



TouchDraw 2 for Mac

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1. Introduction

This is the home of the **TouchDraw 2 for Mac** documentation. The layout of the pages and information displayed in this documentation is based on the User Interface (UI) structure. It is broken down into seven main sections with pages describing each portion of the interface and available functionality:

Section Name	Description
Preface	The Preface section contains necessary legal and acknowledgement information regarding TouchDraw 2 for Mac.
Getting Started	The Getting Started section contains information for launching TouchDraw 2 and beneficial web page links.
User Interface	The User Interface section can be used to learn more about the application interface.
File Management	The File Management section can be used to learn more about managing files and drawings within TouchDraw 2.
Editing Drawings	The Editing Drawings section can be used to learn more about available features when working with a drawing in TouchDraw 2.
Tips and Techniques	The Tips and Techniques section can be used to learn about using the Function Key Feature to perform specific actions within TouchDraw 2.
Miscellaneous	The Miscellaneous section contains additional information outside of the main UI structure of the application such as file importing and exporting formats.

Information shown in the [User Interface](#), [File Management](#), and [Editing Drawings](#) sections, in particular, are organized based on the layout of the application interface.

For example, to find information about changing the text properties of a figure in the editor, go to the [Editing Drawings](#) section, expand these pages, and then select **Text**.

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Preface

Getting Started

User Interface

File Management

Editing Drawings

Editing Basics

Using the Clipboard

Handling Figures

Arranging Figures

Aligning Figures

Snapping Figures

Ordering Figures

Distributing Figures

Combining Shapes

Handling Colors

Handling Strokes

Editing Drawings

The options for **Editing Drawings** in TouchDraw 2 are designed to make working with figures, lines, paths, and handles easier. The following pages explain how to perform drawing editing operations.

Editing Basics

Using the Clipboard

Handling Figures

Arranging Figures

Aligning Figures

Snapping Figures

Ordering Figures

Distributing Figures

Combining Shapes

Handling Colors

Handling Strokes

Handling Text

Handling Paths

Handling Libraries

Calculations

To find information about importing or exporting a drawing, go to the [File Management](#) section and select one of these pages.

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Preface

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User Interface

File Management

Creating a New Drawing

Opening a Drawing

Importing a Drawing

Saving a Drawing

Exporting a Drawing

Printing a Drawing

Closing a Drawing

File Management

TouchDraw 2 provides numerous **File Management** options to make working with new, saved, or imported drawings easier. The following pages explain how to perform basic file operations.

- [Creating a New Drawing](#)
- [Opening a Drawing](#)
- [Importing a Drawing](#)
- [Saving a Drawing](#)
- [Exporting a Drawing](#)
- [Printing a Drawing](#)
- [Closing a Drawing](#)
- [Inserting an Image](#)

Each of these documentation section begins with pages describing the basic features of their user interface and subsequent pages provide further details about a particular feature. Use the links on a page to navigate to

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additional information about a particular subject or expand the pages to find a particular section. The **search feature** can be also be used to find an item. Simply type in a keyword and a list of pages will appear for selection.

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Introduction

Preface

Getting Started



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Editing Drawings

Tips and Techniques

Miscellaneous

  Search TouchDraw 2 for Mac

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Introduction

This is the home of the TouchDraw 2 for Mac documentation. The layout of the pages and information displayed in this documentation is based on the User Interface (UI) structure. It is broken down into seven main sections with pages describing each portion of the interface and available functionality:

Section Name	Description
Preface	The Preface section contains necessary legal and acknowledgement information regarding TouchDraw 2 for Mac.
Getting Started	The Getting Started section contains information for launching TouchDraw 2 and beneficial web page links.
User Interface	The User Interface section can be used to learn more about the application interface.

2. Preface

2.1. Legal Notice

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2.3. Acknowledgements

Special thanks to Jutta, Rafe, Nico, Don and Carol for their support during the development process. TouchDraw 2 wouldn't be possible without their continued support.

Additional thanks to all of our beta testers and users who have supplied endless amounts of great feedback and suggestions to help shape TouchDraw 2 into what it is today.

3. Getting Started

TouchDraw 2 supplies everything you need to create structured 2D vector graphics on the go with your device. Create charts, graphs, floor plans, architecture drawings, illustrations or most anything else you can image.

Not only does TouchDraw 2 make it easy to quickly create your drawings, it also delivers a simple to use environment where you will enjoy changing and manipulating each drawing.

