will be loaded into the field at the time you release the mouse while pressing the Option/Alt key.

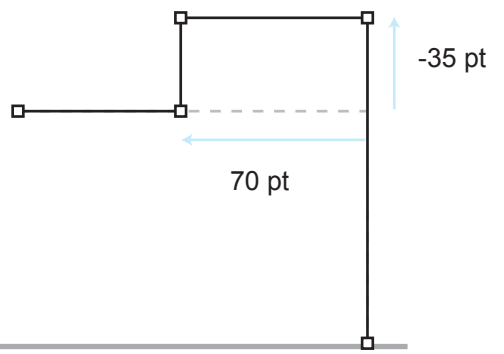
shift By Shift-dragging, 2 sides will be equal



If you selected to use a fixed value, you can click on the straight segment AB and drag over to the straight segment BC.

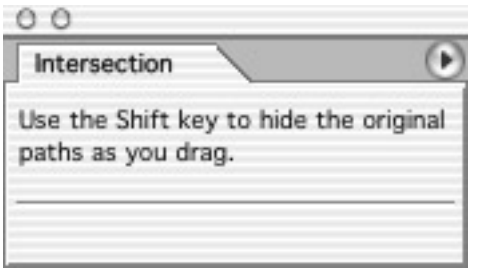
When assigning 2 side dimensions at the bottom, not only you can make L-shaped on the interior angle of a corner but you can also drag in the direction of the vertical angles of a corner by assigning negative values to the dimensions.





Intersection

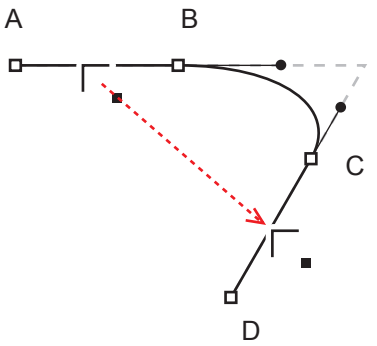
The Intersection tool can be used to create or restore corner points between two straight path segments. To use the tool, click on one straight path segment and drag to another straight path segment. the two segments will be extended to their point of intersection and a corner anchor point will be created. Any path segments between the two on which you click/drag are deleted. The Intersection tool can also be used on open paths (but not two individual paths).



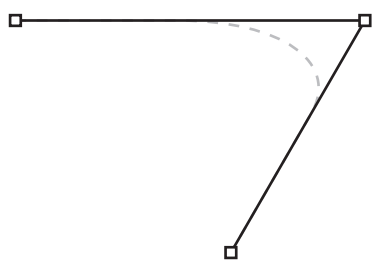
NOTE: The Intersection tool cannot be used with parallel line segments since parallel lines have no logical point of intersection.

Remember that the path segments will be extended to their point of intersection, even if that is away from the open end of an open path. One or both original path segments may be shortened to terminate at the point of intersection.

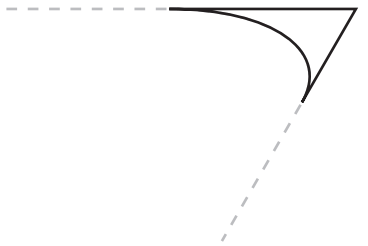
Use the Shift key with the Intersection tool to create a new object that consists entirely of the area added by the Intersection tool. (The original object is deleted.) A blue preview will show the resulting object. Using the Shift key with the Intersection tool on an open path results in a new open path.



Click on the straight segment AB and drag over to the straight segment CD.

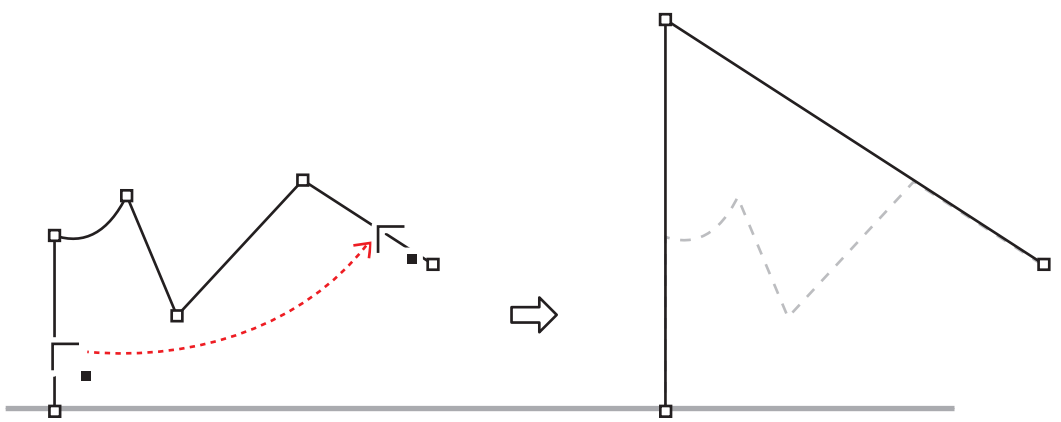


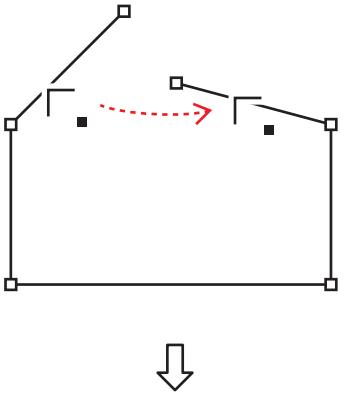
The corner will be restored.



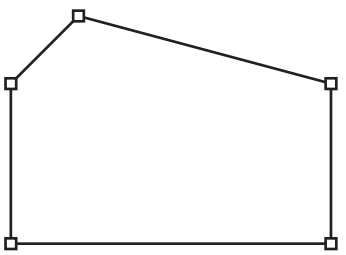
shift

If the Shift key is depressed, only the new area that is going to be created will be displayed and the original segments will dissapear.

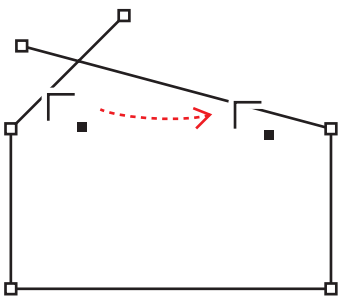


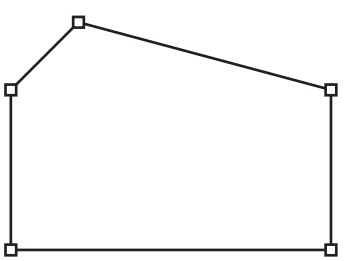


You can also click on 2 segments for the open path object…



…you can extend these 2 segments and have them intersect to make it a closed path object.

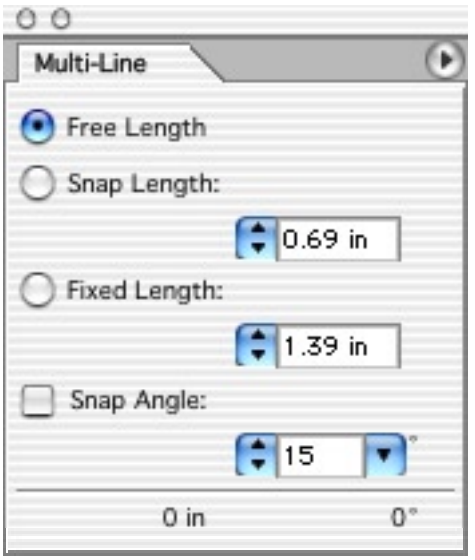




Multi-Line

The Multi-Line tool creates straight path segments with corner anchor points. The "multi" part of the name comes from the tool's capability of creating multiple path segments with a series of clicks or click/drags.

Creating a path segment can be as simple as clicking where you want the segment to begin, moving the cursor, then clicking a second time. You can also click once to set the first anchor point, then click and drag to see a preview of the path segment. The segment won't be created until you release the mouse button. Create additional segments connected to the first by continuing to click or click/drag.



To create a closed path, click near the first anchor point then drag the cursor to that point. The cursor will "snap" to the anchor point when it's within a few pixels. Release the mouse button to complete the closed path. The next click on the tool will start a new path or object.

If you want to end an open path and start a new path, Command-click (Mac) or Control-click (Windows) away from the current path to deselect it. If you want to add segments to an existing open path, select the path on the artboard, then click an end point with the Multi-line tool. Subsequent clicks or click/drags will add segments to that path.

TIP: If you hold down the Shift key while clicking (or when releasing the mouse button after dragging), the previous anchor point is deleted and the new path segment extends from the previous anchor point.

The Xtream Path palette offers several ways to create precise path segments with the Multi-Line tool:

Free Length
Click to set the path segment's first anchor point, then click or click-drag to place the anchor point for the far end of the path segment. You can click or drag anywhere on the artboard to create path segments of any length and in any direction. The bottom of the Xtream Path palette will show the length and angle from the previous anchor point to the cursor's location as you drag.

Snap Length
After placing the first anchor point, the Multi-Line tool will be constrained to the length increment specified, "snapping" to multiples of that length.

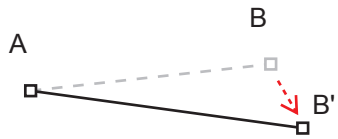
Fixed Length
Each path segment will be the length specified.

Snap Angle
Each path segment will be constrained to multiples of the designated angle.

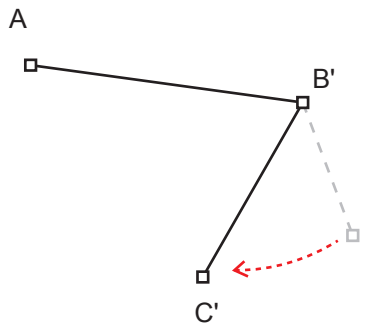
TIP: The Snap Angle option can be used in conjunction with Free Length, Snap Length, or Fixed Length.

Drawing line segments individually:

Click anywhere on the artboard to determine the starting Point A and release the mouse.



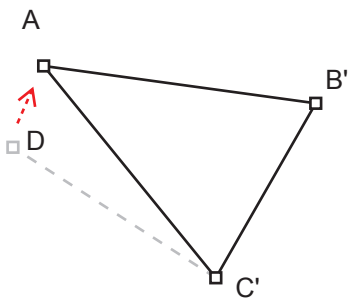
Now you click at a distance to create Point B and you can either release the mouse at this point or drag to the appropriate place such as Point B' and release the mouse.



The cross hair (cursor) will always snap to any anchorpoint of its own path or another path.

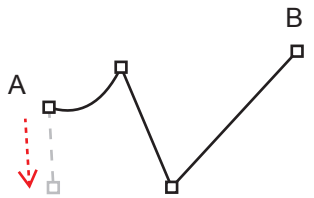
Next, click at a distance to create Point C. You can either release the mouse at this time or drag to the appropriate place such as Point C' and release the mouse.

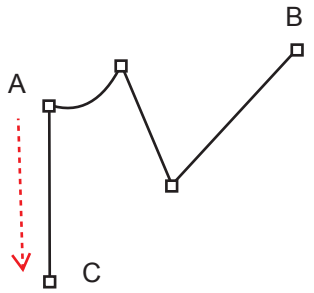
Undo/Redo is possible during continuous drawing.

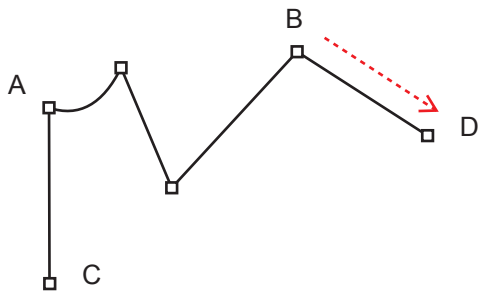


To connect to the starting Point A to close the path, click somewhere close to the starting point such as Point D. Without releasing the mouse, drag over to Point A. (It will stick to Point A) On the other hand, if you want to leave it as an opened path, you can deselect the path by using the Selection tool (or you can Command-click (Mac) or Control-click (Windows) on the background).

Connecting multiple lines to an existing open path





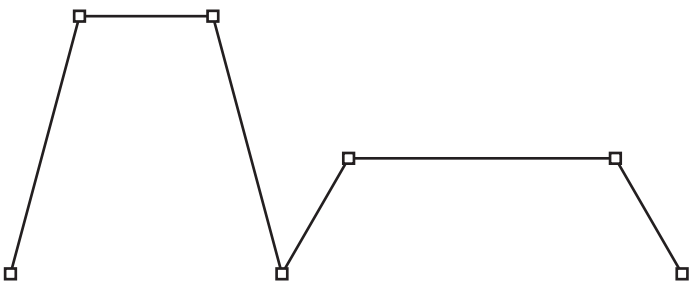


Let's try to connect segments to the existing path AB using the Multi-Line tool. First you will click on the anchor point A and drag downward without releasing the mouse.

