Amadine
Version 1.6

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Brief Description

The Amadine app is designed for creating and editing vector graphics. Various raster effects can be used in your designs as well.

You can save your work in either SVG, PDF or EPS formats that support vector graphics. You can also export to raster formats such as TIFF, PNG and JPEG. Note that EPS is not supported on macOS 14 Sonoma and later.

System Requirements

- macOS X 10.12 or later
- 150 MB of available disk space, or more, depending on your project complexity

Licensing

You can find your license code in the purchase confirmation email.

To enter the license code:

1. Open the application.
2. Bring up the *License* dialog by choosing **Amadine > License…** in the menu.
3. Enter your name and license code.

It is recommended that you keep the email containing your license code in a safe place in case you re-install or update the application.

The unlicensed version of Amadine is fully operational. The only limitation is that some exporting and printing options are not available. To eliminate this limitation, enter a license code.

To upgrade from the free to licensed version of the program, you need to purchase and enter a license code. See details on the Amadine website:
https://amadine.com/

Licensing is not needed if the application was purchased on the Mac App Store.

Updating the Program

To check for updates manually, choose **Amadine > Check for Updates…** in the menu.

To check for updates automatically, select the corresponding check box in the program Preferences (**Cmd-,**).

To update the application downloaded from the Mac App Store, use the App Store application.

Removing the Program

To completely remove the program and all of its components, delete the following files and folders.

Program downloaded from the developer's site:
/Applications/Amadine.app

Program preferences:
~/Library/Preferences/com.belightsoft.Amadine.plist

Supporting files:
~/Library/Application Support/Amadine

Program downloaded from Mac App Store:
/Applications/Amadine.app
~/Library/Containers/com.belightsoft.Amadine

"~" means the user's Home folder.

Note that folders marked with a bold font can store user settings and other content. Don't remove these folders if you are going to use customized materials in the future.

To access any path listed above, copy it. In Finder, choose **Go > Go to Folder** (**Cmd-Shift-G**). Then paste the path into the edit box and click the **Go** button.

Technical Support

The developer of Amadine offers free technical support.

By email:
support@belightsoft.com

Technical support form on the developer's website:
https://amadine.com/support/

When reporting a problem, please make sure to specify:

- The version of Amadine you are using.
- The version of macOS on your computer.
- Your actions that could have led to the problem.
- If the problem persists, describe how to reproduce it.
- When necessary, illustrate your report with screenshots (press **Cmd-Shift-3** to save a screenshot on your Desktop).

Useful Web Resources

Amadine Home - Information about Amadine, links to download, update, or buy the program.

Tutorials - Online video tutorials

Amadine on Facebook

Amadine on Instagram

Amadine on Pinterest

Amadine on Twitter

Amadine on Reddit

Amadine on TikTok

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Workspace

Once you create or open a document, the program displays it in a working environment, which is called the "workspace". By default, the workspace consists of the main window with your document and several panels. You can customize the interface as you like.

The main elements of the workspace are the document window, Tools panel and Control panel.
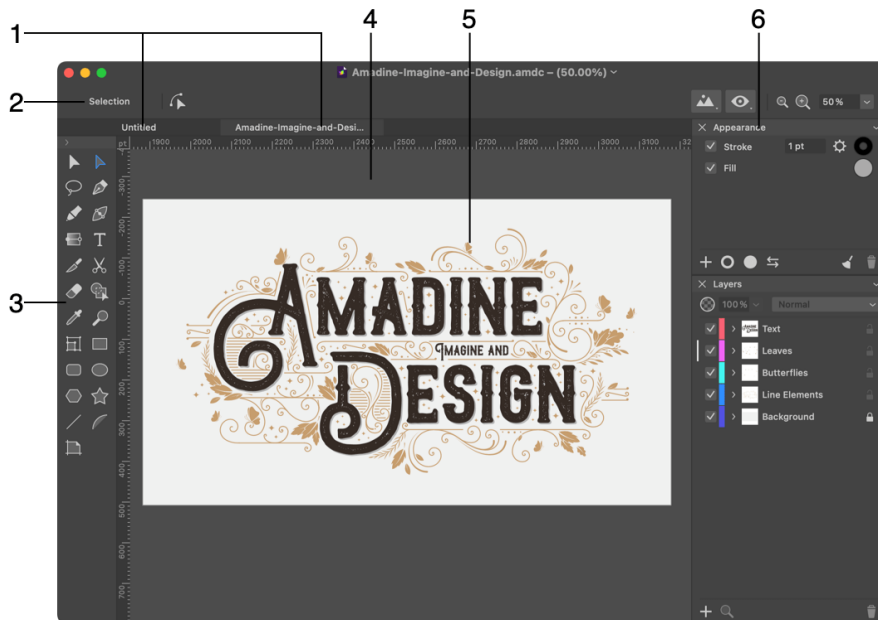
1 - Tabs of open documents in the main window.

2 - Control panel. Some tools and selected objects show additional options in this panel. For example, the Text tool shows here the font, size and other settings. If you select a rounded rectangle, the panel will display its corner radius.

3 - Tools panel.

4 - The canvas in the main window. This is the area in which you edit your document.

5 - A Sheet is a part of the canvas. If you are not familiar with graphic editors, you can treat a sheet as a page or printable area.

6 - Panels let you can adjust the properties of different objects or an open document. There are five panels in the program: Appearance, Geometry, Layers and Sheets. The Managing Windows and Panels section explains how to customize the panels.

Windows and panels of your workspace use the same measurement unit that was selected when you created a new document. Several documents that are open at the same time can have different measurement units. You can change the measurement unit in the main window.

The Main Window

The main window is where you preview and edit documents. We can also call it "document window" in this documentation.
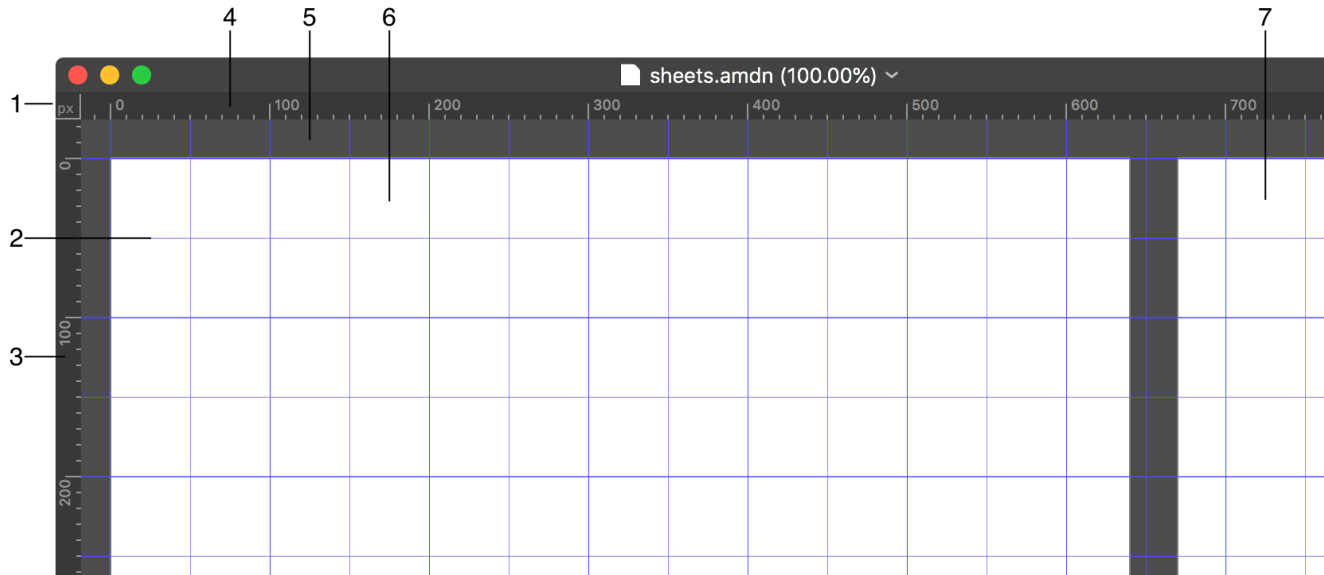
1 - Measurement units. To change the measurement unit, click on the current one and choose a new option from the list. The rulers should be displayed to have this button on the screen. The last item in the drop-down list lets you choose between *Global Rulers* and *Active Sheet Rulers*. The *Active Sheet Rulers* option sets the zero point of the rulers to the top left corner of the active sheet. As soon as you activate another sheet, the corner of this sheet will define the new location of the zero. If you select *Global Rulers*, the zero point of the rulers will be static.

2 - Grid. To show or hide the grid, use the **View > Grid** menu command. For more details, read the Grid and Guide Lines sections.

3 and 4 - Vertical and horizontal rulers.

5 - Canvas

6 and 7 - Sheets

Rulers

The vertical and horizontal rulers are displayed by default when you create a new document. To hide or show the rulers, use the **View > Rulers** menu command.

The measurement units button at the top left corner of the main window appears and disappears together with the rulers. To select a measurement unit, click on the button and choose a new measurement unit.
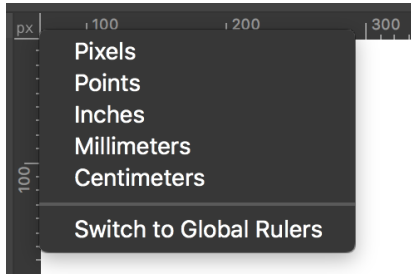
Canvas and Sheets

The canvas is the space where you can place and edit elements of your design.

Although objects can be placed anywhere on the canvas, your design should fit a sheet. You can think about sheets as an equivalent to pages in a text editor. A sheet represents a printable area. Objects placed outside any sheet will not be printed or exported. If a part of an object is located on a sheet, and the rest is on the canvas, the boundary of the sheet will work as the crop area.

There can be one or multiple sheets on the canvas and, consequently, in your project. This lets you save several related or completely separate designs as a single document.

How to manage sheets and arrange them over the canvas is described in the Sheets section.

Zooming In and Out

There are several ways to change the scale of the open document:

- Commands at the top of the **View** menu let you zoom in or out through the predefined steps or fit the current sheet or all of them to the main window.
- The **Zoom** tool in the *Tools* panel lets you fit a portion of your design to the main window. Activate the tool. Then click and drag the mouse cursor to indicate the area you want to enlarge. In order to zoom out, click on the canvas with the **Zoom** tool holding down the **Option** key. The point at which you click will be centered in the main window.
- Zoom controls in the *Control* panel let you zoom in or out in steps, select one of predefined options in the drop-down list, or type in a value you want into the edit box.
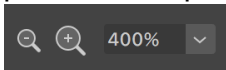
- Use the mouse scroll wheel together with the **Option** key.

Position the Artwork within the View Area

At high levels of zoom, your design may not fit the view area completely. In such cases, you can use the horizontal and vertical scroll bars to access any part of the artwork.

Another way to do that is to use the **Hand** tool. It is more precise than the scroll bars. It also lets you move the artwork vertically and horizontally at the same time. Before using this tool, make sure that you are not in the text editing mode or changing the value of any edit box.

To move the artwork with the **Hand** tool, press and hold the **Space** key. The mouse pointer will turn into a hand icon. Drag the artwork. To deactivate the tool, release the **Space** key. The **Hand** tool can also be activated using the middle key of the mouse.

Preview Modes

The canvas can display your document in one of the following preview modes: normal, Outline, Pixel Preview or Retina Pixel Preview.

To switch between the modes, use the **View** menu. In fact, there are three options in the menu. When all of them are off, the program works in the normal mode, which is the default.

Normal Mode

The normal mode is supposed to be used as the main mode for editing vector paths, arranging objects, etc. In this mode, the program displays all object features such as the stroke, fill and effects.
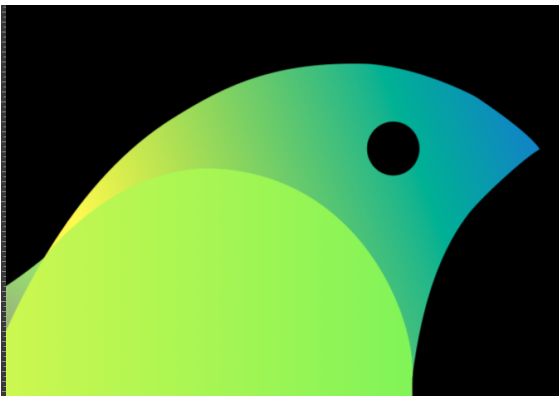
Outline Mode

The Outline mode displays object outlines as paths. No Stroke, Brush, Fill or other features are visible. This mode might be useful when you need to edit paths. Since graphics are displayed in a very simplified way in the Outline mode, the program should redraw your design faster than in the normal mode.
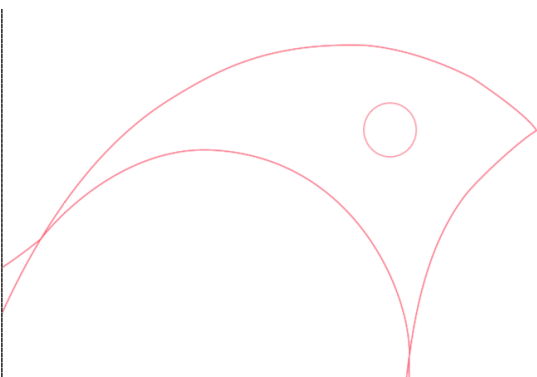
Pixel Preview Mode

The Pixel Preview mode lets you see how your artwork may look after being rasterized (e.g., if you export it to a JPEG file). In this mode, the program simulates rasterization. All vector-based graphic elements in your document remain editable.

The program generates the pixel grid based on the size of the current sheet. For example, if the sheet is 100x100px, your artwork will be presented by 100 pixels horizontally and 100 pixels vertically.
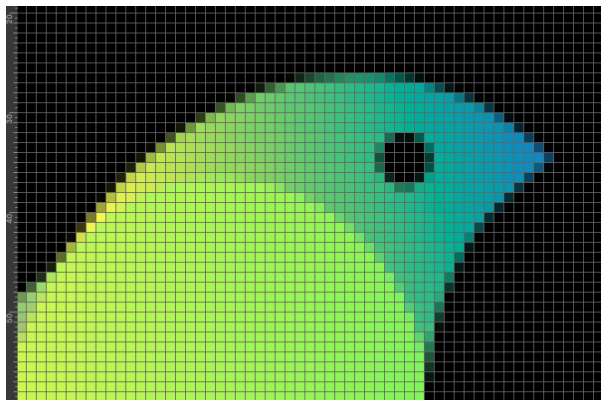
To hide or show the pixel grid, use the Guides and Grid section of the *Preferences* dialog.

Retina Pixel Preview Mode

The Retina Pixel Preview mode is identical to the Pixel Preview mode, but it will display the artwork with doubled resolution. In other words, if the sheet is 100x100px, your artwork will be presented by 200 pixels horizontally and 200 pixels vertically.
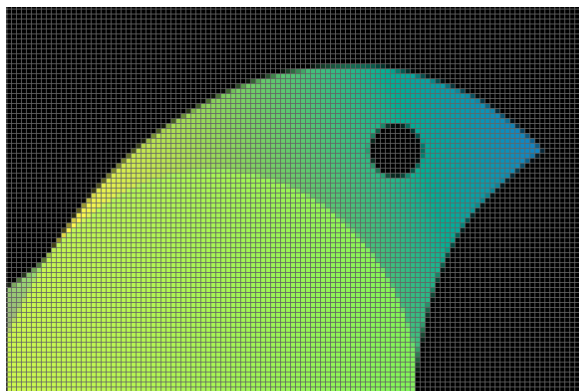
The Tools Panel

Tools in the *Tools* panel are used to select, create and manipulate objects. Some tools have additional options that can be displayed in the Control panel.

Tools in the panel can be arranged in one or two columns. Clicking on a small triangle in the top left corner of the panel switches from one mode to another. You can customize the workspace so that all panels, including the *Tools* panel, are attached to the main window. In this mode, the panel can arrange tools in one or two columns automatically depending on the main window size.

To activate a tool, click on its icon in the panel.
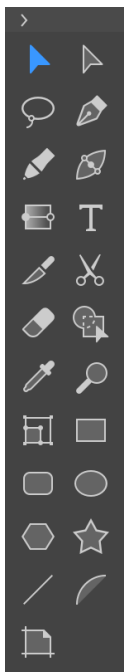
- Move Tool: selects, moves and resizes objects

- Selection Tool: selects and manipulates path elements

- Lasso Tool: selects entire objects, anchor points or path segments by outlining them

- Pen Tool: creates paths with curves or straight lines

- Draw Tool: draws freehand lines

- Path Width Tool: creates strokes with variable widths

- Gradient Tool: adds and adjusts gradients

- Text Tool: adds text boxes and activates the text editing mode

- Knife Tool: cuts paths or objects

- Scissors Tool: cuts paths at selected anchor points

- Eraser Tool: erases portions of paths of objects

- Fusion Tool: removes segments and merges shapes

- Eyedropper Tool: copies appearance attributes from one object to another

- Zoom Tool: zooms in or out of the canvas

- Free Transform Tool: moves, rotates, scales or skews objects

- Rectangle Tool: creates rectangles

- Rounded Rectangle Tool: creates rectangles with rounded corners

- Ellipse Tool: creates ellipses

- Polygon Tool: creates polygons with a customizable number of sides

- Star Tool: creates stars with a customizable number of points

- Line Tool: draws straight lines

- Arc Tool: creates arcs

- Sheets Tool: adds or deletes sheets and adjusts their size and position

The Control Panel

The *Control* panel, located right below the main menu, displays the name of the currently activated tool and its additional setting (if it has those). The settings are described together with tools in the dedicated sections.
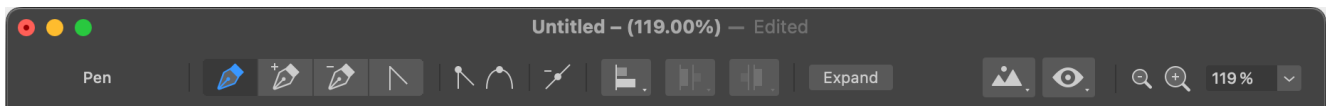
The right side of the panel is occupied by controls that are permanently displayed, regardless of the tool that is activated.

The rightmost group of controls lets you zoom in or out. You can type in the required scale, select it from a drop-down menu or simply click the minus or plus buttons.

The button with an eye icon opens the drop-down menu, which helps you set up the work area and current document.
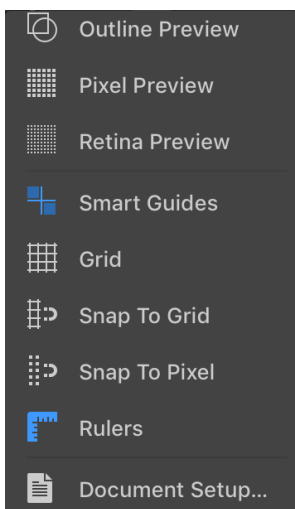
Outline Preview: Toggles the way objects are displayed on the canvas. You can either show objects normally or as a wireframe (with no stroke, fill, etc.). For more details, read the Preview Modes section.

Pixel Preview: Displays the artwork as raster graphics.

Retina Preview: Displays the artwork as raster graphics simulating Retina screen resolution.

Smart Guides: Shows smart guides when you move or resize objects.

Grid: Turns the grid on and off.

Snap to Grid: Allows the program to snap objects to the grid when you move them.

Snap to Pixel: Snap objects to the pixel grid. This makes sense when you need to save your vector graphics in a raster file format. For more details, read Align Objects to the Pixel Grid.

Rulers: Shows or hides the rulers.

Document Setup: Opens the Document Setup dialog.

Managing Windows and Panels

By default, the program interface consists of a single main window that includes everything. Alternatively, you can switch to the mode with floating panels and windows. This allows you to customize the workspace. You can rearrange most of its elements and also show or hide certain panels.

The Main Window

The main window (we also call it "document window" in this documentation) has the title bar that displays the current document name. In order to move the window around, drag the title bar with the mouse.
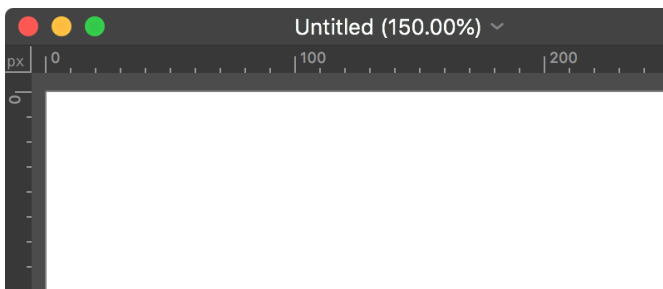
You can resize the main window by dragging any of the window sides. To do this, move the mouse cursor across the window edge. When the cursor turns into a double-sided arrow, click and drag.

By default, all panels, toolbar and open documents reside inside the main window. You can move and resize them together. Each open document is represented as a tab below the toolbar. Document windows and panels can also be separated from each other by using the **Window > Detach Panels** menu command.
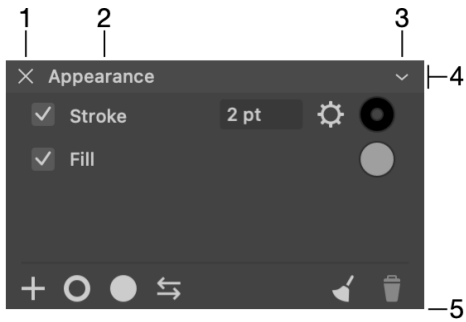
Panels

There are five panels in the program: Appearance, Geometry, Layers and Sheets. You can manipulate them individually.

In order to open or close a panel, click on its name in the **Window** menu.

When the panels are in the floating mode, you can attach one panel to the bottom of another. Then these panels can be moved together. To detach a panel, just move it aside.

If panels are attached to the main window, you can rearrange them. To do this, move a panel up or down to place it above or below another panel.

All panels have common controls.

1 - Close the panel.

2 - The name of the panel.

3 - Collapse or expand the panel. When it is collapsed, only the panel's title bar is visible.

4 - The title bar. To move the panel, drag the title bar using the mouse.

5 - Drag the bottom edge of the panel in order to make it taller or shorter. You can resize panels that display lists of objects or properties to see more or fewer items at a time. Items that are not visible can be accessed using the scroll bar.

Tools Panel

The *Tools* panel can display tools in one or two columns. You can click on a triangle in the top left corner to switch between these two modes. When the panel is attached to the main window, it can select the one- or two-column mode automatically depending on how much vertical space is available.
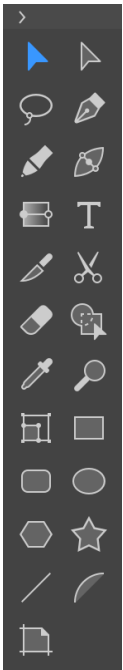
Program Settings

To open program settings, use the **Amadine > Preferences…** menu command.

General

Tolerance: Sets the tolerance for selection and drawing tools. Greater values make it easier to click on a path or anchor point in order to select or grab it.

Draw/insert above the selection: Places an object right above the currently selected one in the stack of objects (see the Layers panel). When the option is deactivated, an object is placed atop of all of the objects within the current layer.

Skip image fill on creation: Turns off the image fill when a new object is created. Otherwise the image used to fill one object will be used by default to fill following new objects until you choose a different fill type.

Allow filling: Allows the **Draw** tool to apply the Fill property to the path while you are drawing it. This requires that you enable a Fill property in the *Appearance* panel.

Allow to continue the Path: Enables the possibility to continue drawing a selected path with the **Draw** tool.

Layers panel focus on selection: Collapses all sublayers in the Layers panel after an object in one of those sublayers was deselected.

Check for updates daily: Allows the program to check for software updates automatically. To check for updates manually, choose **Amadine > Check for Updates…** This option is not available in the application purchased on the Mac App Store.

Guides and Grid

Settings in this section define the colors of guide lines, smart guides and grid. There is also an option to show or hide the pixel grid when the program is working in the Pixel Preview mode.
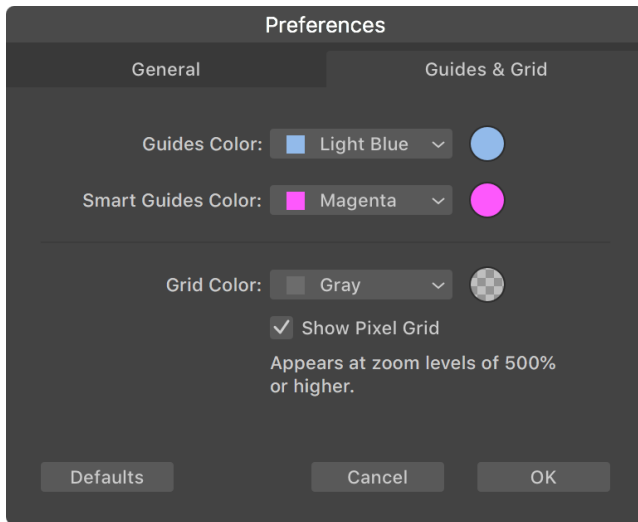
To set a new color, choose a predefined one from the drop-down menu, or click on a color circle and use the *Color* pane.

Menus

- Amadine
- File
- Edit
- Modify
- Layer
- Type
- Select
- View
- Window
- Help

The "Amadine" Menu

About Amadine	Display the dialog with information about the program.
Check for Updates…	Check for the latest update on the Internet. (Not available in the application purchased on the Mac App Store.)
Preferences… (Cmd-",")	Bring up the program preferences dialog.
License…	Open the registration dialog box. (Not available in the application purchased on the Mac App Store.)
Quit Amadine (Cmd-Q)	Quit the application.

The "File" Menu

New (Cmd-N)	Create a new document.
Open… (Cmd-O)	Open a document.
Open Recent >	Open one of the recently edited documents.
Close (Cmd-W)	Close the open document.
Close Window (Cmd-Shift-W)	Close the open window.
Close All (Cmd-Opt-W)	Close all open windows.
Save… (Cmd-S)	Save the current document.
Duplicate (Cmd-Shift-S)	Create a copy of the current document.
Save As… (Cmd-Shift-Opt-S)	Save the current document to a new file.

Rename…	Rename the current document.
Move To…	Move the current document to another location.
Revert To >	Cancel all of the changes in the current document that were made after the last save.
Import…	Import a graphic file to the current document.
Export… (Cmd-Opt-E)	Export the current document to a graphic file.
Document Setup… (Cmd-Shift-P)	Open the Document Setup dialog to verify or set up measurement units, grid and other properties.
Print… (Cmd-P)	Bring up the standard Print dialog.

The "Edit" Menu

Undo (Cmd-Z)	Reverse the last operation that you performed.
Redo (Cmd-Shift-Z)	Reverse the last Undo operation.
Cut (Cmd-X)	Cut selected object(s) to the Clipboard.
Copy (Cmd-C)	Copy selected object(s) to the Clipboard.
Paste (Cmd-V)	Paste the contents of the Clipboard into the document. A pasted object can appear either above all of the objects in the active layer or above a currently selected object depending on the Draw/insert above the selection option.
Paste in Place (Cmd-Shift-V)	Paste the contents of the Clipboard into the document at the same location as the original object. A pasted object can appear either above all of the objects in the active layer or above a currently selected object depending on the Draw/insert above the selection option.
Duplicate (Cmd-D)	Duplicate selected object(s).
Delete (Delete)	Delete selected object(s).
Copy Style (Cmd-Opt-C)	Copy the style of a selected object.
Paste Style (Cmd-Opt-V)	Apply the style, copied to the Clipboard, to a selected object.
Spelling and Grammar >	Check spelling and grammar.
Transformations >	Turn a selected piece of text to all capitals, all lower case, or capitalize it.

Speech >	The app can read text in the text editor aloud. Commands in this menu start and stop reading.
Start Dictation… (fn fn)	Dictate your text.
Emoji & Symbols (Cmd-Ctrl-Space)	Open the Emoji & Symbols panel.

The "Modify" Menu

Group (Cmd-G)	Group selected objects.
Ungroup (Cmd-Shift-G)	Ungroup a selected group.
Ungroup All	Ungroup a selected group. All nested groups to the full extent will be ungrouped.
Recolor…	Bring up the Recolor dialog.
Transform…	Bring up the Transform dialog.
Transform Again (Cmd-J)	Apply the same transformation that was set up and applied using the Transform dialog the last time.
Reset Bounding Box	Reset the boundary of a selected object. For example, once you rotate an object, its boundary turns accordingly. The command creates a new boundary whose top and bottom are horizontal.
Arrange > Bring to Front (Cmd-Shift-])	Place a selected object in front of other objects.
Arrange > Bring Forward (Cmd-])	Move a selected object by one object forward within the object stacking order.
Arrange > Send to Back (Cmd-Shift-[)	Place a selected object behind other objects.
Arrange > Send Backward (Cmd-[)	Move a selected object by one object backward within the object stacking order.
Align >	Align edges or centers of selected objects.
Distribute >	Create equal distance between edges or centers of selected objects.
Path > Explode	Split a selected path into separate segments keeping the result looking as the original path.
Path > Join	Join two selected paths to create a single path. A new segment can be added to fill the gap between the original paths.
Path > Open	Open a closed path. This command disconnects the two ends of the path. No path segments will be removed.
Path > Close	Connect the ends of a selected path. A new segment can be added to fill the gap between the ends of the original path.

Path > Reverse	Reverse the direction of the path. This command can move an arrowhead from one end of the path to another.
Path > Simplify…	Simplify a path by reducing the number of points it consists of.
Fill Mode > Use Non-Zero Winding Fill Rule	Fill a path that crosses itself so that no holes are created.
Fill Mode > Use Even-Odd Fill Rule	Fill a path that crosses itself so that holes are created according to the even-odd rule.
Combine > Union (Cmd-Ctrl-U)	Combine selected objects using the Union operation.
Combine > Intersect (Cmd-Ctrl-T)	Combine selected objects using the Intersect operation.
Combine > Subtract (Cmd-Ctrl-S)	Combine selected objects using the Subtract operation.
Combine > Exclude (Cmd-Ctrl-X)	Combine selected objects using the Exclude operation.
Combine > Divide (Cmd-Ctrl-V)	Divide selected objects into parts.
Combine > Release	Reverse a combine operation in order to turn a combined object into the original ones.
Expand	Split an object into several parts that look together as the original.
Make Compound Path	Turn selected paths into a compound path.
Release Compound Path	Reverse the creation of a compound path. Paths that were parts of the compound path will be separate again.
Make Clipping Mask	Create a clipping group from selected objects.
Release Clipping Mask	Turn a clipping group into a set of individual objects.
Place Text on Path	Make text go along a path. Select both text and path before applying this command.

The "Layer" Menu

Lock (Cmd-L)	Lock a selected object.
Unlock All (Cmd-Opt-L)	Unlock all objects in the document.
New Layer (Cmd-Shift-N)	Create a new layer.
New Sublayer	Create a new sublayer as an item of the current layer.
Duplicate Active Layer (Cmd-Shift-D)	Create a copy of the active layer.
Isolate Active Layer	Isolate the active layer. This command prevents objects on other layers from being selected or manipulated.

The "Type" Menu

Font > Show or Hide Fonts (Cmd-T)	Open or close the Fonts panel.
Font > Bold (Cmd-B)	Make selected text bold.
Font > Italic (Cmd-I)	Turn selected text into italic.
Font > Underline (Cmd-U)	Underline selected text.
Font > Bigger (Cmd-Ctrl-=) Font > Smaller (Cmd-Ctrl-minus)	Increase or decrease the size of the selected text.
Font > Kern	Adjust spacing between characters.
Font > Ligatures	Set up ligatures.
Font > Baseline	Adjust the baseline of selected text.
Font > Show Colors	Show or hide the Colors pane.
Font > Copy Style (Cmd-Opt-C)	Copy the style of selected text.
Font > Paste Style	Paste the style of selected text.
Text > Align Left Text > Center Text > Justify Text > Align Right	Align text to the left, right, center or justify it.

The "Select" Menu

Select All (Cmd-A)	Select all objects on all sheets except for locked objects. Select the entire text in the text editor when text editing mode is activated.
Select All on Active Sheet (Cmd-Opt-A)	Select all objects on the active sheet except for locked objects.
Deselect All (Cmd-Shift-A)	Deselect all objects.
Invert Selection (Cmd-Opt-Shift-A)	Select objects that are currently not selected, and deselect those that are selected.
Select Same > Appearance	Select objects with exactly the same properties in the same order in the Appearance panel.
Select Same > Fill & Stroke	Select objects with all the same Fill and Stroke properties placed in the same order.
Select Same > Fill Color	Select objects whose upper Fill properties have the same color.
Select Same > Stroke Color	Select objects whose upper Stroke or Brush properties have the same color.
Select Same > Stroke Width	Select objects whose upper Stroke or Brush properties have the same width.

The "View" Menu

Zoom In (Cmd-+)	Zoom in the current view.
Zoom Out (Cmd-"-")	Zoom out the current view.
Fit Sheet in Window (Cmd-0)	Zoom the current sheet to fit the window.
Fit All in Window (Cmd-Opt-0)	Fit the whole document into the window.
Zoom to Actual Size (Cmd-1)	Display the document at 100% scale.
Outline Preview (Cmd-Y)	Activate the Outline Preview mode.
Pixel Preview (Cmd-Opt-Y)	Activate the Pixel Preview mode at 72 dpi.
Pixel Preview Retina (Cmd-Opt-Shift-Y)	Activate the Pixel Preview mode at 144 dpi.

Guides > Make Guides	Create a guide out of a selected path.
Guides > Release Guides	Reverse the Make Guides command making a path out of a guide.
Guides > Remove Guides	Remove all guides.
Guides > Hide Guides (Cmd-;)	Hide or show guides.
Guides > Lock Guides	Lock or unlock all guides.
Rulers (Cmd-R)	Show the rulers.
Grid (Cmd-')	Show the grid.
Snap to Grid (Cmd-Shift-')	Snap to the grid when you are moving or resizing an object.
Snap to Pixel	Snap to the pixel grid when you are moving or resizing an object.
Smart Guides (Cmd-/)	Show smart guides when you are moving or resizing an object.
Show / Hide Corner Handles	Show or hide handles that are used for rounding corners of shapes.
Enter Full Screen / Exit Full Screen	Activate or deactivate the full screen mode.

The "Window" Menu

Minimize (Cmd-M)	Minimize the currently active window.
Zoom	Fit the program window to the screen size.
Show Next Tab	Show a document in the next tab. This command is available when all documents and panels are displayed in a single main window.
Show Previous Tab	Show a document in the previous tab. This command is available when all documents and panels are displayed in a single main window.
Attach or Detach Panels	Put all of the document windows and panels into a single window. Or, show documents and panels as independent windows or floating panels.
Appearance	Show or hide the Appearance panel.
Geometry	Show or hide the Geometry panel.

Layers	Show or hide the Layers panel.
Sheets	Show or hide the Sheets panel.
Libraries & Stock Images	Show the internal image library or one of online image collections.
Bring All to Front	Show windows of Amadine in front of others.

The "Help" Menu

Amadine Help	Open Help documentation delivered with the application.
Amadine Website	Open the Amadine website.
Social Networks	Access app's pages on social media.
What's New	Open release notes on the Amadine website.
Online Registration…	Open the online registration form.
Send Feedback…	Send your feedback to the developer by email.
Video Tutorials	Open the online video tutorials.
Keyboard Shortcuts	Open the online list of keyboard shortcuts.

Keyboard Shortcuts

- Documents
- Windows and Panels
- Document View and Canvas
- Layers and Objects
- Text Editing and Formatting
- Tools

Documents

Cmd-S	Save the current document.
Cmd-Shift-Opt-S	Save the current document to a new file.
Cmd-Shift-S	Create a copy of the current document.
Cmd-O	Open a document.
Cmd-N	Create a new document.
Cmd-Shift-P	Open the Document Setup dialog to verify or set up measurement units, grid and other properties.
Cmd-W	Close the active document.
Cmd-Opt-W	Close all open windows.
Cmd-Opt-E	Export the current document to a graphic file.
Cmd-Q	Exit the application.
Cmd-Z	Reverse the last operation you performed.
Cmd-Shift-Z	Reverse the last Undo operation.

Windows and Panels

Cmd-Shift-W	Close the open window.
Cmd-","	Bring up the Preferences dialog.
Cmd-M	Minimize the currently active window.
Cmd-P	Bring up the standard Print dialog.

Document View and Canvas

Cmd-+	Zoom in the current view.
Cmd-"-"	Zoom out the current view.
Cmd-0	Zoom the current sheet to fit the window.
Cmd-Opt-0	Fit the whole document into the window.
Cmd-1	Display the document at 100% scale.
Cmd-Y	Activate the Outline Preview mode.
Cmd-Opt-Y	Activate the Pixel Preview mode.
Cmd-Opt-Shift-Y	Activate the Retina Pixel Preview mode.
Cmd-;	Hide or show guides.
Cmd-R	Show the rulers.
Cmd-'	Show the grid.
Cmd-Shift-'	Snap to the grid when you are moving or resizing an object, or when you are moving individual anchor points.
Cmd-/	Show smart guides when you are moving or resizing an object.
Space	Activate the Hand tool which lets you scroll the canvas by dragging it.

Layers and Objects

Cmd-C	Copy a selected object to the Clipboard.
Cmd-V	Paste the contents of the Clipboard into the document.
Cmd-Shift-V	Paste the contents of the Clipboard into the document at the same location as the original object.
Cmd-X	Cut a selected object to the Clipboard.
Cmd-A	Select all objects on all sheets except for locked objects.
Cmd-Opt-A	Select all objects on the active sheet except for locked objects.
Cmd-Shift-A	Deselect all objects.
Cmd-Opt-Shift-A	Select objects that are currently not selected, and deselect those that are selected.
Cmd-D	Duplicate a selected object.
Delete	Delete a selected object.
Cmd-Opt-C	Copy the style of a selected object.
Cmd-Opt-V	Apply the style, copied to the Clipboard, to a selected object.

Cmd-G	Group selected objects.
Cmd-Shift-G	Ungroup a selected group.
Cmd-J	Apply the same transformation that was set up and applied using the Transform dialog the last time.
Cmd-L	Lock a selected object.
Cmd-Opt-L	Unlock all objects in the document.
Cmd-Shift-N	Create a new layer.
Cmd-Shift-D	Create a copy of the current layer.
Cmd-]	Move a selected object by one object forward within the object stacking order.
Cmd-Shift-]	Place a selected object in front of other objects.
Cmd-[	Move a selected object by one object backward within the object stacking order.
Cmd-Shift-[	Place a selected object behind other objects.
Shift-D	Apply the default style to the selected object.
Cmd-Ctrl-U	Combine selected objects using the Union operation.
Cmd-Ctrl-T	Combine selected objects using the Intersect operation.
Cmd-Ctrl-S	Combine selected objects using the Subtract operation.
Cmd-Ctrl-X	Combine selected objects using the Exclude operation.
Cmd-Ctrl-V	Divide selected objects into parts.
Shift-X	Swap the colors of the object's stroke and fill.

Text Editing and Formatting

Cmd-V	Paste text from the Clipboard into the edit box.
Cmd-A	Select all text in the text editor.
Cmd-T	Open or close the Fonts panel.
Cmd-B	Make selected text bold.
Cmd-I	Turn selected text into italics.
Cmd-U	Underline selected text.
fn fn	Dictate your text.
Cmd-Ctrl-Space	Open the Emoji & Symbols panel.

Tools

V	Activate the Move tool.
A	Activate the Selection tool.
L	Activate the Lasso tool.
P	Activate the Pen tool.
D	Activate the Draw tool.
W	Activate the Path Width tool.
G	Activate the Gradient tool.
T	Activate the Text tool.
K	Activate the Knife tool.
C	Activate the Scissors tool.
E	Activate the Eraser tool.
I	Activate the Eyedropper tool.
Z	Activate the Zoom tool.
Q	Activate the Free Transform tool.
R	Activate the Rectangle tool.
Shift-R	Activate the Rounded Rectangle tool.
O	Activate the Ellipse tool.
Shift-O	Activate the Polygon tool.
Shift-S	Activate the Star tool.
/	Activate the Line tool.
F	Activate the Elliptic Arc tool.
S	Activate the Sheets tool.
[	Decrease the diameter of the Pen, Draw and Erase tools.
]	Increase the diameter of the Pen, Draw and Erase tools.
Cmd	Temporarily activate a different tool. This key switches the Selection tool to the Move tool and vice versa. The Draw or Pen tool will be switched to the Selection tool. Other tools will be switched to either Selection or Move tool depending on which of them was activated most recently.

Creating Documents

To create a new document, select the **File > New** command in the main menu. The *New Document* dialog will open. You should set up document properties and click the **Create** button to have the document created.

When you start the program, the *New Document* dialog opens up automatically.

New Document Dialog
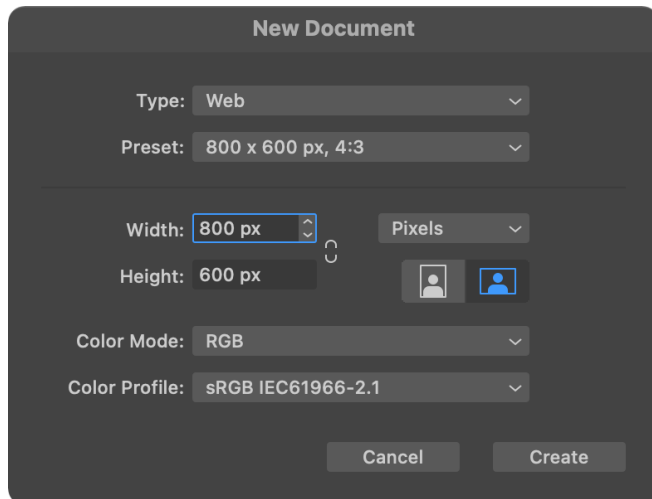
The combination of the **Type** and **Preset** options lets you select one of the predefined templates. The **Type** lets you choose a set of presets by usage (e.g., Web). Then you can select a particular sheet size from the **Preset** drop-down list.

The **Width** and **Height** give you an alternative way to set up the sheet size. Instead of choosing a template, you can set any size you want directly.