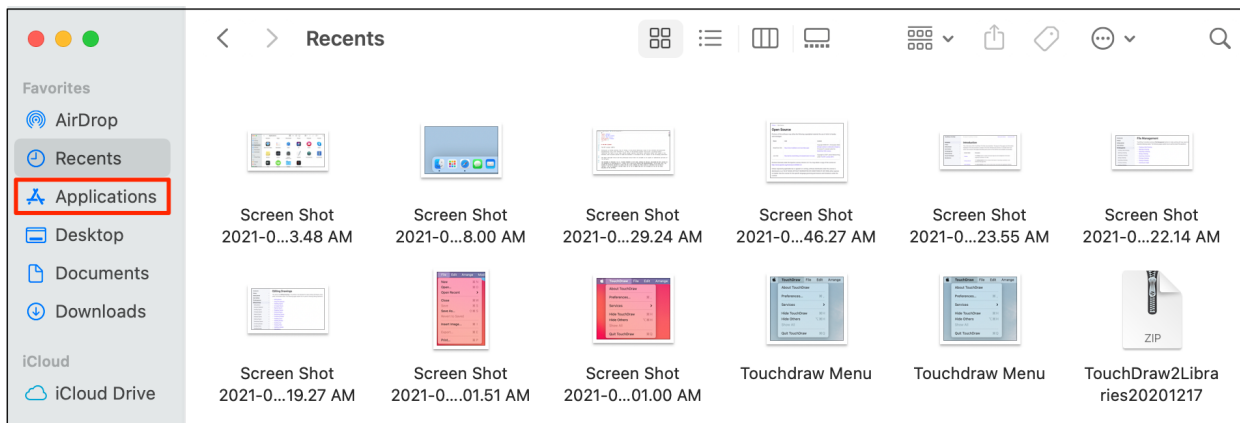
3.1. Launching TouchDraw 2

To launch the TouchDraw 2 application on your Mac, complete the following steps:

Step 1: Open Finder.

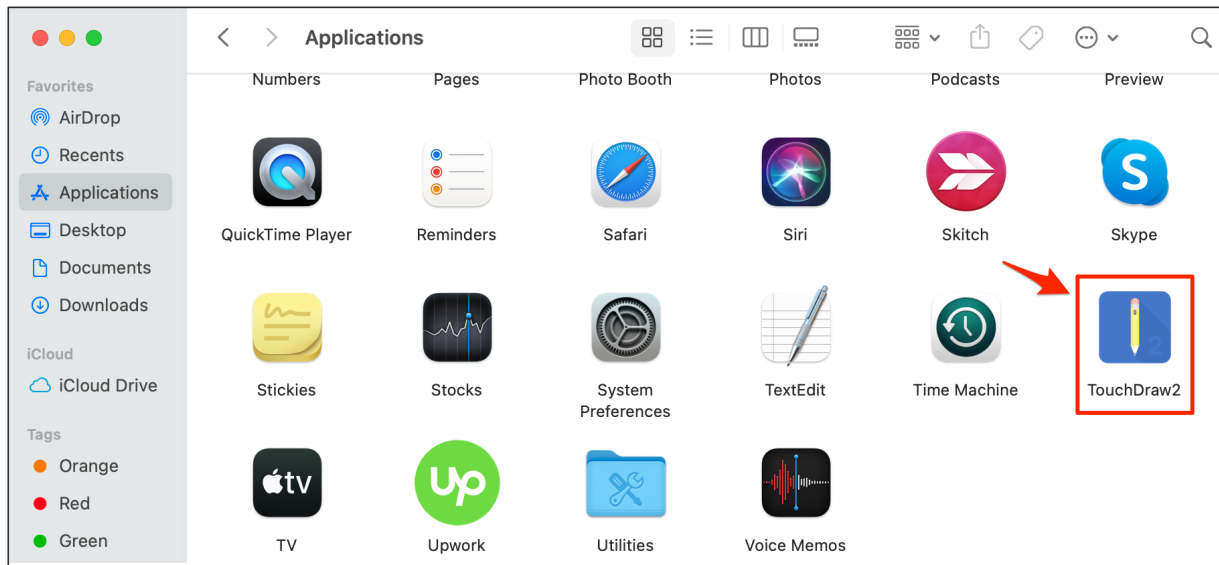


Step 2: Select Applications in the finder window.



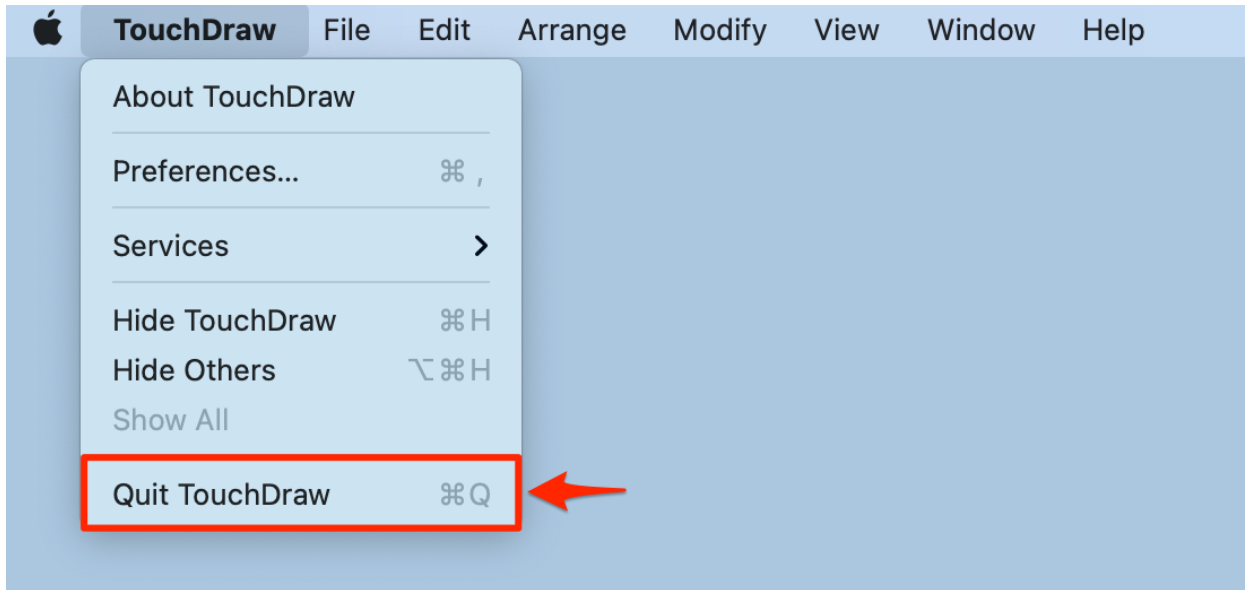
Step 3: Locate the TouchDraw 2 application and click to open.