Release the mouse at an appropriate location. If you want to continue from Point C, you will do exactly the same as in the previous example. You can also switch to the other end of the path and connect a line segment from there, Point B, and drag.

As long as the path is selected, you can always connect line segments to any end point of an open path. It is not necessary to deselect while drawing.

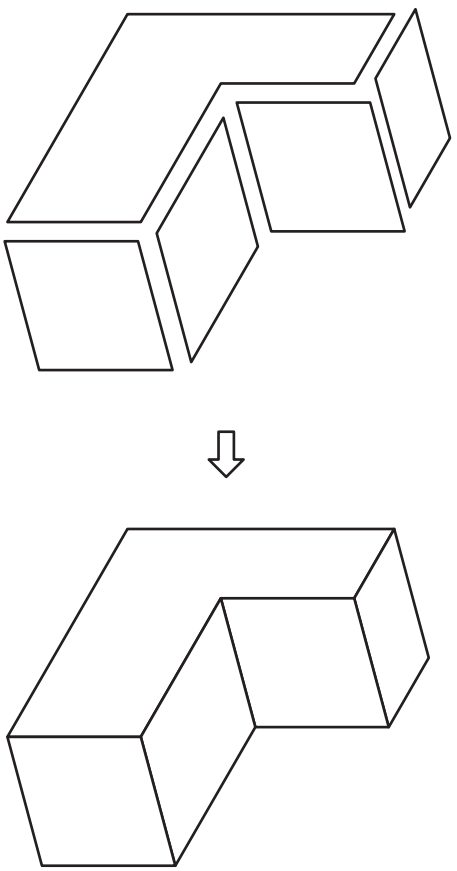
Using the "Snap" feature



Snap Length: 50pt
Snap Angle: 15º

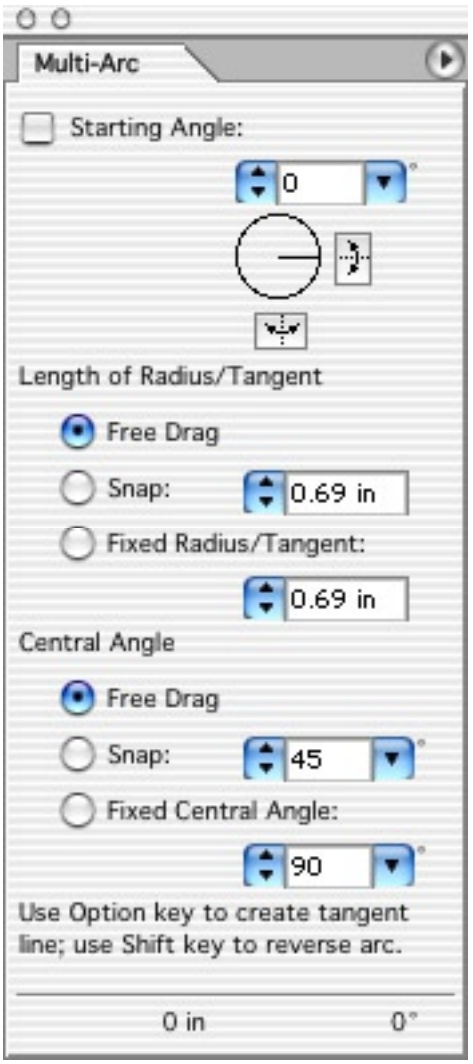
The length of the line segment is a multiple of 50 and its direction angle sticks (or snap) to a multiple of 15º.

Snap Length: 10pt
Snap Angle: 15º



Multi-Arc

The Multi-Arc tool creates curved path segments, each arc adding three smooth anchor points to the path. Click to establish the path's starting point, the click and drag to add an arc. If you choose Free Drag, the arc will consist of three (3) points: the starting point, the second clicking point (without releasing the mouse), and the release point. Continue to click and drag to add additional arcs to the path. You can create closed paths by clicking and dragging back to the first anchor point.



While dragging, an arc can be reversed by pressing the Shift key. (Note that this may convert the previous anchor point from a smooth anchor point to a corner point.)

Pressing the Option key (Mac) or the Alt key (Windows) while dragging enables you to create straight path segments. One or more straight segments can be added to a path along with arcs.

TIP: You can continue an existing open path by selecting the path on the artboard, then clicking on an end point with the Multi-Arc tool. Arcs can then be added by click-dragging.
When you've finished creating a series of arcs, you can end an open path by selecting a different tool or by Command-clicking (Mac) or Control-clicking (Windows) away from your path.

Multi-Arc

Use the Xtream Path palette to create predictable, controlled arcs:

Starting Angle
When this option is selected, the first arc will be formed from the starting point and the arc will always be touching the invisible straight line that extends in the direction of the Starting Angle. This option controls the angle of straight path segments added by pressing the Option key (Mac) or the Alt key (Windows). Each straight segment will be added at the angle indicated in the field. A value can be entered manually, selected from the pop-up menu, or changes with the up/down arrows to the left of the numeric filed. You can also click or drag within the circle to change the angle. The buttons to the right and left of the circle reverse the angle across the horizontal axis (right) or vertical axis (bottom).

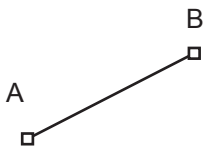
Length of Radius/Tangent
When set to Free Drag, you can adjust arcs or straight segment length by dragging. The Snap option constrains the arc or straight segment to multiples of the value selected. Fixed Radius/Tangent produces an arc of a specific radius or a straight segment of a specific length.

Central Angle
Think of the Central Angle option as the length of the arc or that portion of a circle being created. For example, when set to 90°, one-quarter of a circle is produced with each click-drag of the Multi-Arc tool. When set to 180°, half-circles are created. The Free Drag option enables you to create arcs of any length. When Snap is selected, each arc will be constrained to multiples of the value selected, "snapping" to the next length as you drag. When you select Fixed Central Angle, each arc will be of the designated length.

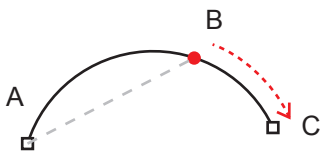
TIP: If you find the Multi-Arc tool hard to control or unpredictable, designate a fixed radius or a fixed central angle and try again. If you don't know either value, free drag while keeping an eye on the bottom of the Xtream Path palette. As you drag, the radius will be shown on the left and the central angle on the right. Once you have an idea of the dimensions of the arc (or arcs) you need to create, use Undo, enter a radius or central angle, and click-drag to produce your desired arc.

Drawing arcs individually..

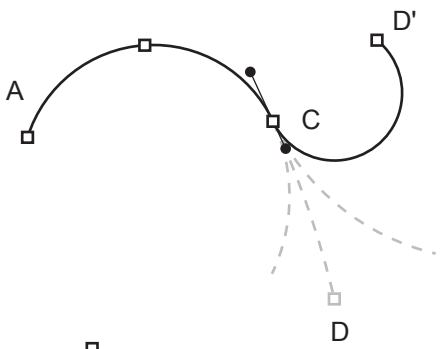
Click at Point A and release the mouse. (In this example, Starting Angle is not specified. Free Drag is selected)



Now click at a distance at Point B and don't let go of the mouse yet. You can drag to Point C and if you are happy with the arc shape, you can release the mouse.



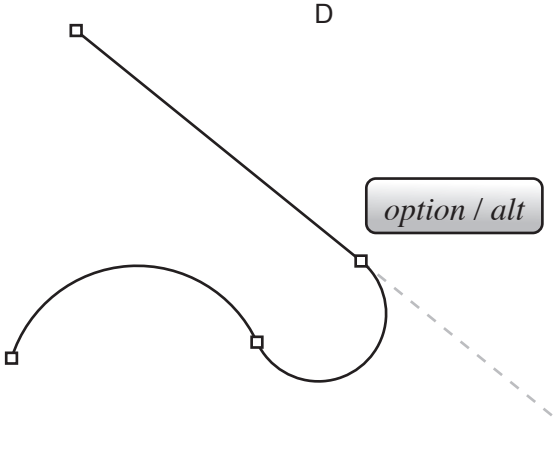
Now you created an arc that consists of 3 points (A, B, and C)



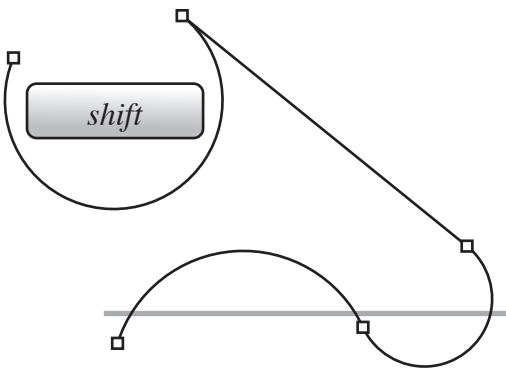
You can click again at a distance at Point D.

You can either release the mouse or keep dragging and release the mouse at Point D'. At this point, the segment will be connected with a smooth point at Point C. If you want to continue drawing, repeat this step.

Undo/Redo is possible during continuous drawing.

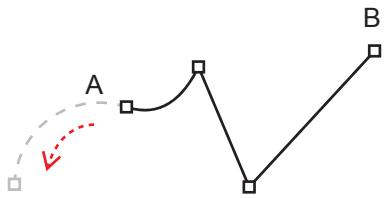


By pressing the Option/Alt key, it allows you to draw straight tangential lines from the end point.

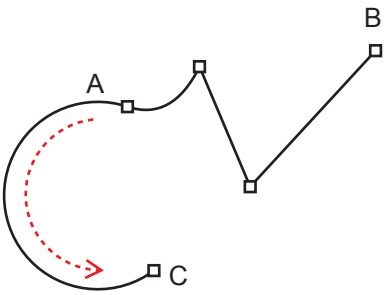


By pressing the Shift key, it will reverse the direction of the arc and connect to the end point (if it is with two arcs, the direction of the direction line will be the same at the tangent point).

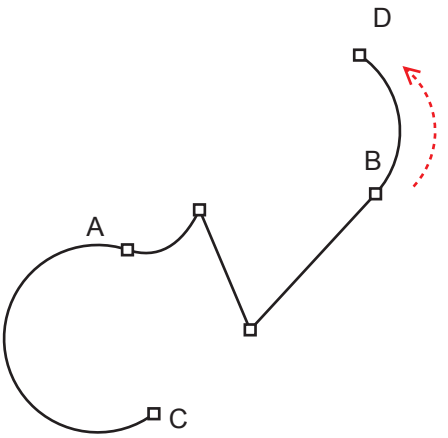
Connecting to an existing open path..



Let's try to connect a segment to the existing path AB using the Mutli-Arc tool. First you will click on the anchor point A and drag downward before releasing the mouse.



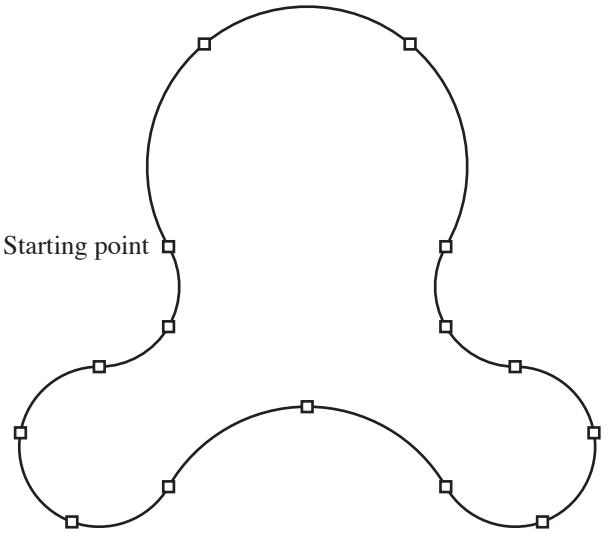
Release the mouse at Point C. If you want to continue from Point C, you will do exactly the same as in the previous step.



You can also switch over to the other end, Point B, and connect a line segment from there and drag.