The **Measurement Units** drop-down menu lets you select units to show the **Width** and **Height**. The same measurement units will be used for sizes and distances on the canvas. You can change units any time later.

The **Orientation** buttons let you choose either horizontal or vertical orientation of a sheet by swapping the **Width** and **Height** values.

The **Color Mode** popup menu lets you choose between the RGB and CMYK color models.

The **Color Profile** popup menu defines the color profile for the document.

Notice that the dialog helps you create the first sheet. Your document can consist of multiple sheets of different sizes. Once a new document is created, you will be able to add more sheets.

Creating a New Document by Importing an Image

If you drag-and-drop an image onto the icon of the program, the latter will create a default document with your image added.

Opening Documents

To open an existing document, choose one of the following methods:

- Choose **File > Open…** in the menu (**Cmd-O**).
- Select your document name in the **File > Open Recent** menu.
- Lastly, you can double-click on the document icon in Finder.

Documents created on macOS, iOS or iPadOS are compatible on all other platforms. In other words, a design created on Mac can be opened on iPad, and vice versa.

If you have forgotten the name of your document and it is not listed in the **File > Open Recent** menu, try to find the file in Spotlight by searching the "amdn" or "amdc" file name extension.

Using iCloud

If you have an account at iCloud, you can open your documents from your iCloud storage. The iCloud option is located in the *Open File* dialog.

Saving Documents

The program saves documents in its own format. Document files have either "amdc" or "amdn" file name extension. Both formats are used on all platforms that are supported by the app. To search for your documents, type "amdc" or "amdn" in the search box of Spotlight.

To save the current document, select **File > Save…** or **File > Save As…** menu command. The latter appears in the menu when you hold down the **Option** key. By default, the app saves documents in the "amdc" format. It better suits for storing files on third party cloud storages. Documents in this format are compressed to decrease the file size. If your document was saved in one format but you need a different one, use the **File > Save As…** menu command and choose a new format.

To find out the location of the current document on disk, click on the document's name in the title bar of the main window.

The operating system automatically saves versions of modified documents. Due to this feature, you don't need to save documents frequently during your work. Since the auto save feature has limitations, it is recommended that you periodically save your document manually. To find and restore any of the saved versions, select **File > Revert To > Browse All Versions…**

Document Settings

The *Document Setup* dialog lets you change most of the settings that were available when you created a document.

To open the dialog, choose **File > Document Setup…** from the main menu.
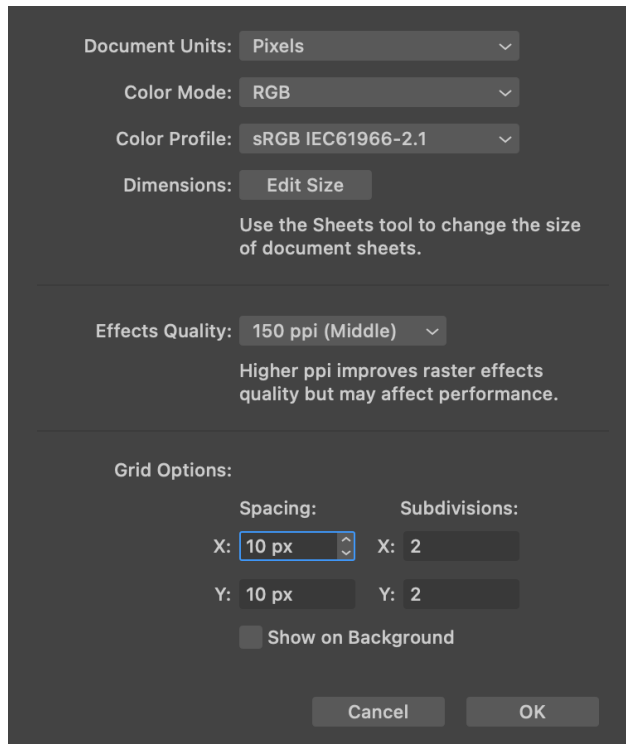
Dimension and Color Settings

Document Units: Defines the global measurement units. A quick way to change the units in the course of your work is to click a measurement units button at the top left corner of the canvas where the vertical and horizontal rulers touch each other.

Color Mode: Lets you choose between the RGB and CMYK color models.

Color Profile: Defines the color profile for the document.

Edit Size: This button gives you access to the tools that help you add and delete sheets and also change their dimensions. This button closes the *Document Setup* dialog and activates the Sheets tool.

Raster Effects

Effects Quality: Defines how accurately effects such as shadow or glow should be displayed on the canvas. With higher values, effects will be rendered more smoothly. Smaller values make the program interface more responsive when you are editing a complex document. Note that this option does not affect the quality of exported graphics.

Grid Options

Spacing: Sets the distance between the grid lines horizontally (X) and vertically (Y).

Subdivision: Divides each grid cell into several parts. For example, type "3" in the **X** edit box to split cells into three parts horizontally.

Show on Background: Defines whether the grid should be displayed in front or behind everything else on the canvas.

Layout Basics

Your documents can consist of one or multiple sheets and layers. There must be at least one sheet and one layer at any time, and you can add or delete them as your work progresses.

Layers and sheets help you keep your document structure manageable even with a complex design by putting together elements that are related to one other.

Sheets

A sheet is an area on the canvas where you create your design. If you are not familiar with graphic editors, you can think of a sheet as a page in a text editor, or printable area. The boundary of a sheet defines a crop area. Objects placed outside the sheet partially or completely will be trimmed.

Sheets are located on the canvas side by side. Frequently, each sheet holds a separate design, but all of the sheets in a document are linked together as parts of a particular project (e.g., pages of a brochure, or different versions of the same design).

It is possible to change the size and position of sheets individually. You can learn about this in the Sheets section.

An example of how sheets can be used is a design of two states of a button: normal and pressed. It is useful to store all artwork in the same document. In this case, each button takes a separate sheet.

If you already used other graphics software, you could use the artboard term for what we call a sheet.

Layers

Layers can help you arrange objects within a sheet. A layer serves you like a folder, inside of which you can place objects. By changing the properties of a layer (such as visibility or opacity), you can manipulate all objects inside of it.

Objects added to a document are arranged as a layered structure. It becomes clear that, when you place objects one over another, they overlap. Objects are stacked even if they don't

overlap. The program lets you put the objects in different layers (inside those virtual folders) without breaking the global stacking order. We can say that layers define the vertical structure of the document.

Let's have a look at a small example—a button. The artwork consists of three parts organized as three individual layers: Background, Button and Text. This structure lets us separate the design of the button from the background and text. The background was added only to preview the artwork with certain color around. The background won't be exported because the button will be used in the interface, which already has the background.

Taking text aside from other objects makes sense if it is a variable part of the design. We may need to create multiple buttons with different texts (e.g., "Cancel", "OK", etc.). In this case, you can place all of the text in a separate layer. By hiding all of the text but one, you can get one of the buttons. To edit the button itself, you hide the whole layer containing the text.
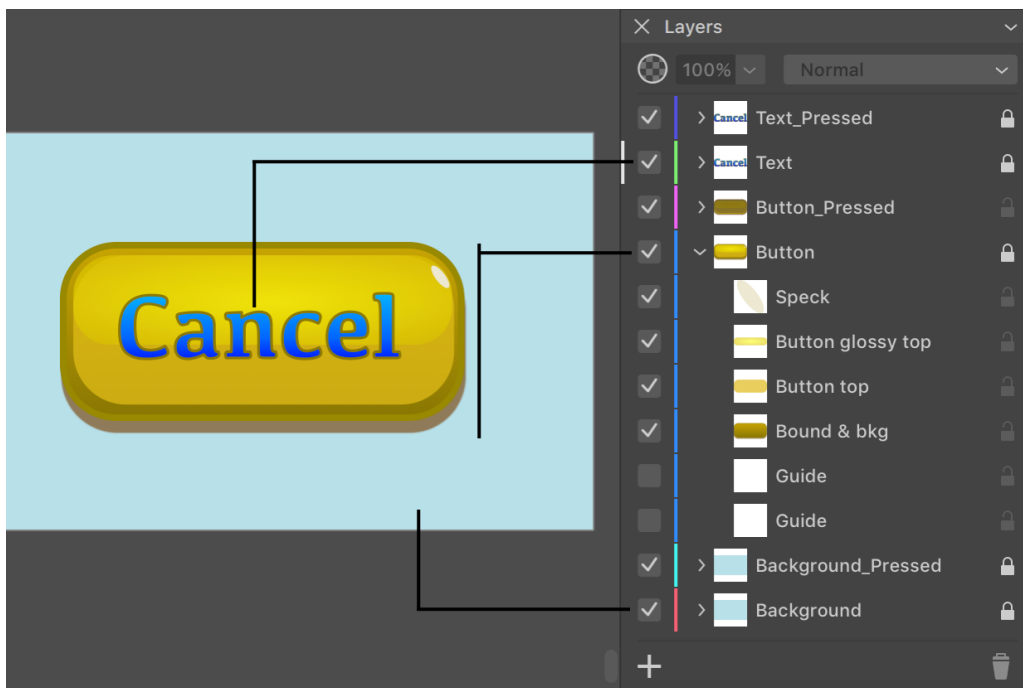
You can manage layers using the Layers panel.

Sheets

Documents can have one or multiple sheets. You can specify the initial size of sheets in the New Document dialog when you are creating a new document.

Activate a Sheet

To activate (or select) a sheet, click on its name in the Sheets panel. If you are going to work with multiple sheets, it makes sense to name sheets appropriately in order to distinguish them in the list.

Another way to activate a sheet is to click on it with the **Sheets** tool .

Objects and Sheets

The location of an object can be calculated in either a local or global system of coordinates. When the coordinate system is local, each sheet has the zero point at the top left corner. Consequently, the object coordinates are calculated in relation to the zero point of the active sheet.

Each object is associated with some sheet. There is no strong linking between sheets and objects. Once an object is added on top of a sheet, the object becomes associated with this sheet. Then, any time you select that object, the respective sheet becomes activated.

Later, it will be explained how to rearrange sheets on the canvas. When you change the location of a sheet, objects can either move along with it, or they can keep their global position. In the former case, all objects that are placed over the sheet completely or partially will move no matter which sheet they belong to. After that, all objects that were relocated together with the sheet will belong to this sheet.

If you choose to move objects together with a sheet, make sure that all of your artwork either moves or stays. Otherwise, you can break the design apart.

The **Move artwork with sheet** button controls the ability to move objects when you relocate a sheet. It is available in the *Control* panel when the **Sheets** tool is activated.

Manage Sheets using the Sheets Panel

To open the *Sheets* panel, choose **Window > Sheets** command from the main menu.
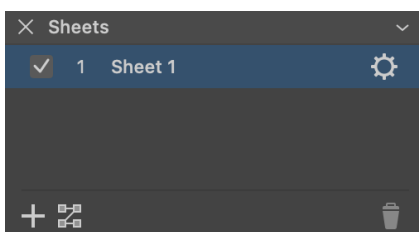
The *Sheets* panel lists sheets present in the current document. If there are multiple sheets in the document, give them meaningful names to easily differentiate one sheet from another. In order to rename a sheet, double-click on its name in the list. Notice that each sheet has two identifiers. In the image above, "Sheet 1" is the name that you can edit. To the left from the name, there is the sheet number which is "1" in our case. The sheet number cannot be changed.

The panel lets you add and delete sheets using ➕ and 🗑 buttons correspondingly. See the Add and Delete Sheets subsection for more details.

A sheet can be made invisible by clicking on a check box near the sheet's name.

To define how sheets should be arranged on the canvas, click on the ⌗ button. The Move and Arrange Sheets section has more details on this topic.

Sheet Properties

Properties of each sheet can be accessed by clicking on the corresponding ⚙ icon. The *Properties* pop-up lets you set up the size, orientation, and position of the sheet.
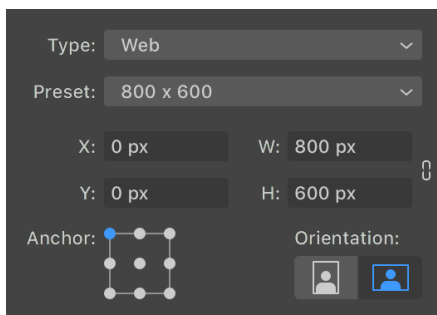
You can choose a pre-defined sheet size by selecting a combination of **Type** and **Preset**. You can also input the width and height directly into the **W** and **H** fields.

The **Orientation** buttons simply swap the current width and height.

Each sheet can be positioned on the canvas by inputting the **X** and **Y** coordinates. Notice that these fields always operate with the global coordinates.

You can also change the origin point using the 9-point **Anchor** control. It defines which of the nine points should appear at the coordinate set by **X** and **Y**. For example, if you want to place the center of the sheet at the zero coordinate, click on the point in the center of the **Anchor** control.

Add and Delete Sheets

In order to add a new sheet, click the plus button at the bottom of the *Sheets* panel.

By default, a new sheet has the same size as one that was previously selected in the list. That is, if your document already has big and small sheets, and you want to have one more small

sheet, select the small one before clicking on the plus.

To delete a sheet, select it in the list and click on the trash icon. You cannot delete the last sheet.

There is an alternative way to add and delete sheets. This can be done using the Sheets tool that is described below.

Move and Arrange Sheets

You can select how sheets should be arranged on the canvas by clicking on in the *Sheets* panel. This button opens a pop-up panel.
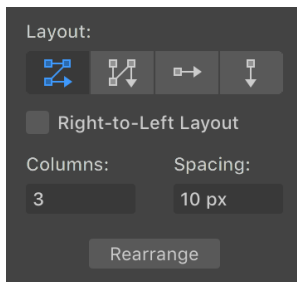
The **Layout** options define how sheets should be arranged on the canvas.

The **Reverse** check box inverses the order of sheets when you add them.

The leftmost button in the **Layout** settings places sheets in a fixed number of columns and variable number or rows. The **Columns** parameter defines how many columns there should be. Identically, you can set up the number of rows when the second **Layout** button is selected.

The **Spacing** field defines the distance between sheets vertically and horizontally.

To apply a new setting, you simply click the **Rearrange** button.

Jump to a Sheet

In a document with multiple sheets, one or several of them may appear outside the editing area. You can use scrolling in order to access such a sheet. The *Sheets* panel lets you jump to a sheet by double-clicking on the sheet's number. This function scrolls to the sheet and fits it into the editing area.

Sheets Tool

The **Sheets** tool lets you add, delete and relocate sheets. To activate this tool, click on its icon in the Tools Panel.

Once the tool is activated, the *Control* panel displays the related controls. Later, we'll discuss the purpose of each of them.
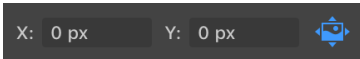
Select a Sheet

In order to delete, move or resize a sheet, you should select it.

To select a sheet, click on it with the **Sheets** tool.

A selected sheet displays a frame with handles. The *Sheets* panel indicates the selected sheet in sync with the tool. You can use any of them to select another sheet.

Resize a Sheet

To resize a sheet, click on it with the **Sheets** tool. Then drag a side or corner handle.

To input the exact width and height in pixels or other units, use the Properties pop-up in the *Sheets* panel.

Add a Sheet

There are two ways of adding new sheets using the tool in addition to the method given in the Add and Delete Sheets section.

To add a new sheet with predefined dimensions, click on the plus icon and then choose one of the options from the **Preset** drop-down menu.
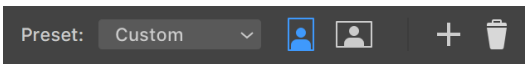
You can apply a **Preset** and change the **Orientation** of a sheet any time later.

Another way to add a new sheet is to draw it. Activate the **Sheets** tool. Place the cursor over the free space on the canvas. Press and hold the left mouse button to define the position of the first corner. Move the cursor to another point where the opposite corner should appear. Release the button.

In order to create a new sheet, you can also duplicate one of the sheets in your document. To duplicate a sheet, **Option**-drag it on the canvas with the **Sheets** tool. If you activate the **Move artwork with sheet** option in the *Control* panel, the program will duplicate all objects on the sheet as well. Otherwise, an empty sheet will be created.

Delete a Sheet

To delete a sheet, click on it with the **Sheets** tool. Then click on the trash icon.

Relocate a Sheet

To relocate a sheet, drag it with the mouse.

A more accurate way is to input new coordinates into the **X** and **Y** fields in the *Control* panel.
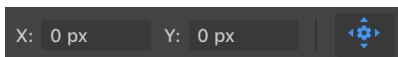
The **Move artwork with sheet** option lets you move objects located on the sheet together with the sheet. Normally, this option should be activated.

Coordinate System

The rulers can show the coordinates of a sheet and objects on it in one of two modes: *Global Rulers* and *Active Sheet Rulers*. To select one of them, click on the measurement units button on the rulers in order to open the drop-down menu.
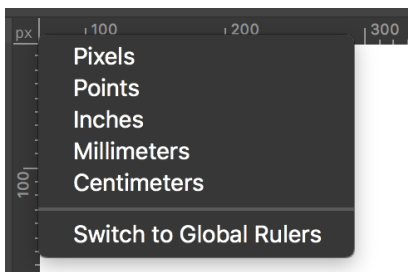
Global Rulers: The coordinate system and, consequently, the rulers' zero are used for the whole document.

Active Sheet Rulers: The coordinate system and the rulers' zero are local for each sheet. As soon as you activate a new sheet in this mode, the rulers will align the zero coordinate with the sheet. By default, whichever sheet you activate, its upper left corner appears at zero.

Modifier Keys and Shortcut Summary

Shortcut:

- **S** activates the Sheets tool.

Sheets tool modifier keys:

- **Space** switches to the Pan mode.
- **Command** switches to either Move or Selection tool depending on which of them was active most recently.
- **Option** lets you duplicate a sheet. Drag a sheet to create its duplicate.

The Grid

The grid can help you place objects on a sheet. It can also be useful when you resize an object or sheet with the mouse.

To show or hide the grid, use the **View > Grid (Cmd-')** command in the main menu. It is possible to show or hide the grid using the drop-down menu in the *Control* panel.
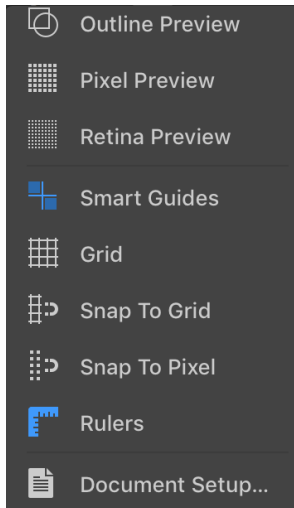
To make an object or its part snap to the grid, activate the **Snap to Grid** feature using the drop-down menu shown above, or use **View > Snap to Grid (Cmd-Shift-')**.

The program Preferences has an option to change the color of the grid.

Layout Guides

Guide Lines

Guide lines (or guides) are used to align objects on the canvas. They can also be used to visually split a sheet into several parts.
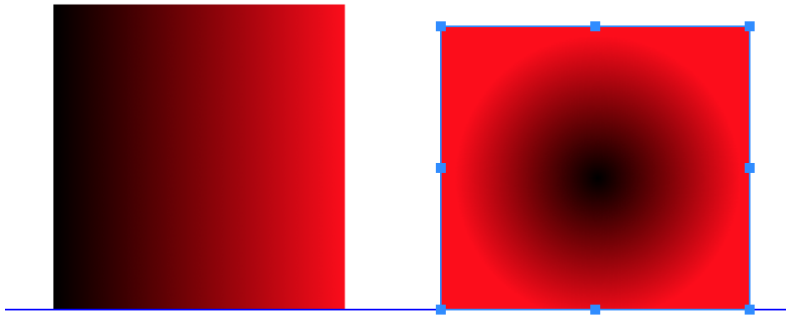
To add a guide:

- Double-click on a ruler at the coordinate where a guide should appear. Use the horizontal ruler to add a vertical guide and vice versa.
- Place the cursor over the vertical or horizontal ruler. Press and hold the left mouse button. Move the cursor towards the canvas. Release the button where you want to place the guide.

To move a guide, drag it with the mouse. It is possible to select a guide by clicking on it. Then you can move it using the arrow keys.

To input an exact coordinate, select a guide and then type the coordinate into the **X** or **Y** field in the Geometry panel.

To lock a guide, click on its lock icon in the *Layers* panel. To lock all guides, select **View > Guides > Lock Guides** in the menu. Locking guides prevents them from being accidentally moved. To unlock guides, use the **View > Guides** menu again.

To delete a guide:

- Select it and hit the **Delete** key.
- Use the Layers panel.

In the *Guides and Grid* tab of the Preferences, you can change the color of guides.

Smart Guides

When you move or resize an object, the program helps you align it with others using smart guides.
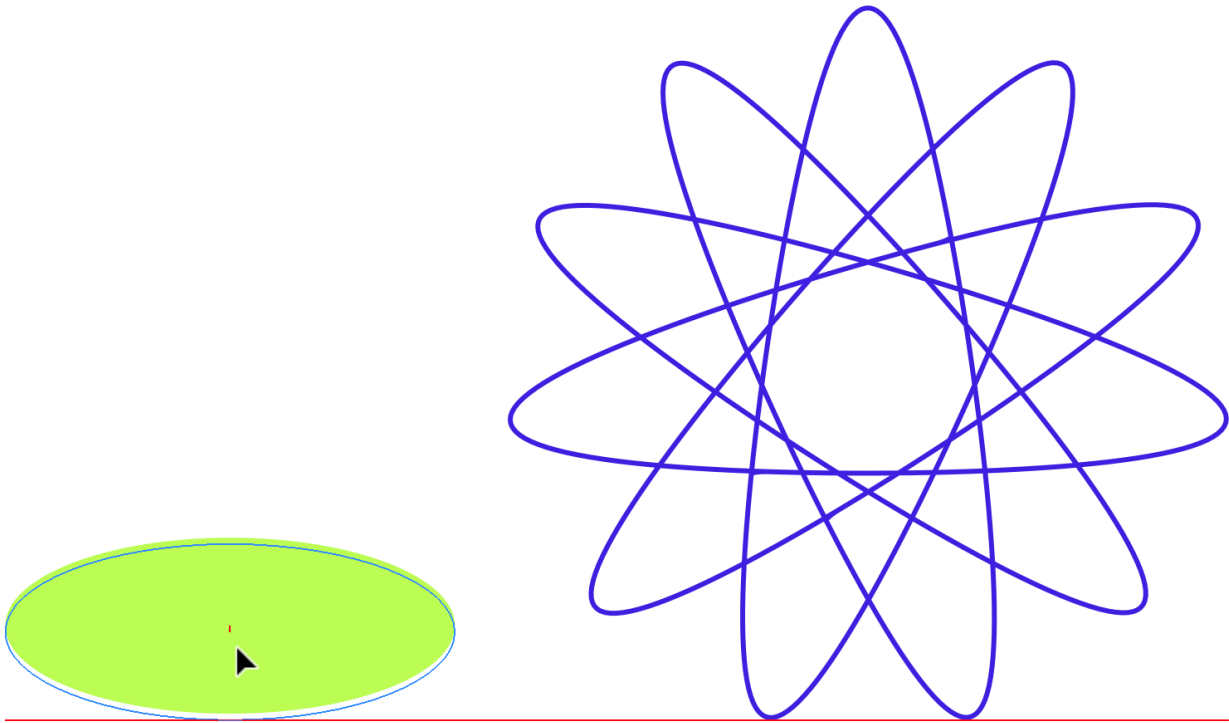
A smart guide is a line that looks like a regular guide, but shorter. It appears in your document automatically when an object you manipulate becomes aligned with something in the design. The smart guide that is displayed at that moment visually links the object with the point it is aligned to. If you move the object farther, the alignment will be broken, and the smart guide will disappear.

When you are moving one of the ends of a line, a smart guide can display the extension of the line helping you snap to the same angle. A small cross indicates the original location of line's end.

Create a Guide from a Path

You can create a guide line from a path. This may be helpful if you need a guide line with unique properties. For example, a customized guide can have an angle other than 0 or 90 degrees.

To turn a path into a guide, use the **View > Guides > Make Guides** menu command.

You can also convert a guide into a path by using **View > Guides > Release Guides**.

Select Objects

In order to edit an object or its part, you should select it. Then you can use tools or panels to modify the object's properties, such as the shape, color, size and others. The program lets you select an object, an object's part or multiple objects using different methods.

If an object is locked, it cannot be selected directly on the canvas.

Select a Single Object

To select an object, activate the **Move** tool ▶, and then click on the object.

As a rule, you should click on a visible part of an object to select it. For example, when a rectangle has a stroke but there is no fill, you should click on the stroke. Clicking inside the rectangle won't select it. On the other hand, if the **Fill** option is on, you can click anywhere on the rectangle.

Select Multiple Objects

To select several objects, activate the **Move** tool ▶, and then click on each of the objects holding down the **Shift** key.

Another way to select multiple objects is to outline those objects with the selection frame. Click with the **Move** tool at an empty point and drag the tool. The selection frame will appear between the starting point and the current position of the tool. Make the selection frame big enough to completely or partially outline the objects you want to select.
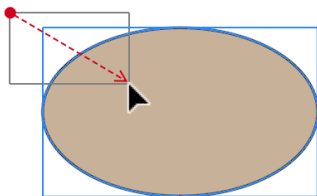
To deselect one of several selected objects keeping the rest of them selected, **Shift**-click on that object.

To deselect all selected objects, and select all unselected objects, choose **Select > Invert Selection (Cmd-OptShift-A)**.

Select All Objects

To select all objects that are not locked, use either **Select > Select All (Cmd-A)** or **Select > Select All on Active Sheet (Cmd-Opt-A)** command from the main menu.

Select an Object in the Layers Panel

You can select an object by clicking on its name in the Layers panel.
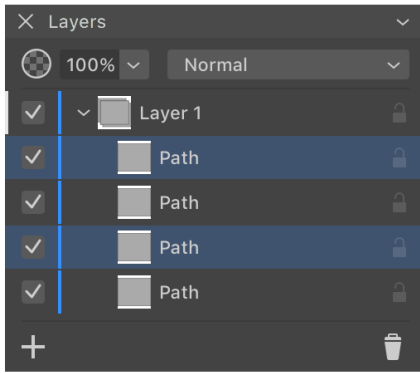
To select multiple objects, click on their names in the Layers panel holding down the **Cmd** key.

To select multiple objects, the names of which follow one after another, click on the first name, then press and hold the **Shift** key and click on the last name.

Select Objects with Identical Properties

You can select objects that have the same property or a set of properties in the Appearance panel. This may be useful when a design contains many similar objects (e.g., snowflakes or flowers on a postcard). You could create one, make it look as you wish and then make its copies. Once you decide to change their color, you have to select all of them. In such cases, the **Select > Select Same** menu comes in handy.

To select all objects with identical properties:

1. Select one object that will be used as a model to search for others.
2. Open the **Select > Select Same** menu and choose one of the options.

The following selection commands are supported:

- **Select > Select Same > Appearance** selects objects with exactly the same properties in the same order in the *Appearance* panel.
- **Select > Select Same > Fill & Stroke** selects objects with all the same Fill and Stroke properties placed in the same order. Effects such as shadow are ignored.
- **Select > Select Same > Fill Color** selects objects whose upper Fill properties have the same color. Stroke properties (including their location in the list in relation to Fill) as well as effects are ignored. The transparency of the color is also taken into account.
- **Select > Select Same > Stroke Color** selects objects whose upper Stroke properties have the same color. Fill properties (including their location in the list in relation to Stroke) as well as effects are ignored. Notice that stroke width (whether it is constant or variable) doesn't matter. So, both objects will be selected if one has a black Stroke and the other has a black Brush property. The transparency of the color is also taken into account.
- **Select > Select Same > Stroke Width** selects objects whose upper Stroke properties have the same width. Fill properties (including their location in the list in relation to Stroke) as well as effects are ignored. Notice that Stroke and Brush with the same width are treated as identical. Strokes with variable width (e.g, created with the **Path Width** tool) are ignored.

Be cautious with this selection tool. It might select more objects than you expect. Try to make sure visually that there are no objects that you didn't want to select.

Deselect an Object

To deselect one or multiple objects, click with the **Move** tool ▶ at any empty space on a sheet or on the canvas.

An alternative way is to choose **Select > Deselect All (Cmd-Shift-A)** from the main menu.

Isolation Mode

The Isolation mode is used to work with a particular object or its part. In this mode, only the isolated object can be edited. The rest of the objects are locked and displayed in dimmed colors. As soon as you deactivate the Isolation mode, those objects will become unlocked.

You can isolate a standalone object, an object that is a part of a compound object or group.

To isolate an object, double-click on it with the **Move** or **Selection** tool. If an object is in a group that itself is a part of another group, click on the object several times until you reach it.

An alternative way to enter the Isolation mode is to select the layer that you want to edit in the *Layers* panel. Then bring up the context menu and choose **Isolate Active Layer**.

To exit the Isolation mode, hit the **Esc** key, or click the "X" button in a bar below the horizontal ruler. This bar displays the name of the isolated object. If the isolated object is inside a group, the name of the group will be indicated there.
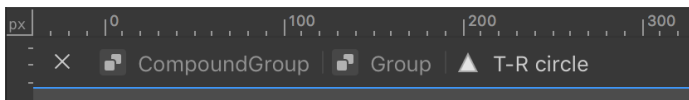
In the Isolation mode, the *Layers* panel hides the list of layers and objects and shows the "Isolation Mode" item as the top level object. The isolated object will be one of its subitems directly, or it can be inside of one of nested subitems.
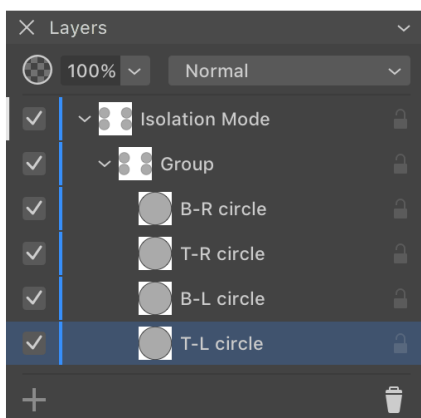
Select Objects Inside a Group

It is possible to access an object inside a group without ungrouping it. There are two ways to do this. One of them is to use the Isolation Mode discussed earlier.

Another way is to make use of the Layers panel. You should click on a triangle near the name of the group to expand it and show the grouped objects. Then click on the name of the object you want to select.
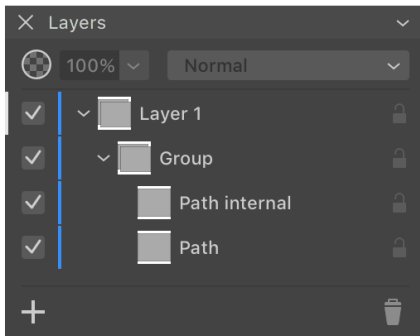
Finally, it is possible to select an object in a group by clicking on it with the **Selection** tool. Neither the entire group nor other objects in it won't become selected.

Locking and Unlocking Objects

Locking an object helps you prevent it from being moved or edited accidentally.

To lock an object, use one of these methods:

- Select the object and choose the **Layer > Lock (Cmd-L)** command from the main menu.
- Click on the object's Lock icon in the *Layers* panel.
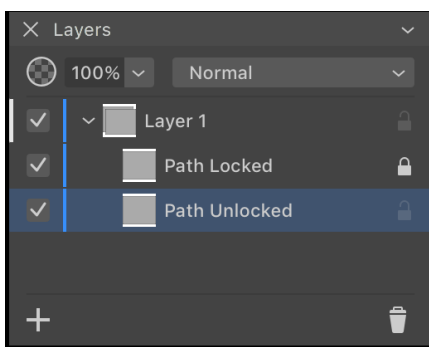
To unlock an object, click on its Lock icon in the *Layers* panel.

To unlock all objects, select **Layer > Unlock All (Cmd-Opt-L)**.

Defining the Order of Objects

A currently selected object can define where an object that you add to the design should appear in the stack of objects. This concerns different types of objects that you can add: paths,

texts, graphics from the built-in libraries, pasted and imported objects. When the Draw/insert above the selection option in the *Preferences* is activated, a new object will be placed right above the selected object. When the option is deactivated or none of the objects is selected, a new object will appear at the upper position in the active layer. The overall order of layers and objects can be changed using the Layers panel.

Delete or Hide an Object

To delete an object, select it and then use any of these methods:

- Press the **Delete** or **Backspace** key.
- Choose **Edit > Delete** command from the main menu.
- Click the **Delete** button in the Layers panel.

If an object is locked, you should unlock it before removing.

You can delete an object from a group without ungrouping it. To do this, select an object in the *Layers* panel, and click the **Delete** button.

Hide an Object

If you need an object to disappear without deleting it from the document, you can hide it. If you hide an object that interacts with other objects after applying a blend mode, Boolean operation (e.g., Subtract) or something else, that interaction will also disappear as if the object doesn't exist. If you show the object again, effects related to this object will be restored.

To hide an object, clear a check box to the left from its name in the *Layers* panel.

To show an object, set the check box in the *Layers* panel.
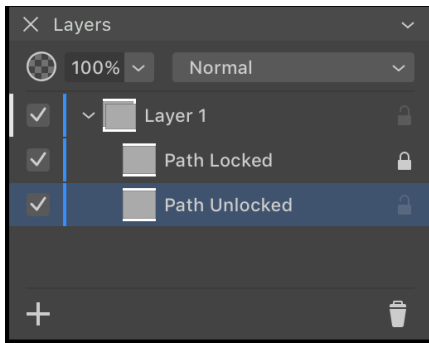
You can hide an individual object, group or layer.

Move, Resize and Rotate Objects

The geometric properties of an object can be modified directly on the canvas or using the Geometry panel. The latter has more options, and also lets you input numerical values, which provides better accuracy. Editing objects right on the canvas is usually faster and more convenient.

You should select an object before modifying its properties. A selected object displays its boundary box with handles in the corners at the middle of each side. We will use these handles later.

Most of the properties discussed below can be adjusted with an individual object, several objects or groups selected. Multiple selected objects, even not grouped, will respond to adjusting parameters in the same way as a group. For example, if you select two squares and change the width in the *Geometry* panel, the new value will be applied not to each of the squares but to the selection boundary. In order to apply the same value to all selected objects, use the Transform command from the context menu.

Manipulating an Object on the Canvas

Move an Object

To move an object, activate the **Move** tool ▶ . Then click on the object and drag it.

As a rule, you should grab a visible part of an object. For example, when a rectangle has a stroke but there is no fill, you should drag the outline of the object.

You can also move a selected object using the arrow keys. In order to move the object faster, hold down the **Shift** key while pressing on an arrow.

The commands from the **Modify > Align** menu let you move an object to the center or edges of the current sheet. Normally, these commands require that you select several objects that should be aligned. If you select one object, it will align to the sheet.

Resize an Object

To resize an object, drag a corner or side handle on the object's boundary box using the **Move** tool ▶ . To preserve the aspect ratio, do that by holding down the **Shift** key.
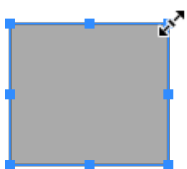
When you drag a corner or side handle the opposite corner or side of the object's boundary retains its position by default. To resize an object symmetrically, hold down the **Option** key. In

this case, the center of the boundary will preserve its location.

Rotate an Object

To rotate an object, activate the **Move** tool ▶ . Place the mouse pointer outside the bounding box near a corner handle. The cursor should turn into a bent double-sided arrow. Click and move the cursor to specify a new angle.
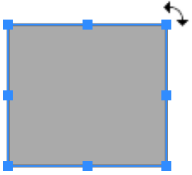
Hold down **Shift** to rotate with 15 degree steps.

The default center of rotation coincides with the center of the object's boundary. To set any other point as the center of rotation, click on ⊕ in the *Control* panel. Then drag a circular handle, that indicates the rotation center, to a new place.

Using the Geometry Panel

The Geometry panel helps you manipulate objects by setting up exact values for the object's location, size or rotation angle. To open the panel, choose **Window > Geometry** from the main menu.

Modifier Keys and Shortcut Summary

Shortcut:

- **V** activates the Move tool.

Move tool modifier keys:

- **Space** switches to the Pan mode.
- **Command** switches to the Selection tool.
- **Shift** allows you to select multiple objects.
- **Shift** allows resizing an object preserving its aspect ratio.
- **Shift** lets you rotate an object in 15 degree steps.
- **Option** lets you duplicate an object. Option-drag an object to create its duplicate.
- **Option** lets you resize an object preserving the location of its center.
- **Option-Shift** resizes an object preserving its aspect ratio and location of the center.

The Geometry Panel

The *Geometry* panel lets you adjust an object's size and coordinates, and change its other properties. To open the panel, choose **Window > Geometry** from the main menu.
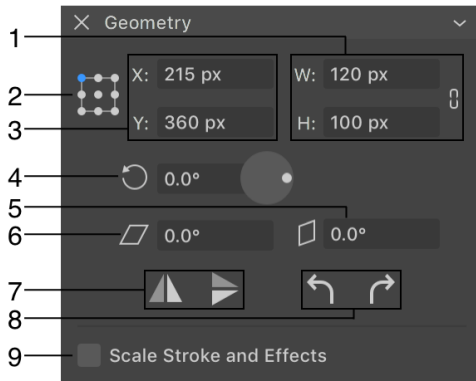
1 - The object's width and height. The **Maintain Aspect Ratio** option can prevent an object's deformation when you change one of its dimensions. The **Maintain Aspect Ratio** icon is located to the right of the text fields.

2 - Reference point selector. The coordinate defined by **X** and **Y** is the location of the reference point. The 9-point selector lets you choose a corner, the middle of any side or the center.

With the same coordinates but different reference points, an object will have different locations.
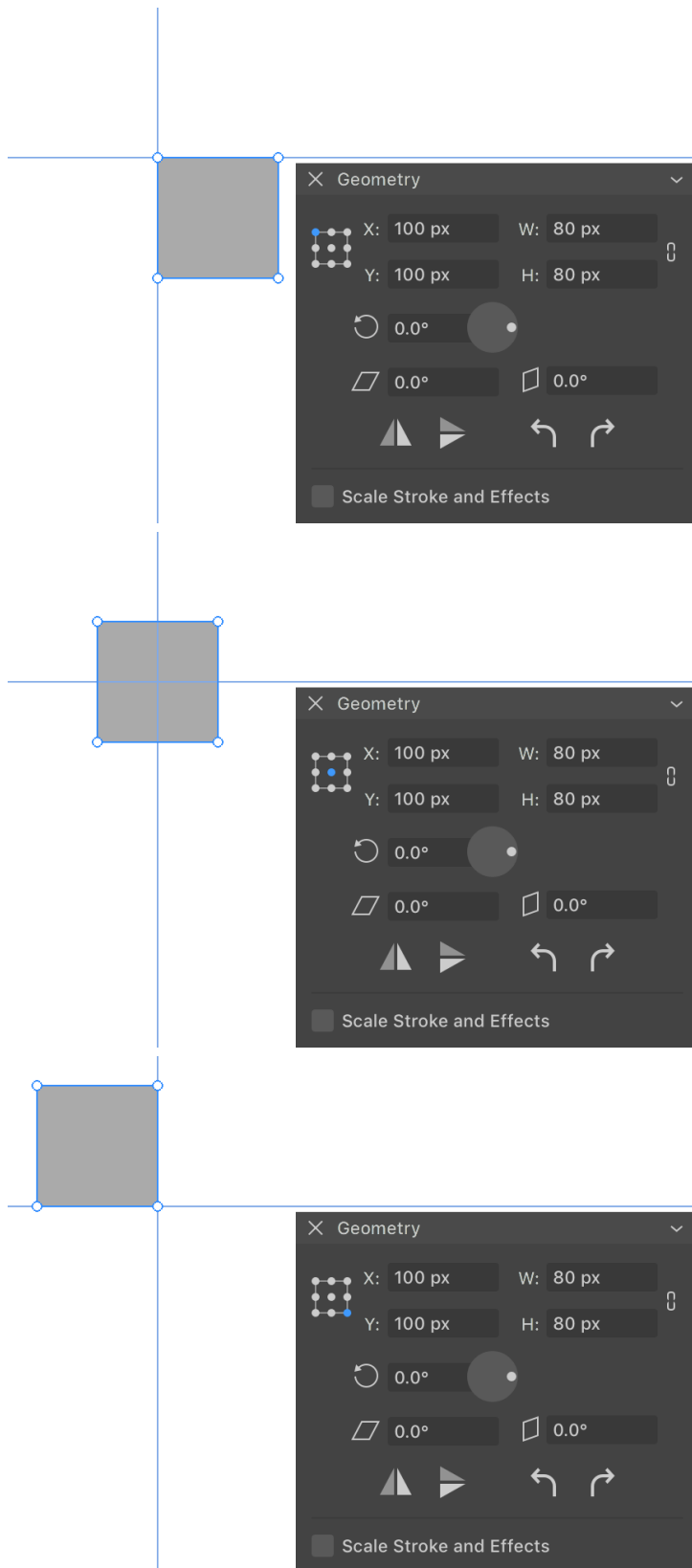
3 - The object's coordinates.

4 - The rotation tool. You can either input the angle into the text field or rotate the circular control.

5 - The vertical Shear tool.

6 - The horizontal Shear tool.

7 - Flip horizontally or vertically.

8 - Rotate an object 90 degrees left or right.

9 - Scale stroke and other effects when the object is resized. For example, making an object twice as big, you can expect that its stroke and shadow will be two times wider.

Move and Rotate an Object with the Geometry Panel

To move an object to a new location, change its **X**, **Y** or both coordinates. Notice that, by default, **X** and **Y** coordinates define the location of the top left corner of the object's boundary. You can choose one of nine points using the **Reference point selector**.

In order to resize an object, change the **W** and **H** properties. Use the **Maintain Aspect Ratio** button to preserve the object's aspect ratio while you are modifying either the width or height.

To rotate an object, input a new value into the angle field, or drag the handle on the circular rotation tool.

In order to rotate an object with 90 degree steps to the left or right, click the corresponding bent arrow icon.

Apart from rotation, you can also mirror objects using the vertical and horizontal flip buttons.