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3.2. Closing TouchDraw 2

Select the **TouchDraw Menu** in the menu bar and then select **Quit TouchDraw** to close the application.



3.3. Useful Links

Elevenworks Website

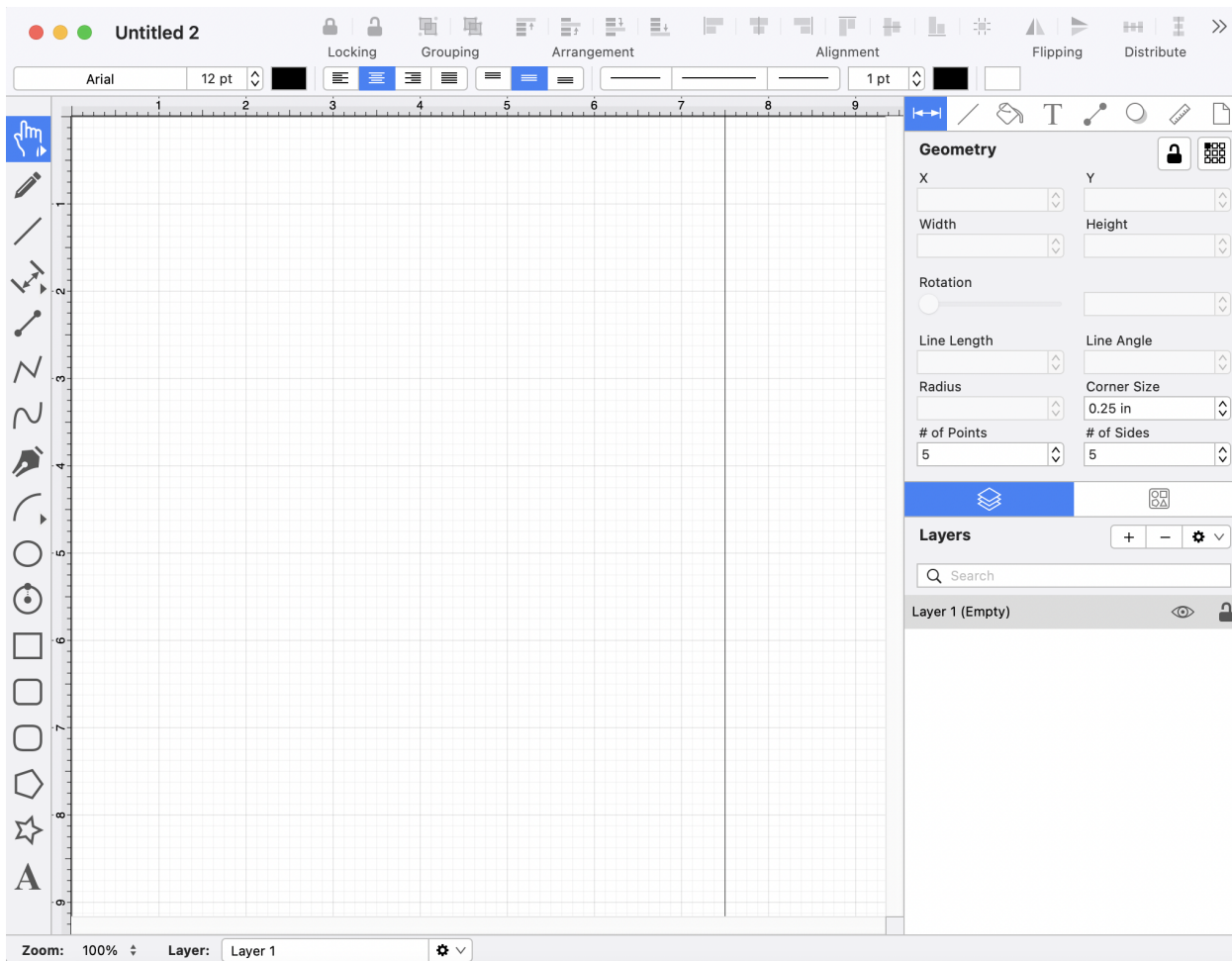
Useful links on the Elevenworks.com website.

Description	Link
Elevenworks Main Website	https://www.elevenworks.com/
TouchDraw Main Web Page	https://www.elevenworks.com/touchdraw
TouchDraw 2 for iOS Documentation	https://www.elevenworks.com/documentation

To get support and/or to provide feedback on TouchDraw 2, you can contact Elevenworks via our [Contact Form](#) or at the following email address: support@elevenworks.com.

4. User Interface

The following screen will open when the TouchDraw 2 application is first launched. This screen functions as the user interface for creating and managing drawings in TouchDraw 2 for the Mac.



This screen functions as the user interface for creating and managing drawings in TouchDraw 2 for Mac. As shown above, the screen has three main features.