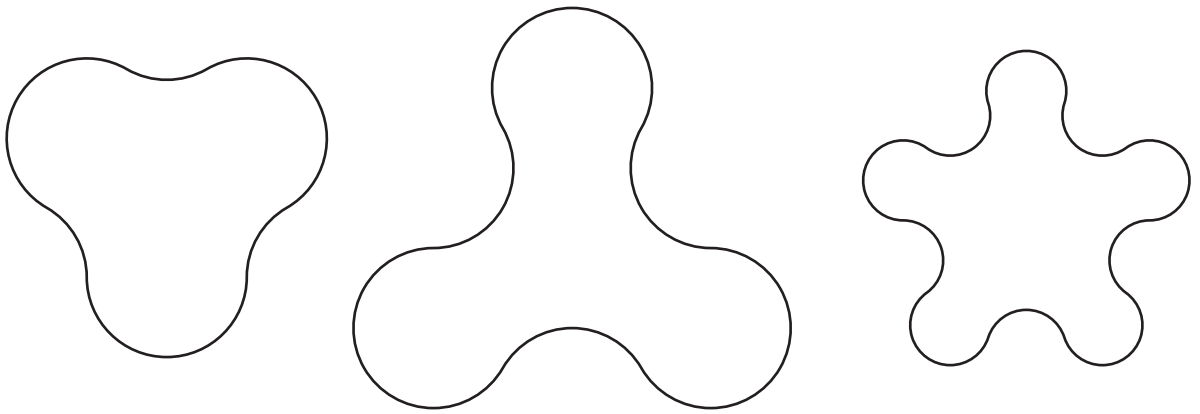
As long as the path is selected, you can always connect line segments to any end point of an open path. It is not necessary to deselect while drawing.

Using fixed values or snap feature...

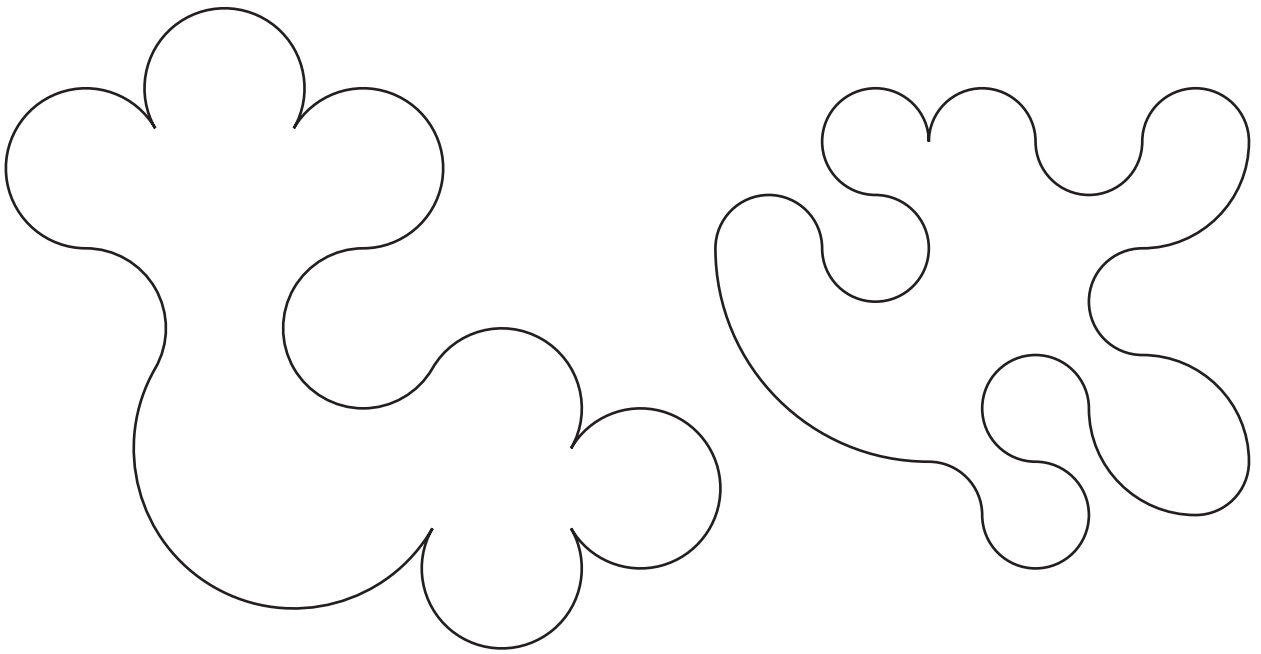


Starting Angle: 120º
Snap Length: 30pt
Snap Angle: 120º

Radius is a multiple of 30 pt and central angle sticks to a multiple of 120º.



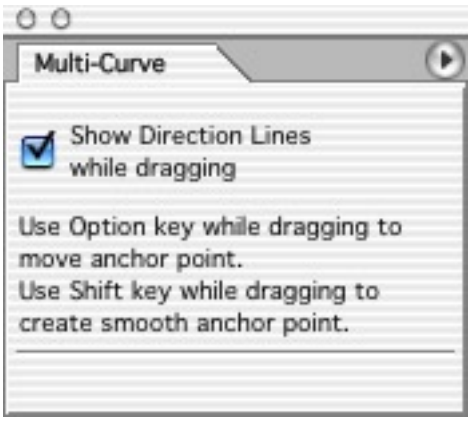
Arcs drawn with planning



Arcs drawn randomly

Multi-Curve

The Multi-Curve tool creates curved path segments. You click to establish the initial anchor point, then click and drag to add a single anchor point and a curved path segment. Continue to click and drag to add additional curved path segments. Clicking determines the location of the next anchor point, while dragging establishes the curve.

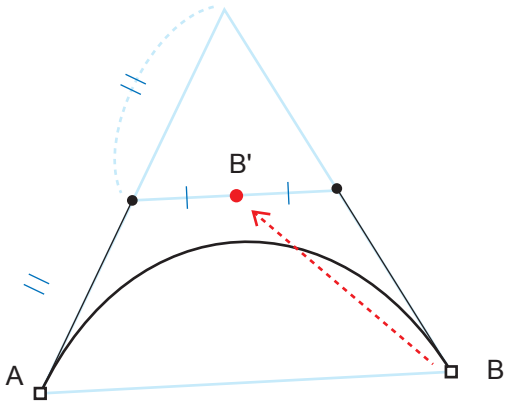


While dragging, you can press the Option key (Mac) or the Alt key (Windows) and reposition the new anchor point. Releasing the modifier key with the mouse button still depressed enables you to continue shaping the curve after repositioning the anchor point.

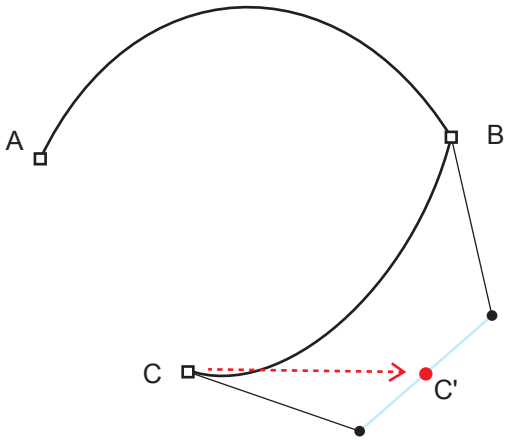
The Xtream Path palette offers the option of having the path's direction lines visible as you drag.

By default, each anchor point placed with the Multi-Curve tool is a corner point. To force a smooth anchor point, press the Shift key while dragging. As long as you continue to drag in a direction that produces a continuously-flowing path through the previous anchor point, that point will be converted to a smooth point. However, if the Shift key is down and you drag in a direction to prevent a smooth curve from being created, the previous anchor point will not be converted to a smooth point.

Click anywhere on the artboard (Point A) andÅrelease the mouse.

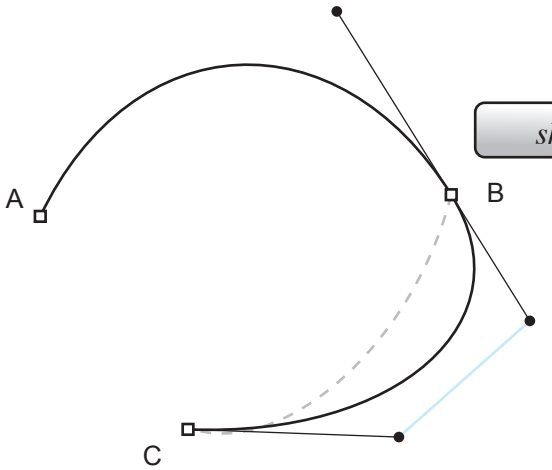


Next click at a distant at Point B and drag yourÅmouse so that the track will be displayed. YouÅcan drag to Point B' and if you are happy with the curve shape, release the mouse.



You can click again at a distant at Point C. YouÅcan drag and release the mouse at Point C'.

Undo/Redo is possible during continuous drawing.



shift

By depressing the Shift key, the new curve will be connected to a smooth point (Point B).

While pressing the Option/Alt key, it allows you to move the end point C.

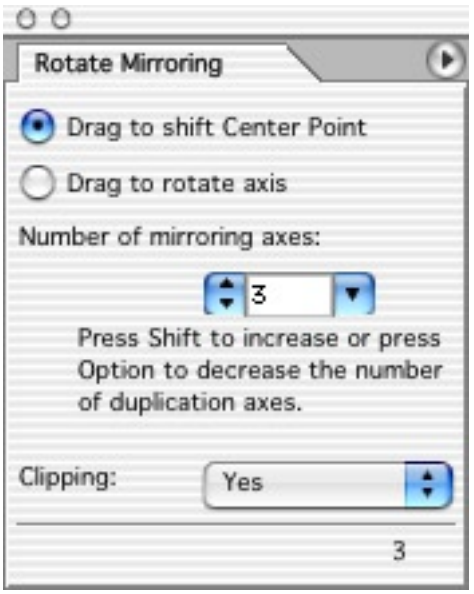
To close the path, you can simply click on the starting point (Point A). To quit drawing with an open path, simply deselect the path.

option / alt

While depressing the Option/Alt key, it allows you to move the end point, C

Rotate Mirroring

The Rotate Mirroring tool creates copies of a selected object. You select the number of duplicates to make and click to establish the point around which the copies will be rotated. Depending on the option selected in the Xtream Path palette, you can drag to change the point around which the copies will rotate or drag to change the angle of rotation.



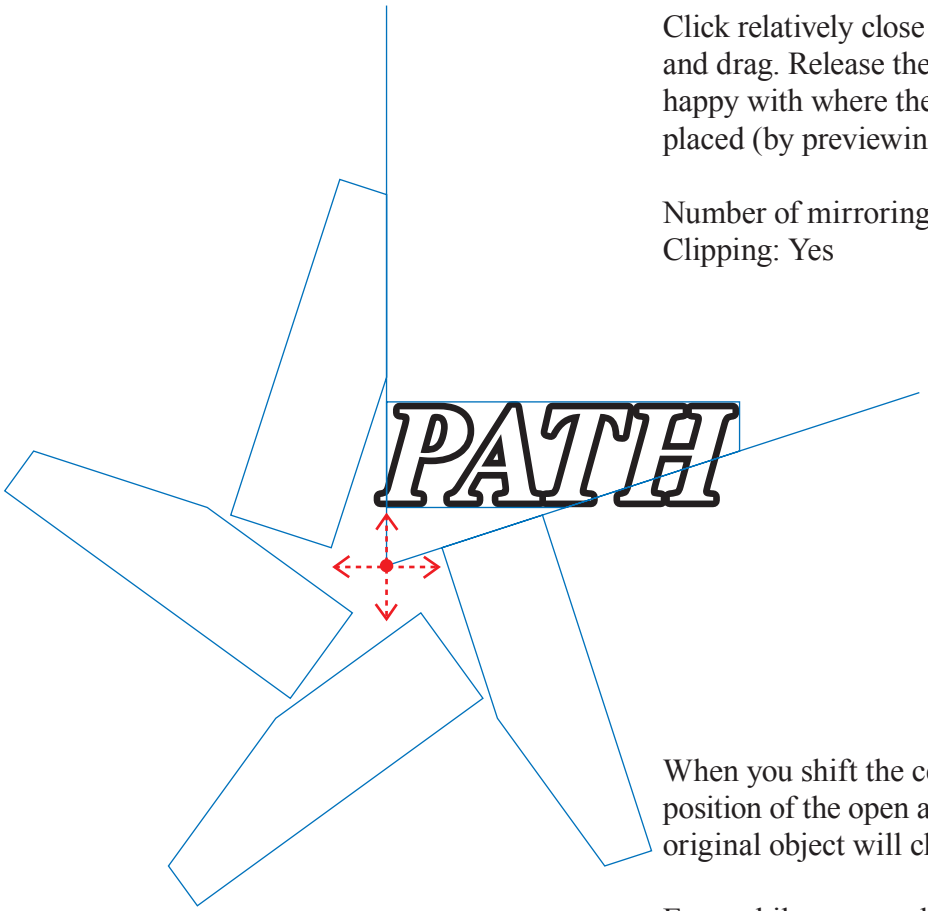
While the mouse button is down, you can increase the number of duplicates to be created by pressing and releasing the Shift key. Each time you press the key, the number of mirroring axes is increased by one. Pressing the Option key (Mac) or the Alt key (Windows) reduces the number of copies to be created.

