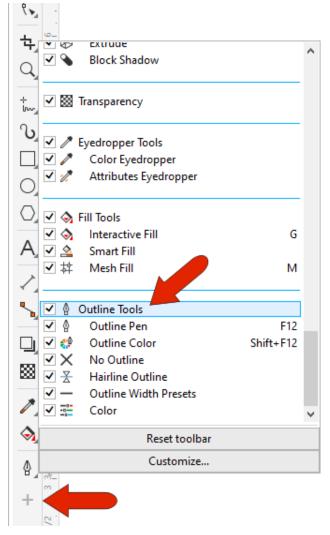
## How to Use the Outline Pen Tool

In this tutorial, we'll learn the various features of the **Outline** tools. There are several ways to access the settings for these tools, including:

- **Outline Tools** tool group in the Toolbox (Windows only)
- Keyboard shortcuts: F12 for Windows and CMD + SHIFT + P for Mac
- Outline tab on the Properties docker (Properties inspector for Mac)
- **Outline** swatch on the status bar
- Property bar

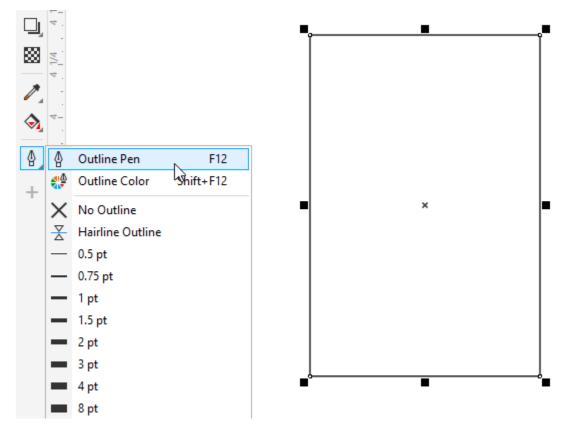
These tools are not displayed by default in the toolbox that runs along the left side of the CoreIDRAW interface. Windows users can add them to the toolbox, by clicking the **plus** icon at the bottom of the toolbox, scrolling down to the end of the list, and adding a checkmark beside **Outline Tools**.



For Mac users, the **Outline** tools can't be added to the toolbox, but you can access the same settings on the **Outline** tab of the **Properties** inspector.

**NOTE**: if you activate the **Outline Pen** tool without having an object selected in the drawing window, the properties you set here will become the default for graphic objects you create later.

To demonstrate the **Outline** tools, we'll start with a simple rectangle. From the **Outline Tools** tool group, choose the **Outline Pen** tool.

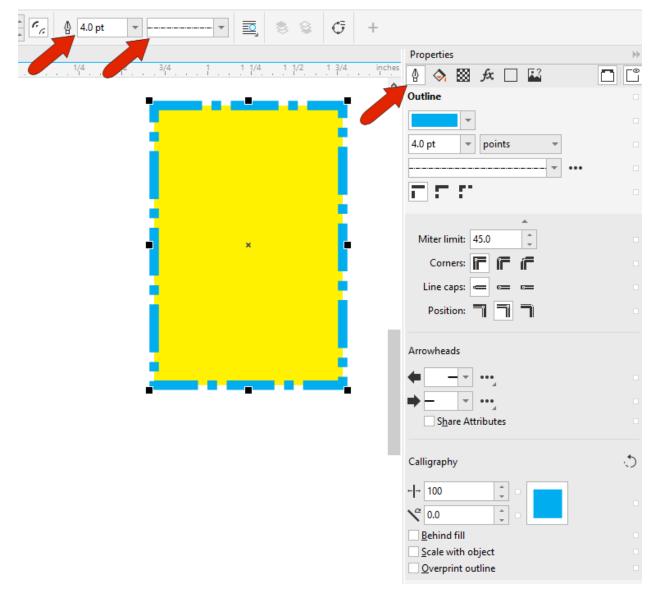


The **Outline Pen** dialog box will open. Here you can set the outline color, width, and line style.

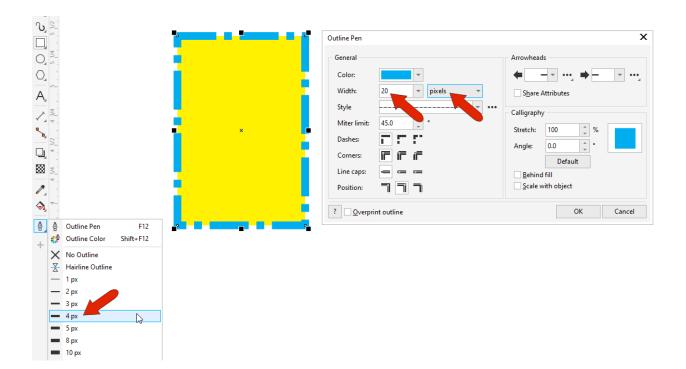
*******	Outline Pen	X
×	General Color: Width: Style Miter limit: Dashes: Corners: Finite caps: Position:	Arrowheads  Arrowheads  Arrowheads  Share Attributes  Calligraphy  Stretch: 100 \$ %  Angle: 0.0 \$ °  Default  Behind fill  Scale with object
	? Overprint outline	OK Cancel

There are other places in the CorelDRAW interface where you can also change outline properties.