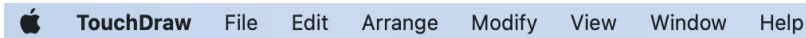
- The [Drawing Toolbar](#) can be found on the left side of the portion of the application window and provides access to the drawing tools offered by TouchDraw 2.
- The [Drawing Canvas](#) can be found in the center of the application window and is where the drawing resides.
- A [Sidebar](#) is positioned on the right-hand side and can be used to make additional modifications to objects within a drawing.

Additionally, [Menus](#), a [toolbar](#), and [Format Bar](#) at the top of the application window can be used to make quick changes to objects within a drawing.

Note: The [Drawing Toolbar](#) adjusts based on the screen size of the device or computer it is running on. When your Mac has a smaller screen, some options will collapse into selectable menus within the [Drawing Toolbar](#).

4.1. Menus

The **Menu Bar** contains eight menus to access actions, options and settings related to the application, file management and drawing manipulation.

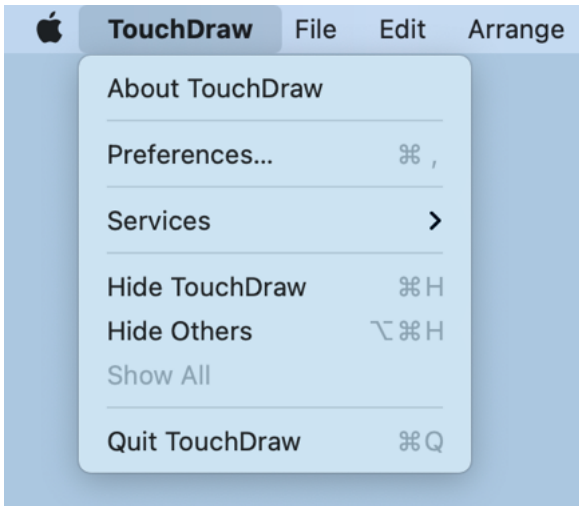


Click on a menu and choose the desired option.

Menu Name	Description
Application (TouchDraw)	The Application (TouchDraw) menu contains options for application-specific settings and screen viewing.
File	The File menu contains all file management options.
Edit	The Edit menu contains common editing, duplication, and text manipulation choices.
Arrange	The Arrange menu contains options for grouping, locking, moving, aligning, and distributing objects within a drawing.
Modify	The Modify menu contains options for modifying shapes, lines, and paths within a drawing.
View	The View menu contains options for changing what is viewed in the main application window.
Window	The Window menu contains options for application window sizing and drawing manipulation.
Help	The Help menu contains search and help file options.

4.1.1. Application Menu

The **Application (TouchDraw) Menu** can be used to access global application-level actions. When this menu is selected, the options shown below will appear.

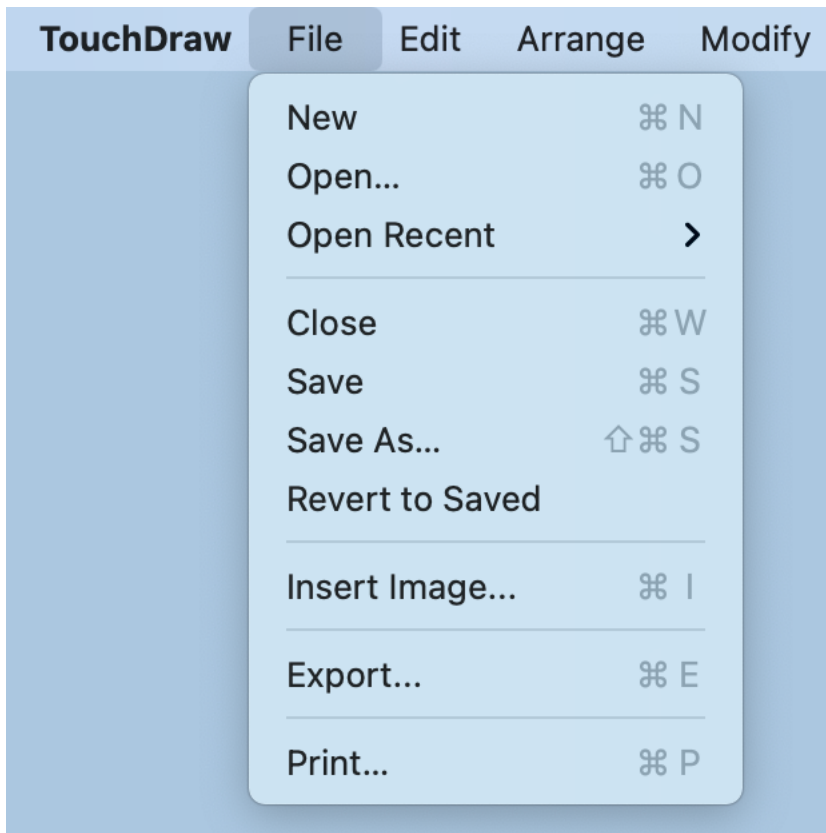


Click on the name of a menu item to find out more details about what action occurs when it is selected.

Menu Item	Description
About TouchDraw	The About TouchDraw menu item provides application version information.
Preferences...	The Preferences... menu item can be used to change general, handle, and performance options for the application.
Services	The Services submenu shows applicable services and contains preferences for those being utilized.
Hide TouchDraw	The Hide TouchDraw menu item hides all of the open TouchDraw related windows.
Hide Others	The Hide Others menu item hides all of the open windows from other applications while leaving the windows for TouchDraw open.
Show All	The Show All menu item is enabled when application windows have been hidden and can be selected to show the currently hidden windows.
Quit TouchDraw	The Quit TouchDraw menu item closes the application.