When previewing on the artboard, before releasing the mouse button, you should take a look at the bounding boxes. If the Xtream Path palette is set to Clipping: No, the duplicated objects may overlap. If the option is Clipping: Clip to Mask, the objects may be only partially visible after duplication.

NOTE: Using the Rotate Mirroring tool's clipping options with objects that have complex appearances can produce unexpected results. In a case such as this, you can select Objects>Expand Appearance from the Illustrator menu before applying this tool. However, if the object consists of other than a path object, a rasterized image, for example, this tool cannot be applied. If you are using Illustrator 10 or later, a path that has Pathfinder effects being applied also must be expanded.

TIP: Remember that the Rotate Mirroring tool duplicates everything that' s selected on the artboard. Since objects are not deselected after using the Rotate Mirroring tool, you can quickly and easily populate the artboard with an apparently-random distribution of objects. Starting with one object and with the Rotate Mirroring tool set to produce two copies (3 mirroring axes), a click and a short drag with the tool eight consecutive times produces over 6500 objects.

Drag to shift center point



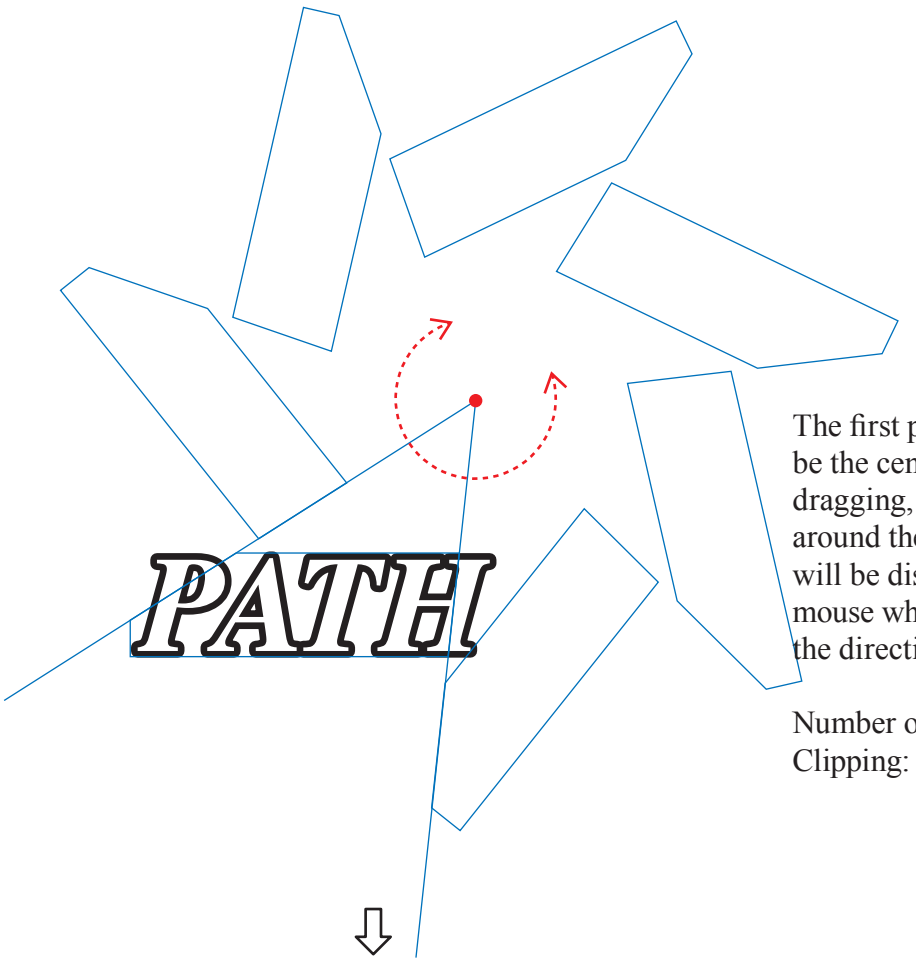
Click relatively close to the selected path and drag. Release the mouse when you are happy with where the duplicates will be placed (by previewing the tracks).

Number of mirroring axes: 5
Clipping: Yes

When you shift the center point, the position of the open angle that encloses the original object will change automatically.

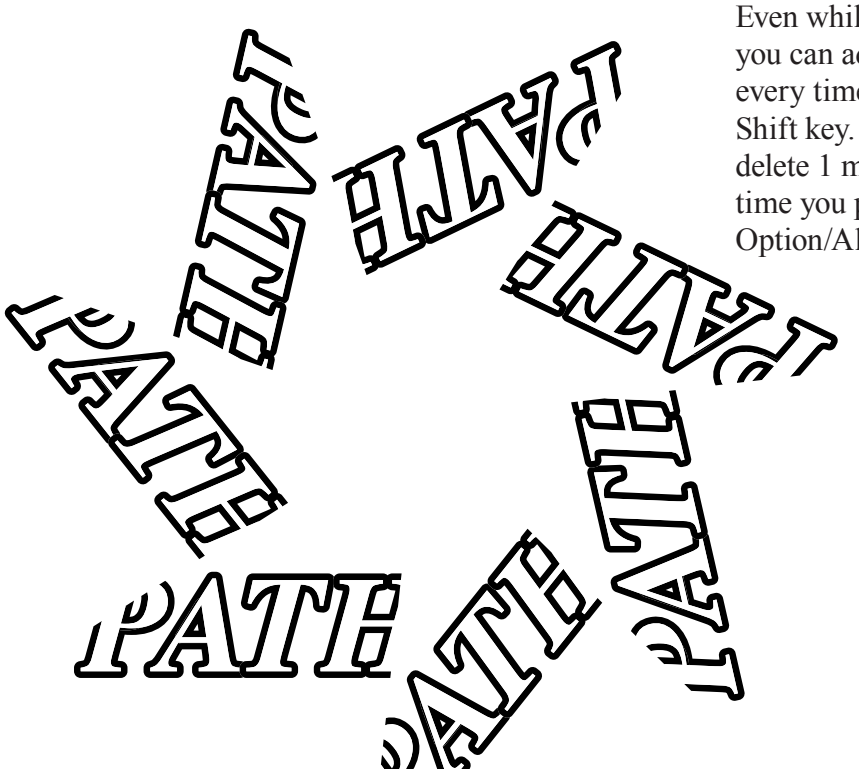
Even while you are dragging, you can add 1 mirroring axis every time you press down the Shift key. Conversely, you can delete 1 mirroring axis every time you press down the Option/Alt key.

Drag to ratate the axis



The first point you click will be the center point. If you keep dragging, the opening angle around the original object will be displayed. Release the mouse when you are happy with the direction.

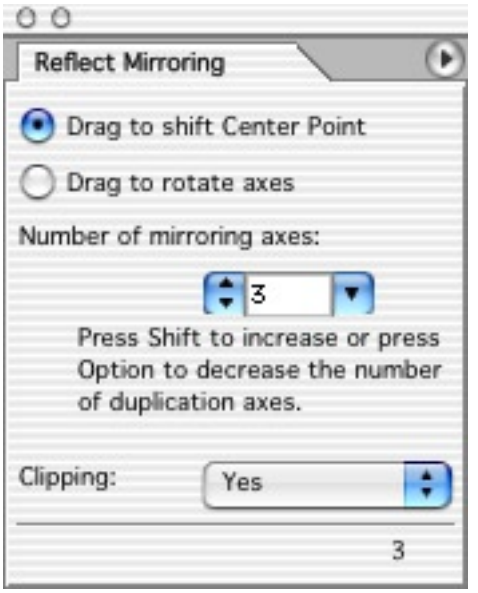
Number of mirroring axes: 7
Clipping: Yes



Even while you are dragging, you can add 1 mirroring axis every time you press down the Shift key. Conversely, you can delete 1 mirroring axis every time you press down the Option/Alt key.

Reflect Mirroring

The Reflect Mirroring tool creates copies of a selected object. You select the number of duplicates to make and click to establish the point around which the copies will be rotated. Each original object will be duplicated and flipped, then the reflected pair will be duplicated.

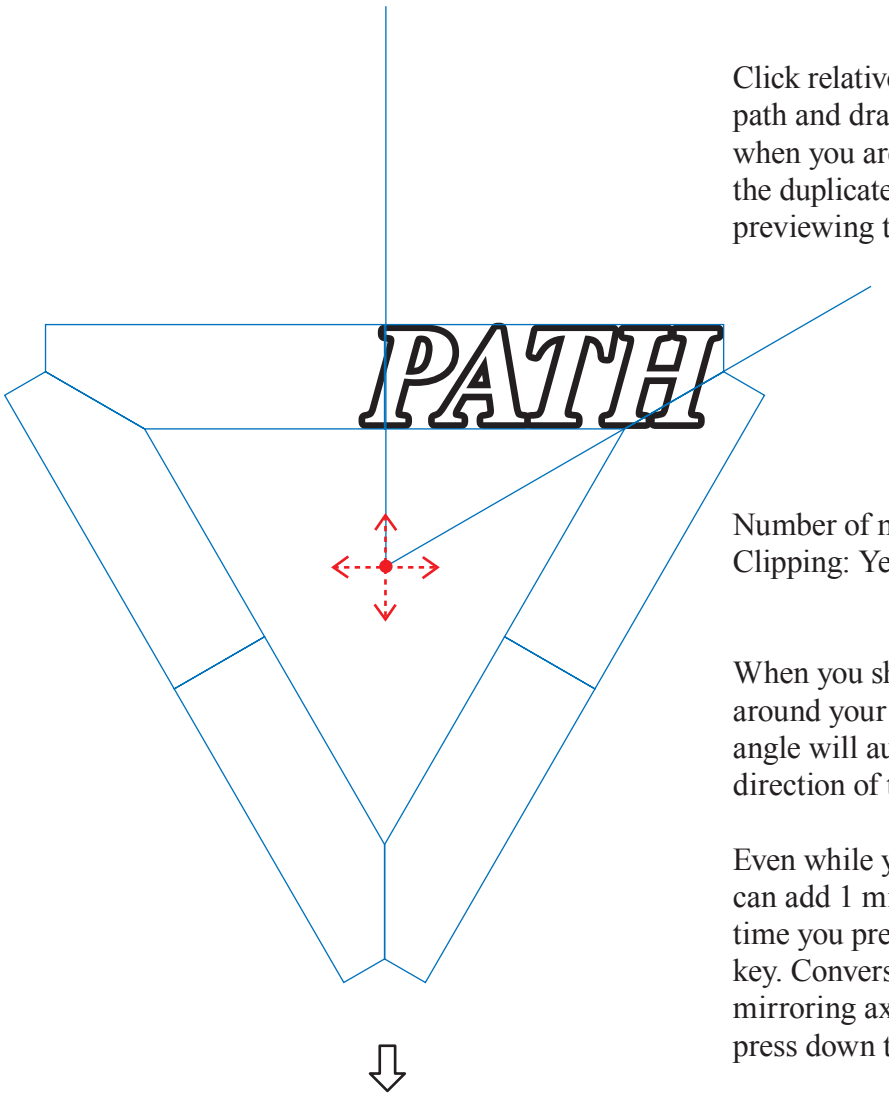


Depending on the option selected in the Xtream Path palette, you can drag to change the point around which the copies will rotate or drag to change the rotation of the mirroring axes. While the mouse button is down, you can increase the number of duplicates to be created by pressing and releasing the Shift key. Each time you press the key, the number of mirroring axes is increased by one. Pressing the Option key (Mac) or the Alt key (Windows) reduces the number of copies to be created. The number of mirroring axes (the final number of objects, including the original) is shown at the bottom of the Xtream Path palette.