Align and Distribute Objects

In order to access the *Align*, *Distribute* or *Spacing* tools, select objects. Each of the three buttons that will appear in the Control panel opens the corresponding set of tools.
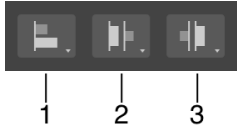
1 - Align tools.

2 - Distribute tools.

3 - Spacing tools.

Align Objects

This section explains how to align objects to one other. If you want to align an object to the grid or guide line, go to the corresponding page.

To align objects, select two or more of them. If only one object is selected, it will be aligned to one of the edges or center of the active sheet.
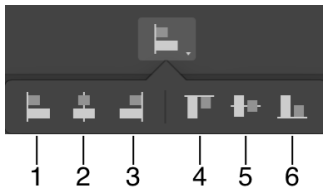
1 - Align to the leftmost object.

2 - Align objects' centers horizontally.

3 - Align to the rightmost object.

4 - Align to the upper object.

5 - Align objects' centers vertically.

6 - Align to the lower object.

Let's take the first tool to explain the alignment principle. The program finds an object whose left side or a single point is the most far to the left compared to other objects. We can call this object a key object. Then the rest of the objects are moved to the left until they reach the leftmost point of the key object. The key object always retains its position. Notice that the program considers only the path. Strokes, shadows or other properties that may visually affect the objects' dimensions are not taken into account.
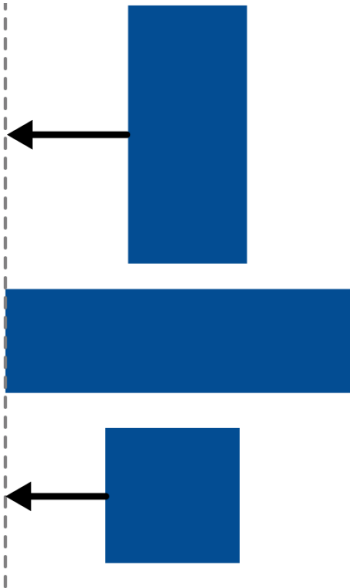
When you choose to align objects' centers, the centers take the same horizontal or vertical coordinate. This coordinate is calculated as the center of the boundary of all currently selected objects.
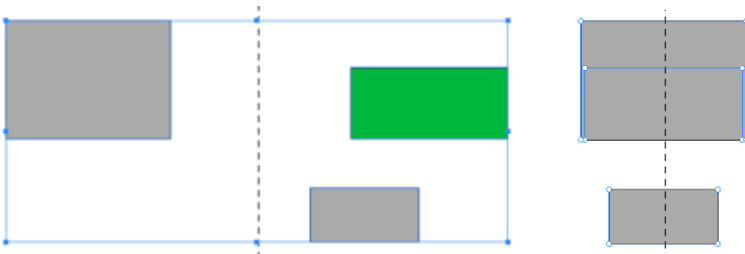
Distribute Objects

The *Distribute* tools equalize the distance between sides or centers of selected objects. You should select three or more objects in order to distribute them.

To distribute objects, the program finds two key objects. These are the rightmost and leftmost objects to distribute horizontally, or the upper and lower objects to distribute vertically. The key objects retain their positions. All the remaining objects will be relocated in order to comply with the selected *Distribute* command.
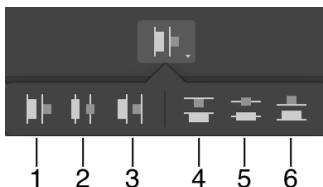
Make equal distances between:

1 - Left sides of objects.

2 - Centers of objects horizontally.

3 - Right sides of objects.

4 - Tops of objects.

5 - Centers of objects vertically.

6 - Bottoms of objects.

The image below demonstrates the original location of the objects at the top, and the result of the **Distribute centers of objects horizontally** tool.
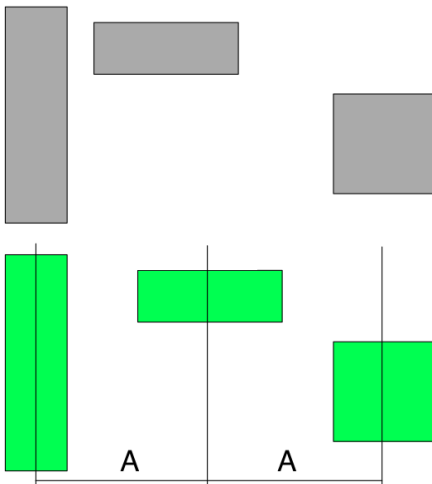
Set Up Spacing

The *Spacing* tools are used to set up an exact distance between objects. You should select two or more objects in order to set up spacing between them.
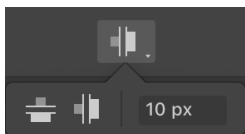
In order to set new spacing, the program defines a key object (e.g., the leftmost for horizontal spacing). The position of this object will be fixed. All the remaining objects can be moved in order to make spaces between them equal to the value you set.

The image below shows what happens with the objects' locations when you set the horizontal spaces between them to a particular value.
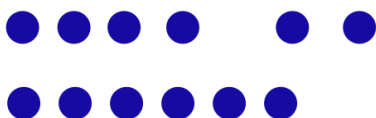
Align and Distribute Anchor Points

The Align, Distribute and Spacing tools can also work with individual anchor points including those that belong to different paths. The Select Anchor Points subsection describes how you can select anchor points.

Lock an Object

You can lock an object to prevent it from moving or being edited. In fact, locking prevents the object from being selected. As a consequence, you won't be able to modify it by mistake.

To lock an object, select it and click on the **Lock** icon in the *Layers* panel.

It is possible to lock not only an individual object but a group or layer.

To unlock an object, click on its **Lock** icon in the *Layers* panel.

The **Lock** icon is located to the right from the object's name in the *Layers* panel.
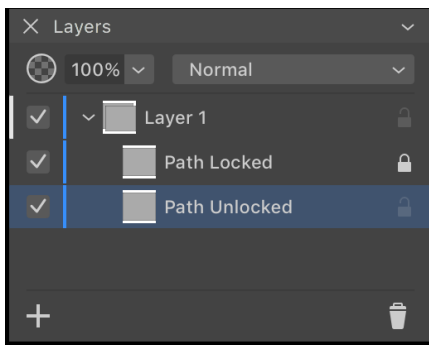
It is also possible to lock and unlock objects using the **Layer > Lock** and **Layer > Unlock All** commands from the main menu.

Group and Expand Objects

Group or Ungroup Objects

Grouping objects lets you combine them into a single piece of design. The created group can be moved, rotated and resized as you could do with a single object. Some other manipulations like adding Fill and Stroke or applying distortion are also possible. This may be useful if your whole design or its part is created out of several primitive objects, and you don't want it to fall apart when you move or rotate it. For example, you can create a keyboard as a number of keys and the body. Then you group them together to have the keyboard as a single unit.

The item in the Layers panel that represents a group is named *Group* by default. You can click on the triangle near the group name to access the grouped objects.
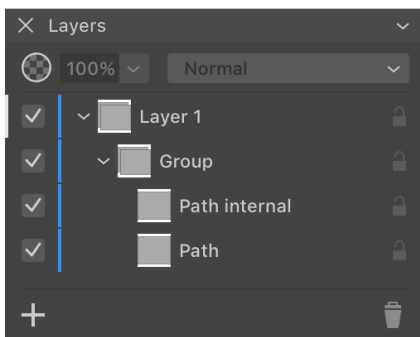
A group can include another group and so on. In this case, we say that groups are nested.

To group objects, select them. Then right-click on any of the selected objects and choose **Group**.

To ungroup, select the group, bring up its context menu, and choose **Ungroup**.

There are two other types of groups. Compound groups are explained in one of the following sections. Clipping groups are related to the clipping masks which are described in the Using a Clipping Mask section.

Using the Layers Panel for Grouping and Ungrouping

In order to ungroup objects, select one or several of them in the Layers panel. Then drag the selected objects outside the group. Objects moved in this way outside the group will become ungrouped. Once a group is empty it disappears. This method also works with compound and clipping groups. The latter though have a small difference. If you move all but one object outside a clipping group, the last object will be moved outside automatically and the clipping group will disappear.

To group objects, drag the name of one object in the *Layers* panel and drop it onto a second one. In this way, you can create a clipping group. The second object will become a clipping mask for the object that you have dropped.

In order to add a new object to an existing group of any type, drag the object into the group in the *Layers* panel.

Compound Group

By applying one of the Combine commands (e.g., Union) to multiple objects, you can create a compound group. Like groups discussed earlier, a compound group serves as a container that includes the original paths. This means that you are still capable of modifying these paths and therefore updating the result. For example, we can create a hole in a shape using the Subtract operation. Then the original objects will appear inside a compound group, which can be operated mostly like a regular object. But, at the same time, you can reach the original shapes using the Isolation mode or the Layers panel, and change the location or size of the object's body or whole.

Original Shapes
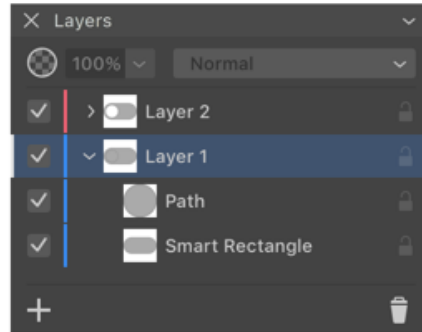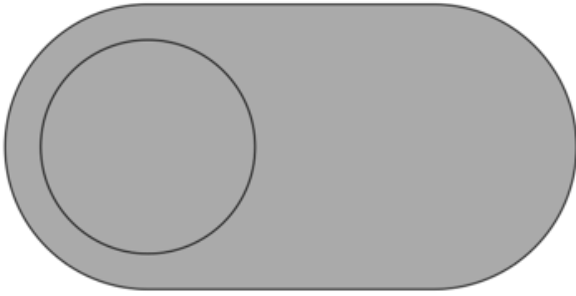
Compound Group
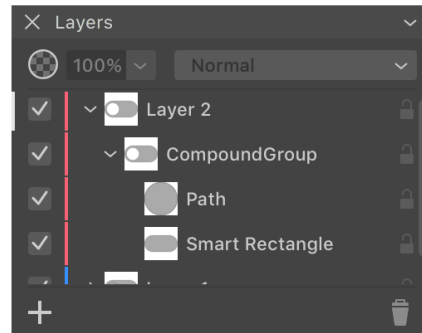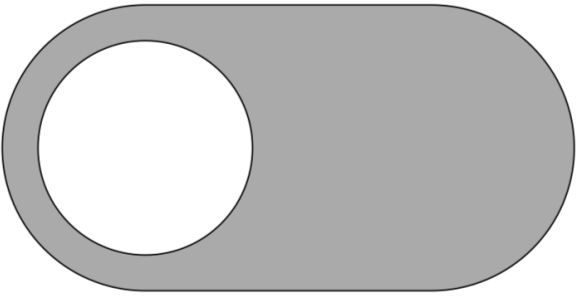
Expand Objects

The **Expand** button in the *Control* panel (also **Modify > Expand** in the main menu) turns an object into a number of typically more primitive objects. Those objects together look exactly like the original one. This kind of "disassembling" of an object lets you use tools that can work only with the entire object but cannot work with its parts.

The following image shows an arrow with a stroke and gradient fill expanded into two objects: an arrow with gradient and the arrow outline. All created objects were manually moved apart for the illustration.
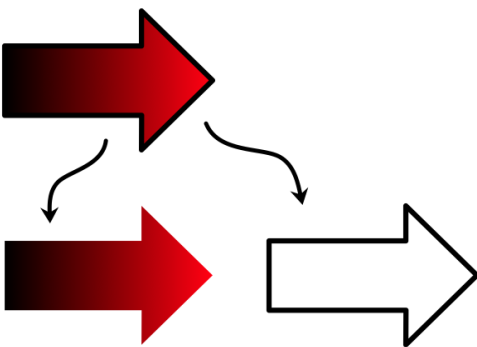
The result of expanding is a group of objects. After expanding in the example above, the outline and gradient are grouped. This is the most common case.

The Expand feature has many different use cases. They often rely on the fact that vector objects are expanded into paths that you could access independently. This enables object editing that is not possible in other ways. For example, the Rounded Rectangle tool creates a parametric object. The shapes of its corners are defined by respective settings. But these

settings limit your capabilities to adjust the object's shape. Once you have reached that limit, you can expand a rounded rectangle and edit it as a path using the Selection or other tools.

Another case is text. Once it is expanded, you can make letters look differently from the original font. For instance, rotate individual letters, turn the "O" letters into smiley faces and so on.

There is no way to switch back and forth between the expanded object's state and the original one. That can be done using the **Undo** command by canceling all the editing you did after expanding. Before expanding, it is useful to create a duplicate of your original object or text just in case you need it later.

In certain cases, you have to apply **Expand** more than once to actually expand an object. This is linked with the corner rounding feature. After adjusting a corner radius, expanding at the first time will apply a new radius. At the second time, the object will be expanded.

Align Objects to the Pixel Grid

Create a Pixel-Aligned Object

To create a pixel-aligned object, activate the **View > Snap to Pixel** option in the main menu.

As you draw a standard shape or create a path using the **Pen** tool, the cursor will snap to pixels. As a result, all anchor points of the created path will be aligned to the pixel grid.

Align an Object to the Pixel Grid

To have a rasterized line look sharp, its width should be a whole number in pixels (no fractions). Also, this line should be aligned to the pixel grid.

In many cases, when you align an object to the pixel grid, you want to align vertical and horizontal lines to the pixel grid. This can be done by aligning anchor points to the grid. To do this, activate the **View > Snap to Pixel** option in the main menu. It can also be useful to display the pixel grid using the **View > Pixel Preview** command. Then slightly move anchor points near their locations with the **Selection** tool to snap them to the grid.

The pixel grid becomes visible at a zoom of 500% or higher.

The Pixel Preview mode is also discussed in The Main Window section.

Why should you Align Objects to the Pixel Grid?

The alignment of objects to the pixel grid may make a big difference if your graphics are going to be exported in a raster format.

In the following example, we have two identical vector rectangles. The one on the right is aligned to the pixel grid. The left one is not aligned to the pixel grid horizontally. Its offset is 1/2 pixel. Both rectangles have 1 pixel wide black stroke.

In the normal preview mode, both rectangles have a perfect look as it is expected from vector graphics.

Two identical rectangles in the normal mode
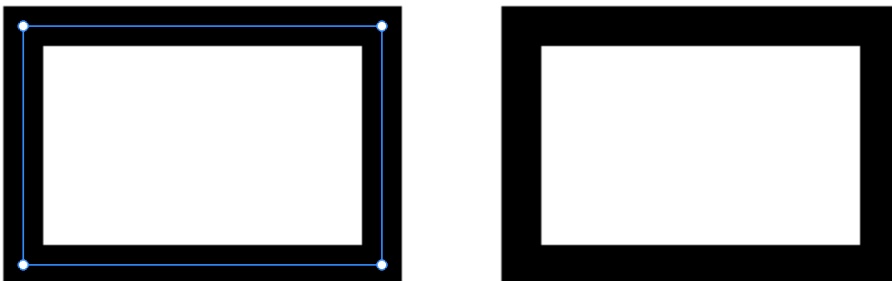
The Pixel Preview mode reveals the appearance of the rectangles once they have been rasterized. Vertical lines of a misaligned left rectangle become blurred. This happened because a 1 pixel vector line was mapped not on one but on two columns of pixels.

The same rectangles in the Pixel Preview mode
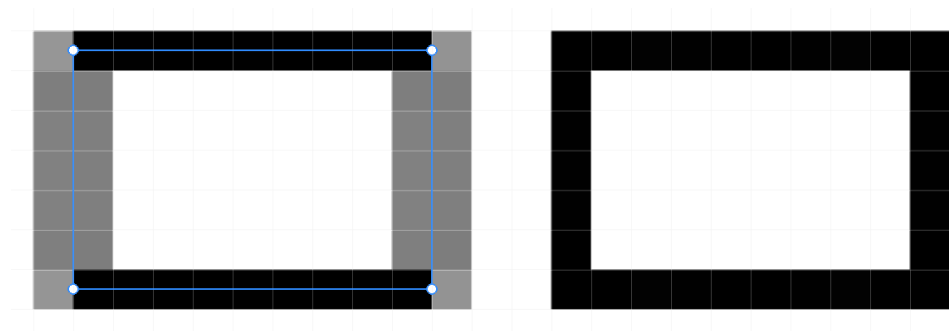
To activate the Pixel Preview mode, select **View > Pixel Preview** in the main menu.

Introduction to Layers and Objects

Using Layers to Organize Objects

Complex designs can consist of hundreds or thousands of elements. Even if you name all of them appropriately in the list of objects, it would still be difficult to manage them. Layers provide a way to organize objects into sets. A layer serves as a folder on your disk that contains some number of items in isolation from others.

A new document has only one layer. All objects appear in this layer by default. You can add more layers with meaningful names, and organize elements of your design into groups by type, color or other principle. You can also add sublayers inside a layer. This can be used to keep together identical items.

A layer lets you manipulate objects that are inside as a whole by switching the visibility on or off, locking them or adjusting their transparency.

Let's see how we can use layers for a flower design. We can place all parts of the flower into a single layer. Also, we can add two sublayers for leaves and petals.
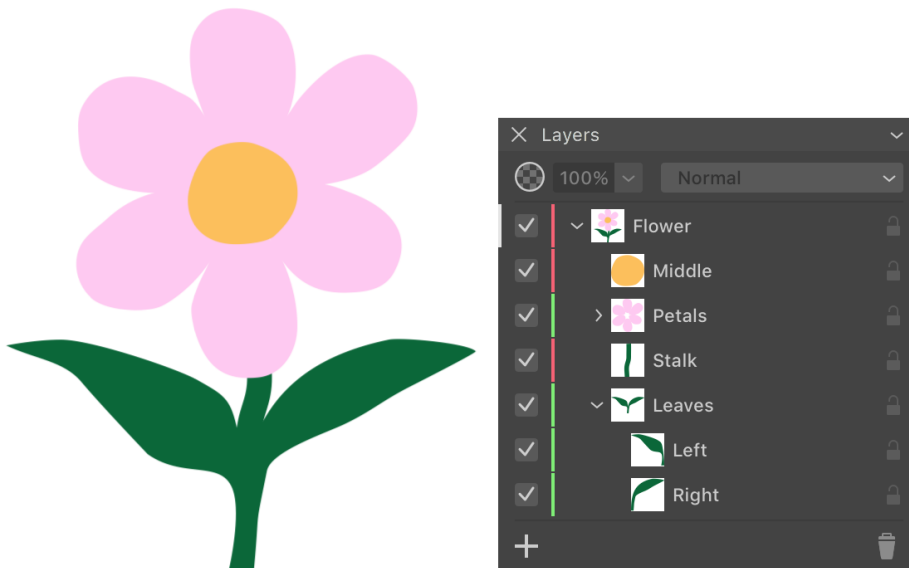
Any layer can include one or multiple objects or sublayers.

Objects are not bound to layers. You can relocate an object to another layer by a simple drag-and-drop in the *Layers* panel.

About the Layers Panel

The *Layers* panel is a complete list of layers and objects that you have in the document. This list is presented as a structure where layers appear as top level items. You can look inside of a layer and see objects and sublayers in it. The whole list from top to bottom represents exactly the same order in which objects appear in the document. If some object is behind others on the canvas, this object will be lower than others in the *Layers* panel.

In order to visually link objects on the canvas with layers, the object's boundary, when it is selected, has the same color as the color that marks the corresponding layer in the *Layers* panel. This works only if a single item is selected.

More details about the panel can be found in The Layers Panel section.

The Layers Panel

The *Layers* panel helps you organize objects in your document. It displays objects as a list. The top-level items in this list can only be layers. Each layer serves as a folder that can store objects and sublayers. In complex designs, you can place related objects into the same layer to keep them together. A simple design can have a single layer.

To open the *Layers* panel, choose **Window > Layers** from the main menu.
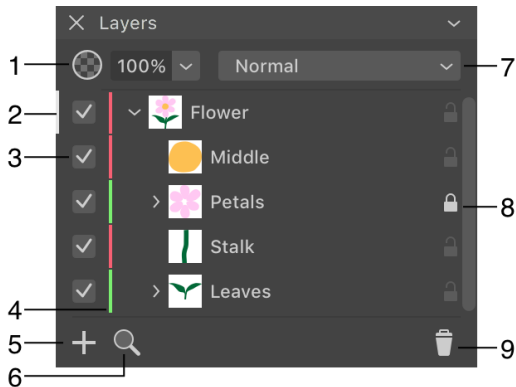
1 - Opacity of a layer or object.

2 - The active layer is marked by a line near the panel's left side.

3 - Visibility option.

4 - Layer's color.

5 - Add a new layer.

6 - Reveal a selected object in the list.

7 - Blend mode of a layer or object.

8 - Lock option. You can lock an individual object, or a layer with everything inside it.

9 - Delete the active layer.

Each line in the list relates to one layer or one object (or compound object or group).

Items in the list have default names. To edit a name, double-click on it. Then press the **Enter** key to apply a new name.

Layers and objects in the list have the context menu with these commands:

- **New Layer** creates a new layer above the current one.
- **New Sublayer** creates a new sublayer.
- **Duplicate** creates a copy of a layer or object.
- **Delete** deletes a layer or object.

- **Select All Layers** selects all layers including hidden and locked ones.
- **Select All on Layer** selects the contents of the active layer including paths, groups and sublayers. If you select one object and then run the command, all the rest objects on the same layer will become selected. You can also select a layer directly. If several layers are selected, the command will select the contents of these layers.
- **Hide** hides a layer or object.
- **Lock** locks a layer or object.
- **Merge Selected** merges selected layers. The result is a single layer that contains objects of the original layers.
- **Collapse All** shows only the layer's names in the list. The content of layers is not displayed. To show it again, click on the v-shaped icon of the corresponding layer.
- **Isolate Active Layer** activates the Isolation mode for the active layer.

Autocollapse the Contents of Sublayers

A layer may contain multiple sublayers with many objects inside. That may potentially make you do a lot of scrolling up and down the list when you need to select another object. The app can help you in such cases by collapsing the contents of the active layer automatically. You can activate this mode using the **Layers panel focus on selection** checkbox in the Preferences. This option collapses all of the sublayers when you deselect an object. However, objects nested in the active layer directly remain visible in the panel.

Active Layer

At any given time, one layer is active. If you add an object, the latter will be placed into the active layer. The currently active layer is indicated by a line on the left side of the *Layers* panel. Only one layer can be active.

Do not confuse the active and selected layer terms. You can select multiple layers, but only one of them will be active.

To activate a layer, click on its name or icon in the *Layers* panel. A layer also becomes active when you select any object in it.

Visibility of Layers and Objects

Objects that you add to the design are visible by default. To hide an object or layer, deselect a checkbox near its name.

Hiding a layer is equivalent to hiding all objects in this layer.

Hidden objects do not appear on the canvas and are not visible in the exported or printed graphics. Invisible objects do not interact with other objects. For example, there will be no effect from an applied blend mode or a combine option.

Opacity of Layers and Objects

You can make an object or layer transparent or semi-transparent by changing the value in the top left corner of the panel.

Setting a certain level of opacity for a layer gives a result similar to setting the same level of opacity for all objects in this layer.

Locking Layers and Objects

You can lock an object or layer by clicking on its lock icon. A locked item cannot be selected and therefore is protected from editing by mistake.

By locking a layer you lock everything in it.

Notice that guide lines have another way to be locked or unlocked using the **View > Guides** menu.

Layer's Color

Each layer has a color associated with it. It is used to establish the relationship between a layer and items in this layer. Once you select an object on the canvas, its boundary or path has the same color as the layer it belongs to. This color doesn't affect your design.

In the *Layers* panel, the color of each layer is shown as a vertical color bar to the right from the checkbox.

To change the color, click on the bar and choose a new color from the pop-up menu.

Find an Object on the Canvas

As soon as you zoom in to work with one object, the others may appear outside the editing area. So to get to another object, you may need to zoom out and then scroll. You can also jump to a particular object by double-clicking on its icon in the *Layers* panel. This function fits the object into the editing area and selects it. In a design with many elements, this way may be faster than scrolling and zooming.

Double-clicking on the layer's icon in the panel fits all objects of the layer into the editing area.

Creating and Deleting Layers

You can use the *Layers* panel to add and delete layers.
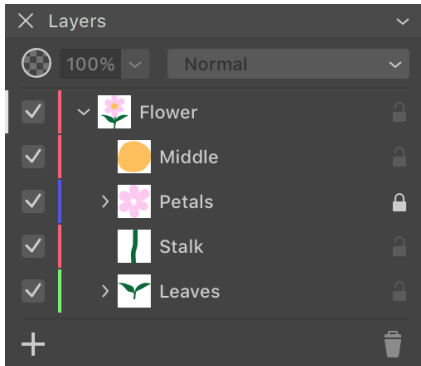
Create a Layer

To add a new layer, click on the plus button at the bottom of the *Layers* panel.

You can create a sublayer inside some other layer. Open the context menu of a layer inside of which you want to add a sublayer. Then select the **New Sublayer** command from the menu.

You can also create a copy of an existing layer. To do this, select the **Duplicate** command in the context menu of that layer.

The **Layer** item in the main menu provides commands to create and duplicate layers.

Delete a Layer

To delete a layer, click on it in the *Layers* panel to select. Then click on the trash bin icon.

Attention! When you delete a layer, all objects in it will be deleted as well.

Arranging Layers and Objects

Layers and objects stack one over another while you are adding them to the document. The stacking order of objects on the canvas is identical to the order in the *Layers* panel. If two objects overlap on the canvas, then the same object would be the upper on the canvas and in the list. This was discussed in the Layout Basics section.

The order of items in the *Layers* panel is important because it defines whether each individual object or layer should be behind or in front of another one. The *Layers* panel helps you reorder layers and objects.
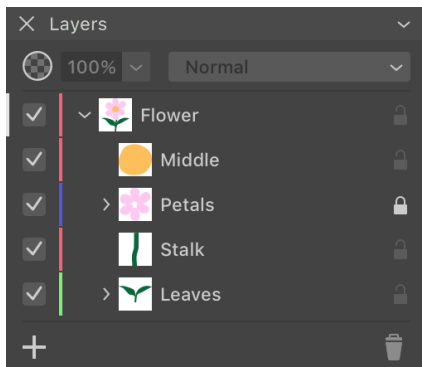
The Initial Order of Objects

When you add (e.g., draw, paste or import) an object to the design that contains other objects, they appear one over another forming a stack. The order of objects in the stack is defined by one of two possible methods:

- A new object becomes the upper object in the active layer. The Draw/insert above the selection option in the *Preferences* should be deactivated in this case.
- A new object appears right above a currently selected object. To make this happen, there must be a selected object in your document, and the Draw/insert above the selection option should be activated.

Change the Order of Layers

To reorder layers, drag a layer to a new position in the list.

You can also use drag and dropping to place a layer inside another layer or to move a sublayer outside its parent layer.

Change the Order of Objects

To reorder objects, drag an object to a new position in the list.

An alternative way to change the order of objects is to use commands from the **Modify > Arrange** menu. The same set of commands is available in the context menu of the object on the canvas.

Move an Object to Another Layer

You can move objects between layers. To do this, drag and drop an object from one layer to another. The *Layers* panel lets you select several objects and move them together.

Another way is to cut an object. Activate a destination layer and then paste the copied object.

Blending Layers

A blend mode determines how pixels of the upper layer interact (or blend) with pixels of a lower layer. Blending applies to objects in the same way as to layers. So, to make the page easier to read, we'll only talk about layers.

To select a blend mode, use a drop-down menu at the top of the *Layers* panel.
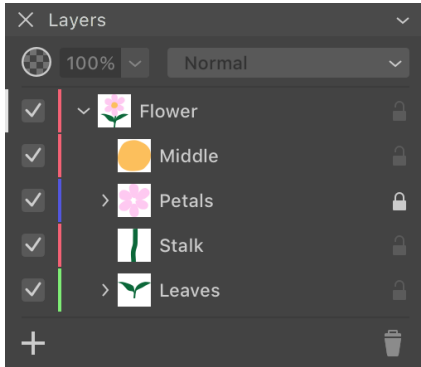
To see any visual effect from applying a blend mode or transparency, the upper layer should overlap the lower layer(s).

Transparency

Making a layer transparent is one of the ways to mix the color of its pixels with the pixels of the layer beneath.

When you decrease the **Opacity** parameter in the *Layers* panel, you make the contents of the layer more transparent. This increases the impact of the lower layer pixels on the result.
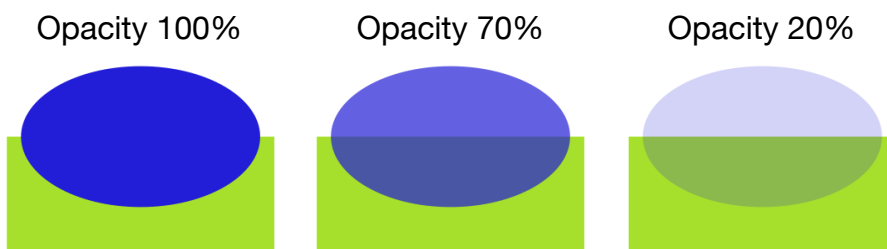
Layer Blending

The default blend mode is Normal. If the top layer is opaque, then only that layer determines the color. Otherwise, the result depends on the color of the top layer pixel, on the level of its transparency, and on the color of the underlying layer pixel.

The rest of the blend modes calculate color in a more complicated way, but they always take the transparency into account.

Let's consider a few examples.

Normal blend mode

In the earlier subsection, we can see the Normal blend mode with different levels of opacity applied to the upper layer.

Multiply blend mode

The Multiply blend mode makes the overlap area darker. Within grayscale, if we use 0 for black and 1 for white, then two gray colors with level 0.5 will blend into a dark gray at 0.25.

Screen blend mode

The Screen blend mode produces brighter colors. In the same example as we used for Multiply, two gray colors at 0.5 each will create light gray with level 0.75.

Difference blend mode

The Difference blend mode creates lighter colors when the colors you blend are different. Blending similar colors makes the overlap area dark. Blending identical colors creates black. Blending with black produces no change.

It is recommended that you use the blend modes with RGB colors applied to the objects and the document. With the CMYK color model, you may have less predictable results.

If you wish to read about other blend modes, please read the Blend modes article on Wikipedia.

Vector Graphics

Graphics in your designs are primarily based on vector objects (paths and shapes). These objects appear on the canvas as anchor points and curves. Internally, they are mathematically defined via coordinates of anchor points and curvature of lines that pass through those points. Due to this, vector graphics can be scaled with no quality loss.

Original image
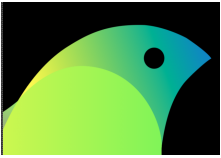
Zoomed in vector image
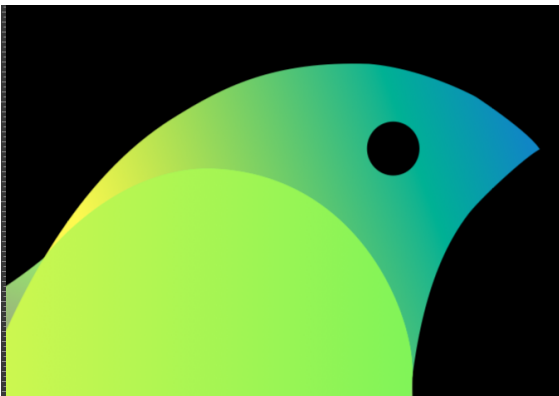
Zoomed in raster image
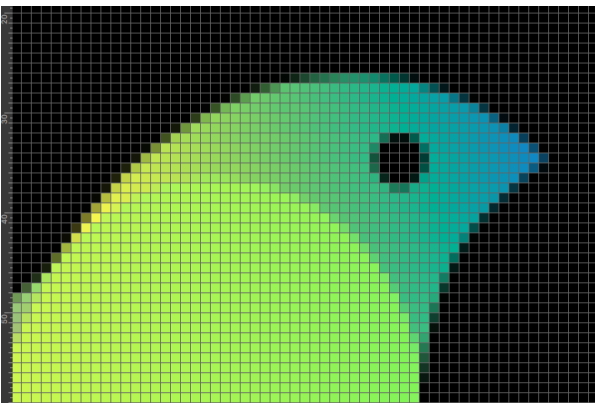
All drawing tools in the program create objects that are based on paths. A path is a thin vector line that enables you to edit it. Paths are explained in detail in the Path and its Features section.

You can apply a number of properties such as stroke or fill to a path to make the object look as you need. Although the path itself is vector, some effects that you can apply to it can be raster-based (e.g., gradient fill or shadow). In the case of such a combination of vector and raster graphics, you should take into account the resolution of the raster parts.

Text is also vector. It is based on glyphs provided by a selected font. You can convert text to paths in order to edit the shape of individual characters.

Path and its Features

Drawing tools create objects that are based on paths. Although a line, brush stroke or geometrical figure may look very different, their shape is defined by a thin line called the path. The path itself is invisible on the canvas unless you select it. The object becomes visible thanks to an applied stroke, brush, fill or other properties.

Path with all properties turned off
You can see it only because it is selected
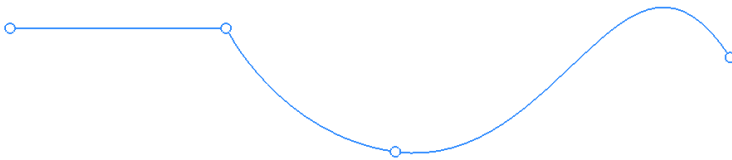
Path with Stroke
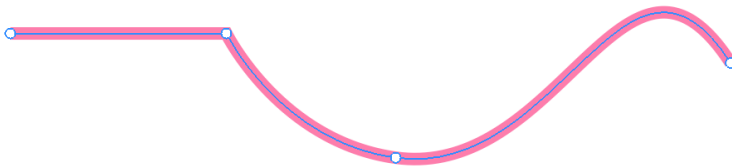
Path with Brush
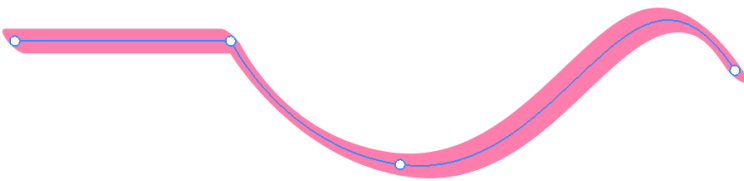
All paths are made up of anchor points and segments (lines that link points). So, the simplest path consists of one segment and two anchor points at its ends. We can say that a path is closed if it starts and ends at the same point.

Paths are listed in the Layers panel as items named Path.
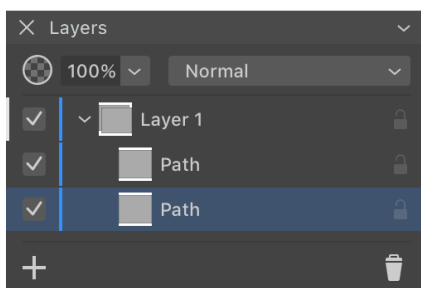
The color of a path on the canvas (don't confuse it with a stroke) coincides with the color of the layer the path belongs to. This color is indicated in the *Layers* panel as a vertical line to the right from the check boxes. The same color is used to display the selection frame.

Features of a Path
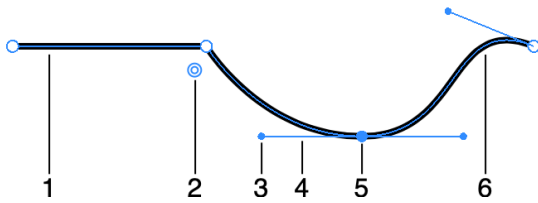
1 - Straight segment.

2 - Corner rounding handle.

3 - Direction point. A direction point works as a handle to manipulate the respective direction line.

4 - Direction line.

5 - Anchor point.

6 - Curved segment.

Segments

Depending on the way you draw a segment, it can be straight or curved. You can change the shape of segments by editing the path.

Anchor Points

Anchor points define the shape of a path in two ways. Primarily, they are intermediate points for the path. So, by changing the location or amount of the intermediate points, you can significantly change the shape of the path.

The location of an anchor point defines the shape of the path
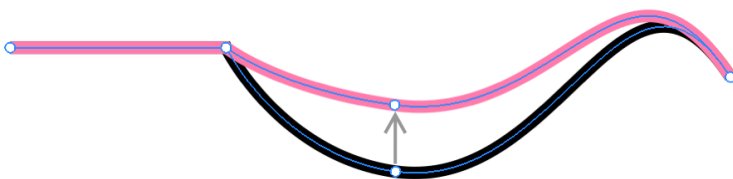
Also, anchor points can have direction lines that let you adjust the curvature of the corresponding segments. In this case, anchor points in the middle of the path have two direction lines because two segments are attached to this point. An end point can have only one direction line.

Corner Points and Smooth Points

Any anchor point is either smooth or corner point. The Edit a Path section explains how to turn an anchor point from one type to another.

Corner point
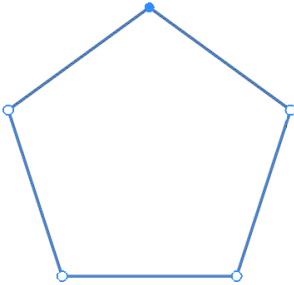
Smooth point
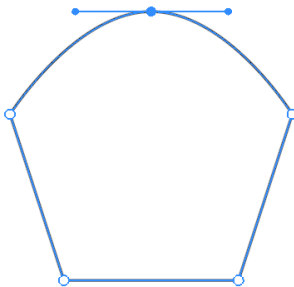
At a corner point, a path breaks, creating a corner. Corner points often have no direction lines. At a smooth point, the path creates no corner. This happens because the angle between the direction lines is 180 degrees. With any other angle, the segments will create a corner. The segments that are attached to the same corner point can be straight or curved in any combination.

A corner anchor point will not show direction lines by default even if you select it. The direction points of a corner point and the corner point itself have exactly the same location. Because of this, the direction lines have zero length and, consequently, are not visible.

The Change the Type of an Anchor Point subsection explains how to convert a smooth point to a corner point and vice versa.

Rounding Corners

The app can display a handle near a corner point when the **Selection** tool is activated. This handle lets you change the corner radius. Read the Rounding Corners section for more details.

18.99 px
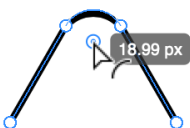
Direction Lines and Direction Points

Direction lines let you change the direction and curvature of a segment. To operate a dimension line, you should drag its direction point. You can adjust the angle and length of direction lines.

Changing the direction line angle
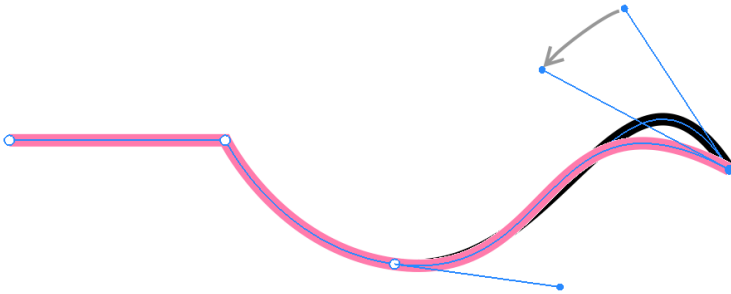
Changing the direction line length
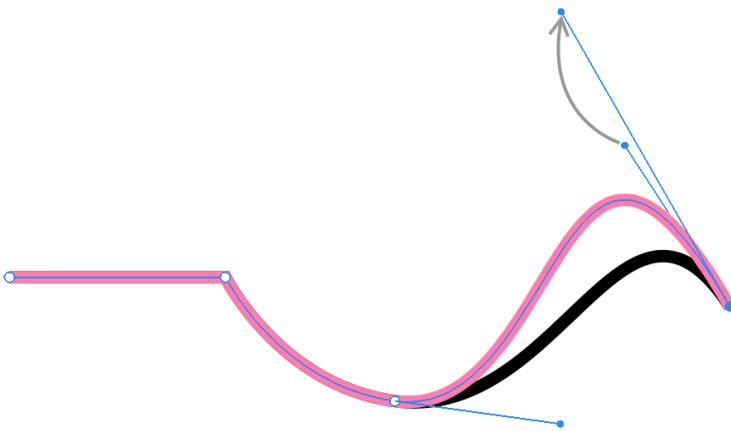
The Manipulate Direction Lines subsection explains how to work with direction lines.

Draw a Path with the Pen Tool

The **Pen** tool ![pen icon] lets you draw both straight and curved lines. To draw a path, you should add one segment after another. If any of the added anchor points or segments require adjustments, you can edit the path after it is created.

Controls of the Pen Tool

The **Pen** tool displays several options in the *Control* panel. They let you choose different modes of the tool. The use of those modes is discussed further in this section and also in Edit a Path.
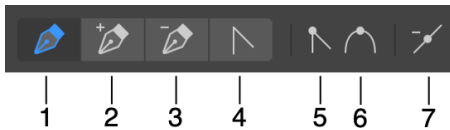
1 - Draw a path. In this mode, you add anchor points to create a new path.

2 - Add an anchor point to an existing path. Click on the path with this tool.

3 - Delete an anchor point. Click on the anchor point with the tool.

4 - Change the type of an anchor point from smooth to corner, and vice versa. This tool lets you manipulate the direction points in order to adjust the curvature of path segments. In this mode, you can simply select anchor points in order to delete or edit them using other tools. This mode can be temporarily activated by pressing the **Option** key.

5 - Convert a selected anchor point to the corner point type.

6 - Convert a selected anchor point to the smooth point type.

7 - Remove selected anchor points.

You can change the anchor point type from smooth to corner or vice versa by double-clicking on that point with the **Pen** tool. To remove a direction line (actually make its length equal to zero), click on its direction point with **Pen** holding down the **Option** or **Shift** key. This also turns a smooth point into a corner.

Draw a Straight Line

1. Activate the **Pen** tool.
2. Click at the point where the line should start.
3. Click at the point where the line should end.
4. Hit the **Escape** key to deactivate the tool.