4.1.2. File Menu

The **File Menu** can be used to access actions related to file management, such as opening, saving, importing, and printing drawings. When this menu is selected, the options shown below will appear.



Click on the name of a menu item to find out more details about what action occurs when it is selected.

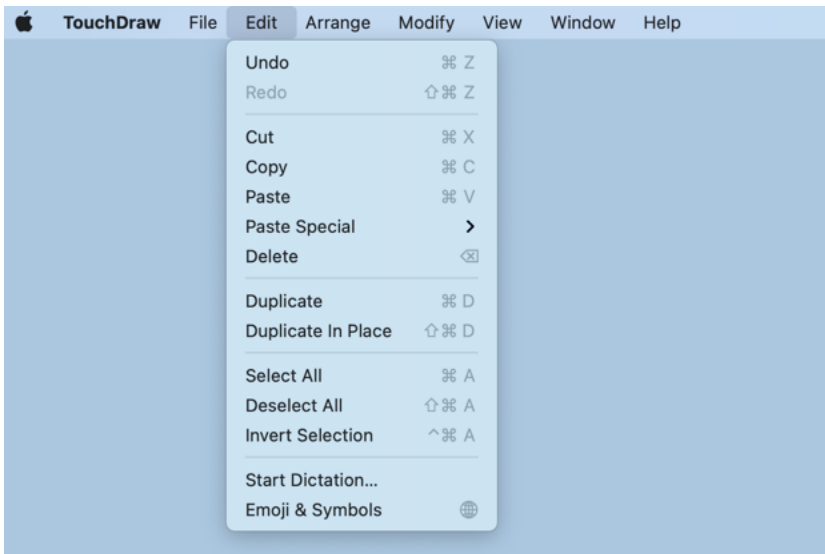
Menu Item	Description
New	The New menu item can be used to create a new drawing.
Open	The Open menu item can be used to open an existing TouchDraw 2 document or it can be used to import a drawing or image in one of the 3rd party file formats that TouchDraw 2 supports.
Open Recent	The Open Recent menu item can be used to select from a list of most recently opened drawings.

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Menu Item	Description
Close	The Close menu item closes the current drawing.
Save	The Save menu item saves the current drawing.
Save As...	The Save As... menu item saves the current drawing as a new drawing.
Revert to Saved	The Revert to Saved menu item can be used to revert a drawing to the last opened version.
Insert Image...	The Insert Image menu item can be used to import a bitmap image stored on the local file system into the current drawing.
Export...	The Export menu item can be used to export a drawing into a one of the 3rd party file formats supported for exporting.
Print...	The Print menu item can be used to print single or multiple pages of a drawing.

4.1.3. Edit Menu

The **Edit Menu** can be used to access actions related to the clipboard, undo, and miscellaneous text editing. When this menu is selected, the options shown below will appear.



Click on the name of the menu item to find out more details about what action occurs when it is selected.

Menu Item	Description
Undo	The Undo menu item removes drawing changes in the order they were applied, starting with the most recent.
Redo	The Redo menu item reapplies drawing changes in the order they were removed, starting with the most recent.
Cut	The Cut menu item removes the currently selected item from the active drawing and places it in the clipboard.
Copy	The Copy menu item places a copy of the currently selected item into the clipboard.
Paste	The Paste menu item adds the most current item residing in the clipboard to the active drawing.
Paste Special	The Paste Special Submenu contains special options related to pasting the contents of the clipboard into the active drawing.