When previewing on the artboard, before releasing the mouse button, you should take a look at the bounding boxes. If the Xtream Path palette is set to Clipping: No, the duplicated objects may overlap. If the option is **Clipping: Clip to Mask**, the objects may be only partially visible after duplication.

NOTE: Using the Reflect Mirroring tool's clipping options with objects that have complex appearances can produce unexpected results. In a case such as this, you can select Objects>Expand Appearance from the Illustrator menu before applying this tool. However, if the object consists of other than a path object, a rasterized image, for example, this tool cannot be applied. If you are using Illustrator 10 or later, a path that has Pathfinder effects being applied also must be expanded.

Drag to shift center point

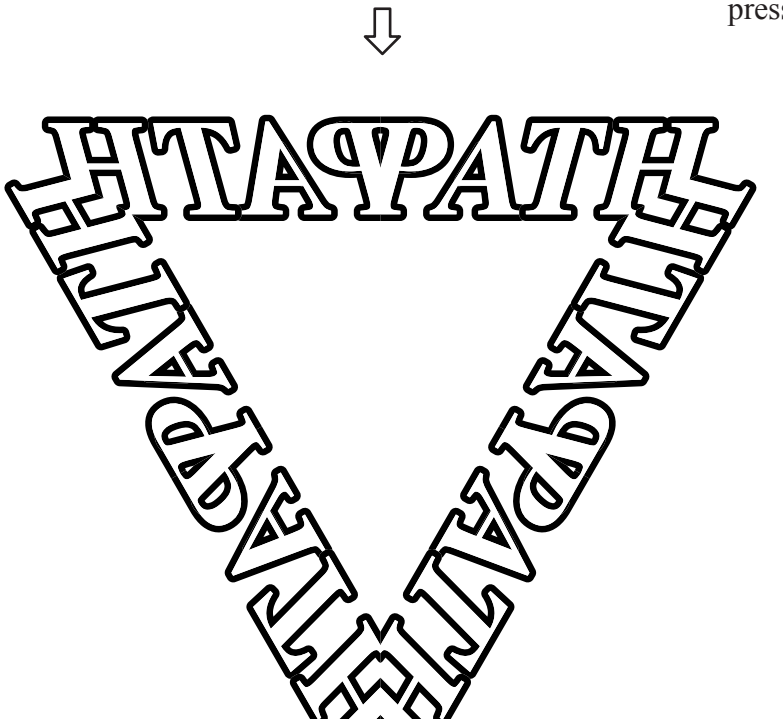


Click relatively close to the selected path and drag. Release the mouse when you are happy with where the duplicates will be placed (by previewing the tracks).

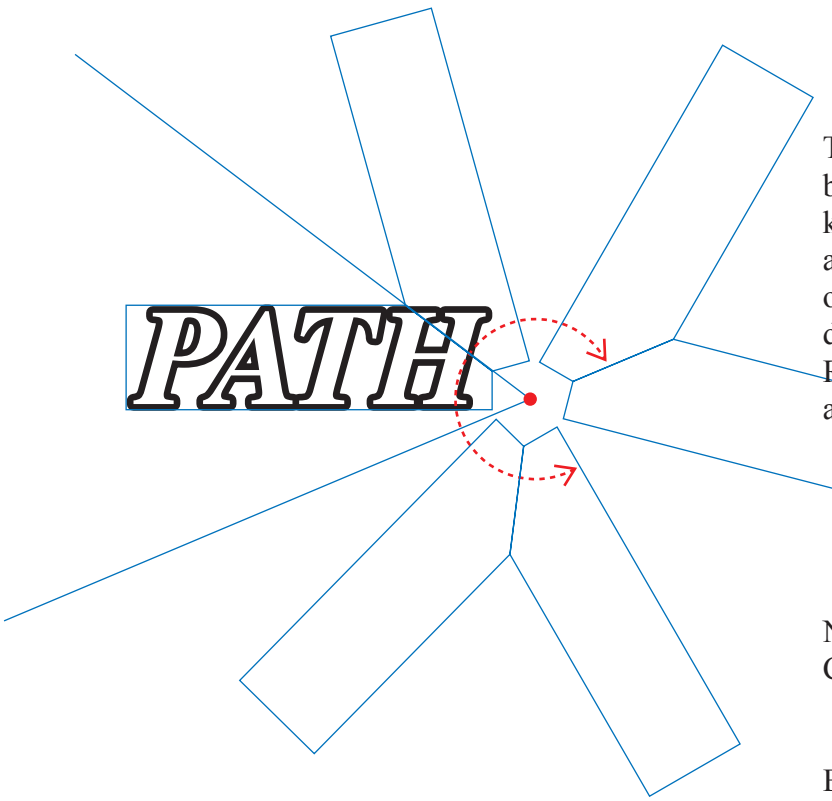
Number of mirroring axes: 3
Clipping: Yes

When you shift the center point around your path, the open "V" angle will automatically face in the direction of the path.

Even while you are dragging, you can add 1 mirroring axis every time you press down the Shift key. Conversely, you can delete 1 mirroring axis every time you press down the Option/Alt key.



Drag to rotate the axis



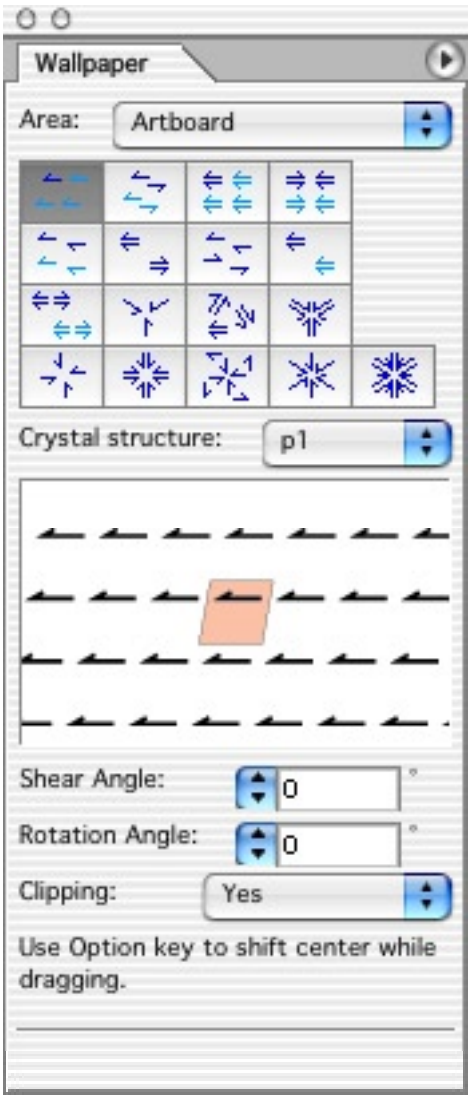
The first point you click will be the center point. If you keep dragging, the opening angle around the original object will be displayed.
Release the mouse when you are happy with the direction.

Number of mirroring axes: 3
Clipping: Yes

Even while you are dragging, you can add 1 mirroring axis every time you press down the Shift key. Conversely, you can delete 1 mirroring axis every time you press down the Option/Alt key.

Wallpaper

The Wallpaper tool fills a designated area with copies of the selected artwork. The Xtream Path palette offers 17 different patterns of wallpaper, based on the International Union of Crystallography (IUC) standards. You select the artwork that you want to replicate, you select the area in which you want the wallpaper, you choose a wallpaper pattern, then you click and drag with the Wallpaper tool on the artboard to determine the distribution of the artwork. Because the calculations to create some wallpaper patterns are complex (especially with intricate artwork), Xtream Path offers a dialog box with a chance to confirm or cancel the operation.



The Area choices, which determine the extent of the wallpaper distribution, include:

Document View
The area within the image window will be filled with the wallpaper. If you zoom out, you'll see unfilled area.

Artboard
The entire artboard is filled with the wallpaper. Any artwork that extends beyond the edges of the artboard, but is necessary to fill the artboard, will be masked. The objects will be there intact, but only those parts that extend onto the artboard will be visible.

Page 1
If the artboard is larger than the page size and the illustration will be tiled, you can restrict the wallpaper to the page size of the first page.

Printable Area (P.1)
This option restricts the wallpaper to the printable area of the first page of an image that will be tiled.

1 Unit Only
A single instance of the wallpaper pattern will be created.

TIP: Creating a single instance of an Xtream Path wallpaper pattern can be very useful for generating complex artwork. For example, the wallpaper pattern options p6 and p6m can be used to generate snowflake patterns. They can generate extraordinarily beautiful patterns when used after such wallpaper patterns as p3, p4, p4m, and p4g.

You have two ways of selecting a wallpaper pattern in the Xtream Path palette. If you are familiar with IUC notation, the Crystal structure pop-up menu may be useful. However, you can also click on a button in the palette below the Area pop-up menu. The Crystal structure pop-up menu and the preview area will both be updated.

NOTE: The preview area of the Xtream Path palette is not "live." It will not show your selected artwork, instead presenting the selected wallpaper pattern using the default half-arrow artwork.

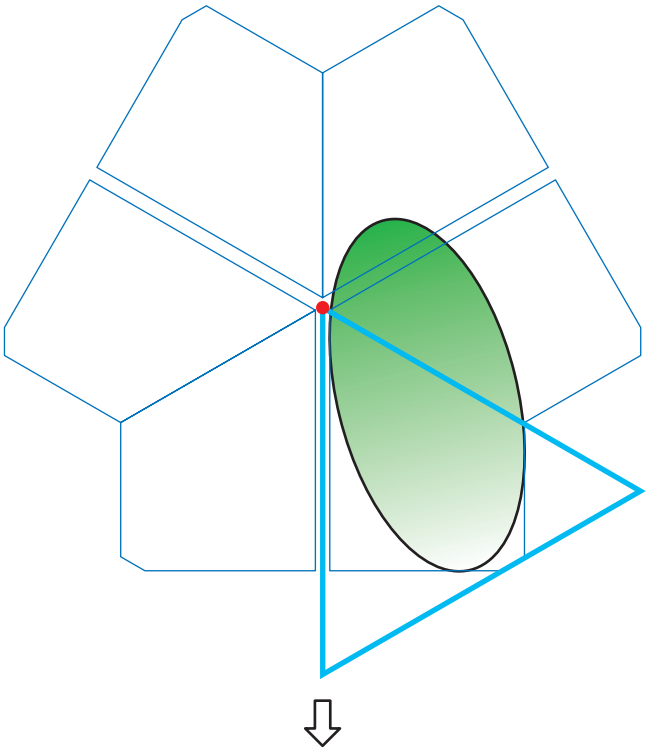
Some of the wallpaper patterns allow you to work with the Shear field (p1 and p2) and all can use the Rotation field (unless you have selected 1 Unit Only in the Area pop-up menu). Shearing and rotation are applied to the wallpaper as a whole, not to the individual elements of the artwork. You can enter a number in the fields or use the up/down arrows to change a value. Shearing can range from -90° to 90°, while Rotation can use values from -180° to 180°.

After you've selected your options in the Xtream Path palette, you click in the artboard to set the center of the individual instance of the pattern. (You can hold down the Option key (Mac) or the Alt key (Windows) while dragging to reposition the center point.) After establishing the center point, you drag to determine the

spacing of the pattern. You can use the Shift key to constrain the proportions of the individual pattern instances.

Remember that the Clipping option in the Xtream Path palette can have a dramatic impact on your artwork. If individual objects in a single instance of the pattern will overlap, the clipping option determines what parts of the artwork will be visible. Consider, for example, the same gradient star producing the same wallpaper pattern, with Clipping set to Yes and to No.

NOTE: Using the Wallpaper tool's clipping options with objects that have complex appearances can produce unexpected results. In a case such as this, you can select Objects>Expand Appearance from the Illustrator menu before applying this tool. However, if the object consists of other than a path object, a rasterized image, for example, this tool cannot be applied. If you are using Illustrator 10 or later, a path that has Pathfinder effects being applied also must be expanded.