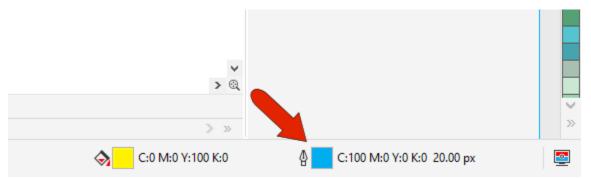
Right-clicking a color swatch in the **Color** palette along the right of the interface changes the outline color, and left-clicking adds a solid fill. You can also change line width and style on the Property Bar, as well as the **Properties** docker/inspector, on the **Outline** tab. The options here are the same ones that are available in the **Outline Pen** window.



There are also several pre-set line widths in the **Outline Pen** flyout, and you can use the **Outline Pen** window or the **Properties** docker to specify different units and a custom width.



Double-clicking the **Outline** swatch on the status bar is another way to open the **Outline Pen** window. For Mac users, if the status bar is not displayed, go to **View** > **Show Status Bar** to turn on the status bar and access the **Outline** swatch



With a dotted or dashed line style, you can use the style settings to create a custom style. The slider sets the repeat distance, and filling in squares to the left of the slider establishes the repeating pattern. Clicking **Add** creates a new pattern which is then available in the styles drop down, or you can click **Replace** to replace the style you originally selected with the new version.

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Miter limit: 45.0	• Stretch:	100 🗘 %
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Click on the squares to turn do	s in the line style on and off.	
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When an outline is comprised of dashes and dots, it will probably not be symmetric in either direction. Choosing **Align dashes** aligns the style at corners, and **Fixed Dashes** make dashes identical at corners while adjusting pattern scale along edges.

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Default line caps have squared edges, and you can switch to round caps or extended square caps that extend line length.

	Outline Pen	Х
- ×	General   Color:   Width:   20.0 px   pixels   Style   Miter limit:   45.0   Dashes:   Cogners:   Cigners:   Line caps:	Arrowheads Arrowheads Share Attributes Calligraphy Stretch: 100 % Angle: 0.0 0 0
	Position:	OK Cancel

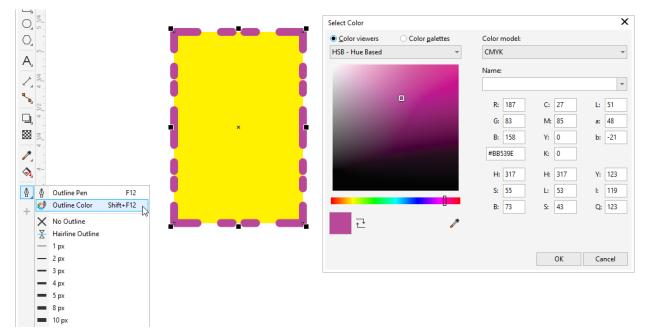
By default, the outline is centered with respect to the fill, but you can set it inside or outside the object. An outline can also be placed behind fill.

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? Overprint outline	OK Cancel

Also by default, corners are **mitered**, or sharp. But they can be **round** or **beveled** instead. For mitered corners, angles less than the miter limit are considered sharp. For a rectangle, if this angle is greater than 90, the corners will be beveled instead.

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For finer control over outline color, open the **Outline Color** tool on the toolbox. Here you can choose from color palettes, or a variety of color viewers in which you can fine tune color values.



Outline settings apply to open curves as well, such as this curve drawn with the **Pen** tool, to which you can add arrowheads or other shapes at each end. Each arrowhead has a three-dot icon with an option to **Swap** start and end points, and an **Edit** option, which you can use to adjust properties such as **Size** or **Rotation** angle.

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? Overprint outline	OK Cancel

Calligraphy settings are best demonstrated with a wide solid curve. Reducing the **Stretch** value produces a hand-drawn pen nib look, and adjusting the **Angle** is equivalent to turning the nib.

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Changing calligraphy values can also produce interesting angles and varying thicknesses in non-solid line types.

And finally, when **Scale with Object** is checked, line widths increase as an object is enlarged.

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	Outline Pen General Color: Width: 36.34 px v pixels v Width: 45.0 0 ° Dashes: T T Corners: T T Line caps: C Corners: T T Position: T T ? Overprint outline	X Arrowheads ♦

Without this option checked, the line widths remain the same when you resize the object.