Draw a Polygon

1. Activate the **Pen** tool.
2. Click at the point where one of the polygon's corners should be located.
3. Click several times at points where other corners should appear.
4. Click on the first point to close the outline of the polygon. A circle near the cursor indicates that the program will close the shape if you click.
5. Hit the **Escape** key to deactivate the tool.

Draw Curved Line

In order to draw a curved line, you should press the left mouse button and drag the cursor off the click point. The direction line will follow the cursor. The direction line bends the segment you are drawing near the corresponding anchor point. Using this method, you can set the initial direction of the curve near each anchor point. Later, you can adjust direction lines to make the shape of the curve more precise.

Draw Curved Path

1. Activate the **Pen** tool.
2. Place the cursor at the point where the line should start.
3. Press and hold the left mouse button.
4. Move the cursor aside to see the direction line. One of its shoulders links the cursor and anchor point. Both the length and angle of the direction line will affect the curvature of the line you draw. Release the button.
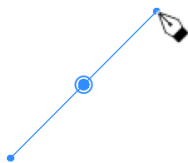
   Another way to adjust the direction lines is to press and hold the **Option** key. Then drag the corresponding direction points. When done, release **Option** and continue drawing.
5. Move the cursor to the next point.
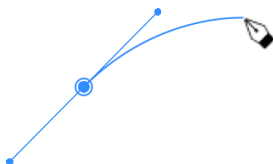
6. Repeat the three preceding steps.
7. Click on the first point if you want to close the shape.
8. Hit the **Escape** key to deactivate the tool.

Notice that you can combine curved and straight segments.

As an alternative technique of drawing a curved path, you can create it out of straight segments. Then make them curved as explained on the Edit a Path section.

While you are drawing a path, you can switch the type of a segment that you are about to add, from curved to straight. To do this, click on the point that is currently the last point of the path. If a future segment, the one between the last point and the cursor, is already straight, a single click on the last point won't change anything. Double-clicking on the last point changes its type (smooth or corner). As a consequence, the two segments before and after this point will change from straight to curved or vice versa.

Continue Drawing an Existing Path

After you have finished drawing a path, it is possible to add more segments at one of its ends. To do this, select the path and then activate the **Pen** tool. The anchor point that was added the last may have an additional circle around indicating that a new segment will begin at this point.
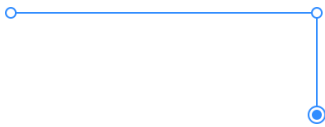
If no point was selected by default, or you want to choose the opposite end of the path, select the respective point with the **Selection** tool. Then activate the **Pen** tool to draw a segment. To stop drawing, press the **Escape** key.

Stroke Width and Color

To change the stroke width and color, use the Appearance panel. To change the stroke width, you can also use these keys: **[** to decrease, and **]** to increase.

Modifier Keys and Shortcut Summary

Shortcut:

- **P** activates the Pen tool.

Pen tool modifier keys:

- **Space** switches to the Pan mode.
- **Command** switches to the Selection tool.
- **Option** activates the Convert Anchor Point tool.
- **Shift**-clicking lets you select multiple anchor points.
- To remove a direction line (make a corner), click on the respective direction point holding down the **Option** or **Shift** key.
- **[** decrements the stroke width.
- **]** increments the stroke width.

Create a Path with the Draw Tool

The **Draw** tool ✏️ is a freehand tool. It creates a curved path that follows the cursor as you draw. You can use it to create graphics that resemble a hand-drawn image. It is possible to edit the created path.

Unlike the Pen tool, with which you place anchor points directly, the **Draw** tool adds anchor points automatically depending on the curvature of the path. An almost straight path may require only two anchor points on its ends, while a zigzag requires an anchor point every time it changes its direction. Another factor that determines the amount and location of anchor points is the **Smoothing** parameter. We will discuss it later.

The **Draw** tool operates in two modes. Any time you draw, you are actually using either the Pencil or Brush tool. The **Draw** tool creates a path. How this path looks depends on whether the *Stroke* or *Brush* property is applied to the path. You can switch between *Stroke* and *Brush* using the Appearance panel.

When you are using the **Draw** tool, the app hides the Fill property of the object that you draw. This helps you see the object and surrounding design more clearly. As soon as you finish drawing, the Fill can appear on the object. This happens, if the **Allow filling** option is activated in the Preferences dialog, and if the current style includes the Fill property.

To continue drawing a path that you created earlier, select this path using the **Move** or **Selection** tool. Then activate the **Draw** tool and draw beginning from one or another path end. Such use of the tool requires that the path is open and the **Allow to continue the Path** option is enabled in the Preferences dialog.

In order to temporarily switch the **Selection** tool, press and hold the **Cmd** key.

Settings of the Draw Tool

Settings of the **Draw** tool are located in the *Control* panel.
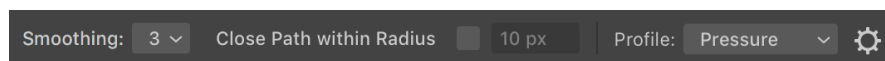
The **Smoothing** parameter defines the amount of smoothing applied to the path. Higher values make the curve more smooth. If you want to create a path that follows the cursor as accurately as possible, set the parameter to "1".

The **Close Path Within Radius** automatically closes the path that you draw. This happens only when the end point is placed within the specified distance from the start. The edit box lets you set that distance. The distance is measured in "screen pixels" and, consequently, doesn't depend on the canvas zoom level.

To quickly change the stroke width before or after drawing it, use these keys: **[** to decrease, and **]** to increase.

Stroke Profile

The **Profile** pop-up menu lets you choose one of three modes of the tool: *Uniform*, *Pressure* and *Custom*.

The *Uniform* profile lets you create a Stroke with constant width. It is used for the Pencil tool.

The *Custom* profile allows variable width strokes. It can be used with both Pencil and Brush tools. The **Brush** tool changes the stroke width depending on the direction of the path. The **Pencil** tool can produce lines with variable width if you select a non-uniform profile in the Stroke settings.

The *Pressure* profile lets you control the Stroke width using a stylus, which has a pressure sensor. The more pressure you apply, the thicker the stroke becomes. It doesn't support Brush strokes. Click on the gear icon to access settings of this profile.
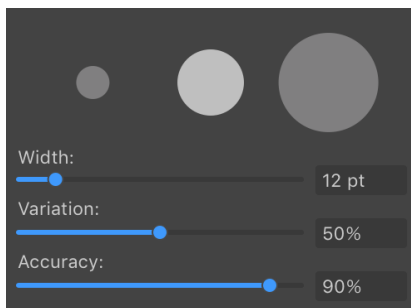
The **Width** parameter defines the maximum stroke width. It mirrors the **Width** parameter for a stroke in the *Appearance* panel.

The **Variation** parameter defines how much the stroke width changes depending on the pressure.

With lower values of **Accuracy**, the program normalizes the stroke width depending on the length of the path. So, while you are drawing, the already drawn part of the path can re-adjust its stroke width automatically. To make the stroke width remain exactly as you have drawn it, set the **Accuracy** to 100%.

Modifier Keys and Shortcut Summary

Shortcut:

- **D** activates the Draw tool.

Draw tool modifier keys:

- **Command** switches to the Selection tool.
- **[** decrements the stroke width.
- **]** increments the stroke width.

Draw a Path with the Pencil Tool

Pencil is a freehand drawing tool. It creates a path that follows the cursor as you draw. The **Pencil** tool is, in fact, the Draw tool that draws with a stroke.

To activate the **Pencil** tool, click on the *Draw* icon ![pencil icon] in the *Tools* panel. Before using it, make sure that a stroke is selected in the *Appearance* panel.
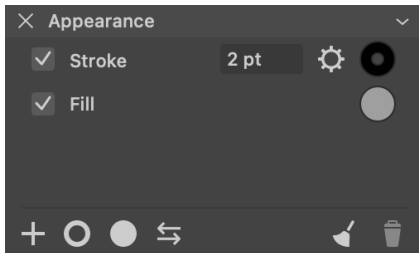
Settings of the **Pencil** tool are located in the *Control* panel. They are described in the Create a Path with the Draw Tool section.

The **Pencil** tool supports all of the profiles that you can select in the Profile pop-up menu.

The **Pencil** tool can work with a stylus that has a pressure sensor. By applying different pressure, you can change the thickness of the stroke while you are drawing. To enable the pressure sensitivity, activate the **Pressure** option in the *Control* panel. There are several parameters that control drawing with variable pressure. You just click on the gear icon in the *Control* panel to access them.

Once you finish drawing, you can modify the created graphic. To edit the path, use tools and methods described in the Edit a Path section. To change how your graphic element looks, use the Appearance panel.

Draw a Path with the Brush Tool

Brush is a freehand drawing tool. It creates a path that follows the cursor as you draw. The **Brush** tool is, in fact, the Draw tool that draws with a Brush stroke.

To activate the **Brush** tool, click on the *Draw* icon in the *Tools* panel. Before using it, make sure that a Brush is selected in the *Appearance* panel.
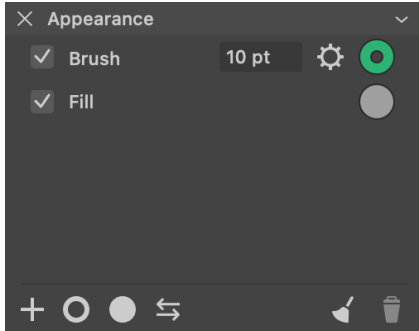
Settings of the **Brush** tool are located in the *Control* panel. They are described in the Create a Path with the Draw Tool section.

Brush requires that you select the Custom profile in the *Control* panel. **Brush** does not use the pressure information when you draw with a stylus. For that reason, the *Pressure* profile cannot be used with the **Brush** tool. If you select an incompatible profile, the active tool will switch from **Brush** to **Pencil**.

Once you finish drawing, you can modify the created graphic. To edit the path, use tools and methods described in the Edit a Path section. To change how your graphic element looks, use the Appearance panel.

Edit a Path

Choose the View Mode

Objects in your document can be displayed with all their features or as wireframes.

In many cases, the regular view mode is convenient for editing a path. If you prefer a clear view when no strokes, fills or other effects are visible, you can activate the *Outline Preview* mode by selecting **View > Outline Mode** in the main menu.

Object is not selected   Path is selected in Normal mode
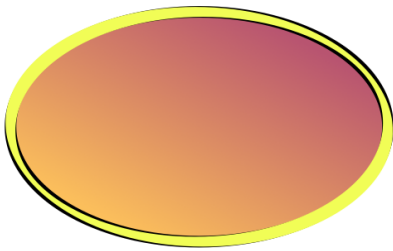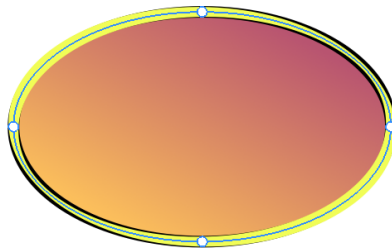
Path is selected in Outline Preview mode
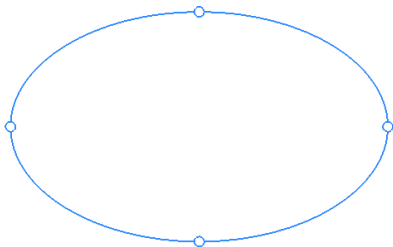
Select a Path

To work with a path or anchor point, you should select it. You can select either the entire path, individual anchor points or all anchor points.

To select the entire path, click on it with the **Selection** tool . You can also click on the object's stroke, or even filled area, depending on what is visible and easier to reach.

The **Selection** tool lets you select a path by drawing a selection frame around it. To do this, place the mouse pointer over an empty space. Press the left button and move the mouse toward the object. Once the selection frame touches the path, the latter becomes selected. Notice that you can select several paths in this way. Also notice that this method selects all anchor points that you outline.

Select Anchor Points

In order to select an anchor point, select the path first. Then click on the anchor point with the **Selection** tool. To select several anchor points **Shift**-click on each of them.

You can select multiple anchor points using the selection frame as explained above.

Sometimes it may be difficult to select certain anchor points using the selection frame because anchor points that shouldn't be selected also appear inside the frame. If there are only a few of those that were selected unintentionally, you can deselect those anchor points by **Shift**-clicking on them.

Selecting Points Using the Lasso Tool
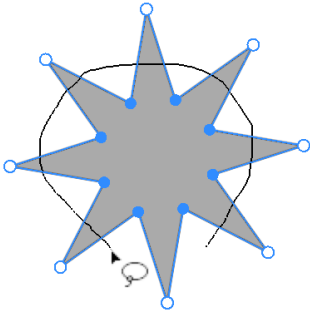
The **Lasso** tool can help you select anchor points when the selection frame is not effective. Outline one or more anchor points that you want to select with **Lasso**. This tool lets you select extra points in addition to those that are already selected. To do this, press and hold the **Shift** key before using the **Lasso** tool. An opposite technique is also supported. You can select all of the object's anchor points and then deselect those that you don't need. This can be done by selecting a range of anchor points with any suitable tool. After that, holding down the **Option** key, outline points that you want to deselect with the **Lasso** tool.

With the **Lasso** tool, you can also select handles that are used for rounding corners.
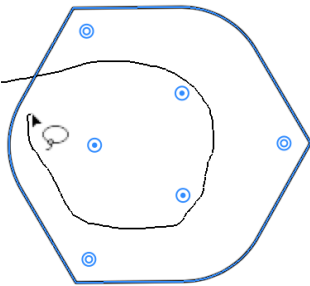
Controls of the Selection Tool

The *Control* panel displays the following options when the **Selection** tool is activated.

1 - Edit a segment by dragging. You can grab and bend the segment at any point. The ends of the segment will preserve their locations.

2 - Convert a selected anchor point to the corner point type.

3 - Convert a selected anchor point to the smooth point type.

4 - Delete a selected anchor point.

5 - Link anchor points with a straight segment.

6 - Cut the path at a selected anchor point. The tool does not create any visible gap because the ends of the path will coincide at the cut point.

Add an Anchor Point

1. Activate the Pen tool ✐ .
2. Click on a path where you want to add a new anchor point. Adding an anchor point will not change the shape of the path.

The same can be done in the **Add Point** mode ✐ selected in the *Control* panel.

Delete an Anchor Point

You can use either the **Pen** or **Selection** tool to delete anchor points.

Delete an Anchor Point Using the Selection Tool

1. Activate the **Selection** tool ▷ .
2. Select an anchor point.
3. Click on the **Remove Point** button 🖉 in the *Control* panel in order to delete the selected anchor point.

You can select multiple anchor points using the **Selection** or **Lasso** tool in order to delete them together.

Delete an Anchor Point Using the Pen Tool

1. Activate the Pen tool 🖉 .
2. Click on the **Remove Point** button 🖉 in the *Control* panel.
3. Click on an anchor point that should be deleted.

Link Anchor Points

You can link end points of the same path or end points of two independent paths. In both cases, the points will be connected with a straight segment.

To close a path, select it with the **Selection** tool ▷ . Then click on the **Link** button .

To link two independent paths, make sure that none of them is closed. Using the **Selection** tool ▷ , select one end point of each path that should be linked. Then click on the **Link** button .

Set the Type of an Anchor Point

Anchor points can be of smooth or corner type.

To set the type of an anchor point:

1. Activate the **Selection tool** ▷ .
2. Select an anchor point.
3. Choose one of the **Convert** options in the Control panel.

You can also convert an anchor point to another type while the **Pen** is activated. It has the **Convert** buttons as well.

Another way to change the anchor point type is to double-click on it with the **Selection** or **Pen** tool.

Finally, you can turn a smooth point into a corner point by changing the angle between the direction lines from 180 degrees to any other angle. To do this, use the method described in the Adjust Direction Lines of a Corner Point subsection.

Change the Shape of a Corner

One more way to reshape a path is to change the shape of the corner created by this path. For example, you can turn a sharp corner into a rounded one.

Sharp corner   Rounded corner

How to do this is explained in the Rounding Corners section.

Manipulate Direction Lines

You can change the length and angle of direction lines using the **Pen** and **Selection** tools. To do this, drag the respective direction point to a new position. The difference between the two tools will be explained further.

You should select an anchor point in order to access its direction points. If a selected anchor point displays neither direction lines nor direction points, read the Show Direction Lines of a Corner Point subsection.

It is possible to move one or two direction points at the same time. By manipulating only one direction point, you can change the angle between direction lines attached to the same anchor point. In this way, you will convert the latter to a corner anchor point. By moving both direction points synchronously, you can keep the angle between the direction lines equal to 180 degrees. As a result, the anchor point will remain smooth. Note that the second case is possible only if the original anchor point is smooth.

Adjust Direction Lines of a Smooth Point

Activate the **Selection** tool ⬚. Select an anchor point. Place the cursor over one of the direction points, press the left mouse button and drag aside. In this way, you can adjust the length of the direction line whose point you are moving, and you can also change the angle of both direction lines. The anchor point will remain smooth.
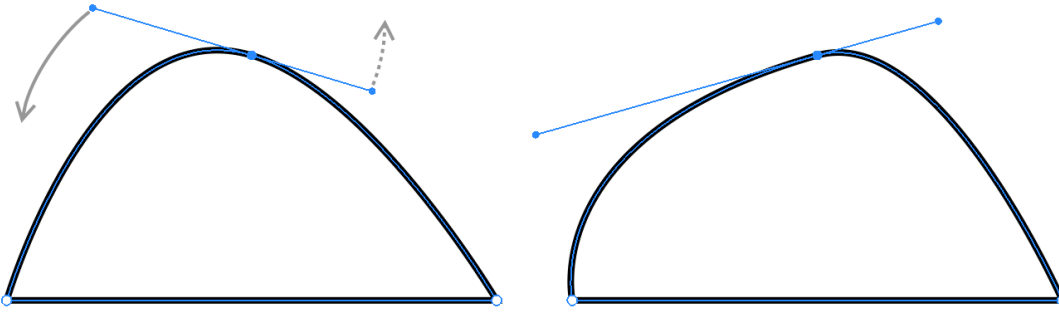
Adjust Direction Lines of a Corner Point

Activate the **Selection** tool [icon]. Select an anchor point. Place the cursor over one of the direction points. Holding down the **Option** key, drag the point aside. In this way, you can adjust the length and angle of the direction line whose direction point you are moving. The other direction line will not be affected.
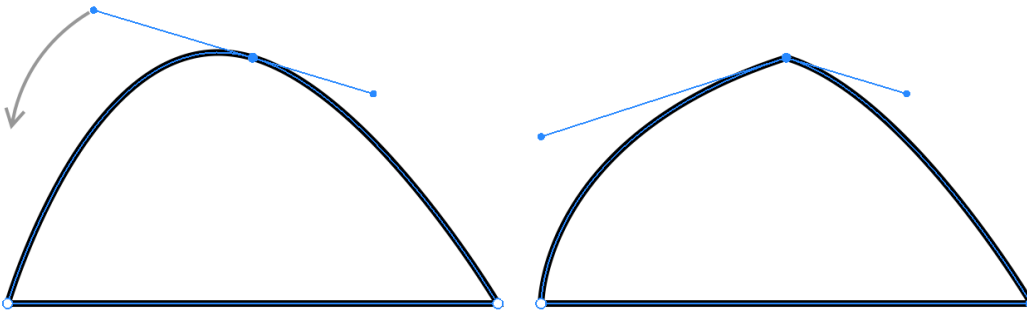
If you use this technique against a smooth anchor point, you will convert it into a corner point.

The same result can be achieved using the Pen tool [icon]. Just activate the tool and select the [icon] option. Drag a direction point in order to adjust the angle and length of its direction line.

Show Direction Lines of a Corner Point

Direction lines become visible when you select an anchor point. However, direction lines may not be visible when the direction points are located exactly over the respective anchor point. This makes the length of the direction lines equal to zero. This is true for corners of a polygon.

Direction lines are not visible
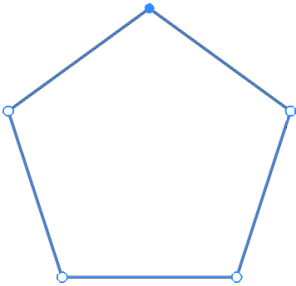
Smooth point displays its direction lines
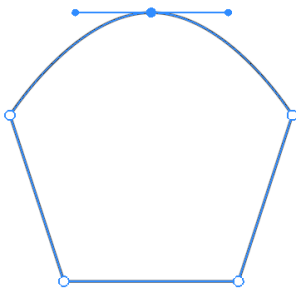
You can drag a direction point off its anchor point in order to work with direction lines. By doing this, you will set the length and angle of the direction lines.

Modifier Keys and Shortcut Summary

Shortcuts:

- **A** activates the Selection tool.
- **L** activates the Lasso tool.

Selection tool modifier keys:

- **Space** switches to the Pan mode.
- **Command** switches to the Move tool.
- **Shift**-clicking lets you select multiple anchor points.

Lasso tool modifier key:

- **Space** switches to the Pan mode.
- **Shift** lets you select more anchor points in addition to already selected ones.

Simplify a Path

You can create several paths that have the same shape using different numbers of points. This is possible because points may make different impacts on the shape depending on their location and also on properties of their direction lines.

When we talk about simplifying a path, we mean removing unnecessary anchor points trying to preserve the original path shape.

You may want to simplify paths because it is easier to edit a path which has less points. Also, reducing the number of points might increase the performance of the app with complex designs.

Some paths cannot be simplified because most or all of the points are important for the path shape. For example, a rectangle has four points. Removing any of them would affect the shape significantly.

To simplify a path select it. If you wish to see points of the path, select it with the **Selection** tool . Then choose **Modify > Path > Simplify…** from the main menu to open the *Simplify* dialog.

	Simplify	
Curve Precision: ———————●—————————		50%
Original: 63 pts	Current: 50 pts	
✓ Show Original Path		
	Cancel	OK
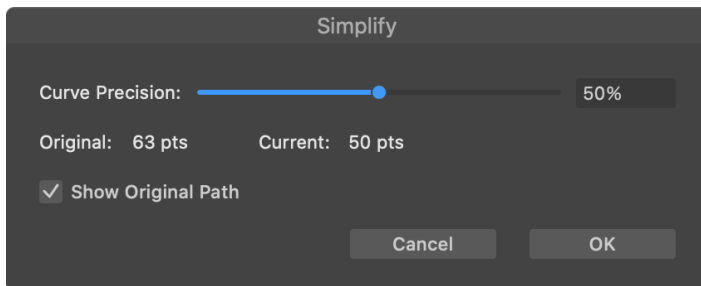
Use the **Curve Precision** slider or edit box to adjust the number of points. Check how much the path shape changed in your design. It is useful to compare the shapes of the original and current paths making sure that the difference between them is acceptable. To display the original path, activate the **Show Original Path** check box. Your goal is to make the *Current* number of points less than the *Original*.

Here is an example of a simplified path.

Original path
36 points
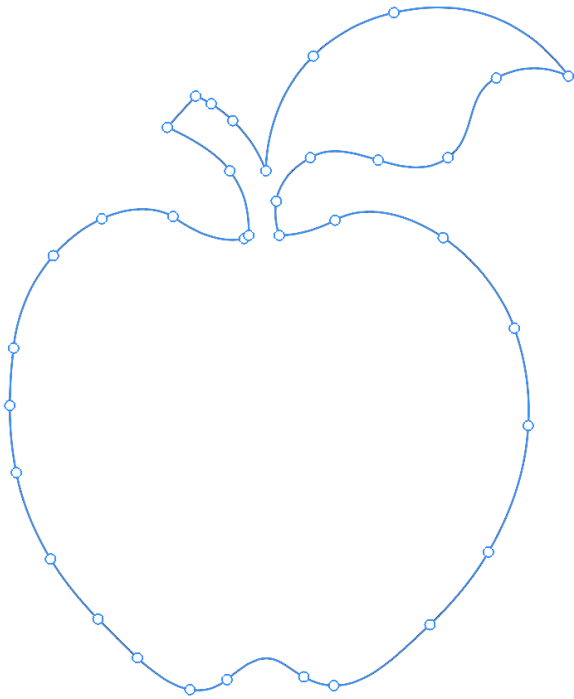
Simplified path (blue)
12 points
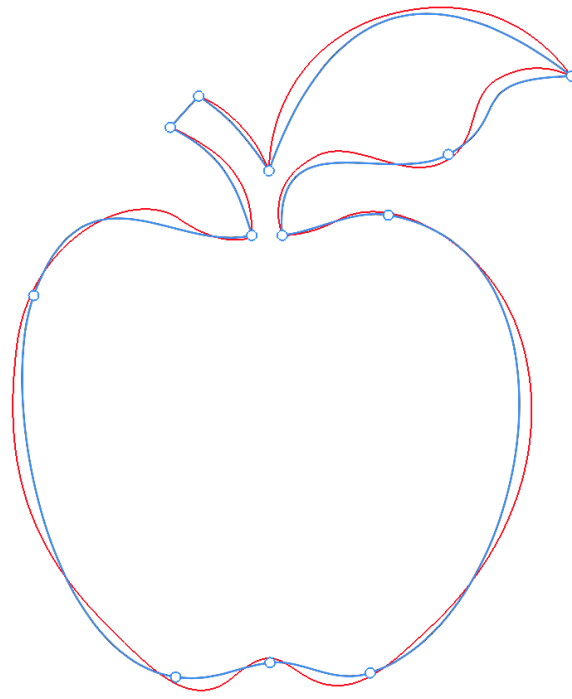
Draw Lines and Shapes

There is a set of tools in the Tools panel that lets you draw lines and primitive shapes.
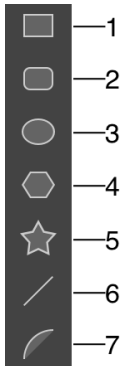
1 - Rectangle Tool: creates rectangles

2 - Rounded Rectangle Tool: creates rectangles with rounded corners

3 - Ellipse Tool: creates ellipses

4 - Polygon Tool: creates polygons with a customizable number of sides

5 - Star Tool: creates stars with a customizable number of points

6 - Line Tool: draws straight lines

7 - Arc Tool: creates arcs

Smart Shapes

The tools create objects of different types. The **Line**, **Rectangle**, **Ellipse** and **Arc** tools create regular objects (paths) as those you can draw using the **Pen** tool. The other objects are smart shapes: Star, Polygon and Rounded Rectangle. These are parametric objects that let you vary their shape after an object has been drawn.

If you click on a smart shape with the **Selection** tool, you won't see anchor points. Instead, smart shapes have round handles. The handles are pre-programmed to change the object's shape in a particular way such as adjusting rounded corners. If you drag a handle of a rounded rectangle, you will edit all of its corners because all of the handles are selected by default. In order to manipulate only one handle, you should click on it, and then all the rest will become deselected. You can select several handles by **Shift**-clicking on them.
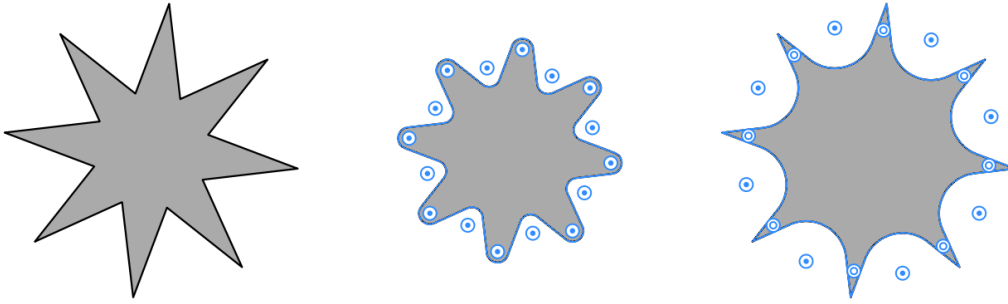
In addition to that, smart shapes display their properties in the *Control* panel.

More information about editing corners can be found in the Rounding Corners section.

You can turn a smart shape into a regular object by calling the **Expand** command from the context menu or *Control* panel. Then you will be able to edit the object by working with anchor points. Notice that it is not possible to convert a path into a smart shape.

Line

Draw a Line

1. Activate the **Line** tool.
2. Place the cursor on the canvas where a new line should start.
3. Press and hold the left mouse button.
4. Move the cursor to the point where the line should end.
5. Release the mouse button.

Basically, a line created with the **Line** tool is no different from a single straight segment of a path drawn using the **Pen** tool.

Star

Draw a Star

1. Activate the **Star** tool.
2. Place the cursor on the canvas where the center of a new star should appear.
3. Press and hold the left mouse button.
4. Move the cursor aside in order to define the size and orientation of the object.
5. Release the mouse button.

Properties of the Star Object

The *Control* panel lets you change the number of points, the **Inner Radius** and **Corner Radius** parameters.
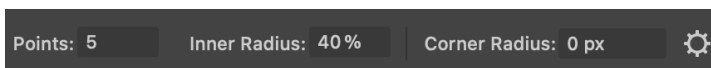
You can adjust the size of the space taken by the body of a star using the **Inner Radius** parameter.
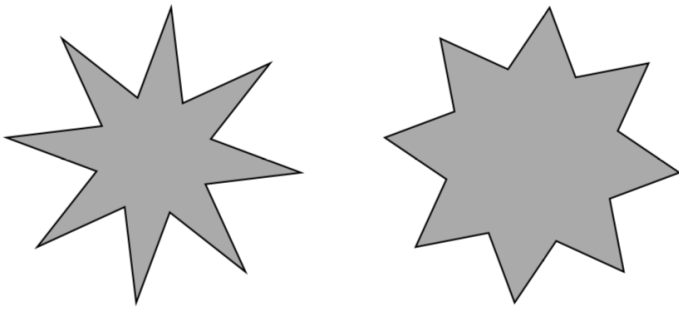
By making the **Corner Radius** greater than zero, you can make the points of the star rounded or to have other predefined shape. You can choose the shape after clicking on the gear icon in the *Control* panel.

Polygon

Draw a Polygon

1. Activate the **Polygon** tool.
2. Place the cursor on the canvas where the center of a new polygon should appear.
3. Press and hold the left mouse button.
4. Move the cursor aside in order to define the size and orientation of the object.
5. Release the mouse button.

Properties of the Polygon Object

The *Control* panel lets you change the number of sides of a polygon.
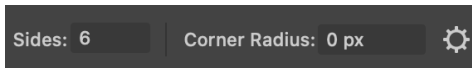
By making the **Corner Radius** greater than zero, you can make the corners of the polygon rounded. The corners can be not only rounded, but they can have other shapes as well. You can choose the shape after clicking on the gear icon in the *Control* panel.

Rectangle

Draw a Rectangle

1. Activate the **Rectangle** tool.
2. Place the cursor on the canvas where a corner of a new rectangle should appear.
3. Press and hold the left mouse button.
4. Move the cursor to the point where the opposite corner should be located.
5. Release the mouse button.

Rounded Rectangle

Draw a Rounded Rectangle

1. Activate the **Rounded Rectangle** tool.
2. Place the cursor on the canvas where a "corner" of a new rectangle should appear meaning an imaginary corner if it wasn't rounded.
3. Press and hold the left mouse button.
4. Move the cursor to the point where the opposite corner should be located.
5. Release the mouse button.

Properties of the Rounded Rectangle Object

You can choose the shape of the corners after clicking on the gear icon in the *Control* panel.

Corner Radius: 8 px ⚙
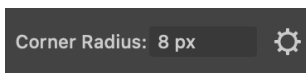
You can also choose different shapes for the corners.
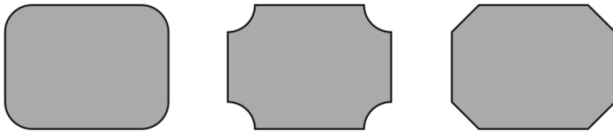
Ellipse

Draw an Ellipse

1. Activate the **Ellipse** tool.
2. Place the cursor on the canvas where a corner of the bounding box of a new ellipse should appear.
3. Press and hold the left mouse button.
4. Move the cursor to the point where the opposite corner should be located.
5. Release the mouse button.

Arc and Sector

Draw an Arc

1. Activate the **Arc** tool.
2. Select one of the modes in the *Control* panel.
3. Place the cursor on the canvas at the starting point.
4. Press and hold the left mouse button.
5. Move the cursor to the point where the end point should be located.
6. Release the mouse button.

Modes of the Arc Tool

The *Control* panel lets you choose the type of object you want to create. Notice that you must select the type before drawing. There is no possibility of switching the type of already created objects.

[icon] - Elliptical Arc

[icon] - Circular Arc

[icon] - Circular Sector

In the Elliptical Arc mode, you can change the direction in which the arc bends using the **Direction** button [icon]. The same can be done by pressing the **X** key.

Draw Shapes with Fixed Center

When you draw a line in the default mode, you define the location of each line's end. Similarly, when you draw a shape, you define the locations of opposite corners of the object's boundary.

Sometimes, the center of a new line or shape should be located at a particular point. In this case, you can indicate the position of the object's center using the **Option** key.

Before you start drawing, press and hold the **Option** key. Place the cursor where the center of a future object should be. While you are drawing a new object, its center will stay fixed. The position of the cursor will change only the size of the object.

This technique works with all types of objects described above except for arcs.

Further Editing

Primitive shapes might be the basis for creation of more complex graphics.

You can combine shapes using Boolean operations.

To edit the path of a shape, use tools and methods described in the Edit a Path section. To change how your graphic element looks, use the Appearance panel.

To quickly change the stroke width before or after drawing it, use these keys: **[** to decrease, and **]** to increase.

Modifier Keys and Shortcut Summary

Shortcuts:

- **R** activates the Rectangle tool.
- **Shift-R** activates the Rounded Rectangle tool.
- **O** activates the Ellipse tool.

- **Shift-O** activates the Polygon tool.
- **Shift-S** activates the Star tool.
- **/** activates the Line tool.
- **F** activates the Elliptic Arc tool.

Shape tools' modifier keys:

- **Space** switches to the Pan mode.
- **Option** lets you draw a shape around the specified center.
- **[** decrements the stroke width.
- **]** increments the stroke width.

Elliptical Arc modifier key:

- **X** inverses the direction of the arc.

Stroke

You can apply one or multiple strokes to a path using the *Appearance* panel. For a complete description of the panel's interface, refer to the Appearance Panel section.

To open or hide the *Appearance* panel, use the **Window > Appearance** command from the main menu.
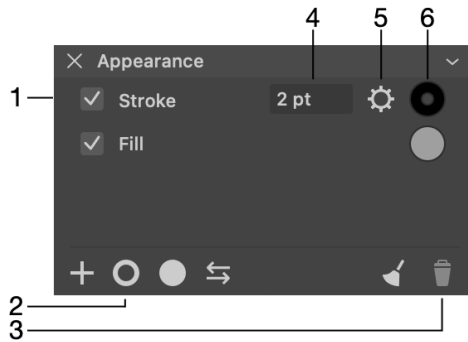
1 - Strokes are listed in the *Appearance* panel among other properties.

2 - Add stroke.

3 - Delete stroke.

4 - Stroke width.

5 - Open stroke properties.

6 - Stroke color. Clicking this button opens the Color panel.

Add and Delete a Stroke

Before adding or deleting a stroke, you should select a path in your design.

To add a stroke, click on the ring icon in the bottom bar of the *Appearance* panel.

To delete a stroke, select it in the *Appearance* panel. Then click on the trash bin icon.

It is possible to hide a stroke without actually removing it. To do this, use the respective check box in the *Appearance* panel.

Edit Stroke Width

The **Path Width** tool lets you customize the Stroke width.

The path that you are going to edit must have a Stroke applied. Its original width doesn't matter, but you can decrease the amount of work to do in the following way. If the most part of the path should have a certain width, let's say 20 px, you can start from the Stroke width set to 20 px.

To modify the width, select a path, and then activate the **Path Width** tool. Place the cursor at a point where the width should be changed. A handle will appear on the path near the cursor. It is temporary for now.
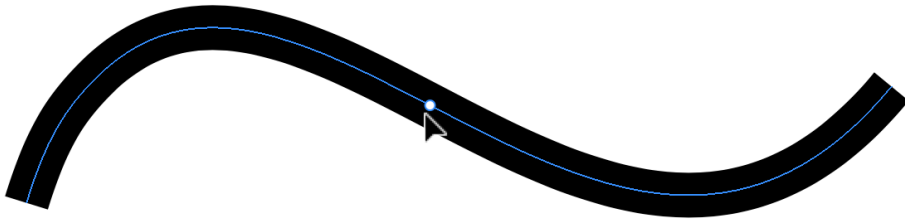
Drag the handle off the path to set a new width at the selected point. This point will have three handles. If you drag the handle in the middle, the point that defines the width will move along the path. If you drag any of the handles on the sides, you will adjust the stroke width.
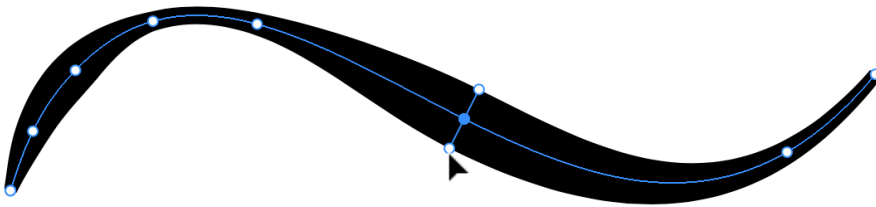
While holding down the **Option** key, you can move a handle on only one side. This lets you create non-symmetrical strokes.
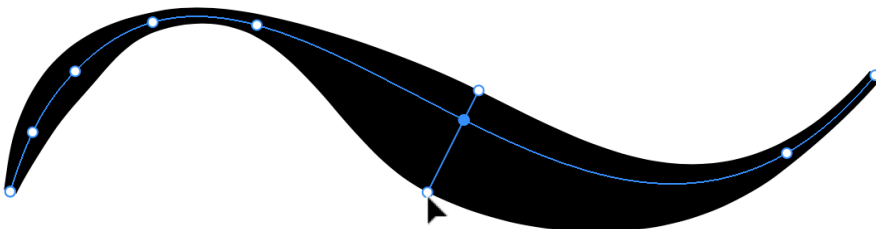
If you deactivate the tool, the handles will disappear until you activate the tool again.

The **Path Width** tool lets you manipulate only the stroke width handles. For other operations like selecting, moving or resizing objects, you should activate an appropriate tool.

Modifier Keys and Shortcut Summary

Shortcut:

- **W** activates the Path Width tool.

Path Width tool modifier keys:

- **Space** switches to the Pan mode.

- **Command** switches to either Move or Selection tool depending on which of them was active most recently.
- **Option** lets you move a handle on one side keeping the position of the opposite handle unchanged. This makes the stroke asymmetrical in relation to the path.

Properties of a Stroke

The *Appearance* panel gives you direct access to the width and color of strokes. The *Color* panel is described in the Color Panel section. To access all available properties, click on the gear icon.

The **Width** parameter is the same as the width you can set in the *Appearance* panel.

The **Cap** options define whether the stroke should end where the path ends, or it should go a half-width farther. In the second case, you can choose if the stroke should be rounded. The option applies to a solid line as well as to individual elements of dashed or dotted lines.
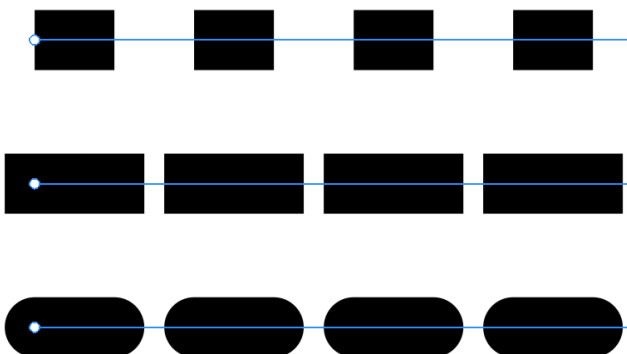
The **Corner** options let you select how the stroke looks at corners. You can make it sharp, rounded or clipped.

The **Limit** parameter lets you set up the miter limit. It defines the appearance of thick strokes in sharp corners. This parameter has no effect with rounded or clipped corners, as well as when **Align** is set to the right option.

Thin vs. thick stroke at low limit
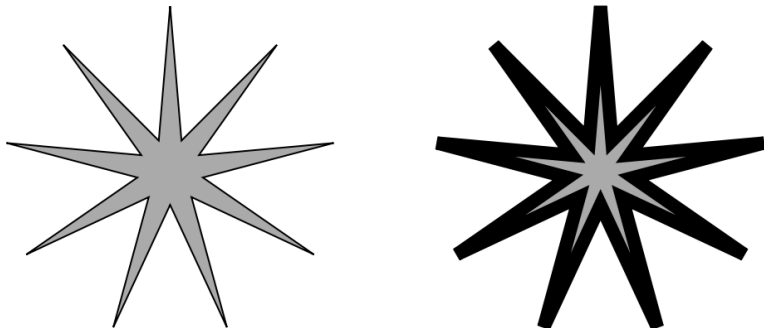
Thin vs. thick stroke at high limit
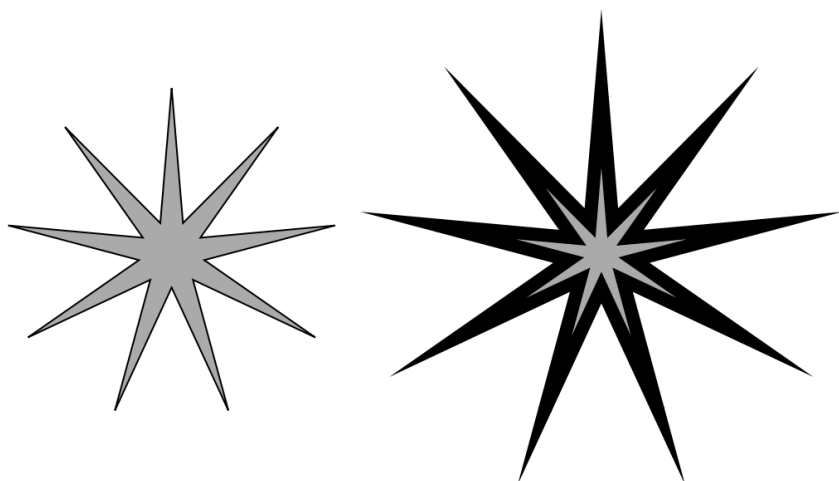
Notice that, by setting certain limits, we can either clip spikes or let them be as long as they can at the given angle and thickness.