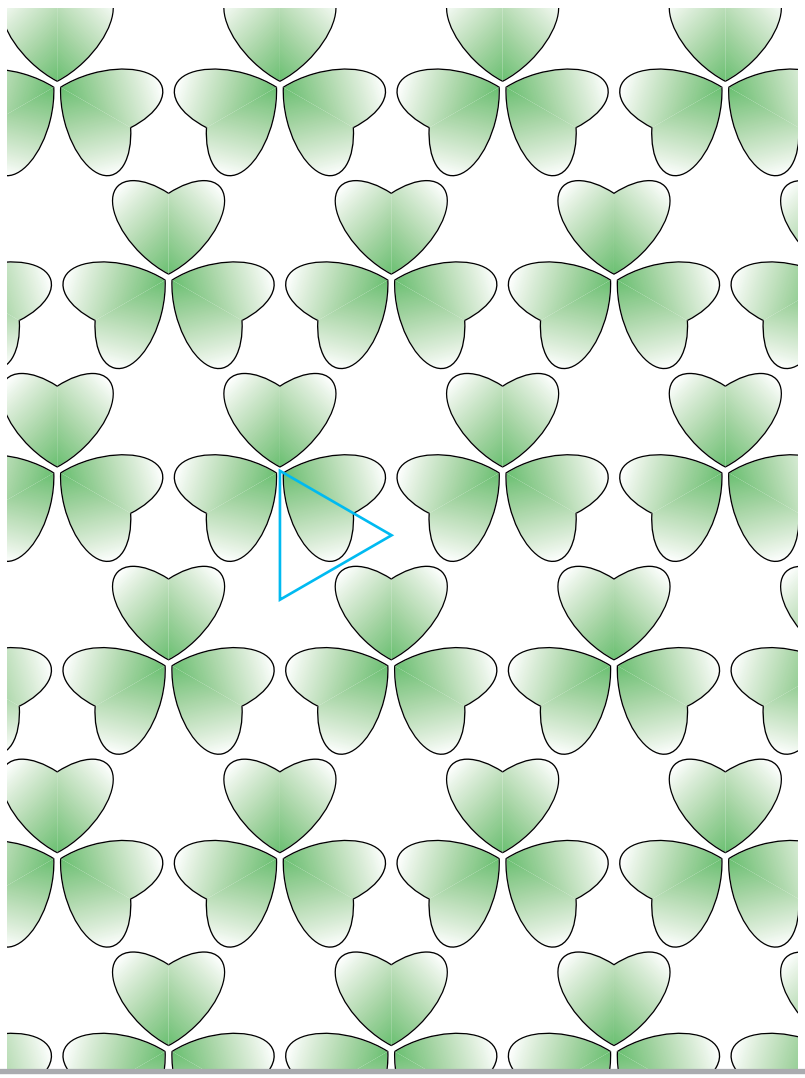


The first point you click will be the center of the crystal structure.

Drag your mouse to specify the area. This area will be the base of the crystal structure. Make any size or angle adjustments you feel necessary and release the mouse.

Area: Artboard
Crystal structure: p3ml
Clipping: Yes

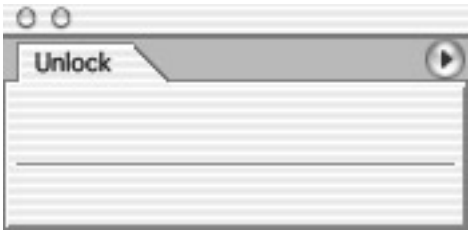
You will be able to shift the center point by Option/Alt dragging.



Unlock

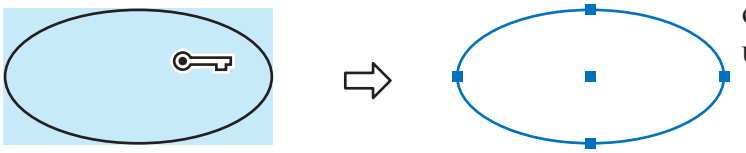
The Unlock tool has a pair of jobs: Use it to unlock paths, objects, and groups; use it to convert Illustrator's guides to paths.

Illustrator's Object> Unlock All command releases all locked objects in the image. Alternatively, you can expand layers, sublayers, and groups in the Layers palette to locate and unlock a single item. Xtream Path now offers an alternative. Simply select the Unlock tool and click within the area of the bounding box of any locked path or object.

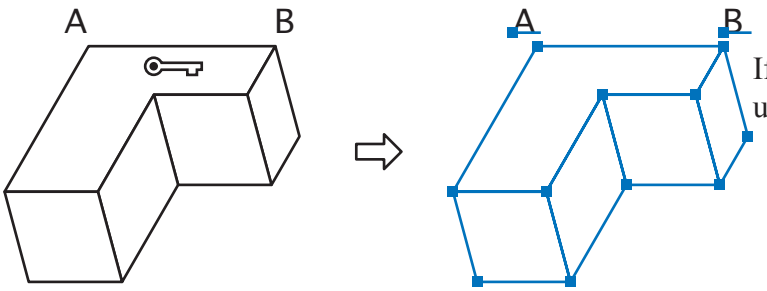


NOTE: If the object clicked with the Unlock tool is part of a locked group, Xtream Path will unlock the entire group rather than removing the object from the group. If the object is on a locked layer, the status remains locked – the Unlock tool cannot be used on a locked layer.

The Unlock tool can also be used to create paths or objects from guides. While it is possible to use the Unlock tool on a guide that you've dragged from one of Illustrator's Rulers, it is more appropriate for restoring the status of objects changed to guides with the command View> Guides> Make Guides. The object's stroke and fill will be restored.



Clicking inside the general area of the path (shaded area) for the object. The Unlock tool will unlock it.



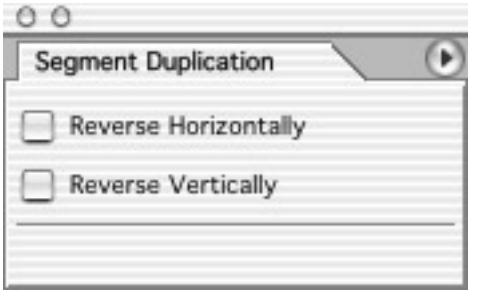
If the objects are grouped, it will unlock the entire grouped object.

If you click on an object that's been converted to a guide, the original object will be restored.

Segment Duplication

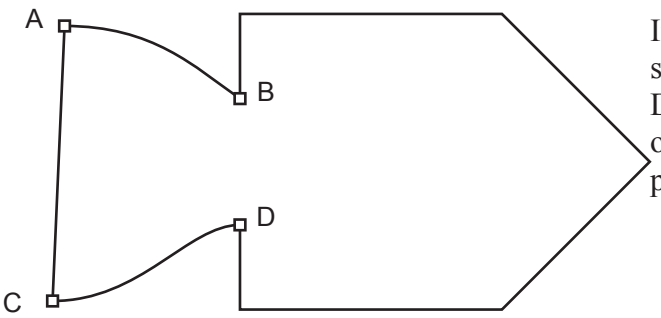
The Segment Duplication tool copies the shape of one path segment and applies it to another. Hold down the Shift and Option keys (Mac) or the Shift and Alt keys (Windows) and click on a path segment. Release the modifier keys and click on another path segment, in the same or any other selected path or object. The first segment's shape is duplicated for the second segment. The Xtream Path palette enables you to reflect the path segment shape across the horizontal axis (Reverse Horizontally) or across the vertical axis (Reverse Vertically).

When clicking another segment to paste the segment shape, the nearest anchor point serves as the base point.

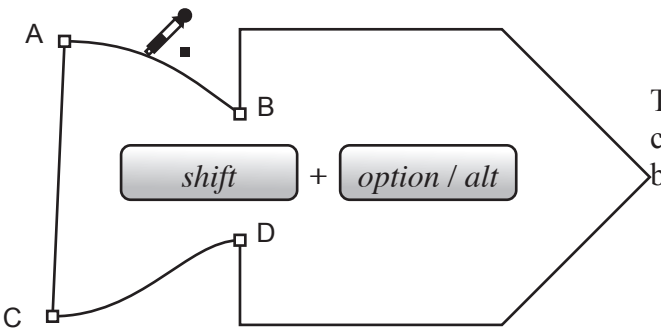


Holding down the Shift key while clicking on a path segment will temporarily disable the Reverse Horizontally and Reverse Vertically options.

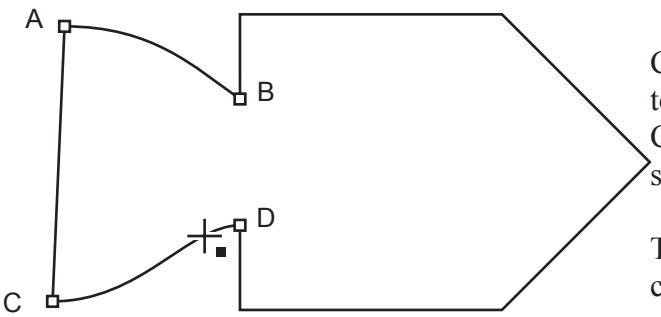
TIP: The path that you are copying may not necessarily need to be selected.



In this example, we will copy the segment AB using the Segment Duplication tool and we will paste it onto the segment CD with anchor point (D) as the base point.

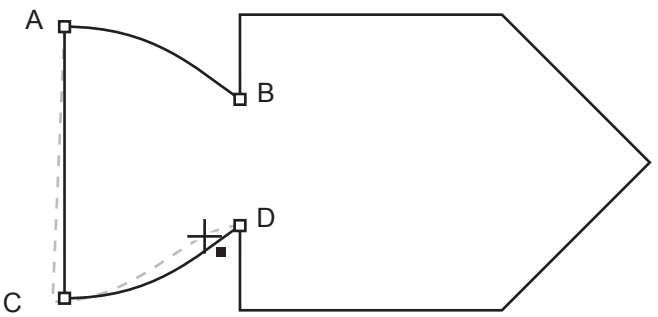


To copy the segment AB, you will click the segment AB while pressing both Shift and Option/Alt keys.



Check Reverse Horizontally on the tool palette and click on the segment CD near the anchor point D as shown.

The anchor point closest to the clicking point
will be the base point.

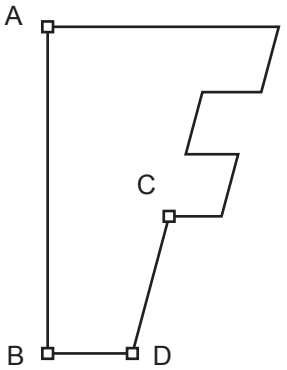


Parallelization

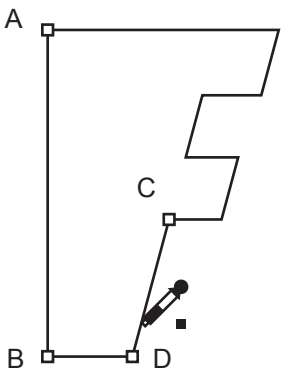
The Parallelization tool duplicates the angle of a path segment (straight or curved) and applies it to another path segment. Hold down the Shift and Option keys (Mac) or the Shift and Alt keys (Windows) and click on a path segment to copy its angle. (The cursor assumes the Eyedropper icon.) Click on another path segment in the same or any other selected path to replicate the angle

When pasting the angle to a different segment, the anchor point nearest the spot on which you click remains stationary. The anchor point at the opposite end of the path segment is moved to adjust the angle. The anchor point will move along the adjoining path segment (if any) to reach the required angle. The adjoining path segment's length, not its angle, will be adjusted.

TIP: The path that you are copying may not necessarily need to be selected.

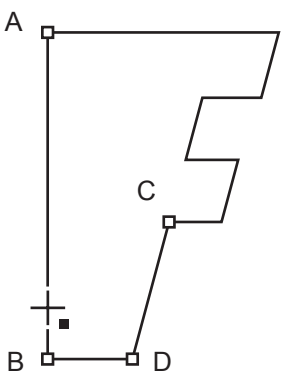


In this example, we will make the segment AB parallel to segment CD. The base anchor point will be Point B.

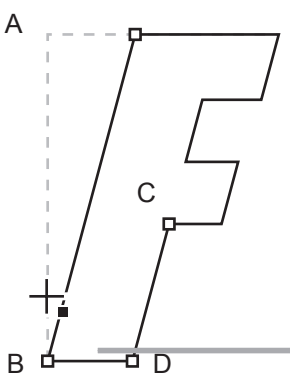


First, you will need to copy the angle of segment CD by depressing both the Shift and Option/Alt keys and clicking on segment CD.

shift + *option / alt*

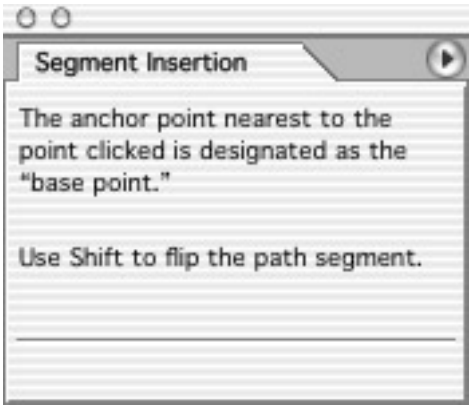


Click near the anchor point B on segment AB. The parallelization occurs from the closest anchor point from the clicking point.