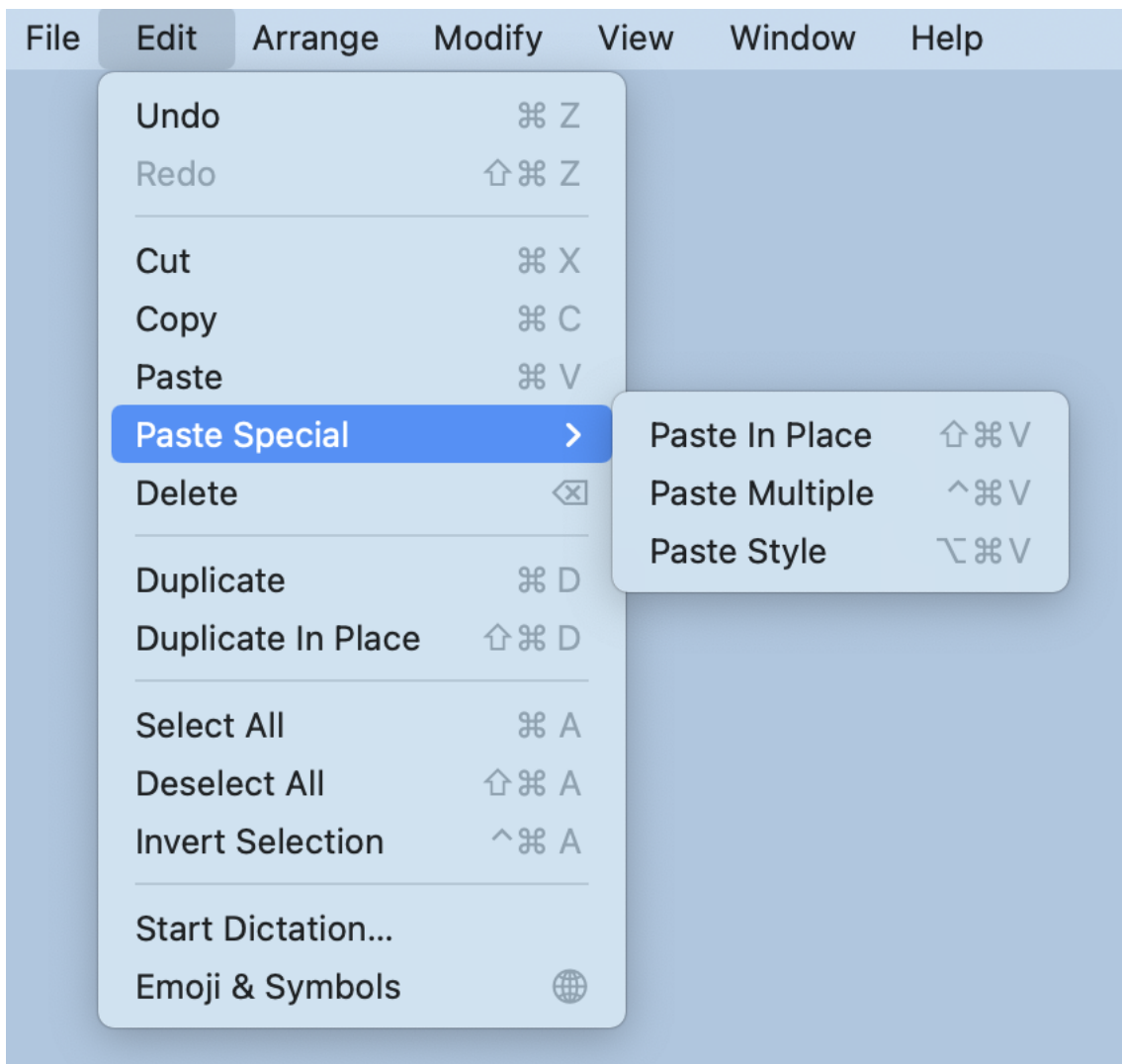
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Menu Item	Description
Delete	The Delete menu item permanently removes an item from the active drawing.
Duplicate	The Duplicate menu item creates a copy of a selected item in the active drawing.
Duplicate in Place	The Duplicate in Place menu item creates a copy of a selected item and places it in the same location as the original.
Select All	The Select All menu item selects all items residing in the currently active drawing.
Deselect All	The Deselect All menu item deselects all items residing in the currently active drawing.
Invert Selection	The Invert Selection option deselects currently selected figures within the active drawing and selects all figures that were previously not chosen.
Start Dictation...	The Start Dictation menu item can be used for speech-to-text dictation on your Mac.
Emoji & Symbols	The Emoji & Symbols menu item can be used for selecting emojis or other special characters/symbols and adding them to a favorites list for easy accessibility.

4.1.3.1. Paste Special Submenu

Use the **Paste Special Submenu** to access special actions related to pasting the contents of the clipboard into the active drawing.

When this submenu is selected within the [Edit Menu](#), the options shown below will appear.

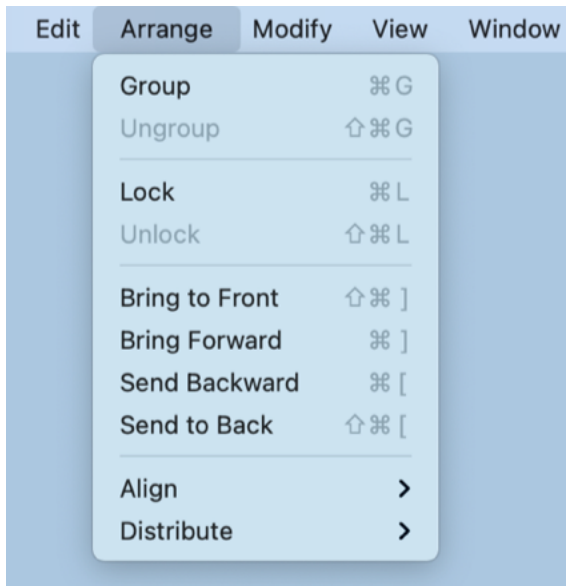


Click on the name of the menu item to find out more details about what action occurs when it is selected.

Menu Item	Description
Paste in Place	The Paste in Place menu item copies the current clipboard item into the exact location of the original.
Paste Multiple	The Paste Multiple menu item can be used to paste multiple copies of a clipboard item at specific offsets.
Paste Style	The Paste Style menu item applies the formatting properties of one object to the currently selected object.

4.1.4. Arrange Menu

Use the **Arrange Menu** to access actions for arranging or aligning selected figures within a drawing. When this menu is selected, the options shown below will appear.



Click on the name of the menu item to find out more details about what action occurs when it is selected.