Let's take a closer look at one of the spikes. The path was selected to be able to see its location in relation to the stroke.

With higher limits, spikes at corners can go far beyond the area outlined by the path (compare images above). This is one of the reasons you might want to set some limits.
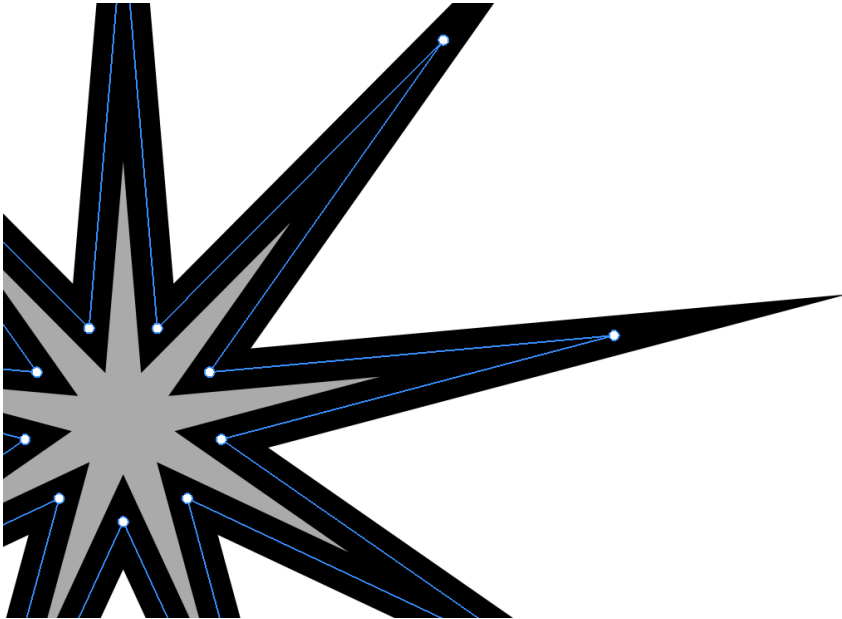
Clipping takes into account the stroke width and the angle. The wider the stroke or the smaller the angle, the quicker the corner will be clipped at the same level of **Limit**. In the zoomed in image, the angle of the outer corner is smaller than the inner one. This is why the outer corner was clipped, but the inner one wasn't.
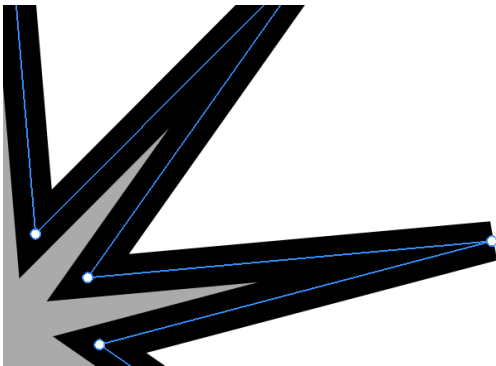
The **Align** options let you align a stroke to the center of the path, or outside or inside of the shape. Notice that the alignment options can work only with closed paths.

The following set of three controls lets you create dashed and dotted lines.
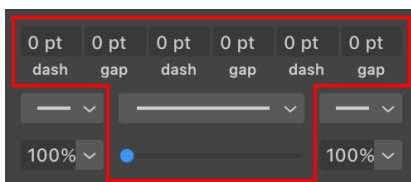
In the middle, there is a drop-down menu with patterns that have different combinations of dots and dashes. You can start the creation of that kind of line by choosing the appropriate pattern.

Any dashed line can be described as a sequence of dashes and gaps of a particular length. So, in order to create your own pattern, you can fill in the *dash* and *gap* fields at the top. For example, to create a pattern like "long dash - gap - dot - gap", you can type in 10 - 5 - 1 - 5 starting from the leftmost *dash* field.

These settings
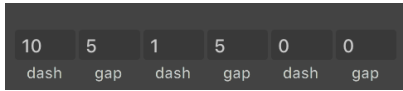
create this pattern (shown with the ruler)

The slider below the menu with patterns moves the pattern along the path. With this slider, you can place dashes at corners of your shape or align the pattern to other features of the path.
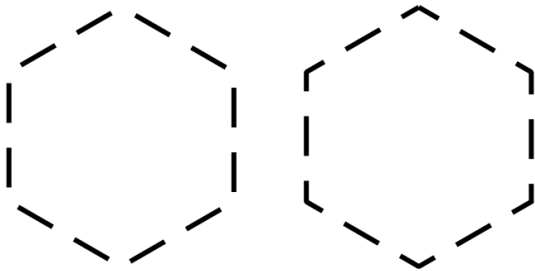
The two pairs of identical controls let you add arrowheads and other elements to path ends. Each set of controls relates to one of the path ends.

To add an arrowhead to a path, choose a pattern from the drop-down menu. In order to adjust the arrowhead's size, change the numeric value below the drop-down menu. Arrowheads and dashed patterns are supported only with the Uniform profile. They will not be applied to the path if you choose a variable-width profile.

You can change the profile of a Stroke.

By default, strokes have the *Uniform* profile that creates lines with constant width. However, there are other options as well. For example, the stroke width can gradually change from max to min value along the path.
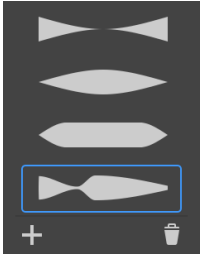
You can add your own profile to the list if you wish to reuse it. To do this, you create a new profile using the Path Width tool. Keep an object with the customized profile selected. Bring up the list of profiles and click the plus button. To delete a custom profile from the list, select this profile and click on the trash bin icon.

Brush

You can apply one or multiple brush strokes to a path using the *Appearance* panel. For a complete description of the panel's interface, refer to The Appearance Panel section.

To open or hide the *Appearance* panel, use the **Window > Appearance** command from the main menu.
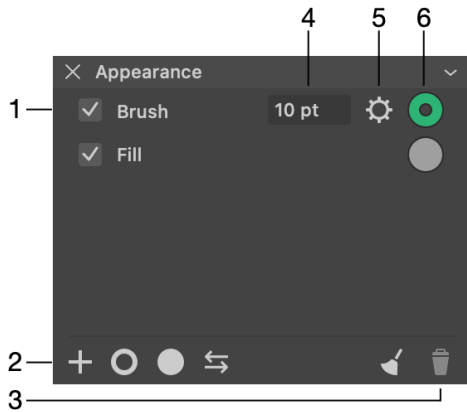
1 - Brush strokes are listed in the *Appearance* panel among other properties.

2 - Add a brush stroke by clicking the plus button.

3 - Delete a brush stroke.

4 - Brush stroke width.

5 - Open brush stroke properties.

6 - Brush stroke color. Clicking this button opens the Color panel.

Add and Delete a Brush Stroke

Before adding or deleting a brush stroke, you should select a path in your design.

To add a brush stroke, click on the plus icon in the bottom bar of the *Appearance* panel and choose **Brush** from the drop-down menu.

To delete a brush stroke, select it in the *Appearance* panel. Then click on the trash bin icon.

It is possible to hide a brush stroke without actually removing it. To do this, use the respective check box in the *Appearance* panel.

Properties of a Brush Stroke

The *Appearance* panel gives you direct access to the width and color of brush strokes. The *Color* panel is described in the Color Panel section. To access all available properties, click on the gear icon.
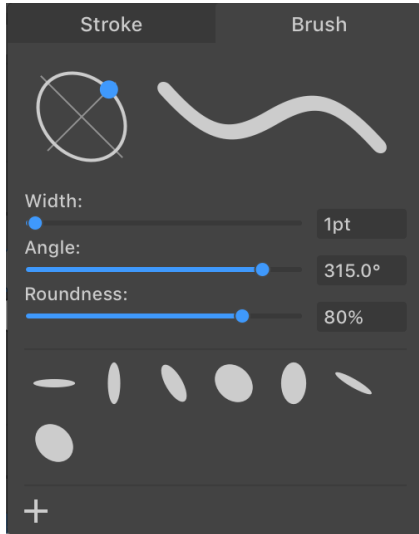
The top of the panel displays an oval on the left (we'll discuss later), and a sample line on the right that displays how your stroke would look in the design.

The **Width** parameter is the same as the width you set in the *Appearance* panel. Since a brush stroke may have variable width, the value you set is the maximum width.

Note that to see features of a brush stroke, its width should be set to several pixels or more. Otherwise, it will look like a regular stroke.

The **Angle** parameter lets you rotate the brush.

Roundness can make the brush either round or oval.

The oval at the top of the panel is actually a tool that can change the **Angle** and **Roundness** at the same time. In order to change the values, drag the blue handle around the center.

Using Presets

At the bottom of the panel, you can see the library of presets.

To apply a preset, click on its icon.

To save the current brush parameters as a preset, click the plus button.

To delete a preset, right-click on its icon and choose the **Remove** command.

The Appearance Panel

The *Appearance* panel lets you manage the object's Fill, Stroke and other effects. To open the panel, choose **Window > Appearance** from the main menu.
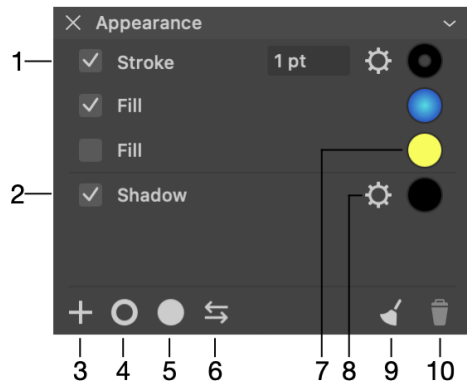
1 - Each line contains one effect, such as Stroke or Shadow.

2 - Hide or show an effect. Uncheck an effect to remove it from the design but still have the ability to easily re-apply it again.

3 - Add an effect. You can choose from a list of all supported effects: Fill, Stroke, Gradient, Brush, Inner Glow, Outer Glow, Inner Shadow, Shadow and Blur.

4 - Add a stroke.

5 - Add a fill.

6 - Swap the colors of a stroke and fill. If an object has multiple strokes or fills, only the upper stroke and upper fill exchange their colors. The rest remain unchanged.

7 - Change the color.

8 - Show a panel with the effect's settings. Some of the settings, such as the color or stroke width, can be accessed from the *Appearance* panel directly.

9 - Restore the default object's appearance. As a rule, an object will look as it was originally created using a drawing tool.

10 - Delete the selected item.

The panel has the context menu. You can open it by right-clicking on an item in the list like Stroke or on empty space. The menu has these commands:

- **Add** adds a Stroke, Fill or an effect. This command does the same as the plus button at the bottom of the panel.
- **Duplicate** creates a copy of the selected item in the list.
- **Delete** removes the selected item from the list.

- **Copy Style** copies the style of a selected object. This includes all of the strokes, fills and effects present.
- **Paste Style** applies the copied style to a selected object.
- **Reset Style** applies the default style.
- **Swap Stroke/Fill (Shift+X)** swaps the colors of the object's stroke and fill.

Changing the Order of Effects

Effects in the *Appearance* panel are ordered in the same way as they were applied to an object.
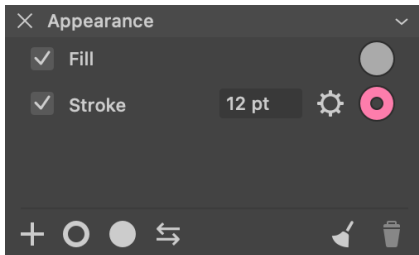
The arrangement of effects atop one other defines how the object looks on the canvas. Two rectangles below have identical paths, stroke and color fill. The only difference is that the left one has the stroke below the fill. The rectangle on the right has the opposite order of effects. As you can see, when the stroke is behind the color fill, half of the stroke width is invisible, making it look two times thinner.
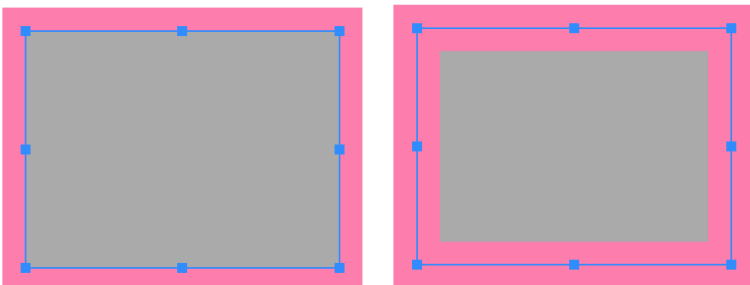
To change the order of effects, drag one to a new position.

The ability to place certain effects above or below others in the list depends on their type. These types are presented in the *Appearance* panel as sections separated with lines. Let's see how those types would be arranged if all possible effects were present in the panel at the same time.

The Text entry occupies the top of the list. Then Stroke and Fill would go. You can place Stroke and Fill entries in any order you like, but you cannot place any of them above Text. The rest of the entries such as Shadow and Glow, appear in the bottom section. Again, you can rearrange them within their own section, but placing them into another section is not possible.

The Style of an Object

Any object in your design has particular effects set up in a certain way. We call such a combination of effects "style".

In order to apply exactly the same style to a second object, you can copy this style. To do this, select the first object and choose **Edit > Copy Style** from the main menu. Then select the second object and use the **Edit > Paste Style** command. These commands are also available in the context menu which can be opened by right-clicking on an object.

Introduction to Colors

Most objects allow you to choose colors for Stroke, Fill and effects such as drop shadow.

Color Models

The program supports the RGB, CMYK and HSB color models (color spaces). They use different ways to create a color out of components.

You can choose a color model in the New Document dialog when you are creating a new document. To change the color model later on, use the Document Settings dialog. You should take into account that the CMYK color space supports less color tones than RGB does. As a result, switching from RGB to CMYK may make some parts of your design look darker and more dull. The Usage of the RGB and CMYK Color Models page will help you decide which of the color models to choose.

The Color panel allows you to select the CMYK color space for particular object properties such as Fill or Stroke in an RGB document. Such technique ensures that your document will look in the same way after printing or converting to CMYK. It is preferable to use the same color model for all objects in your document to make colors in it more predictable.

RGB

RGB is based on the mixture of the red (R), green (G) and blue (B) colors. The RGB color model is commonly used to display colored graphics on the screen. Sources of red, blue and green light optically mix their lights to create a final color. As a consequence, the more that each component is present, the brighter the result. RGB images are frequently used on the Web.

The amount of each color component is measured as a value between 0 (no color) to 255 (max). Notice that the same composition of RGB colors can be represented in the hexadecimal format.

Here are several examples of combinations of primary colors:
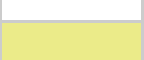
Red	Green	Blue	Result
0	0	0	
255	0	0	
0	255	0	
0	0	255	
255	255	255	
241	255	73	

When the red, green and blue have equal values, the result is a tint of gray. All colors set to zero create black. All colors set to 255 create white.

CMYK

The CMYK color model, most commonly used in publishing, uses the cyan (C), magenta (M), yellow (Y) and black (K) to create the entire range of colors. The final color is created by mixing inks or dyes of the primary colors: cyan, magenta and yellow. Consequently, the more ink you add, the darker color you will have all the way to black. To create pure black, it is preferred to use only the black ink.

We measure the amount of each component as values from 0 to 100%.

Cyan	Magenta	Yellow	Result
100%	100%	100%	
100%	0%	0%	
0%	100%	0%	
0%	0%	100%	
0%	0%	0%	
9%	0%	57%	

Adding a portion of black to a mix of cyan, magenta and yellow just makes the final color darker, keeping the basic tint unchanged.

Note that the CMYK color space cannot cover all colors supported by RGB. This mostly affects bright colors and tints of green. For example, the yellow shown in the RGB table has no equivalent in the CMYK color space. The CMYK table displays a yellow that is close but not exactly the same as in the RGB table. If you are going to create graphics for printing, it may be reasonable to use CMYK colors in your design. In this case, you can ensure that your graphics will look the same way when you print it.

HSB

The HSB (hue, saturation, brightness) color model takes into account how the human eye perceives colors. Unlike the previous models, HSB is a combination of qualities that together determine a specific color.

Saturation and brightness are measured from 0 to 100%. Hue is measured in degrees.

The brightness might be the easiest one to understand. While you are changing the brightness from maximum to zero, the color varies from the tint, specified by Hue (H) and Saturation (S), to black.

Hues can be visually represented as a color wheel.
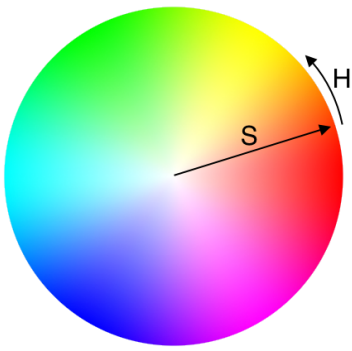
If we pick the red color as the starting point and move along the edge, we will pass through all colors of the spectrum. Any color can be defined by an angle from the starting point. Having red as the zero point, we can say that green takes the sector near 120 degrees.

When you move a point from the center to the circle's edge, you change the Saturation from 0 (pale colors) to 100% (colorful).

Grayscale

Grayscale represents tints of black. Values are measured from 0% (black) to 100% (white).

Grayscale colors can be reproduced using the RGB, CMYK and HSB color models.

Representing Colors in the Hexadecimal Format

Colors can be represented in the hexadecimal format. A hexadecimal number can consist of numbers 0-9, and letters A, B, C, D and F. In software, hexadecimal values are frequently preceded by the # sign, or they can be labeled as "Hex" or "Hex color".

The hexadecimal format is mostly used to indicate RGB colors for the Web and some other applications.

Each primary color (red, green, or blue) is encoded as a two-digit number, so any arbitrary color is represented as a six-digit number. For example, the yellow color in the RGB table above can be represented as F1FF50. Here, the value of red is F1, green is FF and blue is 50.

You don't have to learn how to convert RGB colors to the hexadecimal format because graphic software usually displays values of colors in both formats.

The Usage of the RGB and CMYK Color Models

Why do we have RGB and CMYK?

The RGB and CMYK color models have different approaches to create a color because they were designed for particular purposes.

In most cases, you can see an image on one of two types of surfaces. The first type includes screens of computers, phones, TV sets and so on. Their common feature is the capability to emit light. The RGB color model perfectly suits such devices because higher values of red, green and blue components make brighter colors in the same way as raising the screen brightness does.

An example of the second type is an image printed on white paper. Such a surface reflects light but cannot emit it. Areas with no ink remain white (the paper color). This corresponds to zero quantity of cyan, magenta, yellow and black inks. The more ink droplets cover a particular area, the darker and more saturated color we get. A mix of all inks, even without black, can completely screen the paper making a very dark color.

How to Choose a Color Model?

Let's begin with more simple cases when the purpose of your design is obvious. Graphics that are intended to be displayed on the screen should be RGB. That includes digital art, user interface designs for Web and apps, graphics to be used in video clips, content for social media and so on.

CMYK is often used for designs that will be printed. However this doesn't apply to all cases. Print shops may have their own requirements for customer's materials including color space, file format and others.

If your design is intended for displaying on a screen and for printing, you should choose RGB. It supports a wider color range and therefore better suits both use cases. So why use CMYK at all? This is necessary to be able to verify your design colors before printing. Once you convert an RGB design to CMYK, certain colors (often greens) can become dull. You might prefer to discover this sooner in order to make corrections in the design if necessary. If you send an RGB file to a printer, the printer driver will make the RGB to CMYK conversion for you. However you won't see the result until it is printed.

Unless you definitely know that you need CMYK, design in the RGB color space. Check how your design looks in CMYK if you care about how the design will look after being printed.

Switching Between Color Models

The New Document dialog lets you select a color model before a new document is created. Later on, use the Document Settings dialog.

In order to see how your RGB design looks in the CMYK color space, temporarily select CMYK in the *Document Settings* dialog. Then you can switch back to RGB.

Note that each color model comes together with a list of supported color profiles. If you are not familiar with profiles, keep the default one.

Which of the File Formats Support CMYK?

Since RGB is supported by barely all graphic file formats, let's pay more attention to CMYK.

PDF is the most popular format for CMYK because it also supports multi-page documents, it is capable of containing vector elements and text. The EPS format has capabilities similar to PDF. Among raster formats, TIFF is one that supports CMYK.

Color Profiles

Different devices (e.g., computer display or phone screen) may reproduce the same color with slightly different tints. In order that colors look uniformly, manufacturers calibrate their devices (monitors, printers, scanners) and save that information as a device's profile.

A color profile can be embedded into a graphic file to ensure that the image looks the same on different devices.

To select a new profile to your document, use the Document Settings dialog.

Fill an Object with a Color, Gradient or Image

An object can be filled with a plain color, gradient or image. The Appearance panel is used to choose those options and adjust their properties.
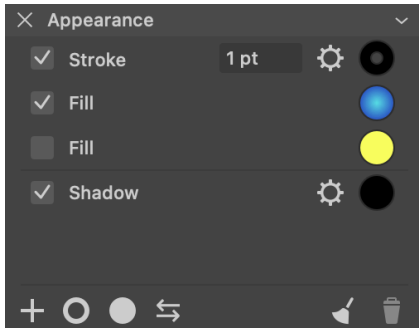
If an object has no Fill property or you want to add more, you can do this by clicking on the plus icon and choosing *Fill*. A quick way is to click on the circle icon. Clicking on the ring adds a stroke; don't confuse these two icons.

Fill properties are listed in the *Appearance* panel. The column of check boxes on the left lets you hide any Fill or other property. The color icon in the right column opens the Color panel.

In order to choose a color, set up a gradient or select an image, click the color icon. The *Color* panel will open up. Click on the *Color*, *Gradient* or *Image* tab.
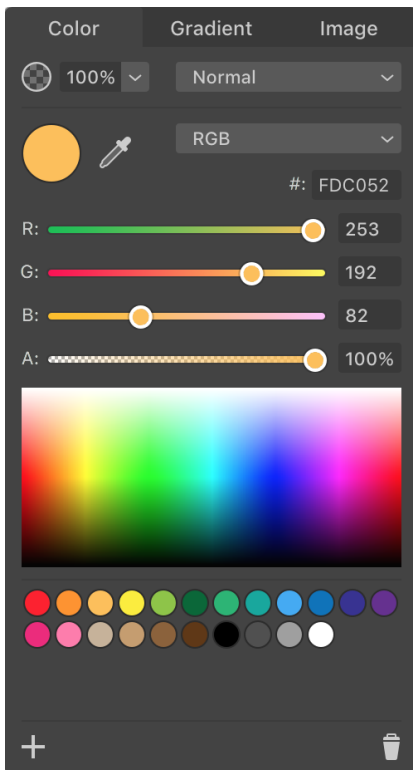
These sections explain how to select a color or work with gradients or images:

- Selecting Colors
- Gradients
- Image Fill

The Color Panel

The *Color* panel lets you choose plain colors, create gradients or select an image to use as a texture. To open the panel, click on the appropriate color button. For example, each Stroke item in the *Appearance* panel has its own color button.

The *Color* panel has individual sections for plain color, gradient and image. You can apply only one of these features at a time. You may need to use more than one feature, for example, an image and a color that tints that image. In this case, you should add two Fill attributes to the object: one for the image and another for the tint color.

Color

The *Color* tab lets you select a plain color.
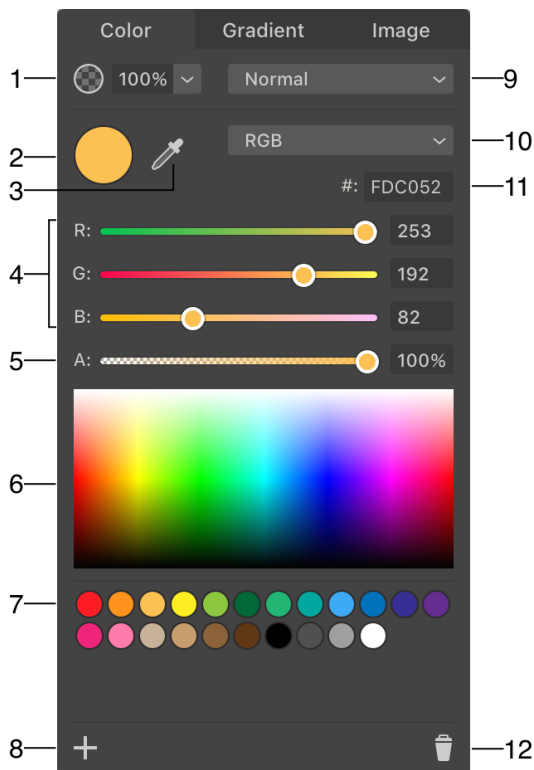
1 - Opacity. You can set up the opacity of the selected color. Unlike the opacity of an object or layer, here you can adjust the transparency of an object's part, for example, the object's body, while the stroke will remain opaque.

2 - Sample of the currently selected color.

3 - Eyedropper tool. It helps you copy colors from other objects. Read Selecting Colors for more details. Also read The Eyedropper Tool and Privacy Settings about the Screen Recording permission.

4 - Values of the primary colors that create the final color. The Grayscale color model has only one parameter here. If you select the HSB color model, the panel will show the Hue, Saturation

and Brightness parameters.

5 - Opacity of the current color. This opacity will be preserved if you save this color as a swatch.

6 - Color field. You can select a color you like by clicking on it.

7 - Library of color swatches. You can save a color to the library in order to use it at a later time.

8 - Save the current color as a swatch.

9 - Blend modes. If you wish to select a blend mode for the whole object, use the Layers panel.

10 - Color mode. You can select RGB, CMYK or HSB. There is also an option to choose Grayscale.

11 - Hexadecimal representation of the current color.

12 - Delete the selected swatch.

Using Swatches

You can save a color as a swatch in order to use it later. The library of swatches can save you time when you need to apply the same color many times. The library contains a number of colors by default.

To save the current color as a swatch, click on the plus button below the library.

To restore a color from a swatch, click on that swatch.

In order to delete a swatch, click on it to select it. Then click on the trash bin icon in the bottom right corner of the panel.

You can change the order of swatches in the library. To do this, drag and drop a swatch to a new position.

The library of swatches works with gradients in the same way as described above.

Gradient

You can create either linear or radial gradients. To select one of the types, click the corresponding button that is located above the gradient preview field. The Gradient Fill section explains how to create and modify gradients.

Linear Gradient
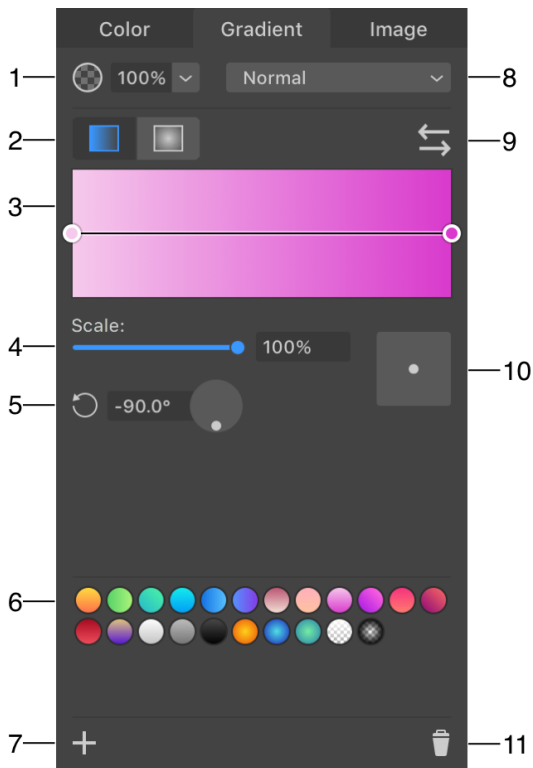
1 - Opacity of the whole gradient. You can also adjust the opacity of the colors that create your gradient. This lets you create a transition from some color to a fully transparent area.

2 - Buttons to select the linear or radial gradient type.

3 - Gradient preview field. This is not only a preview but a tool to adjust your gradients. We will describe later how to use it.

4 - Scale adjusts the width of the color transition area in relation to the whole size of the gradient.

Scale: 100%   Scale: 20%

With 20% scale, the pure black and red colors took up most of the image space.

Note that the preview doesn't change when you adjust this parameter. You should use an object with your gradient applied in order to see the result.

5 - The angle of the gradient. You can rotate a gradient in relation to the object it was applied to. Changing the angle doesn't affect the gradient preview field.

6 - Library of swatches. You can save a gradient to the library in order to use it later.

7 - Save the current gradient as a swatch.

8 - Blend modes. If you wish to select a blend mode for the whole object, use the Layers panel.

9 - Reverse the direction of the gradient. The result will be similar to rotating the gradient by 180 degrees.

10 - Offset of the gradient from the centered position. Drag the round handle and preview the result on the object to which the gradient was applied.

Centered   Off the center

11 - Delete the selected swatch.

Radial Gradient

Radial gradients share most options with linear gradients. Let's look at those that are specific to radial gradients.
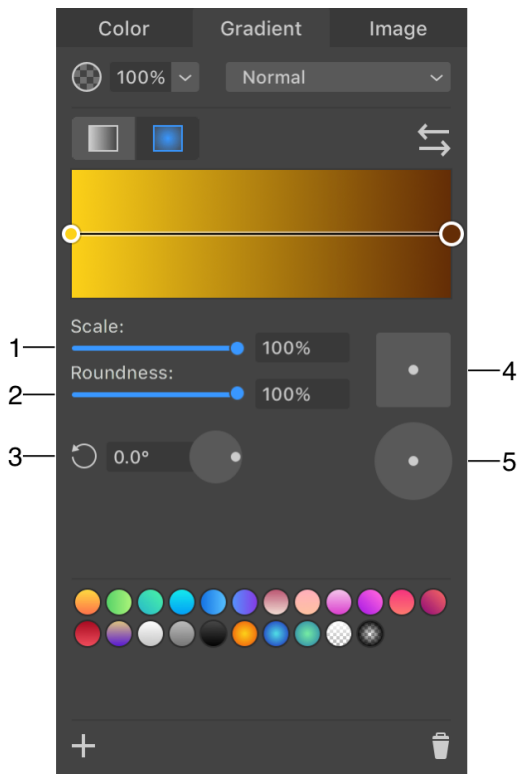
1 - Scale adjusts the width of the color transition area in relation to the whole size of the gradient. By adjusting this parameter, you can create objects that look like a sphere under different lighting conditions.
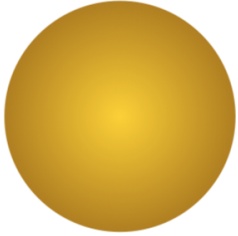
Scale: 99%   Scale: 46%
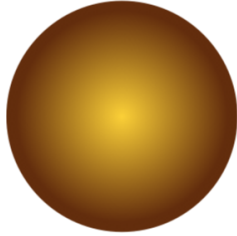
Note that the preview doesn't change when you adjust this parameter. You should use an object with your gradient applied in order to see the result.

2 - Roundness changes the aspect ratio of the gradient. It is circular at 100%. If you decrease the value to 50%, the gradient will look like an oval with the height two times smaller than the width.
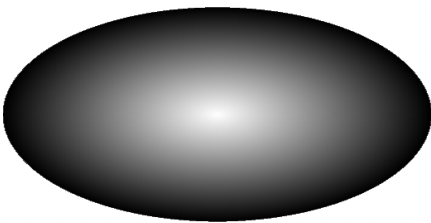
3 - The angle of the gradient. You can rotate a gradient in relation to the object it was applied to. Changing the angle doesn't affect the gradient preview field.

4 - Offset of the gradient from the centered position. The original transition between colors will be preserved. Drag the round handle and preview the result on the object to which the gradient was applied.

5 - Offset of the gradient from the centered position. The transition between colors will change. Drag the round handle and preview the result on the object to which the gradient was applied.

Image

The *Image* tab lets you use an image as a texture. There are various options that define the position and size of the image inside the object boundary.

For more details, read the Image Fill section.

The Eyedropper Tool and Privacy Settings

When you activate the **Eyedropper** tool for the first time, macOS displays this system message: "Amadine would like to record this computer's screen". At the same time, Amadine will get listed in the System Preferences > Security & Privacy > Screen Recording section as an app that requested access.

By default, the operating system prevents apps from accessing windows of other apps. This means that the **Eyedropper** tool is always capable of picking a color within Amadine's windows. However, to sample a color from another app, you need to grant access in the Screen

Recording section. In the case of occasional work, you may enable Screen Recording access just for a short time when you need it.
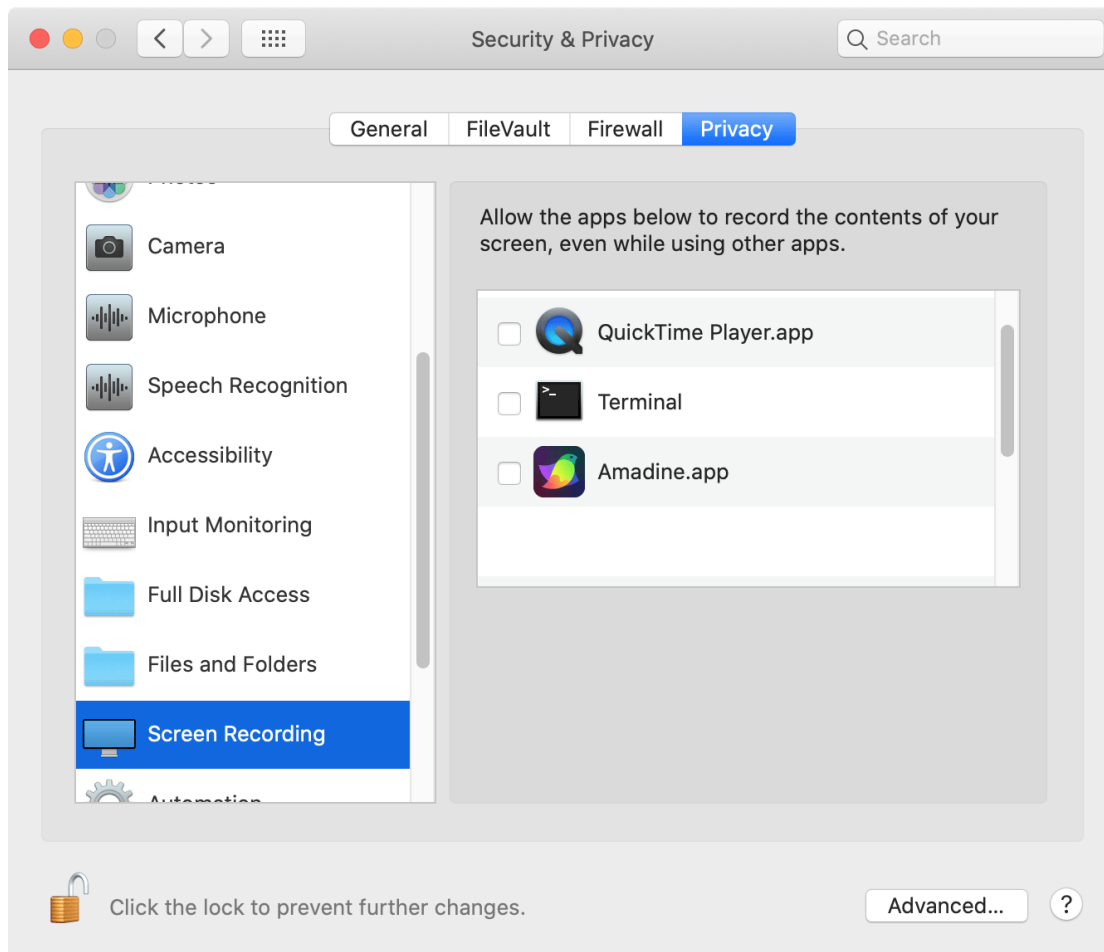
Selecting Colors

There are several ways to select a color for Stroke, Fill or some other effect.

Using the Color Panel
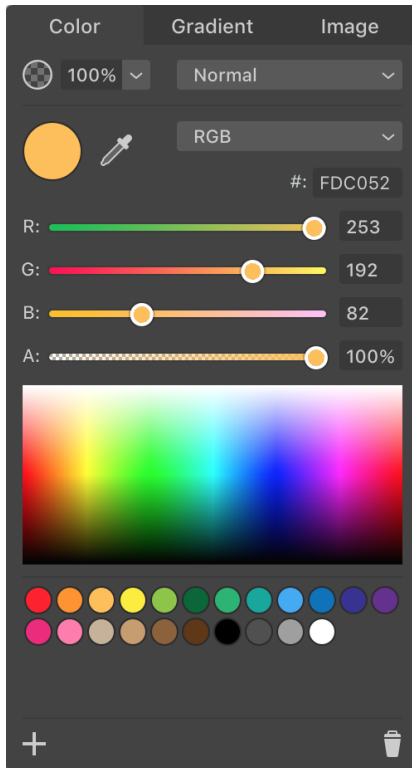
Select a Color Directly

The most universal way to select a color is to set it from scratch. First, select a color model, such as RGB or CMYK. If you already know the numeric values for color components, for instance, red, green and blue, set them using the sliders or text fields. Otherwise, click on the color field to select a color you need. Then use the sliders to adjust the color more precisely.

If necessary, adjust the opacity.

Using Swatches

If a color or gradient that you need is present in the library of swatches, click on the corresponding swatch.

Using the Eyedropper Tool

You can copy a color from almost any spot visible on the screen. To do this, click on the eyedropper icon in the *Color* panel. The cursor will turn into a magnification glass. You should place its center over the color you want to choose and then click.

Copying Object's Style

You can copy the style of another object.

Note that a style is not only a single color. By copying a style, you can copy a combination of the stroke and fill colors, and also effects like shadow depending on what has been applied to the source object.

To copy an object's style:

1. Select the source object.
2. Choose **Edit > Copy Style** from the main menu.
   You can do the same by opening the object's context menu and selecting **Copy Style**.
3. Select the destination object.
4. Choose **Edit > Paste Style** or open the object's context menu and select **Paste Style** in the context menu.

You can also copy a style with the help of the **Eyedropper** tool:

1. Select the destination object.
2. Activate the **Eyedropper** tool located in the *Tools* panel.
3. Click on the source object.

Modifier Keys and Shortcut Summary

Shortcut:

- **I** activates the Eyedropper tool.

Eyedropper tool modifier keys:

- **Space** switches to the Pan mode.
- **Command** switches to either Move or Selection tool depending on which of them was active most recently.

Gradients

There are two ways to fill an object with a gradient:

- Use the **Gradient** tool to add and adjust a gradient directly on the canvas.
- Use the *Color* panel.

Note that any of these methods does not exclude another. You can do part of the work with the help of one method and then finish using another.

Using the Gradient Tool

Add Gradient

To fill an object with a linear gradient:

1. Select the object.
2. Activate the **Gradient** tool on the *Tools* panel.
3. Place the cursor over the object, press the left mouse button and drag. You have added the start point of the gradient.
4. Move the cursor around to adjust the direction of the gradient and control the way it fills the object.
5. Click to at the end point.

Adjust Gradient Colors

Let's see how a gradient is created. We'll talk about linear gradients for simplicity. In order to edit a gradient on the canvas, activate the **Gradient** tool.

Any gradient has two predefined colors at its ends. Let's call such predefined colors "base colors". Base colors are shown inside circles. The default gradient is based on two base colors. We'll see later how to add more.
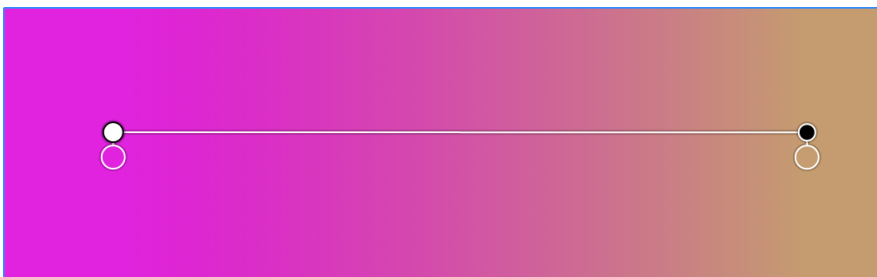
All colors in the middle are generated by the software to create a smooth transition between the base colors.

The direction along which colors change is shown by a line that links the base colors. There are white and black handles at the ends of the line.

To add an intermediate base color, click on the line. A plus near the cursor shows that this operation is possible.
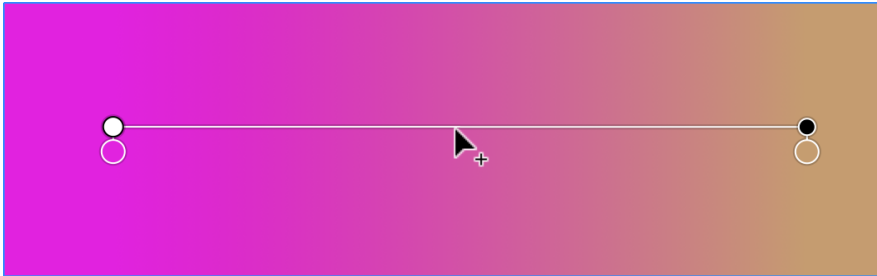
The third base color will be shown in a new circle attached to the line.
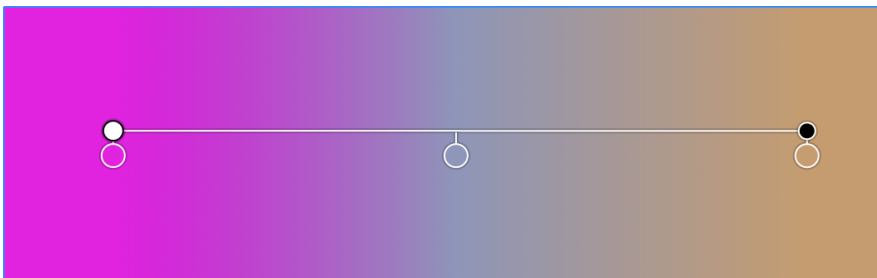
You can move base colors using the mouse in order to change the distribution of colors over the given area.