Segment Insertion

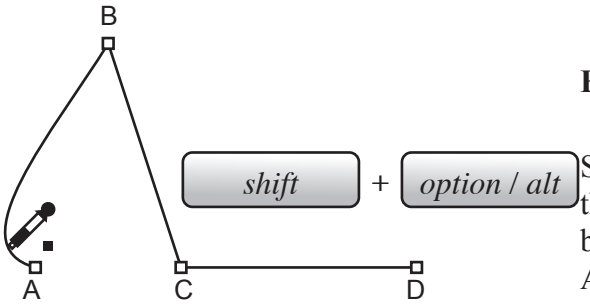
The Segment Insertion tool copies an existing path segment and pastes it into a different location or a different path or object, replacing an existing path segment. When pasted, the segment is scaled, if necessary, in order to preserve the positions of the existing anchor points.



To use the Segment Insertion tool, Shift-Option-click (Mac) or Shift-Alt-click (Windows) on any segment of a path to copy it. You then click on another segment of that or any other selected path or object to paste. You can Shift-click when pasting the path segment to rotate it 180°.

The anchor point nearest the spot clicked when copying will be used as the "base point." That end of the path segment will be copied toward the nearest anchor point to the spot clicked when pasting the segment.

TIP: The path that you are copying may not necessarily need to be selected.

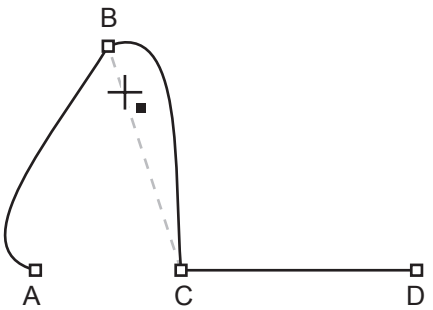


Example 1

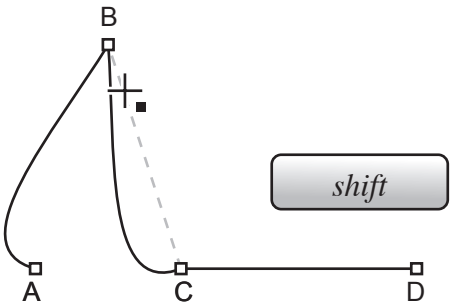
Since we want to set the anchor point A as the base point, we will copy segment AB by Shift and Option/Alt-clicking near Point A

Note!

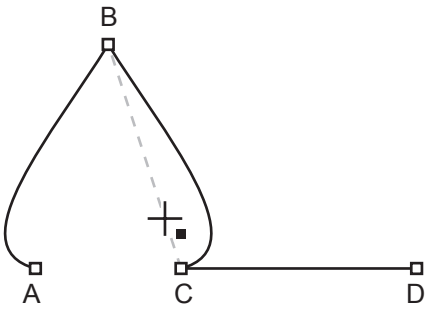
The segment that you are copying does not need to be inserted in the same path.



Now we want to duplicate that segment on segment BC. Clicking near Point B will duplicate the segment in the right direction/order.

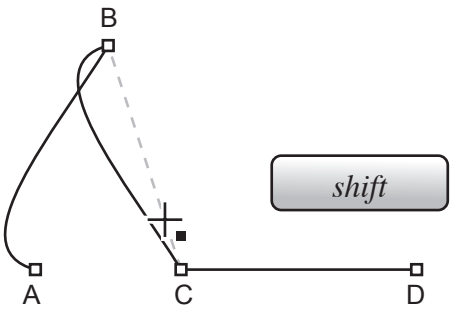


By Shift-clicking, the duplicated segment will rotate 180º.

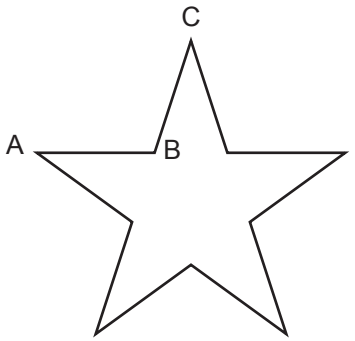


Release the Shift key and place the cursor close to the anchor point C on segment BC and click to duplicate.

The location of the clicking point is very important at the time of both copying and duplicating since the anchor point closest to the clicking point will be the base point.



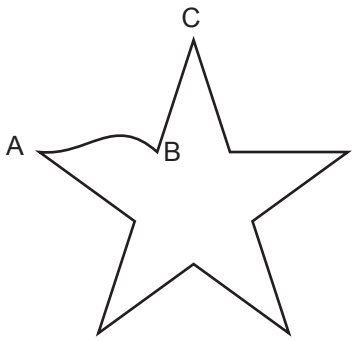
By Shift-clicking, the duplicated segment will rotate 180º.



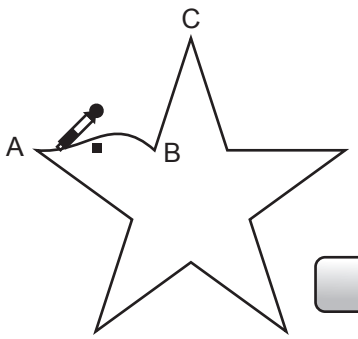
Example 2

In this example, we will alter the segment AB and we will duplicate that altered segment for the rest of the segments for this star shaped path.

First we are going to distort the segment AB. (You should use "Segment Direct Edit" tool for this job)

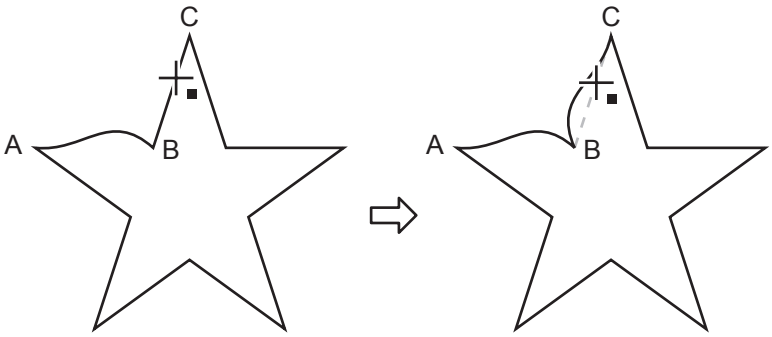


Now we want to copy the segment AB by Shift + Option/Alt-clicking near the anchor point A. By clicking closer to point A, that will determine the base point.



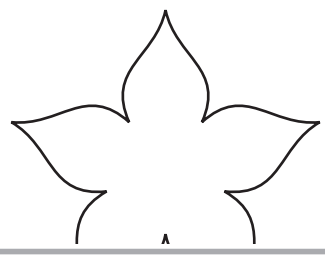
shift + *option / alt*

We will duplicate the copied segment AB onto segment BC. At this point, we have to make sure to click near Point C so that the right shape is duplicated.



The location of the clicking point is very important at the time of both copying and duplicating since the anchor point closest to the clicking point will be the base point.

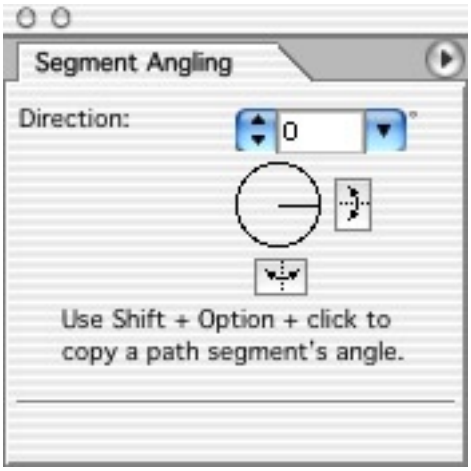
Consequently, using the above example, you will get the same result if you click closer to Point B when copying and click closer to Point B again on the segment BC when duplicating.



We will do the same for the rest of the segments. Voila!

Segment Angling

The Segment Angling tool enables you to precisely angle path segments, both straight and curved. Using the direction specified in the Xtream Path palette, a simple click with the tool on a selected path segment will change the segment's angle. The anchor point nearest the spot on the segment that you click remains in place and the opposite anchor point is adjusted. You can Shift-Option-click (Mac) or Shift-Alt-click (Windows) to copy the angle of an existing path segment into the Direction field.



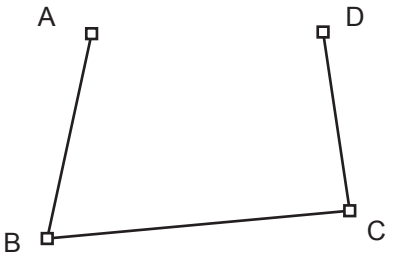
You can also copy the angle of an existing path by clicking and dragging between the first and second anchor points. To do this, you can Shift-Option-click (Mac) or Shift-Alt-click (Windows) on the first anchor point without releasing the mouse and drag to the second anchor point. This loads the angle of the second anchor point with the first anchor point as the base point. To find out whether you are above a segment or an anchor point, you need to look closely at the little square next to the eyedropper cursor.

Segment Angling

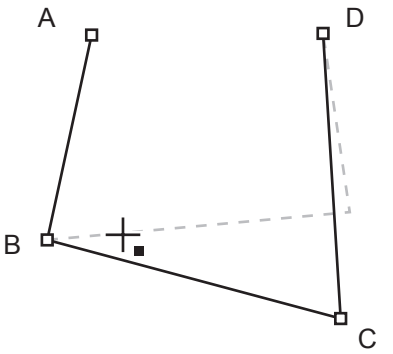
There are several ways to manually change values in the Xtream Path palette for the Segment Angling tool:

• Double-click in the Direction field and type a number.
• Use the up/down arrow buttons to the left of each field to change the existing value.
• Click anywhere in the circle below the Direction field.
• Drag the line in the circle below the Direction field.

TIP: The path that you are copying for the Direction may not necessarily need to be selected.

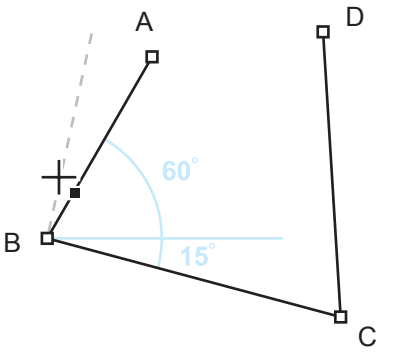


In this example, we have 3 segments with random angles relative to the artboard. We will use these segments to make a triangle with specified angles.

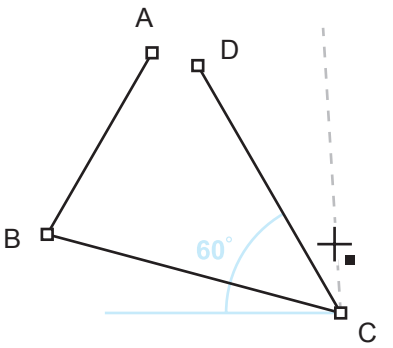


Set the Direction setting to –15º and click on the segment BC closer to the anchor point B.

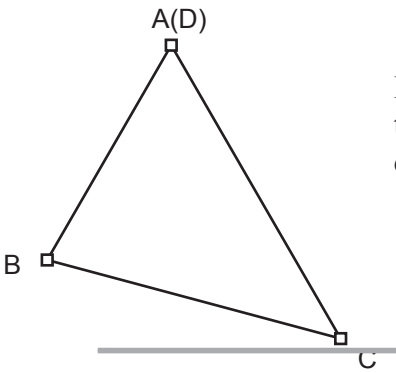
The closest anchor point from the clicking point will be the center of rotation.



This time, set the Direction setting to 60º and click on the segment AB closer to Point B.



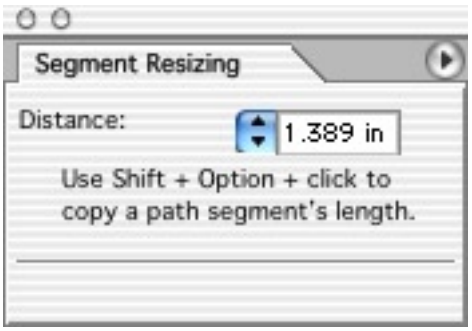
For the third segment, set the Direction setting to 120º and click on the segment CD closer to Point C.