Menu Item	Description
Group	The Group menu item allows currently selected shapes on the drawing canvas to be manipulated and treated as a single figure. This menu item is enabled when two or more groupable figures are selected in the drawing canvas. Shapes residing on the drawing canvas can be manipulated.
Ungroup	The Ungroup menu item removes the grouping attribute for selected shapes to allow for individual manipulation. This menu item is enabled when one or more grouped figures are selected in the drawing canvas.
Lock	The Lock menu item prevents a selected figure(s) or group of figures from being moved or resized. This menu item is enabled when one or more unlocked (and lockable) figures are selected in the drawing canvas.
Unlock	The Unlock menu item removes a previously instated lock on a figure(s) or group of

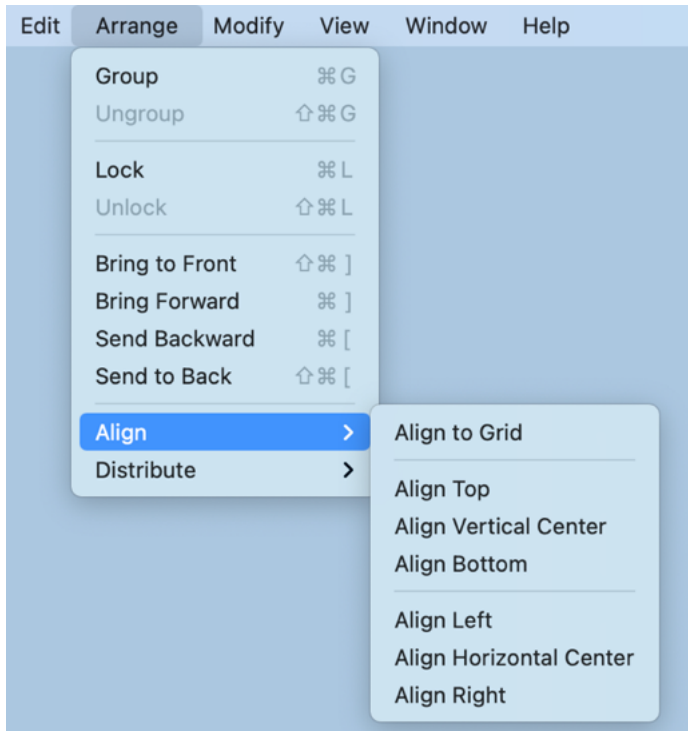
TouchDraw 2 for Mac

Menu Item	Description
	figures to allow for moving and resizing. This menu item is enabled when one or more locked figures are selected in the drawing canvas.
Bring to Front	The Bring to Front menu item moves a currently selected figure(s) to the front of all figures residing in the same layer. This menu item is enabled when one or more figures are selected in the drawing canvas.
Bring Forward	The Bring Forward menu item moves a currently selected figure(s) one step closer to the top of the stack within the layer they reside in. This menu item is enabled when one or more figures are selected in the drawing canvas.
Send Backward	The Send Backward menu item moves a currently selected figure(s) one step closer to the bottom of a stack within their residing layer. This menu item is enabled when one or more figures are selected in the drawing canvas.
Send to Back	The Send to Back menu item moves a currently selected figure(s) behind all other figures residing within the same layer. This menu item is enabled when one or more figures are selected in the drawing canvas.
Align	The Align submenu contains options to align figures in relation to each other.
Distribute	The Distribute submenu contains options to distribute figures evenly in relation to each other.

4.1.4.1. Align Submenu

Use the **Align Submenu** to access actions for aligning selected figures within a drawing.

When this submenu is selected within the [Arrange menu](#), the options shown below will appear.



Click on the name of the menu item to find out more details about what action occurs when it is selected.

Menu Item	Description
Align to Grid	The Align to Grid menu item aligns figures with the grid. This menu item is enabled when two or more unlocked figures are selected in the drawing canvas.
Align Top	The Align Top menu item moves all currently selected figures to match the top (Y position) of the first selected figure. This menu item is enabled when two or more unlocked figures are selected in the drawing canvas.
Align Vertical Center	The Align Vertical Center menu item moves all currently selected figures to match the vertical center (Y position + 1/2 of the height of all figures) of the first selected figure. This menu item is enabled when two or more unlocked figures are selected in