To delete an intermediate color, drag it off the line until a cross appears near the cursor. Then release the mouse button.
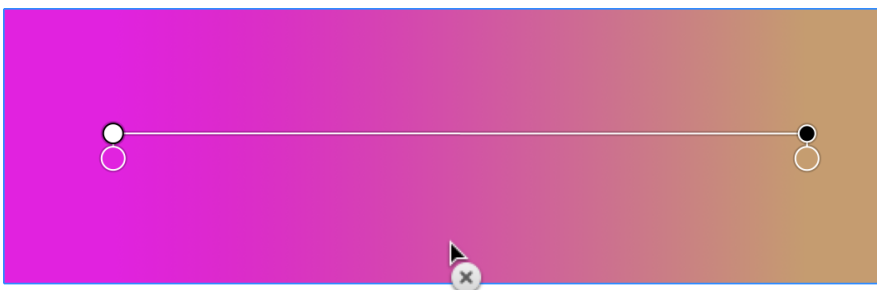
Only intermediate base colors can be deleted.

In order to change a base color, click on the corresponding circle. Then use a simplified version of the Color panel to select a new color.

Adjust Gradient Position

The black and white handles let you rotate the gradient and also change the distance between the base colors at the ends.

To move the gradient in relation to the object, drag the line which links the two handles. Alternatively, drag the white and black handles to new positions.

To rotate the gradient, drag either black or white handle around the opposite one.

To change the width of the color transition area, move one handle to or away from another handle.

Using the Color Panel
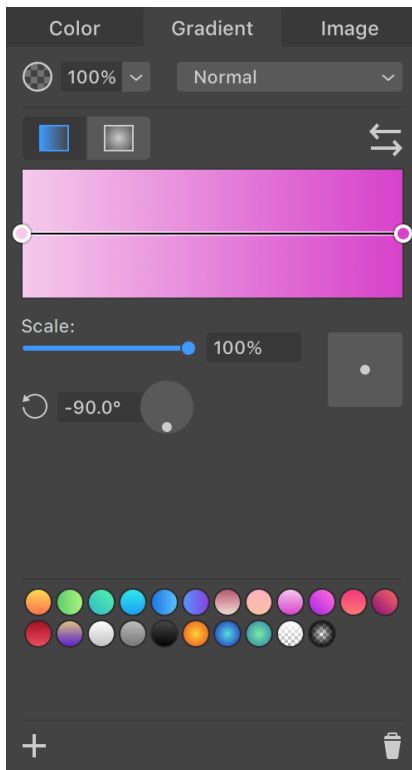
Add Gradient

When you open the *Gradient* tab of the *Color* panel, you automatically apply a default gradient to the currently selected object.

Adjust Gradient Colors

You can add and delete base colors in the same way as you can do on the canvas. See the Adjust Gradient Colors subsection for details.

In order to change a base color, click on the corresponding circle.

Drag circles that define the location of base colors to make different color tints take up more or less space.

You can set all colors at once by clicking on a predefined or custom swatch.

Adjust Gradient Position

The **Scale** parameter lets you change the distance between the base colors at the ends. The result is equivalent to moving the black handle on the canvas closer or farther from the white one.

Use the rotation control to change the direction of the gradient.

To move the whole gradient relative to the object, use the square control. Note that it is more convenient to move and rotate gradients directly on the canvas.

Image Fill

You can use raster and vector images in your document. They may be used as textures, backgrounds or for other purposes.

Add an Image

The easiest way to add an image to your document is to drag it from Finder onto the canvas. The image will be added as a new object with the original aspect ratio. You can also copy an image from other software.

In order to fill a shape with an image, you should use the Color panel:

1. Select an object.
2. Add a Fill property to the current object in the Appearance panel if the object doesn't have one.
3. Click on the color icon of the Fill property to open the *Color* panel. Then select the *Image* tab.
4. Click the **Choose image…** button and select an image.
5. Adjust image properties if necessary.

Whatever way you have added an image, you can come back to the *Color* panel and re-adjust the settings there.

The Color Panel
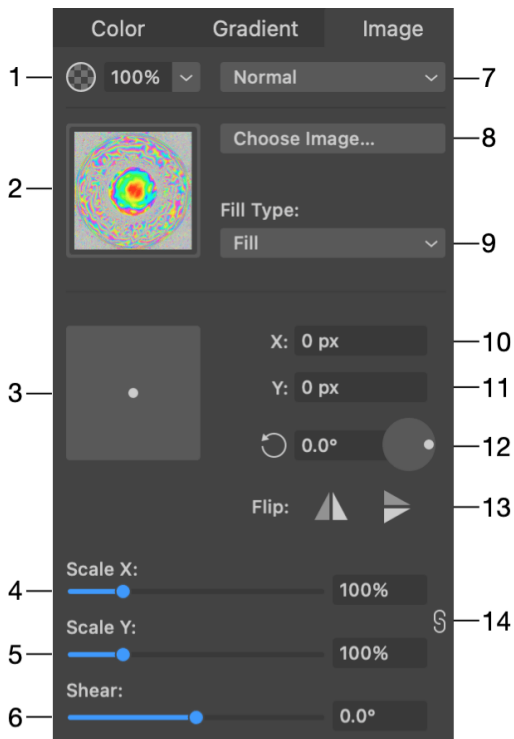
1 - Opacity. Unlike the opacity of an object or layer, here you can adjust the transparency of the image itself, keeping the stroke or other effects with their own opacity.

2 - Image thumbnail.

3 - Offset of the image from the centered position in relation to the object. Drag the round handle and preview the result on the object in your document.

4 and 5 - The horizontal and vertical scales of the image. You can make the image bigger or smaller without resizing the object which contains the image. At a scale higher than 100%, the image will get cropped. In order to change the both values simultaneously, lock them using the icon on the right.

6 - Shear the image. This parameter transforms the image into a parallelogram.

7 - Blend modes. If you wish to select a blend mode for the whole object, use the Layers panel.

8 - Click to load an image from a file.

9 - The **Fill Type** options define how the image should fit the object. For details, see the Fill Type section.

10 and 11 - Set the image offset using numeric values. These edit boxes work together with the square offset control.

12 - Rotate the image inside the object.

13 - Flip the image inside the object.

14 - Maintain the current aspect ratio when either **Scale X** or **Scale Y** is changed.

Note that when the *Fill Type* is set to *Stretch*, the app sets most of the parameters automatically. Consequently, most of the controls become disabled.

Fill Type

The *Fill Type* drop-down menu lets you choose the *Fill*, *Stretch* and *Tile* options.

At 100% scale, and when the boundary has the same aspect ratio as the image, all of the options can yield the same result. The difference will become visible if you change the aspect ratio of the boundary or if you scale the image.

Original image
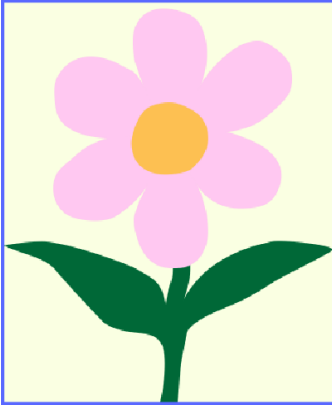
To see how the *Stretch* option works, we can decrease the height of the object. With *Fill*, the image will keep its aspect ratio, but some image parts that don't fit can be invisible. *Stretch* will reshape the image to fit it for the new width and height.

Fill:
image is cropped
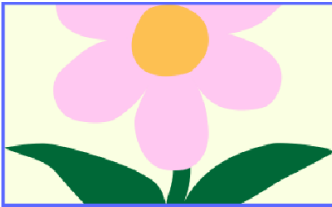
Stretch:
image is deformed
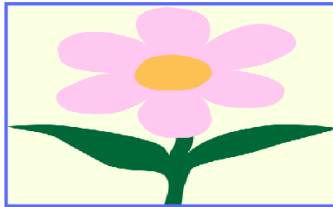
The *Tile* option makes a difference when the image is scaled down. Many copies of the image will take up the whole available space. With *Fill*, you'll still have a single small copy.

Fill:
single copy
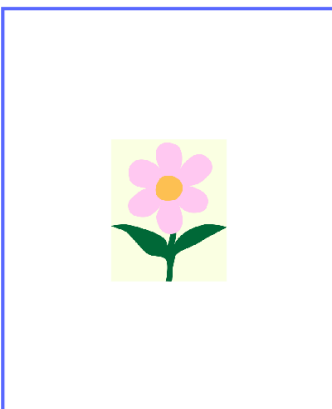
Tile:
many copies
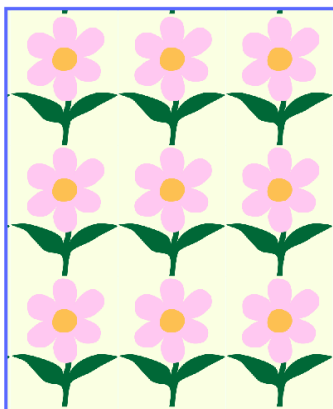
Note that to create a texture, you may need to use a specially designed image that can be tiled seamlessly. Creation of such images is outside the scope of this documentation.

The Recolor Panel

The *Recolor* panel is used to adjust object colors. To open the panel, select **Modify > Recolor…** in the main menu.

The panel is designed to change many different colors of one or multiple objects at once. This is useful when you need to try different color schemes. The panel is also capable of decreasing the variety of colors by using one color tone instead of several similar ones. The key part of the panel is the list of colors where you map the original colors into new ones.
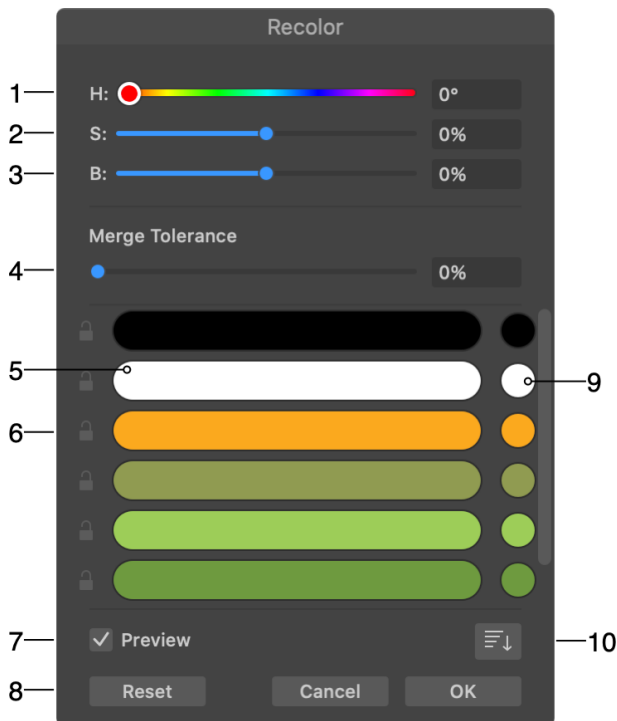
1 - Changes the Hue of all output colors.

2 - Changes the Saturation of all output colors.

3 - Changes the Brightness of all output colors.

4 - Merge Tolerance defines a threshold for merging close color tones into one color.

5 - Input color which is one of the object's original colors. Several original colors may appear in the same line if they were set to be replaced with one output color.

6 - The lock icon lets you prevent an original color from being changed by any tool in the panel.

7 - Shows how objects on the canvas would look if you apply new colors.

8 - Restore the original object colors.

9 - Output color that an object's element will receive if you apply changes.

10 - Changes the order of colors in the list (e.g., by lightness).

Clicking on the original colors in the list lets you select one or multiple lines in order to manipulate the colors directly. You need to press and hold the **Shift** key to select a range of colors. The **Cmd** key helps you select multiple colors in arbitrary order.

In order to find out the numeric value of an input color in the hexadecimal format, place the mouse cursor over that color.

The panel lists stroke and fill colors, as well as base colors of raster effects. If an object has a gradient with several base colors, all of them will appear in the list.

The panel cannot recolor an image used to fill a shape.

The list of colors has a context menu:

- **Merge** merges selected input colors.
- **Split** splits input colors that are displayed in the same line. This command does the opposite to **Merge**.
- **Lock** lets you keep the output color unchanged. This command repeats the function of the lock icon.
- **Unlock** deactivates the lock option.
- **Restore** makes the output color identical to the corresponding input color. This command also splits input colors if they were merged.

Change the Hue, Saturation and Brightness

The Hue, Saturation and Brightness sliders affect all of the output colors. If you don't want a certain output color to be modified, lock it using the lock icon.

Set an Output Color Directly

You can set an output color directly. To do this, click on the circle with the output color. This opens the Color panel.

In order to make the output color the same as the corresponding input color, choose the **Restore** command from its context menu.

Merging Colors

Merging colors lets you represent input colors with a smaller number of output colors. This can be done by replacing multiple similar input colors with the same output color. This is an equivalent for the posterize function from raster graphics editors.

You can merge colors automatically or manually. Also you can combine these two methods.

Once two or more colors have been merged, they appear in the same line, and consequently have the same output color. The new output color is the same as one of the output colors before merging.

The following image shows two green colors merged. The output color was taken from the second green color.
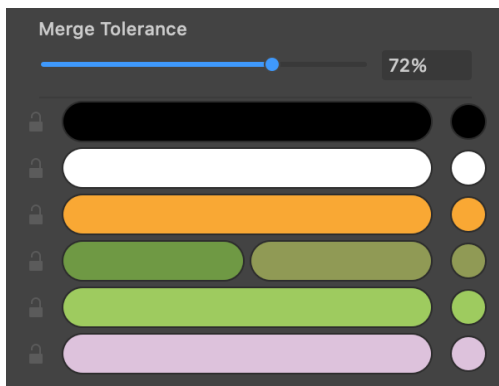
Merging Colors Automatically

To merge colors automatically, just move the **Merge Tolerance** slider to the right. The **Merge Tolerance** set to 0% turns the automatic merging off. By increasing the tolerance, you allow more different color tones to get into the same group.

To prevent a particular color from being merged, lock it.

Merging Colors Manually

In order to merge input colors manually, drag one of them on top of another. The output color will be taken from the input color onto which you drop other colors. In other words, if you drag a red color onto a blue one, the output color of this group will be the same as the blue color before merging.

Another way to merge colors is to select multiple of them in the list. Then choose the **Merge** command from the context menu.

In order to separate merged colors, select **Split** in the context menu. Or just drag one of the merged colors to a new line.

Introduction to Text Objects

You can add text to your design. The **Text** tool ⊤ is used to add text. The tool has several modes that create different types of text. These modes are explained in the following sections.

A new text object contains the default text. You can type in your own text or paste it from the clipboard.

Types of Text Objects

Rectangular Text Boundary

Text can be placed inside a rectangular text box. This is the most common type. You can use this type of text object for a few words as well as for several paragraphs.

If you resize a text box, or edit text, the latter automatically wraps to the container boundary. The size of the text box doesn't depend on the amount of text inside or on the font size. It is possible to create text inside a non-rectangular boundary.

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
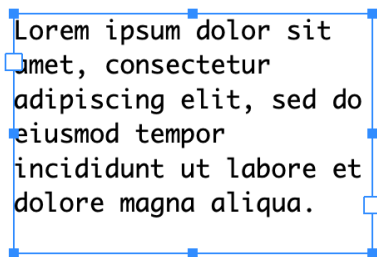
Distortable Text

You can add distortable text. Text inside this text object fits the width and height of the bounding box. If you change the text box size, the text will squeeze or stretch in order to fit the new width and height. On the other hand, if you change the font size, the text box will adapt to new dimensions of the text.

Such text won't wrap to the next line automatically. If you wish to create another line, you should place the cursor at a certain position and hit the **Return** key.

This type of text object is useful for small pieces of text or for headings.

Lorem ipsum dolor sit amet

Text Along a Path

Text can be placed on a path. Text starts at one of the end points. In the case of a closed shape, one of the anchor points will play the role of the beginning of the path. You can edit the path using standard path editing tools.

This text object type can be used for small portions of text.
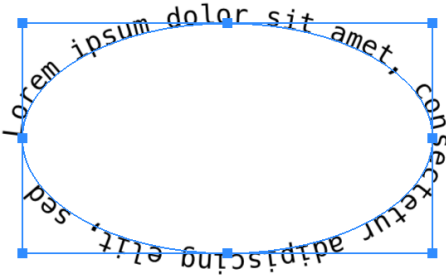
Text Inside a Shape

A path can serve as the boundary for text. Like a regular text box, it outlines the area that can be taken by text. You can edit the path using standard path editing tools.
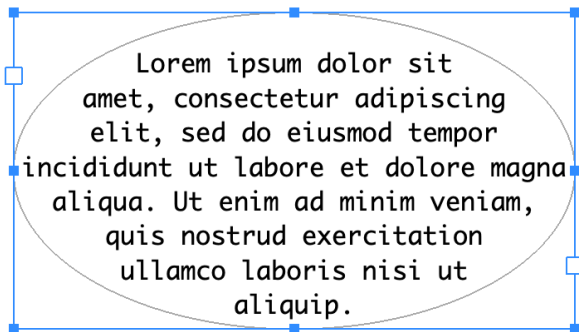
Presenting Text as Columns

A single piece of text can be distributed within several text boxes. This kind of layout is frequently used to create columns of text. The text can flow from one text box to another because the text boxes are linked. This feature is supported by the rectangular text and text inside a shape objects.

Converting Text to Paths

You can convert text to path by choosing the **Modify > Expand** command from the main menu. This command turns a text object into a group of paths that will look like the original letters. You will be able to modify those paths using the **Selection** and other tools. It will not be possible to use the text editing and formatting tools any more. There is no way to convert paths back to text, unless you use the **Undo** command. For that reason, prefer to work with text objects when you need to display text in your design.

Text in Rectangular Boundary
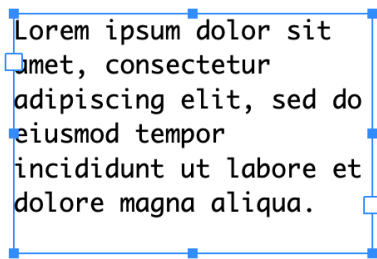
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

Adding Text

To add a text box:

1. Press the **T** key.
   or
   Click on the **Text** tool ⊤ in the *Tools* panel. Make sure that the *Text Box* mode ⊤ ⌇ ⊤ is activated in the *Control* panel.
2. Place the cursor on the canvas to define the location of a corner of a new text box.
3. Holding down the left mouse button, move the cursor to start drawing the text box.
4. Release the mouse button when the text box is the proper size. As a result, you will have a text box containing the default text.
5. Type in or paste new text.

To exit the text editing mode, press the **Escape** key.

Editing and Formatting Text

To edit text in your document, double-click on it with the **Move** or **Selection** tool. Alternatively, you can start editing text by clicking on it with the **Text** tool. The built-in text editor provides basic capabilities for editing and formatting text.

Apart from the text itself, you can change its font, color and other properties as described in the Properties of Text section. The most important properties can be found in the *Control* panel located above the canvas.

Editing Text as Paths

You can convert a text object to paths using the **Modify > Expand** command from the main menu. Then you can edit each character as paths and anchor points using the respective tools. Note that after expanding a text object it will not be possible to edit it as text nor change its formatting.

Modifying the Boundary

To resize or rotate the boundary, drag the corresponding corner or side handle as explained in the Move, Resize and Rotate Objects section.

The boundary of a text box can also be modified as a path with the **Selection**, **Pen** and other tools. So, you can create a "text in a shape" object by customizing a rectangular text box.

Modifier Keys and Shortcut Summary

Shortcuts:

- **T** activates the Text tool.
- **Shift-T** activates the Text on Path tool.
- **Option-T** activates the Text in Shape tool.

Text tool modifier key:

- **Command** switches to either Move or Selection tool depending on which of them was active most recently.

Distortable Text
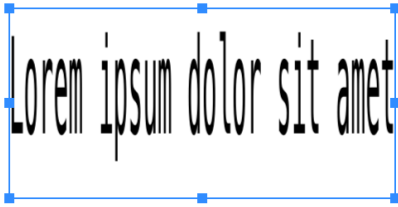
Adding Text

To add a text box:

1. Press the **T** key.
   or
   Click on the **Text** tool ⊤ in the *Tools* panel. Make sure that the *Text Box* mode ⊤ ⤴ ⊤ is activated in the *Control* panel.
2. Click on the canvas to define the location of the top left corner of a new text box.
3. Type in or paste new text.

To exit the text editing mode, press the **Escape** key.

Editing and Formatting Text

To edit text in your document, double-click on it with the **Move** or **Selection** tool. Alternatively, you can start editing text by clicking on it with the **Text** tool. The built-in text editor provides basic capabilities for editing and formatting text.

When you add or remove a portion of text, the text box resizes automatically to hold the present amount of text.

Apart from the text itself, you can change its font, color and other properties as described in the Properties of Text section. The most important properties can be found in the *Control* panel located above the canvas.

Distorting Text

You can squeeze or stretch text by changing the width or height of the text box. To do that, drag its side or corner handle. Text won't wrap to another line when the amount of space inside the text box decreases or increases. Instead of that, the size of characters changes to make the text fit the currently available space.

To resize text without distorting it, hold down the **Shift** key and drag a corner handle of the text box.

In order to restore the original aspect ratio of letters, click the **Fix Proportions** button in the *Control* panel. The program will change the width of letters to restore their original look. The height of letters will remain unchanged.

Editing Text as Paths

You can convert a text object to paths using the **Modify > Expand** command from the main menu. Then you can edit each character as paths and anchor points using the respective tools. Note that after expanding a text object it will not be possible to edit it as text nor change its formatting.

Modifying the Boundary

To resize or rotate the boundary, drag the corresponding corner or side handle as explained in the Move, Resize and Rotate Objects section.

The boundary of a text box cannot be modified as a path.

Text Along a Path
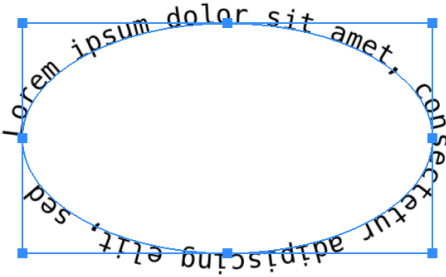
Adding Text

We assume that a path is already present in your document.

To place text along a path:

1. Press the **Shift-T** key.
   or
   Click on the **Text** tool in the *Tools* panel. Make sure that the *Text Box* mode is activated in the *Control* panel.
2. Point the cursor exactly at the path (not fill or shadow) and click. The program will display a text editor containing the default text.
3. Type in or paste new text.

To exit the text editing mode, press the **Escape** key.

If the path is not long enough to display the entire text, the object's frame has a red square. It is visible when the object is selected.

Editing and Formatting Text

To edit text in your document, double-click on it with the **Move** or **Selection** tool. Alternatively, you can start editing text by clicking on it with the **Text** tool. The built-in text editor provides basic capabilities for editing and formatting text.

Apart from the text itself, you can change its font, color and other properties as described in the Properties of Text section. The most important properties can be found in the *Control* panel located above the canvas.

Aligning Text with the Path

Text starts at the beginning of the path by default. It is the point from which you begin drawing a path with the **Pen** or **Pencil** tool. It is less obvious, but all curves and shapes created with tools like **Rectangle** or **Star** also have the start and end points. There are several settings that

let you change the position of the text in relation to the path. By combining those settings, you can produce different results.

Let's take a look at a few typical cases. We use a standard oval whose path begins at the upper point and goes in the clockwise direction.
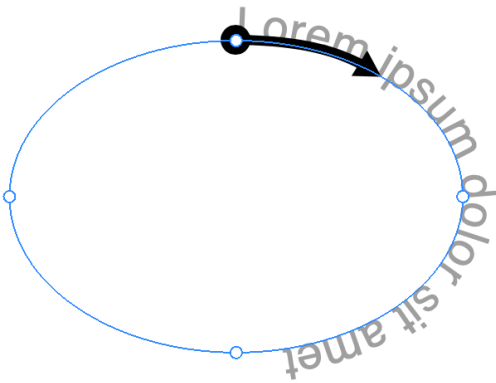
Example 1
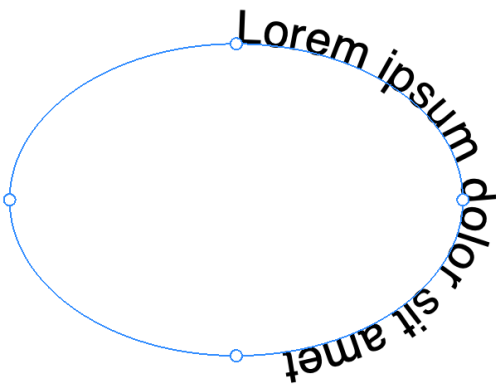
The default oval was used as the path for the default text.

Example 2
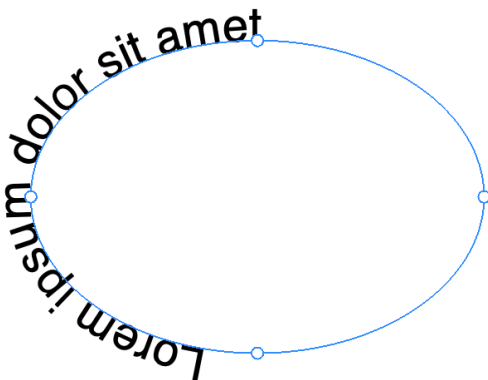
The text was aligned with the end of the path using the text alignment buttons in the *Control* panel.

Example 3
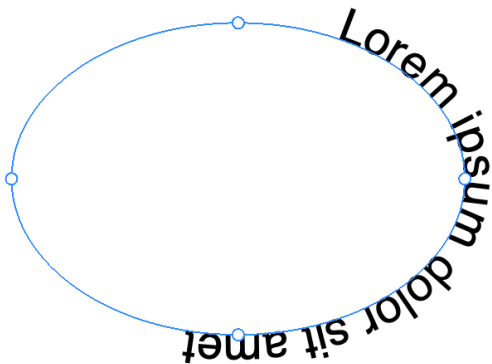
Create a gap between the start point of the path and text by increasing the indent width.
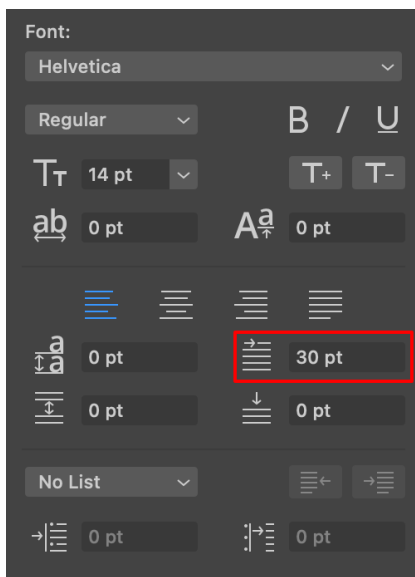
Example 4
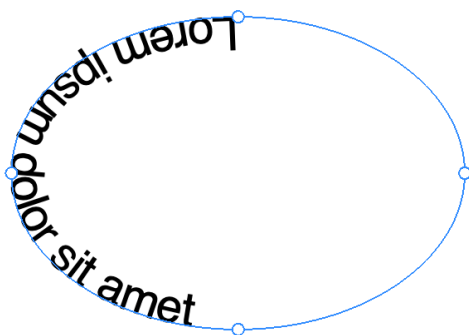
The start and end points of the path were swapped using the **Modify > Path > Reverse** command.

Example 5
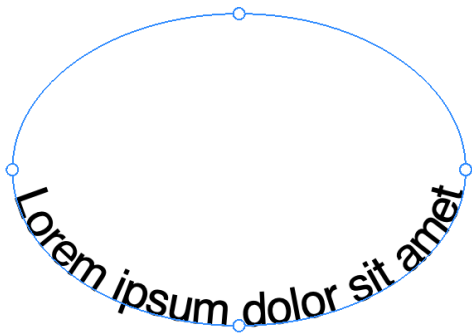
The start and end points of the path were swapped using the **Modify > Path > Reverse** command. Additionally, the text was aligned with the middle of the path.
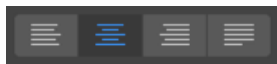
Editing Text as Paths

You can convert a text object to paths using the **Modify > Expand** command from the main menu. Then you can edit each character as paths and anchor points using the respective tools. Note that after expanding a text object it will not be possible to edit it as text nor change its formatting.

Modifying the Path

To resize or rotate the path that defines the text's shape and direction, drag the corresponding corner or side handle of the object's boundary as explained in the Move, Resize and Rotate Objects section.

The path can also be modified with the **Selection**, **Pen** and other tools.

Text Inside a Shape

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip.
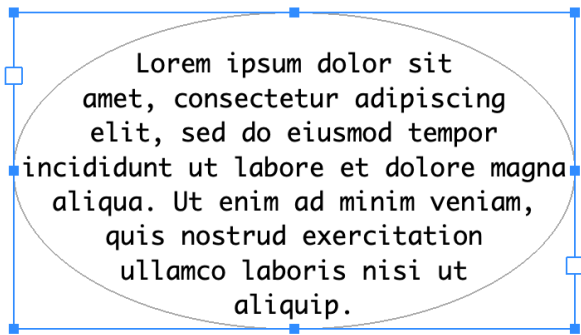
Adding Text

We assume that a shape (either closed or open path) is already present in your document.

To add text inside a shape:

1. Press **Opt-T**.
   or
   Click on the **Text** tool `T` in the *Tools* panel. Make sure that the *Text in Shape* mode `T` `✒` `T` is activated in the *Control* panel.
2. Point with the cursor exactly at the path (not fill or shadow), and click. The program will display a text editor containing the default text.
3. Type in or paste new text.

To exit the text editing mode, press the **Escape** key.

Note that properties of the original path, such as stroke, fill or effects, will not be preserved after adding text inside the shape.

Editing and Formatting Text

To edit text in your document, double-click on it with the **Move** or **Selection** tool. Alternatively, you can start editing text by clicking on it with the **Text** tool. The built-in text editor provides basic capabilities for editing and formatting text.

Apart from the text itself, you can change its font, color and other properties as described in the Properties of Text section. The most important properties can be found in the *Control* panel located above the canvas.

Editing Text as Paths

You can convert a text object to paths using the **Modify > Expand** command from the main menu. Then you can edit each character as paths and anchor points using the respective tools. Note that after expanding a text object it will not be possible to edit it as text nor change its formatting.

Modifying the Boundary

To resize or rotate the boundary, drag the corresponding corner or side handle as explained in the Move, Resize and Rotate Objects section.

You can modify the boundary of your text as a path with the **Selection**, **Pen** and other tools.

Rotate a Shape in Relation to Text

To rotate a shape in relation to the text inside it:

1. Select all points of the shape. To do this, click on each point with the Selection tool ▷ holding down the **Shift** key. Another way is to outline the whole shape with the Lasso tool ▢.
2. Rotate the shape using the Free Transform tool ⊟.

Properties of Text

The Control panel gives you quick access to the most frequently used properties. For extra options, you can use the Appearance Panel.

Text Properties in the Control Panel

Text properties are displayed in the *Control* panel when you activate the **Text** tool or select text. The panel is usually located above the canvas.
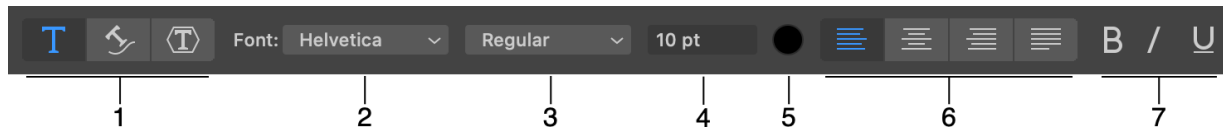
1 - Select the type of a new text object: text in a text box, text along a path or text inside a shape. You should select one of the types before creating a new text object.

2 - Select a font. You can also select fonts in the standard *Fonts* pane (**Cmd-T**).

3 - Select a typeface. This drop-down list shows typefaces actually available for the selected font.

4 - Set up the font size.

5 - Choose color. This button opens the Color panel.

6 - Select text alignment.

7 - Make text bold, italic, underlined or crossed out. Notice that these buttons repeat options that can be present in the list of typefaces (3). Some of the buttons may make no change if the corresponding typeface is not provided by the selected font.

The **Fix Proportions** button restores the original look of the text. This function is supported only by distortable text. The button appears in the *Control* panel when this type of text is selected.

Text Properties in the Appearance Panel

In order to access text properties, open the *Appearance* panel by choosing **Window > Appearance** from the main menu. Notice that the *Appearance* panel lets you change the font size and color directly.
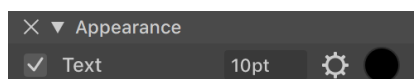
Then click on the gear icon of a text object.

1 - Select a font.

2 - Select a typeface.

3 - Set up the font size.

4 - Change the kerning.

5 - Select the text alignment.

6 - Set up the line spacing.

7 - Set up the amount of space after a paragraph. If the whole text box is selected, this control affects all paragraphs. In the editing mode, you can select one or several paragraphs. In this case, spacing after selected paragraphs will be changed.

8 - Create a list. You can choose numbers or letters for ordered lists, or bullet-like symbols.

9 - Set the distance from the bullet symbol to the text box border.

10 - Make text bold, italic, underlined or crossed out.

11 - Change the baseline.

12 - Set up the paragraph indent width.

13 - Set up the amount of space before a paragraph. If the whole text box is selected, this control affects all paragraphs. In the editing mode, you can select one or several paragraphs. In this case, spacing before selected paragraphs will be changed.

14 - Decrease or increase the indent level to create a nested list.

15 - Set the distance between the bullet symbol and the beginning of the text.

Creating Columns with Flowing Text

You can split your text into several parts to make it easier to read or to combine it with images. Columns of text are an example of such a layout. Text boxes that contain such text are linked into a chain. When the first text box becomes full, the text automatically flows into the second one, third one and so on. The same happens when you change the size of the text box or font.
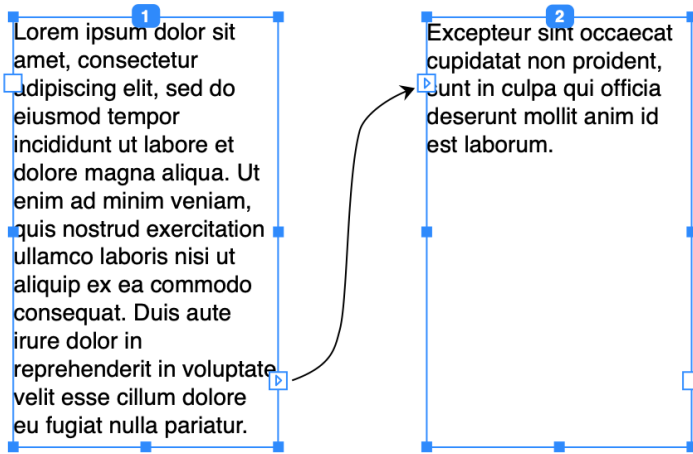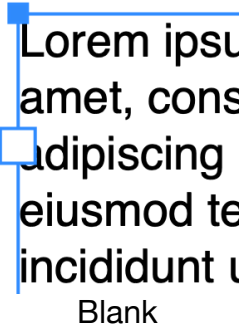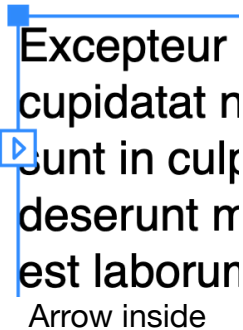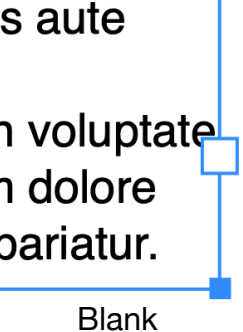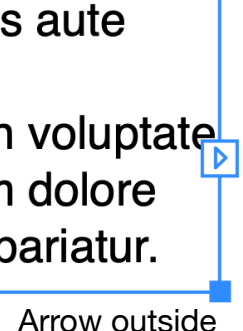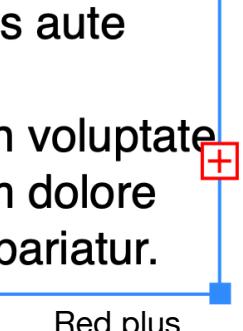
Most commonly, the rectangular boundary is used for flowing text. Text inside a shape also supports this feature.

The text object boundary indicates whether a particular text box is single or linked with others. A linked text box has a tag at the top that displays the number of this text box in the chain. Once you select any text box in the chain, the rest will display their boundaries and numbers. A single text box has no tag.

The boundary of a selected text box has a square control on each side. The functions of these controls are explained in the table. Consider the left control as the input point and the right control as the output point.

Control	Functions	Actions
Lorem ipsu amet, cons adipiscing eiusmod te incididunt u **Blank**	A blank control on the left side of the frame means that there is no other text box linked to this side. The text box is either single or the first one in the chain.	Create a linked text box or link an existing text box to the current one.
Excepteur cupidatat n unt in culp deserunt m est laborun **Arrow inside**	An arrow directed inside indicates that text begins in another text box and continues in the current one. The text box is a part of a chain but not the first one.	Unlink the preceding text box or add a linked text box before the current one.
s aute n voluptate n dolore pariatur. **Blank**	A blank control on the right side of the frame means that there is no other text box linked to this side. The text box is either single or the last one in the chain.	Create a linked text box or link an existing text box to the current one.
s aute n voluptate n dolore pariatur. **Arrow outside**	An arrow directed outside indicates that text continues in another text box. The current text box is a part of a chain but not the last one.	Unlink the following text box or add a linked text box after the current one.
s aute n voluptate n dolore pariatur. **Red plus**	A red plus on the right side of the frame means that the text doesn't fit the given space. The text box can be either a single one or a part of a chain. In the second case, it is the last text box in the chain.	Create a linked text box or link an existing text box to the current one.

Adding Linked Text Boxes

To create a chain of linked text boxes, add the first text box. Click on its right-hand control. The ⊞ cursor indicates that you can create a linked text box. Draw the second text box. Alternatively, you can click on the control and then click on the canvas. In this case, the second text box will have exactly the same size as the first one. You can continue doing this in order to create a chain of multiple text boxes.

Linking Text Boxes

To link two text boxes, use the controls on their sides. You can link the control on the right-hand side of one text box to the control on the left side of another text box. Or vice versa. It is only possible to link either two blank controls or a red plus and a blank control.

In order to link two text boxes, click on a square control of one of the text boxes. To make this text box the first in the chain, choose its right control. To make it the second, choose its left control. Once you place the cursor over another text box, the cursor's icon will change to ⬂ indicating that the text boxes can be linked. Click to complete the operation.
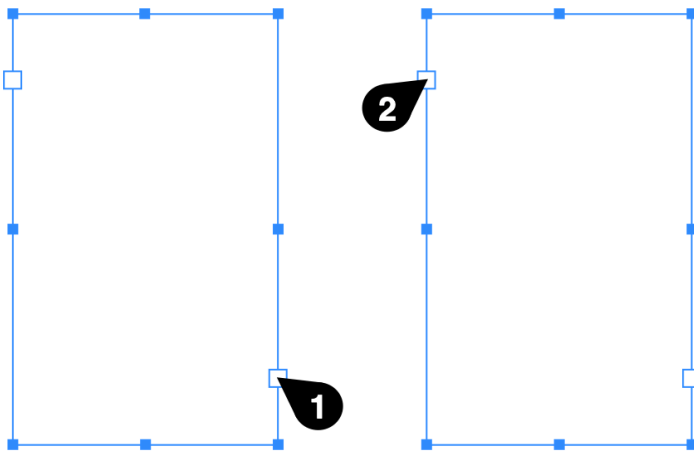
Linking Two Chains of Text Boxes

In order to link two chains of text boxes, you should link the right control of the last text box of one chain to the left control of the first text box of a second chain. This requires the same actions as you take to link individual text boxes.
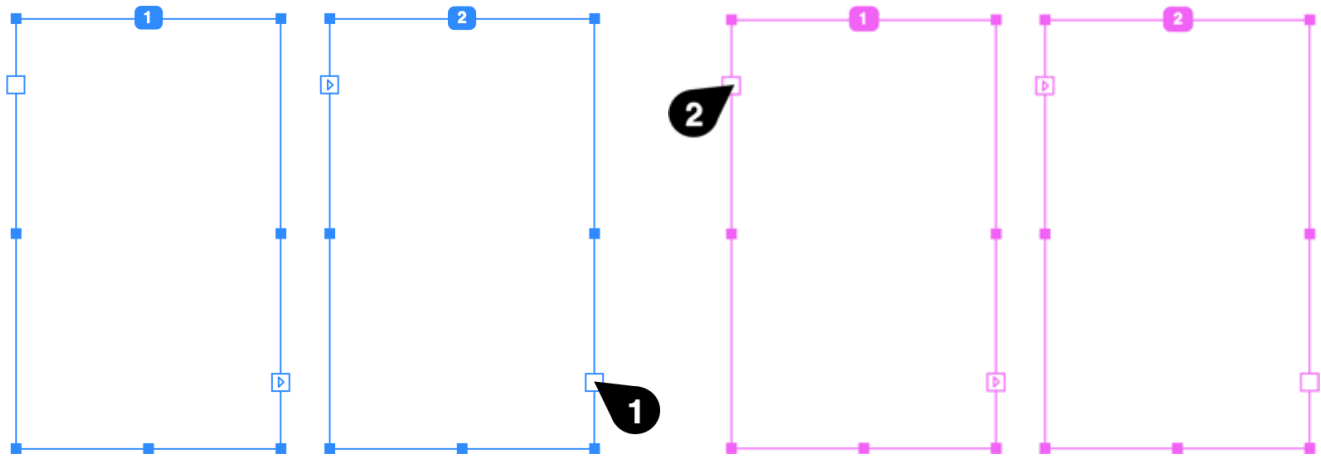
Unlinking Text Boxes

To unlink a text box from the preceding one, click on its left control. To unlink from the following text box, click on the right-hand control of the current text box. Then click on the text box to finish. Alternatively, the second click can be made on a text box that you want to unlink from the current one. The cursor's icon ⌐ indicates that unlinking is possible.
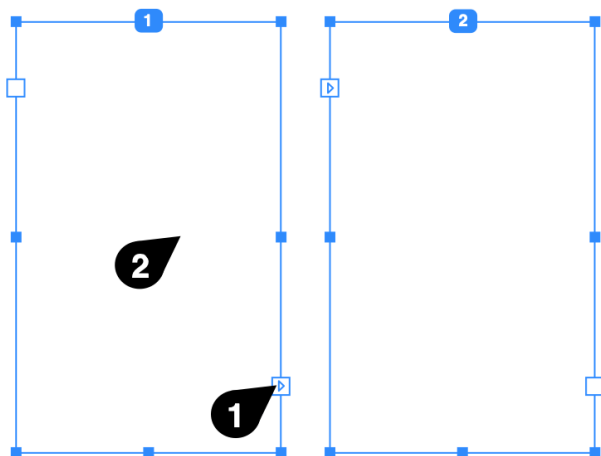
Inserting a Text Box in the Middle of a Chain

To add a text box in the middle of a chain, after a particular text box, click on its right-hand control with an arrow directed outside. Then draw a new text box. The new text box will be automatically linked to the preceding and following text boxes.