Lastly, we use the Intersection tool to close the gap to make it a triangle. Click on segment AB and drag to the segment CD to make it into a triangle.

Segment Resizing

The Segment Resizing tool enables you to precisely change the length of path segments, both straight and curved. Using the value specified in the Xtream Path palette's Distance field, a simple click with the tool on a selected path segment will change the segment's length. The anchor point nearest the spot on the segment that you click remains in place, while the opposite anchor point is adjusted. You can manually enter a value into the Distance field or you can Shift-Option-click (Mac) or Shift-Alt-click (Windows) to copy the length of an existing path segment.

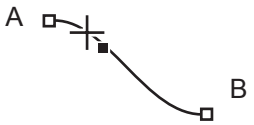


You can also copy the angle of an existing path by clicking and dragging between the first and second anchor points. To do this, you can Shift-Option-click (Mac) or Shift-Alt-click (Windows) on the first anchor point without releasing the mouse and drag to the second anchor point. This loads the angle of the second anchor point with the first anchor point as the base point. To find out whether you are above a segment or an anchor point, you need to look closely at the little square next to the eyedropper cursor.

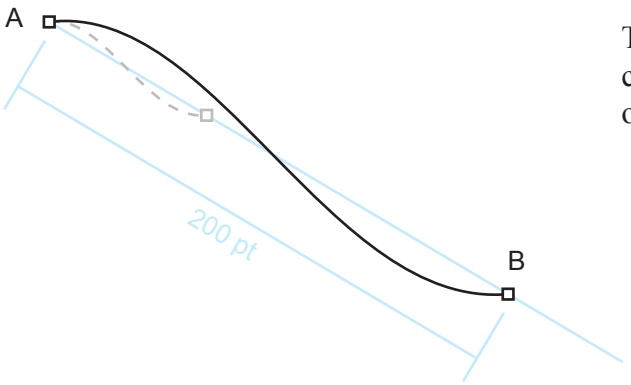
When working with curved path segments, the Distance value is measured directly between the segment's anchor points, not along the path itself.

TIP: The path that you are copying for the Direction may not need to be selected.

In this example, we will use this simple segment to the left and resize the length from the base point, A to extend in the direction of Point B.



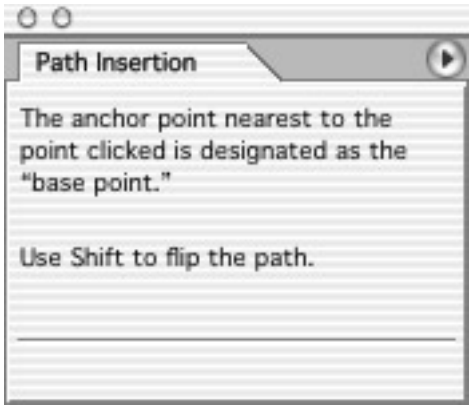
We set the length to 200 pt. Click on the segment AB closer to Point A.



The closest anchor point from the clicking point will be the starting point or base point.

Path Insertion

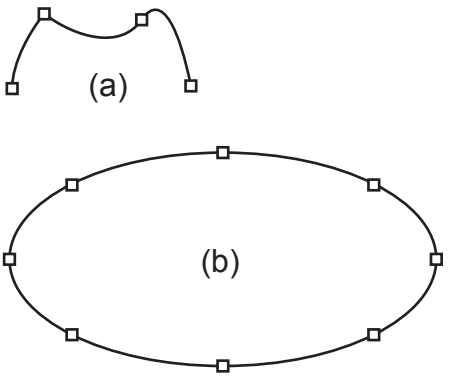
The Path Insertion tool copies an existing path, open or closed, and pastes it into another path or object, replacing an existing path segment. When pasted, the path is scaled, if necessary, in order to preserve the positions of the existing anchor points. When a closed path is pasted, it is converted to an open path with, if necessary, overlapping path segments.



To use the Path Insertion tool, Shift-Option-click (Mac) or Shift-Alt-click (Windows) on any path or object to copy it. You then click on a segment of another selected path or object to paste. You can Shift-click when pasting the path to flip it across the axis of the path.

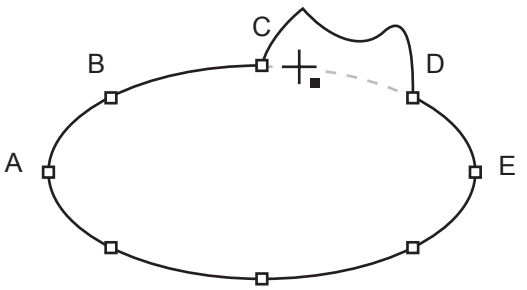
When you Shift-Option-click (Mac) or Shift-Alt-click (Windows), the nearest anchor point becomes the "base point." That end of the path will be pasted toward the anchor point nearest the spot you click when pasting.

TIP: The path that you are copying may not need to be selected.



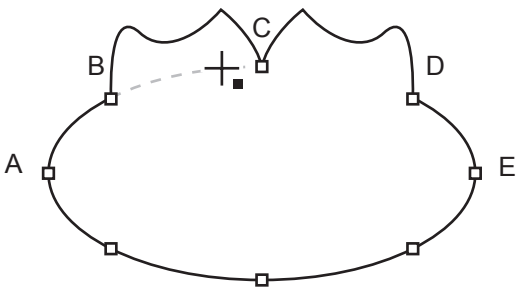
In this example, we will copy the entire path (a) and insert it into each segment of Path (b) while changing the base point.

First, we will need to copy the path (a) by Shift + Option/Alt-clicking on a segment of Path (a).

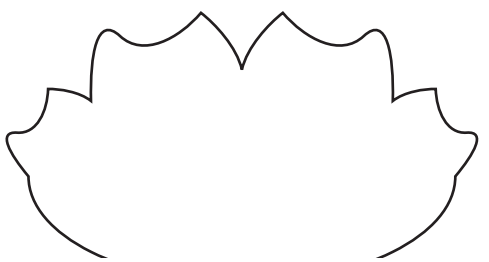


Click on the segment CD closer to anchor point C on path (b).

The closest anchor point from the clicking point will be the starting point or base point at the time of insertion.



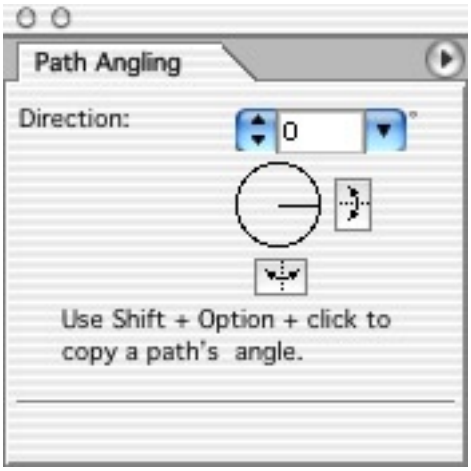
Next, we will click on the segment BC closer to anchor point C. As a result, the inserted path will be symmetrical to the previous one.



Now we will finish this up by clicking on segment AB closer to anchor point B. Do the same for segment DE and that is it!

Path Angling

The Path Angling tool enables you to precisely rotate paths or objects. Using the direction specified in the Xtream Path palette, a simple click with the tool on a selected path or object will rotate it. The segment clicked will jump to the angle specified in the Direction field of the palette. The anchor point nearest the spot on the segment that you click remains in place, and the path or object rotates around that point.



You can also copy or paste the angle of an existing path by clicking and dragging between the first and second anchor points. To do this, you can Shift-Option-click (Mac) or Shift-Alt-click (Windows) on the first anchor point without releasing the mouse and drag to the second anchor point. This loads the angle of the second anchor point with the first anchor point as the base point. To find out whether you are above a segment or an anchor point, you need to look closely at the little square next to the eyedropper cursor.

There are several ways to manually change values in the Xtream Path palette for the Path Angling tool:

- Double-click in the Direction field and type a number.
- Use the up/down arrow buttons to the left of each field to change the existing value.
- Click anywhere in the circle below the Direction field.
- Drag the line in the circle below the Direction field.

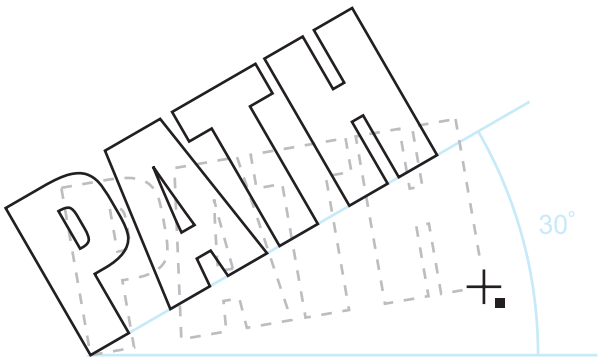
You can also Shift-Option-click (Mac) or Shift-Alt-click (Windows) to copy the angle of an existing path segment's angle into the Direction field.

TIP: The path that you are copying for the Direction may not need to be selected.

In this example, we will demonstrate how to rotate the path by specifying an angle for a line segment. First, we will assign line segment AB and the path will rotate 30º using Point A as the center point of rotation.

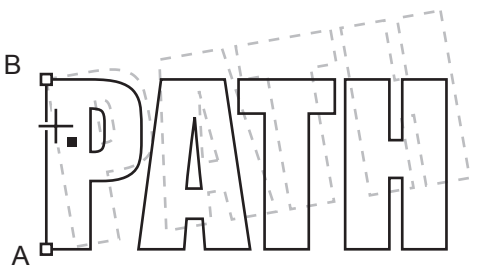
Set Direction to 30º in the tool palette. Click on the anchor point A and drag to the anchor point B as shown.

The first click point will be the center point for this rotation.



Now, we will assign different line segment (AB as shown) as the base of rotation and we will angle it perpendicular relative to the artboard.

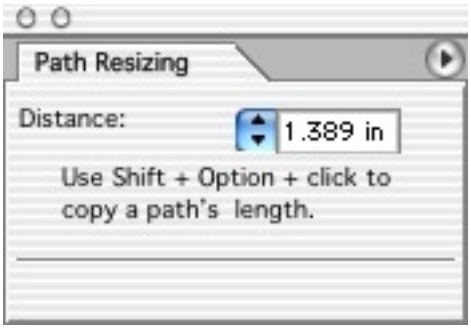
Set Direction to -90º. Click on the segment AB somewhere close to the anchor point B.



The anchor point closest to the clicking point will be the center of this rotation.

Path Resizing

The Path Resizing tool enables you to precisely change the size of a path or object, scaling the entire path according to a designated length for a specific path segment. You specify a length in the Xtream Path palette's Distance field, then assign that length to one segment of the path or object by clicking with the Path Resizing tool. The entire path is scaled to match the change in the designated segment. You can Shift-Option-click (Mac) or Shift-Alt-click (Windows) on an existing path segment to enter its length into the Distance field.



You can also copy or paste the angle of an existing path by clicking and dragging between the first and second anchor points. To do this, you can Shift-Option-click (Mac) or Shift-Alt-click (Windows) on the first anchor point without releasing the mouse and drag to the second anchor point. This loads the angle of the second anchor point with the first anchor point as the base point. To find out whether you are above a segment or an anchor point, you need to look closely at the little square next to the eyedropper cursor.

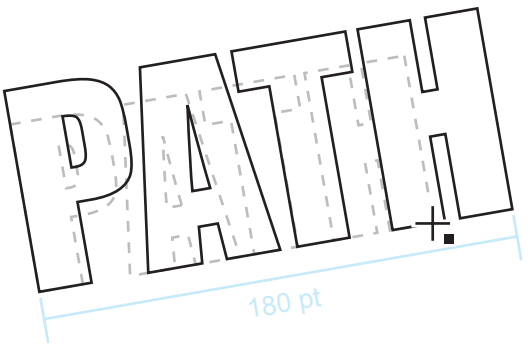
When working with curved paths, the Distance value is measured directly between the designated segment's anchor points, not along the path itself.

TIP: The path that you are copying for the Distance may not need to be selected.

Using the path shown to the left, we will resize the line segment AB to 180 pt with the anchor point A being the base point. Ultimately, the entire path will be resized.

Set Distance to 180 pt in the tool palette. Click on the anchor point A and drag to the anchor point B.

The first point you click will be the center of resizing.



Now, we will assign a different line segment (AB as shown) and we will resize the segment down to 50 pt.

Set Distance to 50 pt. Click on the segment AB somewhere close to the anchor point B.

The anchor point closest to the clicking point will be the center of resizing.

About Xtream Path

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