To insert a text box before a particular one, use its left control.
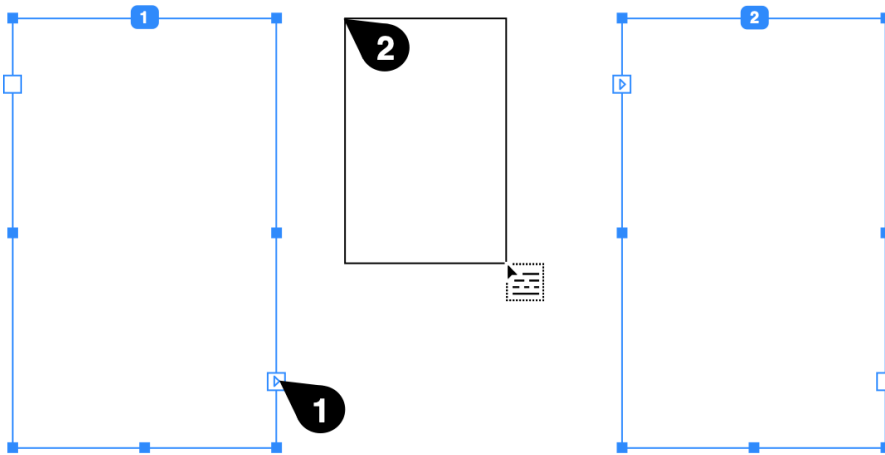
Removing a Text Box from a Chain

To delete a text box from your design, just delete it as you would do with any object. If a text box is located in the middle of the chain, the program will automatically relink the text boxes before and after it.

If you want to remove a text box from a chain but preserve it in the design, unlink this text box and relink other text boxes if necessary.

The Shadow Effect

You can add a Shadow effect to an object to create a drop shadow. You can also add an Inner Shadow effect.

Shadow   Inner Shadow
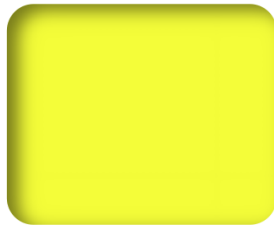
The Appearance panel is used to add and adjust the effects.

1 - Visibility of an effect.

2 - Add a new effect.

3 - Open settings of an effect.

4 - Delete a selected effect.

5 - Click to adjust the color of an effect. This button opens the Color panel.

In order to add a shadow, click on the plus button in the *Appearance* panel. Select *Shadow* or *Inner Shadow*. Then click on the gear icon of the effect and set up its properties. You can also change the color of the shadow.

The Shadow effects create raster graphics. If you plan to export a high-resolution image, or, if the exported image might be enlarged in other software, make sure that your export settings are sufficient for that.

Settings of the Shadow Effect
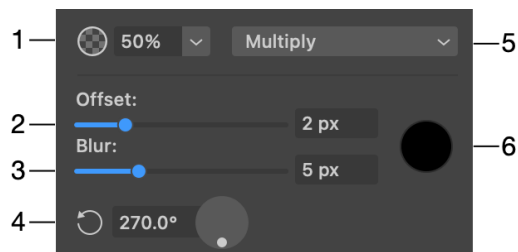
1 - Opacity of the shadow.

2 - The offset of the shadow in relation to the object.

3 - Amount of blur.

4 - The direction in which the shadow is casted.

5 - Blend mode that defines how the effect's colors interact with underlying colors. Blending is explained with examples in Blending Layers.

6 - The base color of the shadow.

The Glow Effect

You can apply the Inner Glow and Outer Glow effects to objects.

Outer Glow

The Appearance panel is used to add and adjust the effects.
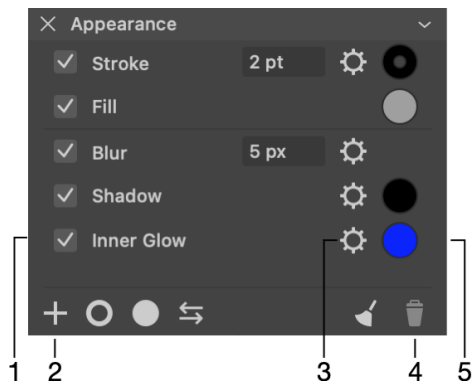
1 - Visibility of an effect.

2 - Add a new effect.

3 - Open settings of an effect.

4 - Delete a selected effect.

5 - Click to adjust the color of an effect. This button opens the Color panel.

In order to add a glow effect, click on the plus button in the *Appearance* panel. Select *Inner Glow* or *Outer Glow*. Then click on the gear icon of the effect and set up its properties. You can also change the color of the glow.

The Glow effects create raster graphics. If you plan to export a high-resolution image, or, if the exported image might be enlarged in other software, make sure that your export settings are sufficient for that.

Settings of the Glow Effect
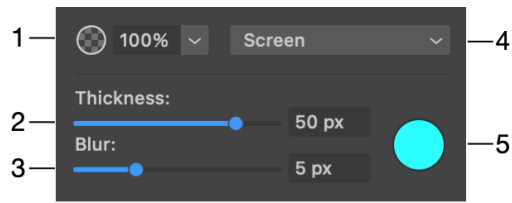
1 - Opacity of the glow effect.

2 - The thickness of the glow.

3 - Amount of blur.

4 - Blend mode that defines how the effect's colors interact with underlying colors. Blending is explained with examples in Blending Layers.

5 - The base color of the glow.

The Blur Effect

You can add a Blur effect in order to soften an object's edges.
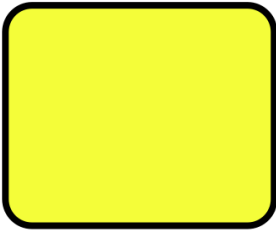
Original object   Blur effect

The Appearance panel is used to add and adjust the effects.
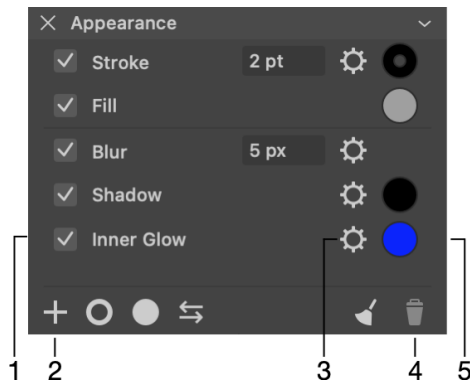
1 - Visibility of an effect.

2 - Add a new effect.

3 - Open settings of an effect. Blur lets you adjust its width directly in the *Appearance* panel.

4 - Delete a selected effect.

5 - Click to adjust the color of an effect. This button opens the Color panel.

In order to add a blur effect, click on the plus button in the *Appearance* panel. Select *Blur*. Then adjust the blur width.

The Blur effect creates raster graphics. If you plan to export a high-resolution image, or, if the exported image might be enlarged in other software, make sure that your export settings are sufficient for that.

Introduction to the Object Shape Transformation

The following methods can be used to modify objects:

- Resize or rotate using the bound box
- Editing tools: the most powerful, but, at the same time, the most labor-consuming way
- Smart shape-specific methods: easy-to-use, they apply pre-programmed object transformations
- Rounding of the object's corners
- Transform panel: gathers the resize, rotation and other tools in one place
- Free Transform tool: lets you distort an object
- Combine objects
- Apply clipping mask
- Fusion tool: lets you create a new object from several others

In this chapter, we are going to learn about special tools that help you change the shape of objects, such as the *Transform* panel and *Free Transform* tool. Others are described in the dedicated chapters.

Combining objects as well as applying a clipping mask change the visual representation of objects. At the same time, these methods provide you certain access to the original objects.

The Transform Panel

The *Transform* panel is used to adjust the geometric properties of objects. To open the panel, select **Modify > Transform…** in the main menu.

To transform a selected object, set new values in the dialog. Then click the **OK** button.

The dialog saves settings after the last transformation. To apply these settings again, select an object and choose **Modify > Transform Again**.

In order to restore the default values in the dialog, click the **Reset** button.

When you change one of the values, an outline displays a new shape or position of the object. In the image below, we moved the object to the right but didn't click **OK** so far.
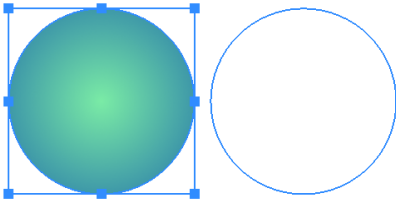
The controls in the *Transform* panel resemble controls from the Geometry panel.
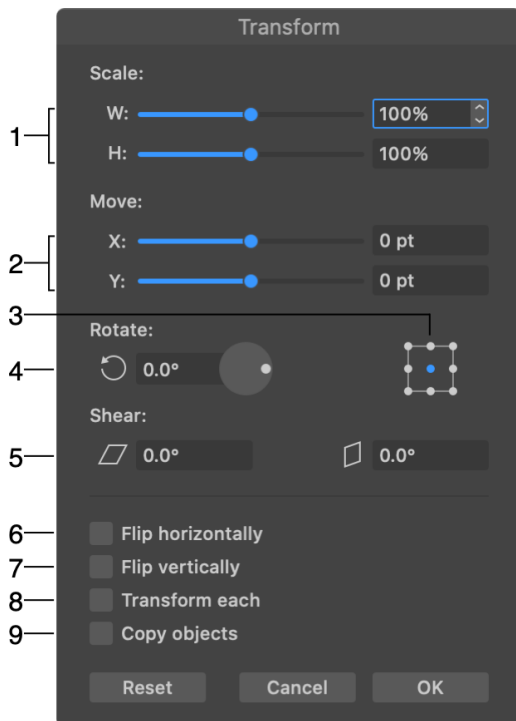
1 - Scale the width or height. You scale up or down from the current object size. The width and height can be changed independently.

2 - Move the object horizontally or vertically by the specified distance.

3 - Reference point selector. The 9-point selector lets you choose a corner, the middle of any side or the center. The reference point preserves its location when you resize or rotate the object.

4 - The rotation tool.

5 - Shear the object. A transformation that can be done with the left tool can also be performed using the combination of the right tool and rotation. The same applies to the right-hand tool.

6 - Flip the object horizontally.

7 - Flip the object vertically.

8 - Transform each. When multiple objects are selected, you can select whether to apply a transformation to each object individually (checked) or to all of them as if they were a single object (unchecked). For example, two selected objects can rotate around the center of the common bounding box (unchecked), or each can rotate around its own center (checked).

Rotation when
Transform Each is off

Rotation when
Transform Each is on
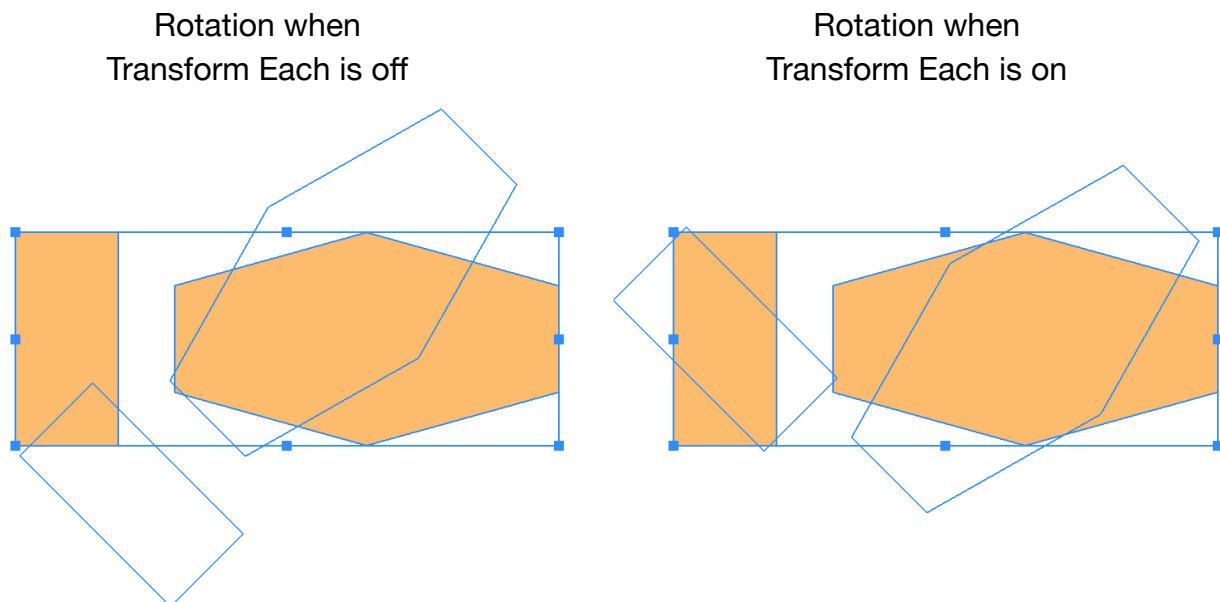
9 - Transform a copy of the object. Instead of applying a transformation to the original object, the program creates its copy. Then it transforms the copy. As a result, you will have two objects. This feature can be used to create a series of objects with one or several properties changing.

In the following example, we move the square horizontally and vertically and rotate it at the same time. The **Copy objects** check box should be selected. To repeat the image shown below, you should apply the transformation using the *Transform* panel. Then repeat it by calling **Modify > Transform Again (Cmd-J)** multiple times.
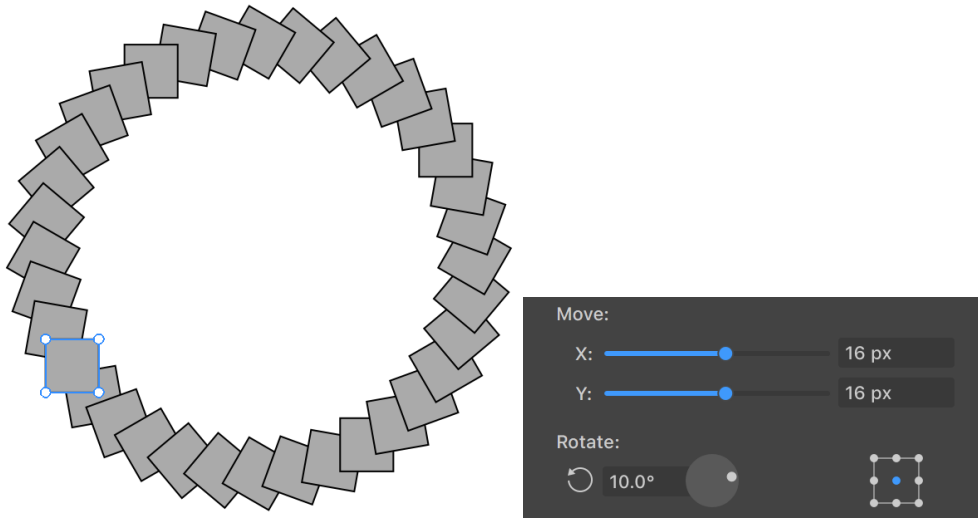
Doing this manually would take much more effort.

Transforming Objects

Scale Objects

Scale Using the Bounding Box

To resize an object, drag a corner or side handle on the object's bounding box using the **Move** tool ![Move tool icon] . To preserve the aspect ratio, do that by holding down the **Shift** key.

Scale Objects to a Particular Size

If you know the new size of the object, you can input it into the width and height fields of the Geometry panel.

Scale Objects by a Particular Percentage

In order to scale an object by a certain percentage, set the **W** and **H** values in the Transform panel.

Shear Objects

In order to shear an object, use either the Transform or Geometry panel.

Shear tools in the Transform panel
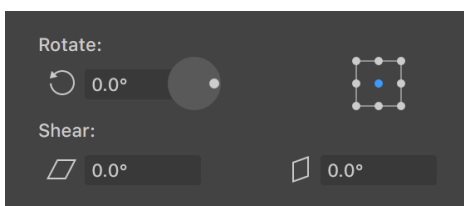
To shear an object, set the amount of transformation using one of the **Shear** controls. An icon near each tool shows the corresponding transformation pattern.

In some cases, an object can be aligned to the grid or some other object. To preserve the alignment, you can select a reference point using the 9-point control. The selected point will retain its position after transformation. For example, you can align the top left corner of a rectangle to the grid. Then click on the upper left dot of the 9-point control. After transformation, that corner will still be aligned to the grid.

Rounding Corners

User interfaces and websites often use elements with rounded corners. The most convenient way to create objects with rounded corners is to use the features described below.

Note that some anchor points create corners on a path and others don't. These two cases are explained in the Corner Points and Smooth Points section. We are going to make rounded corners at Corner Points.

Rounded Corners in Smart Shapes
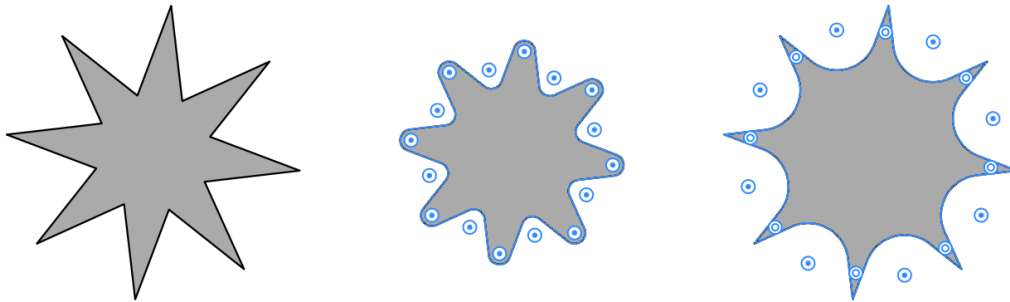
Smart Shapes are objects that are created using specialized tools. If you select a Smart Shape with the **Selection** tool, the *Control* panel will let you set the radius and select the shape of the corner in the popup panel.
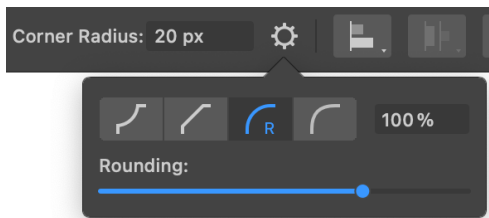
Refer to the following subsection for details.

Rounding Corners in Arbitrary Paths

When a path is selected and the **Selection** or **Lasso** tool is activated, the app displays handles near corner points. In order to create a rounded corner, move the handle. To hide or show the handles, use the **View > Show / Hide Corner Handles** menu command.
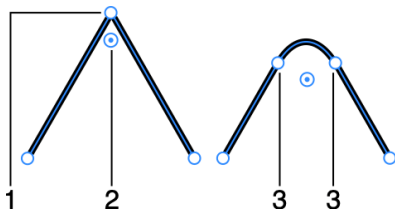
1 - Corner point.

2 - Corner rounding handle.

3 - Points that create a rounded corner.

As soon as you drag the handle off its original position, the corner radius will start increasing. The corner radius is displayed near the cursor while you are dragging the handle. You can also see and edit the value of the radius in the **Corner Radius** edit box.

To create a bevel, the app replaces the original point with two points and a segment. Strictly speaking, when you are adjusting the corner radius or the bevel shape, you actually change the location of these points and the shape of the new segment. Although the path got an extra segment and point, the app remembers the position of the original point. At certain conditions explained later, the new segment can become permanent and the rounding handle will disappear.
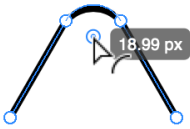
If a path or Smart Shape was selected using the **Selection** tool, you can adjust radiuses of all corners by moving just one corner handle. This is possible because all of the handles become selected by default. In order to adjust only particular corners, you should select the corresponding handles. To select or deselect several handles individually, **Shift**-click on them. The selected and deselected handles have different colors in the center.
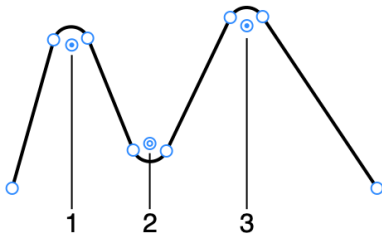
1 and 3 - Selected corner handles.

2 - Not selected handle.

When the handles aren't visible, you still can adjust the corner radius using the *Control* panel.

Changing the Bevel Shape

By default, a rounded bevel is created. This concerns arbitrary paths as well as Smart Shapes. To select a different bevel type, click on the gear icon in the *Control* panel.

Concave bevel
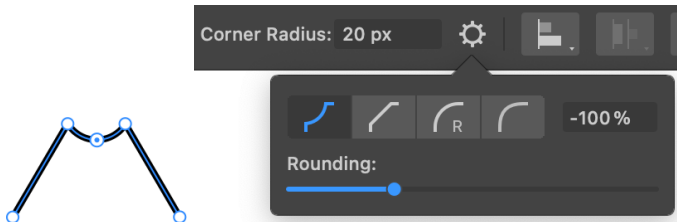
Straight bevel
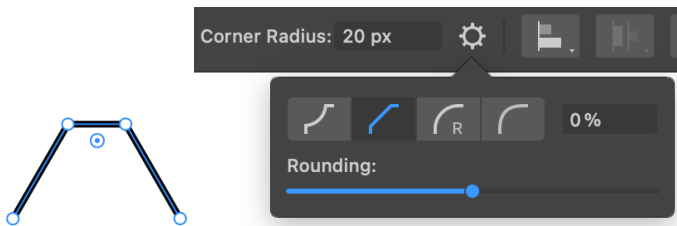
Round bevel
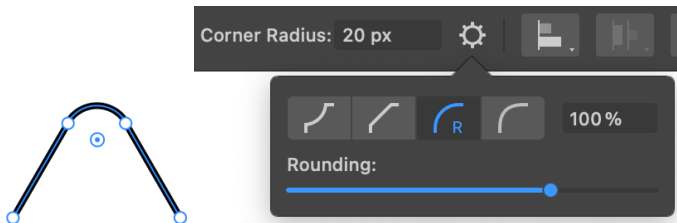
Elliptic bevel
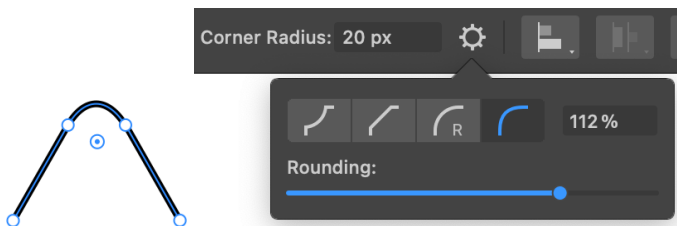
The slider below the presets lets you set intermediate values.

Converting a Rounded Corner into a Path Segment

As it was mentioned earlier, the app adds an extra segment in order to make a corner rounded. At the same time, it keeps information about the original corner point. Due to this, the handle can change the radius or restore the original point.

If you transform the path or Smart Shape, the rounded corners will be replaced with the curved segments permanently. The corresponding corner rounding handles will disappear. Then, if you select the object with the **Selection** tool again, the app will detect currently present corners

and display their handles. The mentioned transformations include: non-proportional resizing, flipping, distorting with Free Transform and Shear tools, applying the Expand and other operations.

The Free Transform Tool

The **Free Transform** tool has three modes that can be selected in the *Control* panel: Free Transform, Symmetrical Distort and Free Distort.

In order to use the tool in any of its modes, you should select an object or several objects before activating the tool. Once the tool is activated, you cannot select or deselect objects.

The tool can work either with the whole object, or with some of the object's anchor points.

Free Transform

In the *Free Transform* mode, the tool can scale, shear and rotate objects.

Holding down the **Option** key, you can transform an object symmetrically.

Scale an Object

To scale an object, move the bounding box corner handle. By default, the width and height will change independently. To maintain the aspect ratio, scale the object holding down the **Shift** key.

Original image   Image scaled vertically
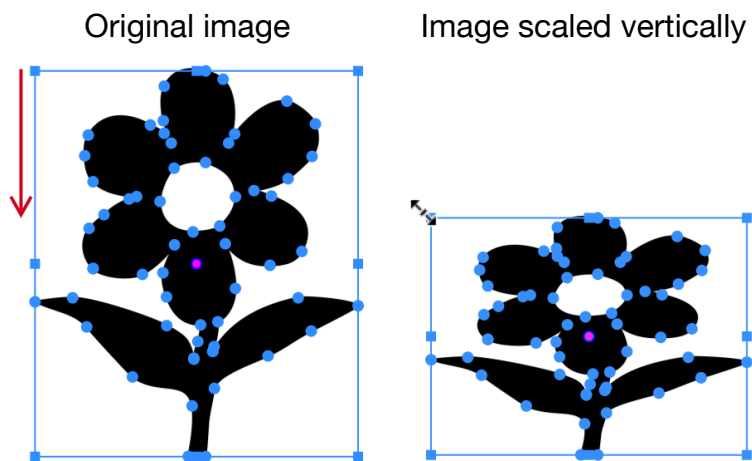
Shear an Object

To shear an object, move the handle in the middle of the bounding box side. This side will move along its current axis.
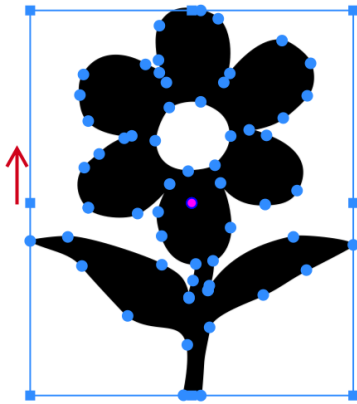
Original image   Shear-like distortion
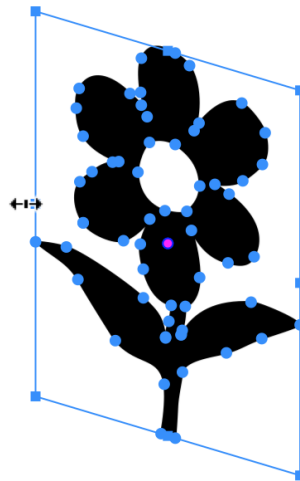
Rotate an Object

To rotate an object around an arbitrary point, drag a pink circular handle to that point. Then rotate the object by dragging any corner handle of the bounding box.
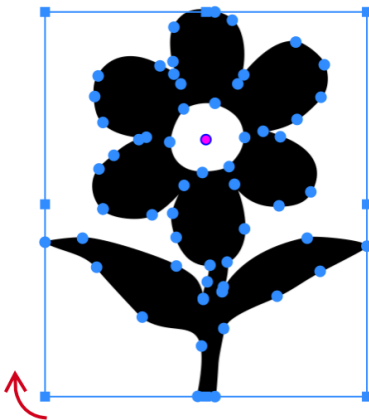
Original image   Rotation around an arbitrary point
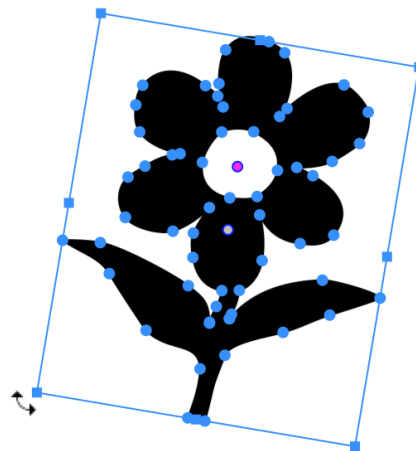
Symmetrical Distort

In this mode, you can turn the rectangular bounding box of the object to trapezium. The object will be distorted accordingly. This distortion lets you show an object in perspective.

To perform the symmetrical distortion, drag a corner handle of the bounding box along one of the sides. The handle located on the same side will move in the opposite direction by the same distance.

Original image   Symmetrical distortion
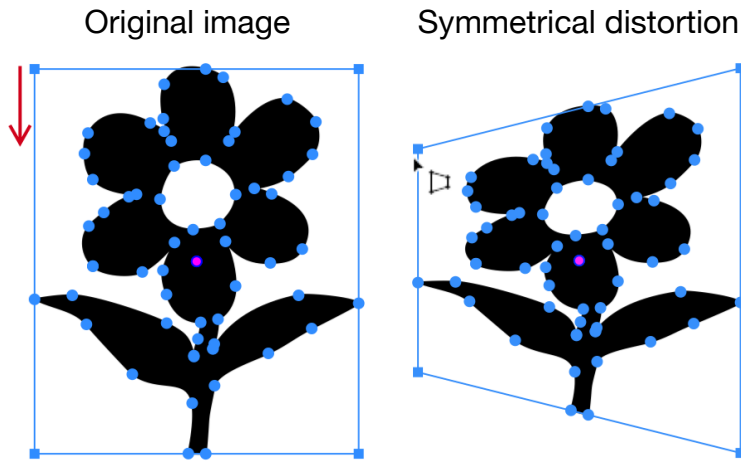
Free Distort

This mode lets you move each corner handle independently from the others.

To distort an object, drag one of the corner handles to a new position.

Original image   Free Distort tool used
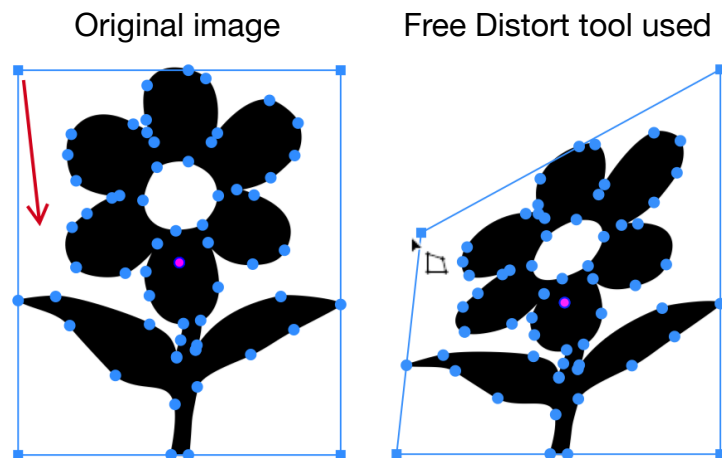
Holding down the **Option** key, you can transform an object symmetrically.

Modifier Keys and Shortcut Summary

Shortcut:

- **Q** activate the Free Transform tool.

Free Transform tool modifier keys:

- **Space** switches to the Pan mode.
- **Option** allows you to transform an object symmetrically.
- **Shift** lets you maintain the object's aspect ratio.

Combining Objects

Introduction

You can combine objects using Boolean operations: Union, Intersect, Exclude and Subtract. These operations can be applied to two or more objects. They also require that objects overlap partially or completely.

The program finds overlapping and non-overlapping areas. Then it decides to hide or show those areas depending on the selected operation. Later on this page, we'll see how this works in a simple case with only two objects.

The result of combining objects is a compound group.

To combine objects, select two or more objects. Then choose the **Union**, **Intersect**, **Exclude**, **Subtract** or **Divide** command from the **Modify > Combine** menu. You can also find these commands by clicking on the icon in the Control panel.

In some cases, the creation of a complex object by combining primitive ones is easier than drawing the same object from scratch.

Union

The result of Union is an object that includes the area of all original objects.

The created object takes on the style of the original object that is in front of all others.

Intersect

The result of the Intersect operation is an object that includes only the area where all of the original objects overlap.
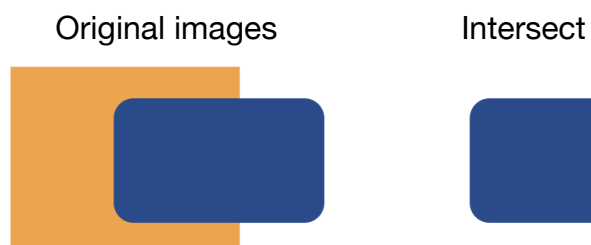
The created object takes on the style of the original object that is in front of all others.

Subtract

The result of the Subtract operation is a part of the background object that is not covered by any other object.

Original images   Subtract

The created object takes on the style of the original object that is behind all others.

Exclude

The result of the Exclude operation depends on the number of objects that overlap at every single point. A hole appears in the area where two objects overlap.

If more than two objects cover the same spot, then only an even number of objects creates a hole.

Original images   Exclude

The created object takes on the style of the original object that is in front of all others.

Divide

The Divide operation has a few significant differences from the rest. It is often used not to combine shapes but to cut them. You can utilize it as a sophisticated Knife tool.

The result of the Divide operation is a regular group, not a compound group as with other operations. So, to separate parts of the created group you just need to ungroup them.

When you apply the Divide operation to overlapping objects, all paths act as cut lines. The result looks the same as when you applied the Join operation. But inside the created group, there are multiple objects.

All shapes in the group will have the same color as the upper of the original objects. In the illustration below, the shapes were given different colors artificially.

Original images   Divide
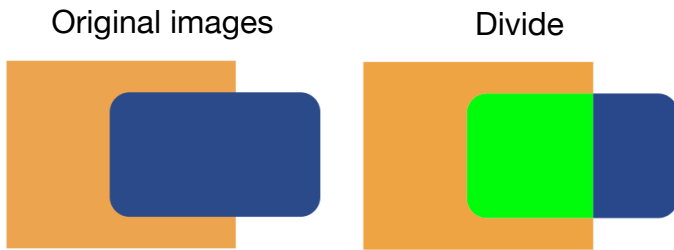
To illustrate a possible usage scenario for the Divide operation, let's create a pie chart showing 1/8 of something (or a pizza, if you like, with one slice separated). In order to cut a sector of a circle, we can use a triangle that has an appropriate angle at one of its corners. In our case, it must be 45 degrees.
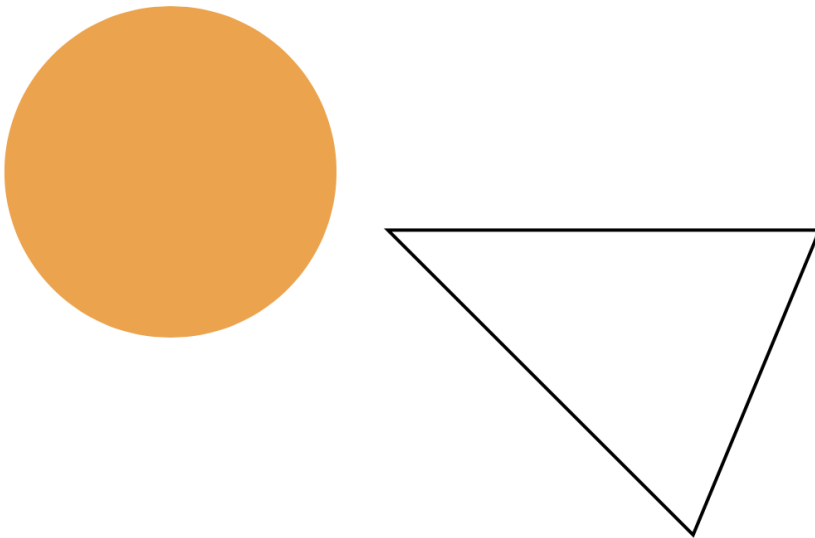
We need to place the corner of the triangle in the center of the circle.
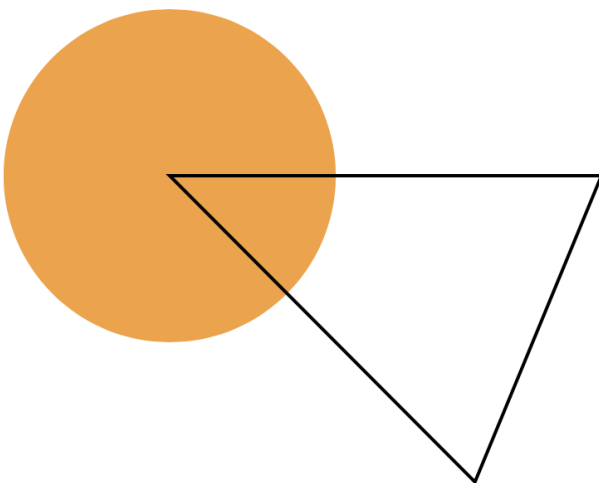
Then we select both of them and apply Divide. Once the result is ungrouped, we can delete the part of the triangle that is outside of the circle. Finally, we pull the sector off the center of the circle.

Compound Groups

A compound group can be created by combining objects.

In the Layers panel, a compound group is presented as an object named *CompoundGroup* whose sub-items are the original objects. It is similar to groups. You can access and edit those sub-objects individually. The program will instantly update the compound group.

You can change the properties of a compound group as you do with basic objects: apply stroke, fill or effects.

To split a compound group back into the objects that compose it, use the **Modify > Combine > Release** command.

To edit a compound group, use the **Selection** tool as you do to edit separate paths. Apart from editing anchor points, this tool lets you move individual objects inside the compound group.

It can be helpful to double-click on the compound group in order to enter the Isolate mode. In this mode, you can move, resize, rotate and transform the original objects.

Compound Path

You can combine objects using compound paths. After creating a compound path, the original objects can be operated as a single one. A compound path can be created from two or more objects. Areas where paths overlap create holes if the object is filled with a color, gradient or image. A new compound path takes on the style of the original object that was in front of all others.

To create a compound path, select two or more paths. Then choose **Modify > Make Compound Path** command from the main menu.

A compound path can be converted back into the original objects. To do this, use the **Modify > Release Compound Path** command.

The Layers panel displays a compound path as a basic object like a single path. Unlike a compound group, you cannot access the original paths in the *Layers* panel. The **Selection** tool still lets you edit anchor points of the original paths.

By using a compound path, you can cut holes in objects (prevent a particular area from being filled) or create a complex object out of several simple ones.

To cut a hole, you should place one object over another. Select them. Then select **Modify > Make Compound Path**. It doesn't matter if the smaller object is in front or behind the bigger one. The same result can be achieved by applying the **Exclude** Boolean operation, followed by **Expand**.
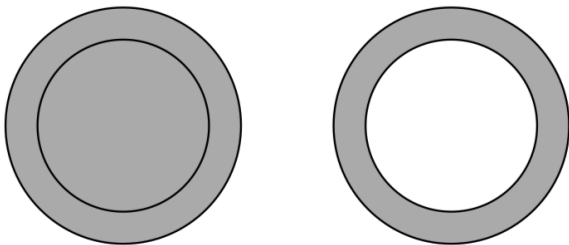
A path may outline some area in the middle of the object. The program uses certain rules to determine if such an area is inside a shape, and therefore should be filled, or it is outside and shouldn't be filled. These rules are **Non-zero Winding Fill Rule** and **Even-Odd Fill Rule**. To choose a rule, select **Modify > Fill Mode** in the main menu. The Even-Odd rule is used by default because it creates more predictable results.

The following images demonstrate the difference between the two methods.
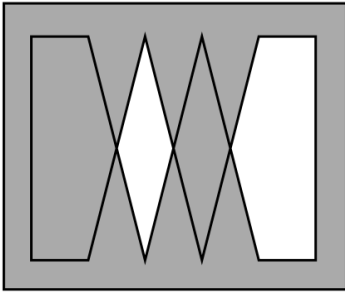
Non-zero Winding Fill Rule   Even-Odd Fill Rule
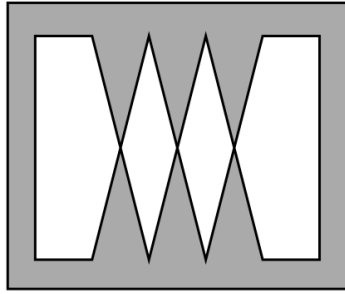
Let's see in detail how the rules work.

Non-Zero Rule

The non-zero rule determines whether a point is inside or outside the shape body by going from this point to the infinity in any direction. While going from the selected point toward infinity, we should count how many times we crossed paths. Each time we cross a path drawn clockwise, we should subtract 1. If we cross a path drawn counterclockwise, we add 1. The counted number is called a winding number.

The rule: if the winding number is zero, the point is outside the shape, so we don't fill it (cut a hole).

Notice that the direction of paths is a key thing in the non-zero rule.

Let's count the winding number (WN) for two cases. In the first, paths have the same direction. In the second example, directions will be opposite.

Same direction
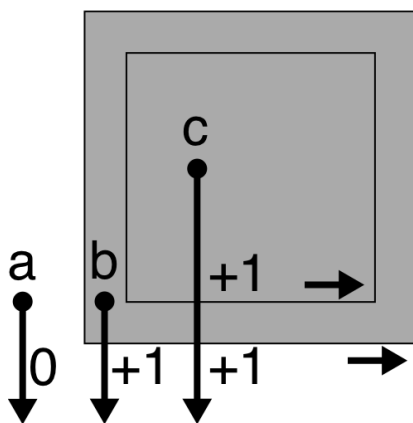
a: WN = 0. The **a** point is outside.

b: WN = +1. The **b** point is inside.

c: WN = +2. The **c** point is inside.

Opposite directions
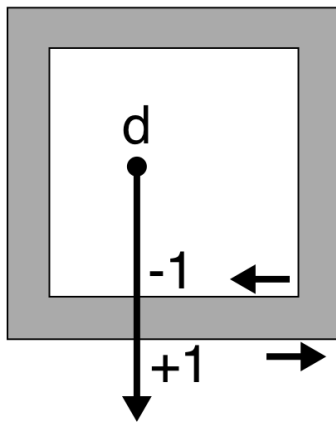
d: WN = 0. The **d** point is outside.

A more complex example where the internal path changed its direction.

Different directions
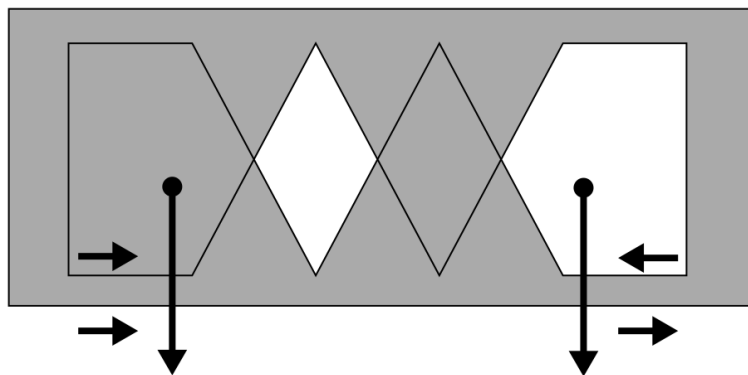
Even-Odd Rule

The even-odd rule is more straightforward. To determine if a point is inside or outside, we should go from this point toward infinity in any direction. We count how many paths we crossed.

The rule: if the number of crossings is even, the point is outside. If odd, the point is inside.

Even-Odd Rule
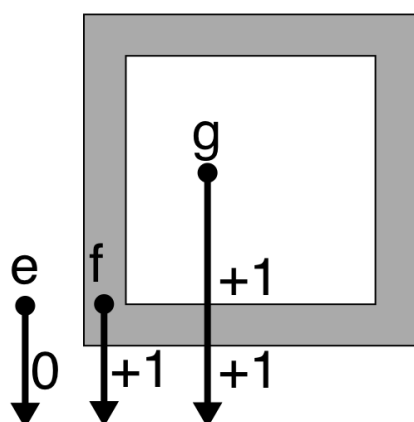
e: 0 crossings - even. The **e** point is outside.

f: 1 crossing - odd. The **f** point is inside.

g: 2 crossings - even. The **g** point is outside.

Using a Clipping Mask

About Clipping Masks

A clipping mask is an object whose outline masks another object. You can treat such a mask as an infinite surface with a hole defined by the clipping path through which you can see a masked object.

You might be familiar with the crop tool that is present in any photo editing software. A rectangular clipping mask can do the same, but it is much more flexible. It can have any other shape and can also be applied to multiple separate objects. In addition to that, you can still edit the mask and masked objects after the mask has been applied.
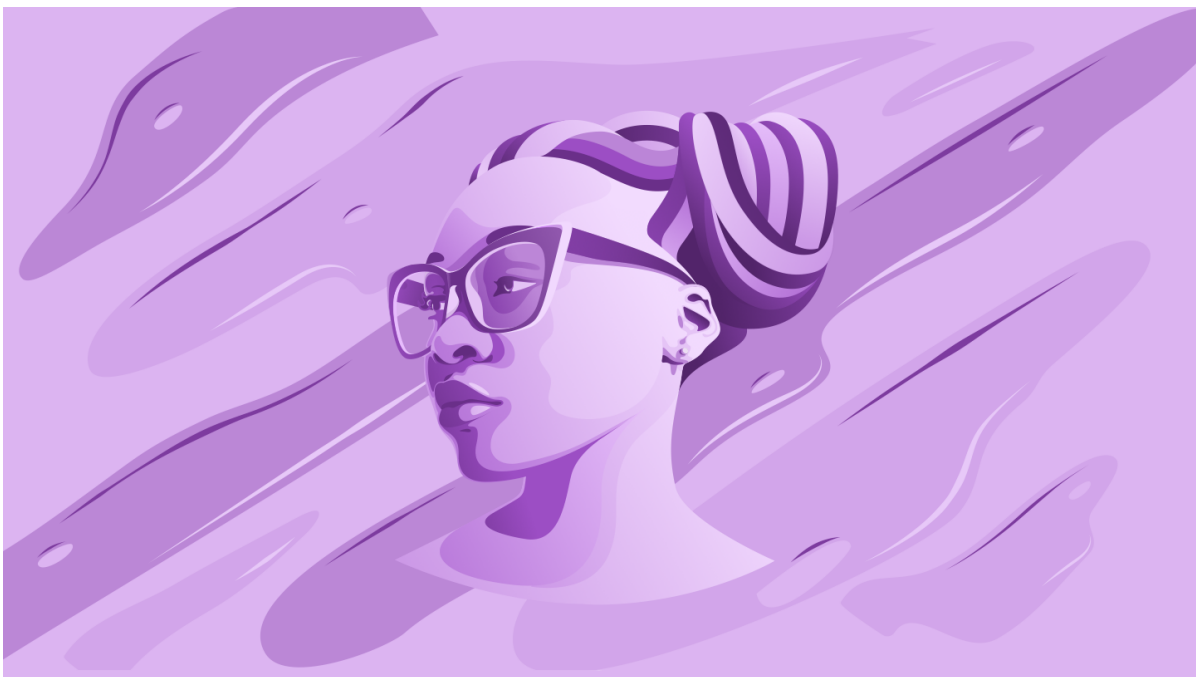
Use Clipping Mask to Hide Parts of Objects

To apply a clipping mask to an object:

1. Create a vector object that will be used as a clipping mask. Only the shape of its path matters.
2. Place the clipping path over the object you want to mask.
3. Select both the mask and object.
4. Choose **Modify > Make Clipping Mask** command from the main menu.

The result is a Clipping Group object that includes the clipping path and masked object.
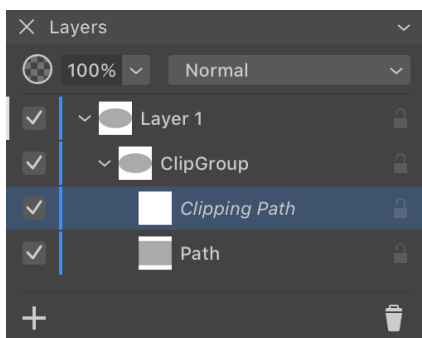
Only a vector object can be used as a clipping path. If you try to create a clipping mask out of a raster image, the rectangular boundary of this image will be used to create a clipping path.

You can mask any artwork.

A clipping mask created as explained above has no fill or stroke. It doesn't retain any style that the original object could have. If you want the mask to retain its original style, use the method explained below.

With help of the Layers panel, you can create a Clipping Group preserving the styles of the object(s) and mask. To do this, open the *Layers* panel and make sure that the object and its future mask are visible. Drag the object in the panel and drop it onto the object that should become the mask. The app will create a Clipping Group with both objects inside it. If the group should contain more objects, drag them into the group as well.

Edit a Clipping Mask

To edit a clipping mask, you can modify the clipping path using vector editing tools.

In order to outline the visible part of the masked object, apply a stroke to the clipping path.

Edit a Masked Object

In order to edit a masked object, select it in the *Layers* panel. The object can be found inside the corresponding Clipping Group. Then you can modify the masked object using regular methods and tools.

Release Objects from a Clipping Mask

To release objects from a clipping mask, select the respective Clipping Group in the *Layers* panel or on the canvas. Then choose **Modify > Release Clipping Mask** from the main menu.

Notice that the clipping mask will turn into an invisible object if it has no stroke nor fill.

You can also release the clipping mask directly in the *Layers* panel. Expand the Clipping Group item in the panel to see its contents. Then drag the object and drop it outside the group. If the clipping group contains multiple objects, drag them one after another. Or select all of them and drag them together. Once there are no objects in the group, it will disappear.

Cut an Object with the Knife Tool

The **Knife** tool can cut paths and objects into parts. This tool also works with groups and compound groups.

To activate the **Knife** tool, click on the *Knife* icon in the *Tools* panel.

To cut an object or path, select it. Then draw a cut line over that object or path.

Drawing with the Knife tool   The object was split into two parts
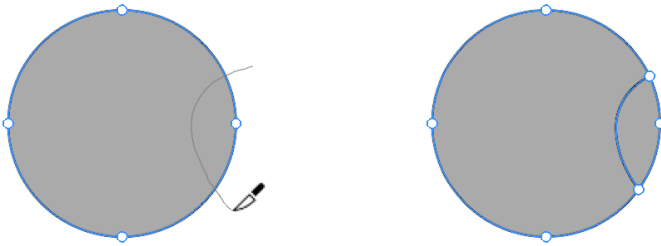
To have a straight cut, press the **Option** key before drawing a cut line. In order to snap the cut line to 45, 90 degrees and so on, hold down the **Option** and **Shift** keys.

If you cut a closed path, paths of created objects will also be closed. The program will automatically add new path segments where they are needed.

Modifier Keys and Shortcut Summary

Shortcut:

- **K** activate the Knife tool.

Knife tool modifier keys:

- **Space** switches to the Pan mode.
- **Command** switches to either Move or Selection tool depending on which of them was active most recently.
- **Option** lets you make a straight cut.
- **Option-Shift** allows you to make a straight cut directed at 45 and 90 degrees.

Cut a Path with the Scissors Tool

The **Scissors** tool can cut paths.

To activate the **Scissors** tool, click on the *Scissors* icon ✄ in the *Tools* panel.

To split a path, place the tool over the path and click. You can cut the path at any point.

Modifier Keys and Shortcut Summary

Shortcut:

- **C** activates the Scissors tool.

Scissors tool modifier keys:

- **Space** switches to the Pan mode.
- **Command** switches to either Move or Selection tool depending on which of them was active most recently.

Erase a Part of an Object

The **Eraser** tool can remove a part of an object. This tool also works with groups and compound groups.

To activate the **Eraser** tool, click on the *Eraser* icon in the *Tools* panel.

In order to erase a portion of an object, select this object. Then drag the tool over the object's part you want to remove.

If the original object is created by a closed path, the program will keep it closed. After applying the **Eraser** tool to the path, the latter will either change its shape or split into two closed paths.

The Eraser tool was dragged over the path.
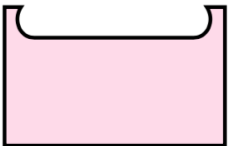
The Eraser tool was dragged across the rectangle.
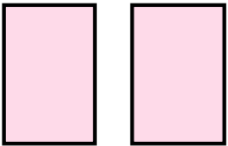
In order to move the **Eraser** tool along a straight line, use the **Option** key. Press it before dragging the tool. In order to snap the line to 45, 90 degrees and so on, hold down the **Option** and **Shift** keys.

To change the tool width, use these keys: **[** to decrease, and **]** to increase.

Modifier Keys and Shortcut Summary

Shortcut:

- **E** activates the Eraser tool.

Eraser tool modifier keys:

- **Space** switches to the Pan mode.
- **Command** switches to either Move or Selection tool depending on which of them was active most recently.
- **Option** lets you erase along a straight line.
- **Option-Shift** allows you to erase along a straight line directed at 45 and 90 degrees.
- **[** decrements the diameter of the Eraser tool.
- **]** increments the diameter of the Eraser tool.

The Fusion Tool

The **Fusion** tool is designed to create objects with complex shapes from simpler ones. With this tool, you can merge particular parts of original objects and remove unnecessary parts. You can do similar work with help of the Boolean operations. However, the **Fusion** tool is more interactive. It provides you with convenient visual feedback on what is going to happen with the objects that you edit.

To activate the **Fusion** tool, click on the *Fusion* icon ▨ in the *Tools* panel.

The tool operates on selected objects only. You must select two or more of them. While the **Fusion** tool is activated, you can press **Cmd-Shift** to temporarily switch to the **Move** tool in order to select more objects or deselect some of them. In fact, **Cmd-Shift** switches to either **Move** or **Selection** tool depending on which of them was active most recently.

Controls of the Fusion Tool

The *Control* panel displays the following options when the **Fusion** tool is activated.
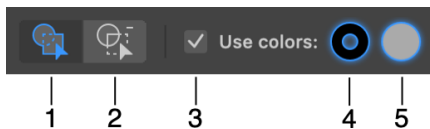
1 - Merge mode.

2 - Erase mode.

3 - Use the current object's appearance, or set up a new Stroke and Fill.

4 and 5 - The colors of new Stroke and Fill. Click to set up the color or other properties.

How the Tool Works

The tool works with objects' paths. Let's select two overlapping objects, place the cursor inside one of them and press the mouse button.
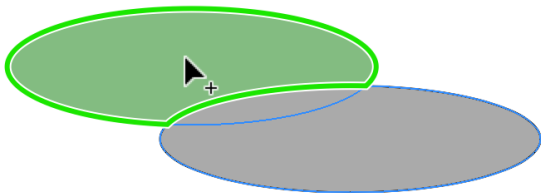
The tool will find all nearest segments, no matter which of the objects they belong to, and try to define the area those segments outline. Then it will highlight this area. When you release the mouse button (the cursor stays at the same place all the time), the **Fusion** tool will assemble a new path from the segments. So, the highlighted area gives you the idea of the object's shape that will be created.
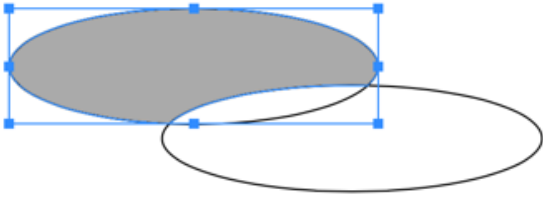
In our example, we have created a new shape that is filled with a gray color. The rest of the segments formed a second shape.

Now, let's go to another example. We start with the same two ovals. But in this case, we'll move the tool from the middle of one oval to the middle of the second oval.
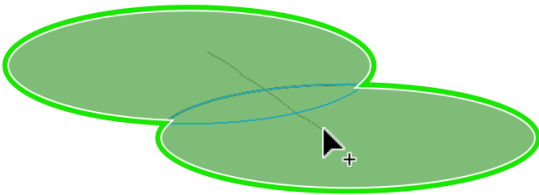
Note that when we move the tool it draws a temporary line. This line indicates areas visited by the cursor which might be affected by the tool. When we cross a path segment with the line, we tell the program to remove this segment and merge the areas the segment separates.
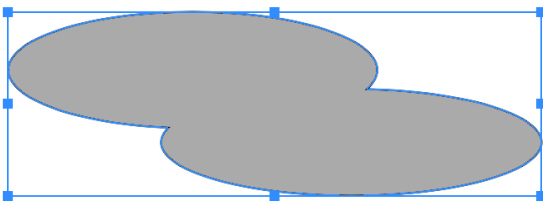
The Fusion Tool Modes

The **Fusion** tool has two modes that can be selected in the *Control* panel. We have just learned about the default Merge mode [icon] . In this mode, the tool creates a bigger area from several smaller areas that touch each other. The cursor's icon in this mode has a plus sign.

The [icon] button in the *Control* panel activates the erase mode. You can also activate it by holding down the **Option** key. This mode uses different colors to highlight object parts that will be removed. The cursor's icon has a minus sign.

If you click on a segment in the Erase mode, the segment will be deleted.
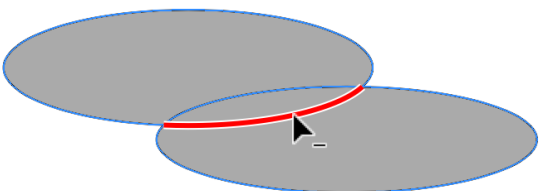
Similarly to the Merge mode, you can draw across multiple segments in order to remove them.
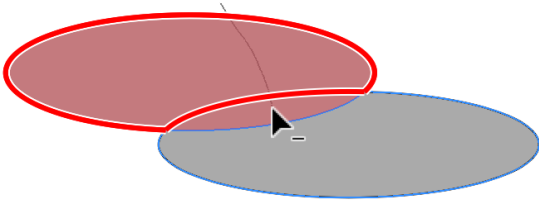
Notice that after using the **Fusion** tool, you may have a number of separate segments instead of a closed path.
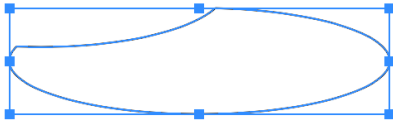
To turn them into a single object, use the **Fusion** tool in the Merge mode. Just click or drag inside the area. You can also use the Selection tool to link anchor points manually.

Usage Example

Let's create a flower using seven circles and the **Fusion** tool.
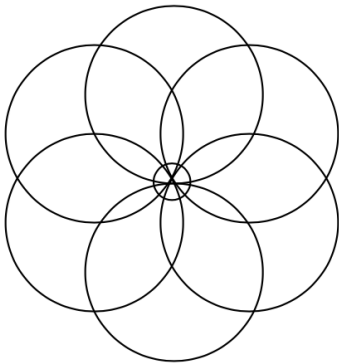
Remove the external parts of circles. By the way, you don't have to do a lot of work in one single step. Delete one segment at a time if this way is easier for you.
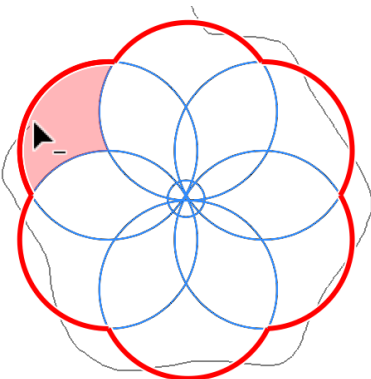
Remove everything inside the circle in the center.
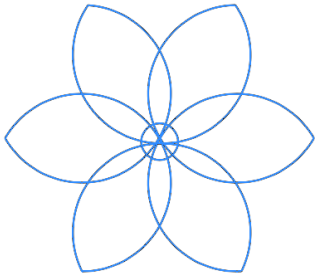
We actually remove the unnecessary segments in the center, but we could do the same by merging the central part of the flower.
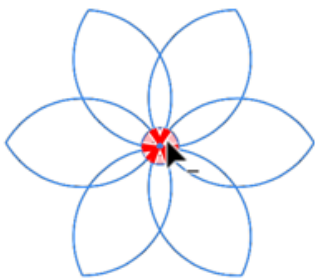
Merge two parts of each petal.
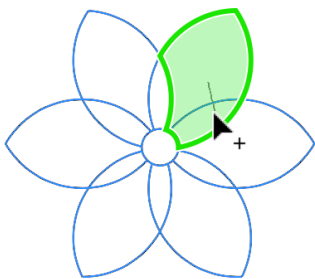
This is what we finally have.
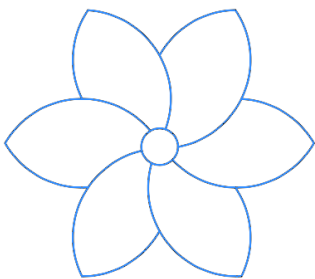
Modifier Keys Summary

Fusion tool modifier keys:

- **Space** switches to the Pan mode.
- **Command-Shift** switches to either Move or Selection tool depending on which of them was active most recently.
- **Option** switches from the Merge to Erase mode.

Introduction to Importing

It is a common practice to create more complicated projects using simple designs or images as building blocks. For example, you can create a vector pattern and place it as a decoration in a greeting card design. Or, you can import a raster image in order to create the background from it. Adding graphics from an external source can be done by importing.

Imported graphics preserve many of its properties, such as raster or vector format, or color model. You should remember this because it may be impossible to change those features once an image is imported. This means that you may need to prepare graphics before importing.

Importing graphics can also influence your work or the final design in a way that you may not originally expect. For example, you may have a design in which all colors used belong to the CMYK color model. If you then import an RGB image, you will no longer have a pure CMYK document. As another example, you may import a photo to serve as a texture or background in a completely vector design. This can limit the ability to scale up your design without quality loss because that photo will become pixelated at certain large scales.

Importing Graphics

To import graphics from a file, select **File > Import...** from the main menu and choose a file. Alternatively, you can drag and drop an image from Finder to your document. These methods can be used with SVG files as well as with other formats such as TIFF, PNG, JPEG, PDF, EPS, HEIC and AI. Note that EPS is not supported on macOS 14 Sonoma and later.

Raster graphic files that you import appear in your document as a rectangle filled with the imported image. When you import an image in a vector format such as SVG or PDF, the app works with it differently.

An imported SVG image becomes a Clipping Group. To access or edit the elements that are parts of the image, use the Layers Panel. You can also split the Clipping Group into separate objects. To do that, use the **Modify > Release Clipping Mask** command from the main menu.

When you import a PDF or EPS, you can see it in your document as one object. To edit it, you have to split it into parts with help of the **Modify > Expand** command from the main menu. The object will turn into a Clipping Group. Then use the **Modify > Release Clipping Mask** command.

If you want to fill a shape with an image, open the Color panel and choose the *Image* tab. Then select a graphic file. Note that the *Color* panel does not support the SVG format.

Exporting Documents

Supported File Formats

You can export your document to the SVG, EPS, PDF, TIFF, PNG and JPEG formats. SVG and PDF let you export vector graphics that can be scaled without quality loss. SVG, PNG and JPEG are frequently used for the Web. PDF, EPS and TIFF can be used to send your design to a print shop. Note that EPS is not supported on macOS 14 Sonoma and later.

Export Your Design

To export the whole document or its part:

1. Select the **File > Export…** command from the main menu to open the Export dialog.
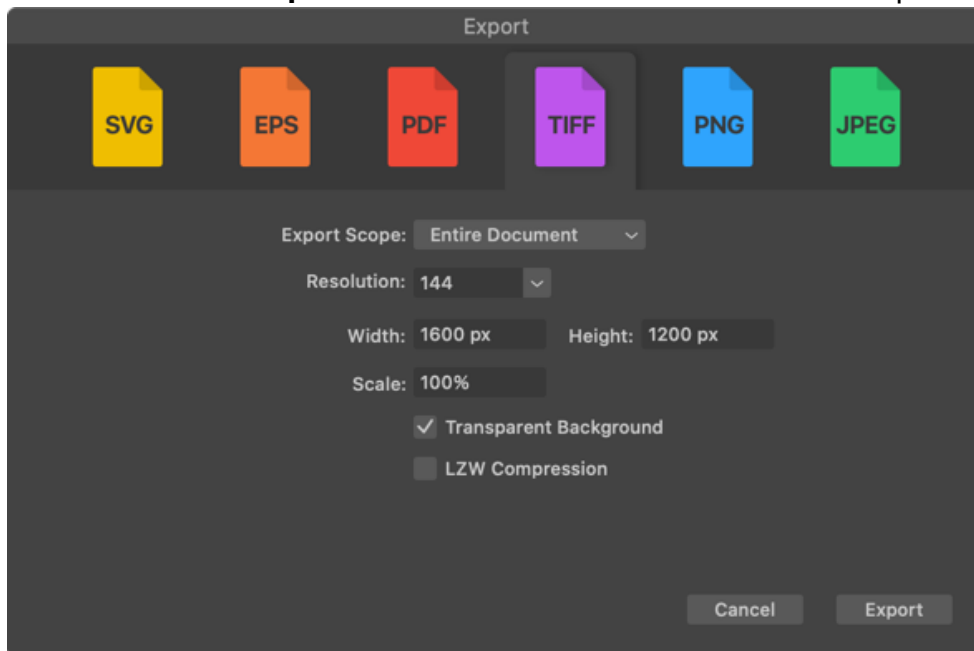
2. Select a file format at the top.
3. Choose what you want to export using the Export Scope drop-down menu. You can choose to export the *Entire Document*, *Selection* or particular *Sheets*.
4. Set up the rest of the export settings. They are explained in the Export Dialog section.
5. Click the **Export** button and type in a file name in order to complete exporting.

There is a shorter way to export a part of your design. Select what you wish to export, right-click on it, and choose **Export Selection…** Then follow the procedure above starting at step 4. Just don't forget to choose an appropriate format.

Another quick way to export your design or its parts is to copy it and paste to another app. However, note that you have no control over the export options in this case.

Export Scope

The **Export Scope** drop-down menu helps you select what part of your design should be exported. With *Entire Document*, you will export the entire document (all the sheets if you have many of them). The *Selection* option will export a selected object or multiple selected objects. If you choose *Sheets*, you can export particular sheets by inputting their numbers. For example, to export sheets from 2 to 4, you can type either *2-4* or *2, 3, 4* into the *Sheets Range* field.

The **Export Scope** also defines the default size of the image that will be exported. If you export a sheet, the size of the sheet will be used although the contents don't take up all of its space. If you export a selected object, the object's boundary will define the size of the image. If you choose to export the entire document, the image size will be set according to the area on the canvas that includes all sheets together with gaps between them. In such cases, you may get a huge image if you have several Letter-sized sheets in your document.

The Export Dialog

The *Export* dialog displays settings for different export formats: JPEG, PDF, EPS, PNG, SVG and TIFF. Some of the settings are shared between the formats. Note that EPS is not supported on macOS 14 Sonoma and later.

JPEG
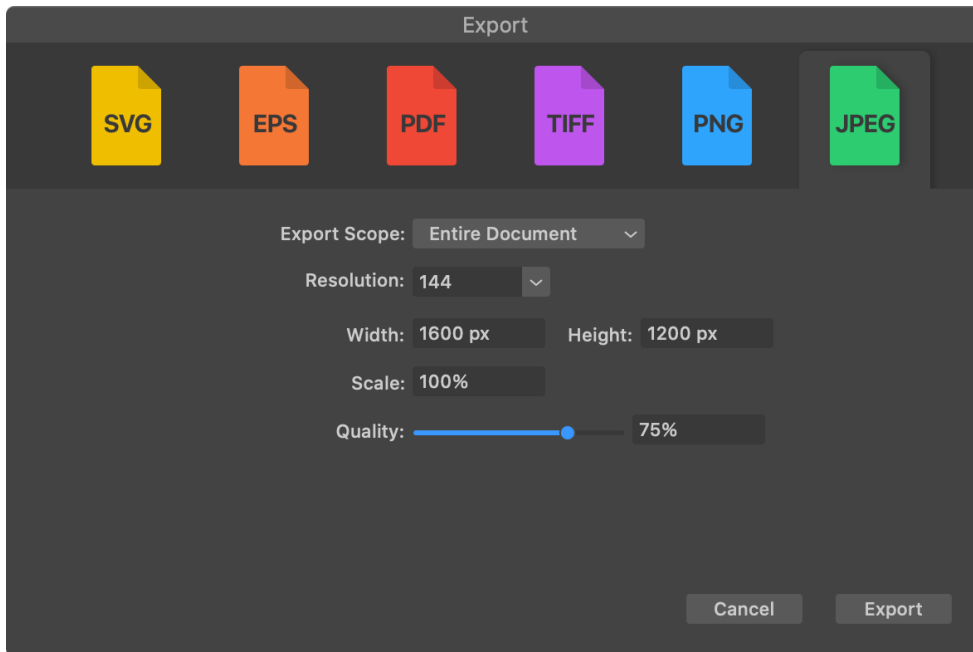
Export Scope: Choose whether to export the entire document or a part of it. The **Export Scope** option is described in the Export Scope subsection.

Resolution: Resolution of the output image. You can select one of the predefined options or type your own value.

Width and Height: Set the absolute size of the output image.

Scale: Set the output image size in relation to the original dimensions. When you change the **Scale**, the program shows the corresponding **Width** and **Height**.

Quality: Set the output image quality. By decreasing the value, you can have a smaller file, but the image will preserve less details, and it may have artifacts.

PDF and EPS
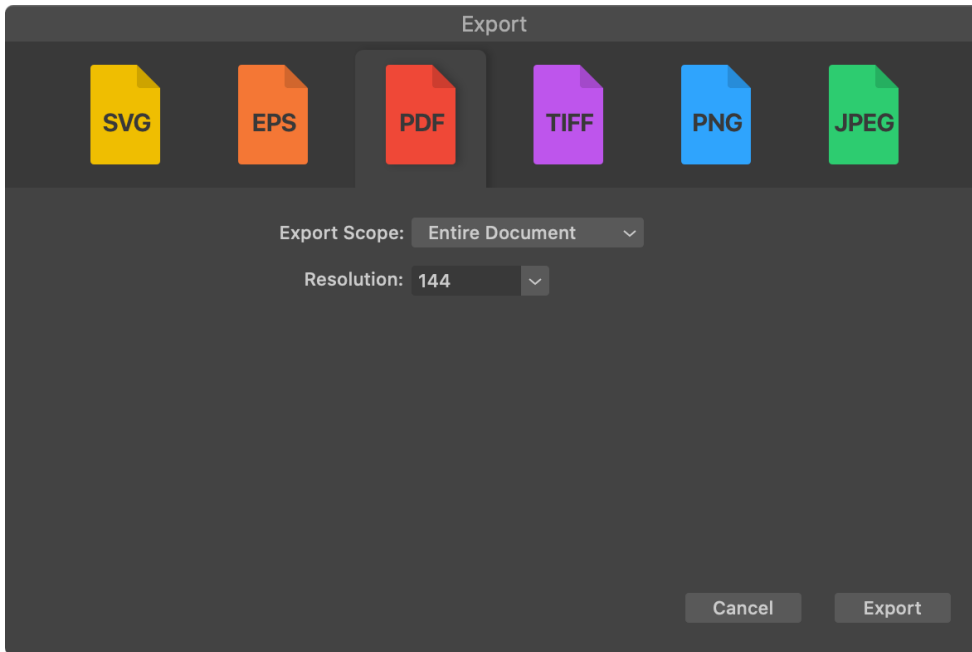
Export Scope: Choose whether to export the entire document or a part of it. The **Export Scope** option is described in the Export Scope subsection.

Resolution: Resolution of raster elements of the design. This option doesn't affect vector elements. You can select one of the predefined options or type your own value.

PNG

Export Scope: Choose whether to export the entire document or a part of it. The **Export Scope** option is described in the Export Scope subsection.

Resolution: Resolution of the output image. You can select one of the predefined options or type your own value.

Width and Height: Set the absolute size of the output image.

Scale: Set the output image size in relation to the original dimensions. When you change the **Scale**, the program shows the corresponding **Width** and **Height**.

Transparent Background: Keep transparency in areas that contain no visible objects in your design. When this option is turned off, a white background is used to fill such areas.

SVG

Export Scope: Choose whether to export the entire document or a part of it. The **Export Scope** option is described in the Export Scope subsection.

Resolution: Resolution raster elements of the design. This option doesn't affect vector elements. You can select one of the predefined options or type your own value.

Unique ID as Object's Name: Use unique IDs for paths, groups, etc. Otherwise, the app exports the names which were used for naming objects, groups and layers in the *Layers* panel. Turning this option on can be useful if you are going to use the exported image for Web applications.

Text as Curves: Convert text objects to paths. This option lets you avoid issues with missing fonts. Note that using curves to display text can significantly increase the size of exported files.

TIFF

Export Scope: Choose whether to export the entire document or a part of it. The **Export Scope** option is described in the Export Scope subsection.

Resolution: Resolution of the output image. You can select one of the predefined options or type your own value.

Width and Height: Set the absolute size of the output image.

Scale: Set the output image size in relation to the original dimensions. When you change the **Scale**, the program shows the corresponding **Width** and **Height**.

Transparent Background: Keep transparency in areas that contain no visible objects in your design. When this option is turned off, a white background is used to fill such areas.

LZW Compression: Activate this option to decrease the output file size. Note that not all software supports compressed images.

Printing

You can print your design directly from the program. As an alternative, you can export your document to a graphic file and then print it using any other software.

To print a document:

1. Select the **File > Print...** command from the main menu to open the *Print* dialog.
2. If the *Print* dialog opens in the compact mode, click the **Show Details** button at the bottom to make the dialog look like in the following image.
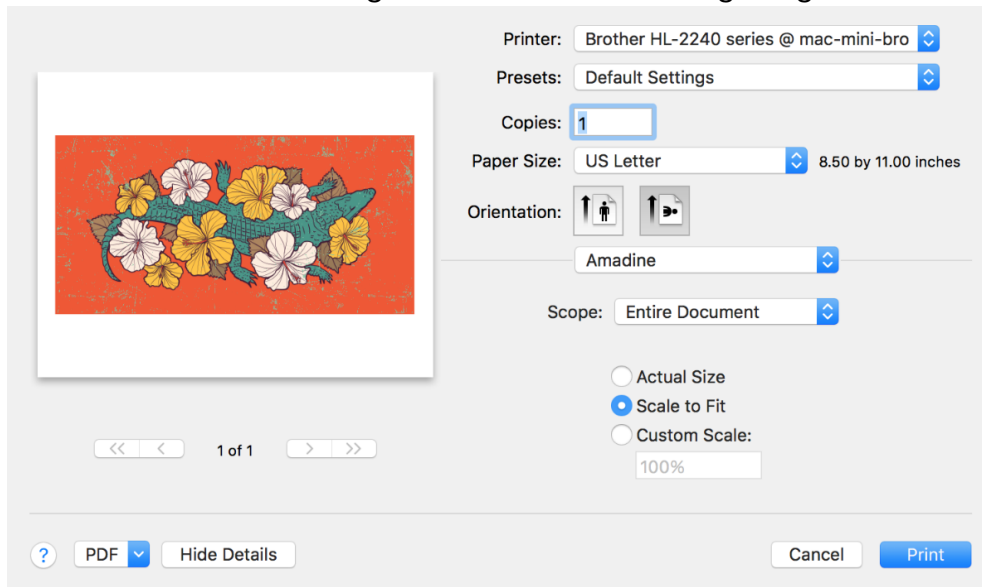
3. Set the **Paper Size** and **Orientation**.
4. Make sure that *Amadine* is selected below the **Orientation** buttons in order to display the group of settings that we are going to use. Otherwise, choose *Amadine* from the drop-down menu.
5. Set up the **Scope**. It works similarly to the Export Scope used for exporting.
6. Set up the **Scale**. Your document can be printed at the *Actual Size*. If the image is bigger than the paper sheet, you can fit it to the page by selecting *Scale to Fit*. The *Custom Scale* option lets you choose an arbitrary scale.
7. Click the **Print** button to start printing.

Introduction to the Library

Built-in Collection of Objects

The app provides you with a collection of different arrows, signs and so on that you can use in your designs. All of these images are in vector format. You can edit them with the same tools that you use for creation of your own graphics.

The objects can be found in the Libraries panel. To open it, select **Window > Libraries & Stock Images > Amadine Libraries** in the main menu. Another way is to click on in the Control panel and select *Amadine Libraries* at the top.
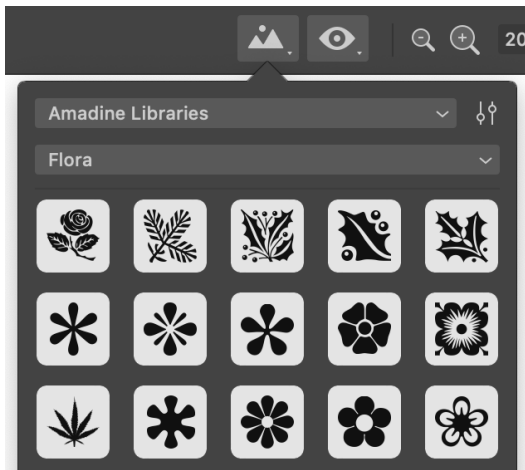
Images related to a certain subject area are located in the same category (e.g., Science). Such categories are also called libraries in the program. Thus you have a library of arrows, a library of symbols and so on.

Users cannot change the contents of the standard libraries. If you wish to store your own objects, create a new library.

User's Libraries

The *Libraries* panel can serve you as a storage for reusable objects created in the app. User's libraries can store almost any object type from a single path to objects with multiple effects applied, or groups.

You can create as many libraries as you need. It is possible to add and delete objects from your libraries. Objects in a user's library can also be reordered. Finally, you can delete a library if it is not needed any more. All of this you can do with help of the Libraries panel.

Unlike the standard libraries, user's libraries can be exported and imported. This is useful for sharing a library between multiple users or multiple devices.

The Libraries Panel

The *Libraries* panel has two main purposes. It gives you access to a collection of vector images that you can add to your documents. The panel also lets you store your own objects so that they can be reused later.

To bring up the panel, select **Window > Libraries & Stock Images > Amadine Libraries** in the main menu. Another way is to click on in the Control panel and select *Amadine Libraries* at the top.
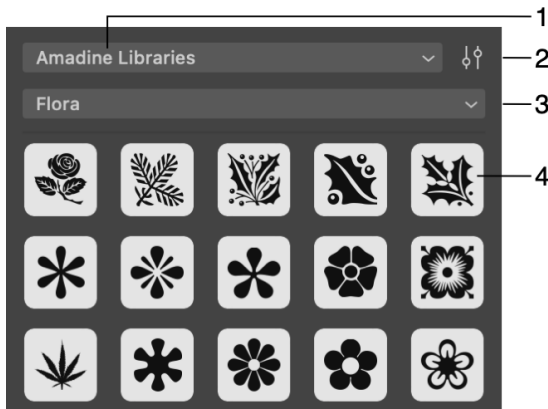
1 - Open a built-in library or image stock.

2 - Open the panel's menu.

3 - Choose a library.

4 - Object's preview.

To add a library object to your design, drag the object onto the canvas. Another way is to click on the object's preview in the library.

Working with Libraries

The menu lets you manage user's libraries. It is not possible to make any changes in the standard libraries.

In order to create a new library, select **New** in the menu and type in a name. If you wish to change the name, use the **Rename** command.

To delete a library that is currently displayed in the panel, choose the **Delete** command from the menu. Note that the library will be removed together with all objects inside it.

Working with Objects

To add an object to a user's library, select that object on the canvas. Then create or open a library that should store the object and click on the **Add Object** command in the panel's menu.

In order to remove an object from the user's library, bring up the context menu of the object by right-clicking on it and choose **Delete Object**.

To reorder objects, drag one of them and drop at a new position in the library.

It is possible to export a user's library to a file that can be imported later on the same or different device.

Exporting and Importing Libraries

You can export and import the contents of the user's libraries. This feature lets you create a set of objects (e.g., components for a design) on one device and then use these objects on another device to finalize the design. Exporting is also a convenient way to share your object with other people.

Another use of exporting and importing is the possibility to create a backup copy of your libraries outside the app.

Exporting

When you export one or all libraries, the app creates an *.amdl* file. To import, you need to provide a file in the same format. This format is supported on all platforms where you can run the Amadine app.

To export one particular library, choose it in the Libraries panel. Then choose **Export** in the menu ⬙.

In order to export all of the user's libraries, use the **Export All** command in the menu of the panel.

Importing

To import libraries from a file, use the **Import** command in the panel's menu ⬙.

Libraries that you import should appear as separate items in the drop-down list of libraries in the panel. If you import a library with the same name as one already present in the panel, both of them will be listed. The program doesn't merge or delete libraries automatically.

Using Image Stocks

The app can import images from online image stocks directly into your document. The Internet connection is required for that. The following stocks are supported: Pexels, Pixabay and Unsplash.

The *Libraries* panel is used to access the image stocks. To open it, you can use the main menu. Select **Window > Libraries & Stock Images** and choose a stock. Another way is to click on ![icon] in the Control panel in order to bring up the *Libraries* panel. Then choose a particular image stock in the upper drop-down menu. By default, the panel displays the built-in image collection under the *Amadine Libraries* title.
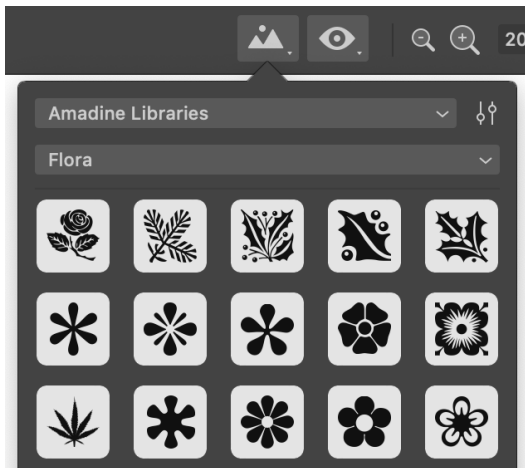
Type in keywords into the Search box and press **Return** to find images. The menu button ![icon] lets you filter images by the orientation (e.g., portrait or landscape).
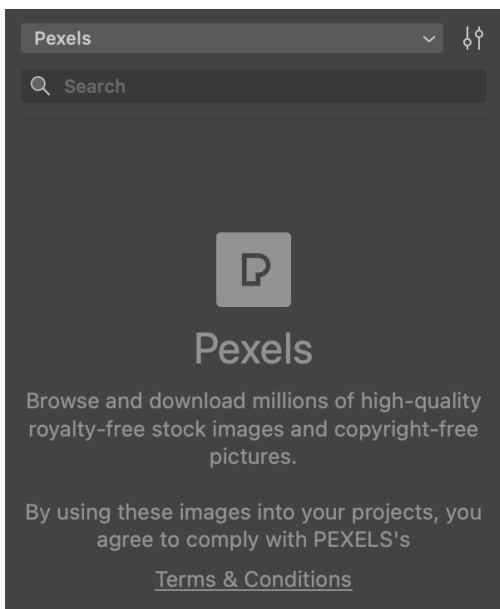
The panel displays previews of images. To add one to your design, drag and drop it. That can also be done by clicking on a preview.
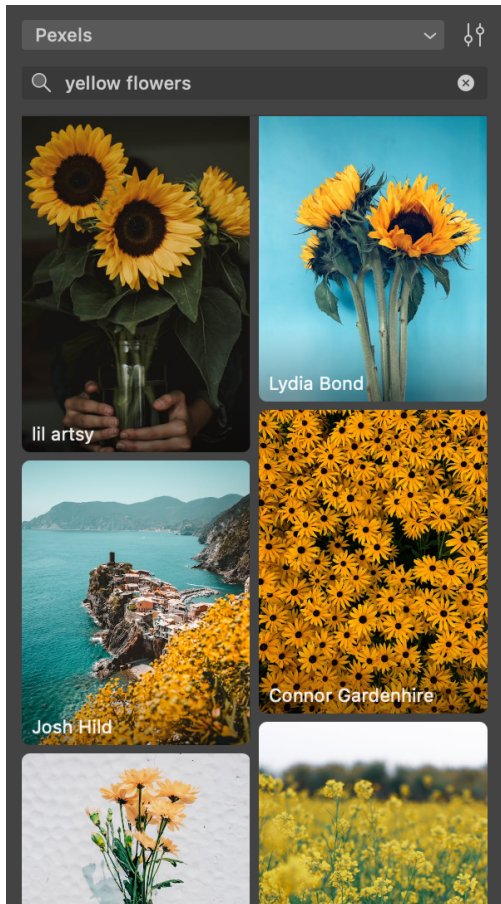
Each image has its author's name at the bottom. You can click on it to open that particular author's page in your browser.

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