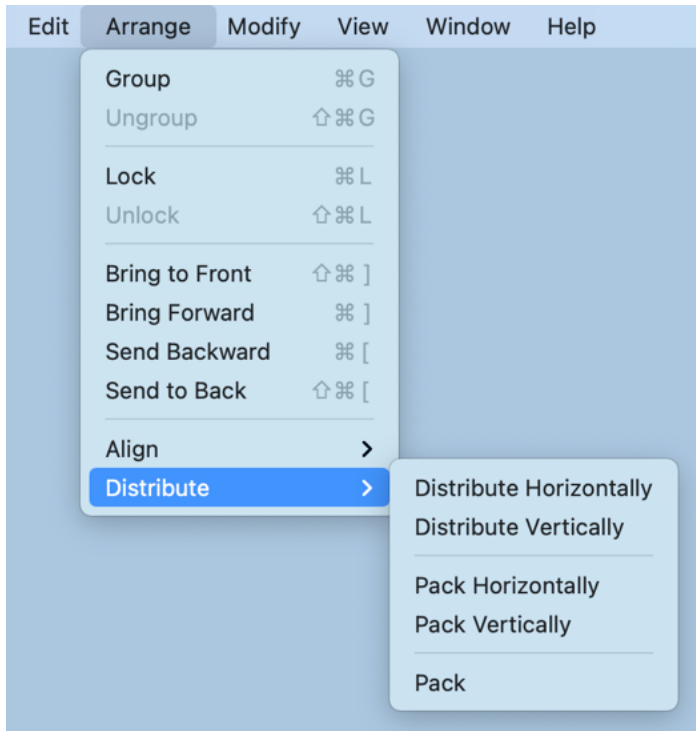
TouchDraw 2 for Mac

Menu Item	Description
	the drawing canvas.
Align Bottom	The Align Bottom menu item moves all currently selected figures to match the bottom (Y position + Height) of the first selected figure. This menu item is enabled when two or more unlocked figures are selected in the drawing canvas.
Align Left	The Align Left menu item moves all currently selected figures to match the left (X position) of the first selected figure. This menu item is enabled when two or more unlocked figures are selected in the drawing canvas.
Align Horizontal Center	The Align Horizontal Center menu item moves all currently selected figures to match the horizontal center (X position + 1/2 of the width) of the first selected figure. This menu item is enabled when two or more unlocked figures are selected in the drawing canvas.
Align Right	The Align Right menu item moves all currently selected figures to match the right (X position + width) of the first selected figure. This menu item is enabled when two or more unlocked figures are selected in the drawing canvas.

4.1.4.2. Distribute Submenu

Use the **Distribute Submenu** to access actions for distributing the selected figures within a drawing.

When this submenu is selected within the [Arrange menu](#), the options shown below will appear.



Click on the name of the menu item to find out more details about what action occurs when it is selected.

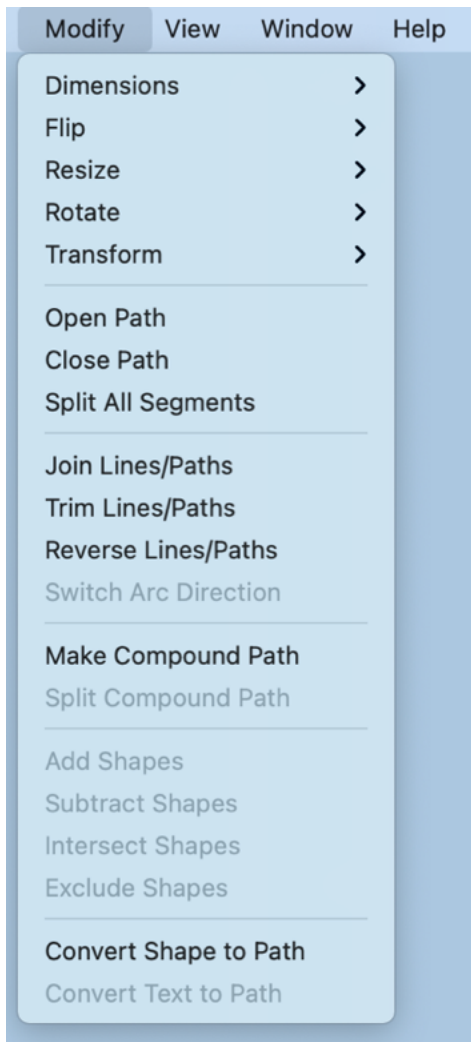
Menu Item	Description
Distribute Horizontally	The Distribute Horizontally menu item adjusts the positioning of selected figures to create an even amount of horizontal space between each figure. This menu item is enabled when three or more unlocked figures are selected in the drawing canvas.
Distribute Vertically	The Distribute Vertically menu item adjusts the positioning of selected figures to create an even amount of vertical space between each figure. This menu item is enabled when three or more unlocked figures are selected in the drawing canvas.
Pack Horizontally	The Pack Horizontally menu item takes a set of selected shapes and “packs” them into the smallest space possible horizontally.

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Menu Item	Description
Pack Vertically	The Pack Vertically menu item takes a set of selected shapes and “packs” them into the smallest space possible vertically.
Pack	The Pack menu item takes a set of selected shapes and "packs" them into as small of a rectangular space as possible. Be aware that the arrangement of selected figures might be altered in order to pack them into the smallest space.

4.1.5. Modify Menu

Use the **Modify Menu** to transform or move the selected figures within a drawing. When this menu is selected, the options shown below will appear.



Click on the name of the menu item to find out more details about what action occurs when it is selected.

Menu Item	Description
Dimensions	The Dimensions submenu can be used to configure the arrowhead location: arrowhead inside or arrowhead outside.

TouchDraw 2 for Mac

Menu Item	Description
Flip	The Flip submenu contains options to flip the selected figures within a drawing.
Resize	The Resize submenu contains options for resizing the selected figures within a drawing.
Rotate	The Rotate submenu contains options to rotate the selected figures within a drawing.
Transform	The Transform submenu contains options to transform (move, scale, etc.) the selected figures within a drawing.
Open Path	The Open Path menu item is enabled when one or more closed paths are selected. This option removes a line segment or simply separates the last end/start points into two separate handles to transform a closed path into an open path.
Close Path	The Close Path menu item is enabled when one or more open paths are selected. This option adds a line segment between the last end point and the start point of a selected path or connects the start and end points of a curve segment to create a closed path.
Split All Segments	The Split All Segments menu item is enabled when one or more paths are selected. This option splits a selected path into segments at each end point handle to create multiple individual path figures.
Join Lines/Paths	The Join Lines/Paths menu item is enabled when two or more lines and/or open paths are selected. This option joins the end point handles of segments to create a single path figure.
Trim Lines/Paths	The Trim Lines/Paths menu item is enabled when two or more shapes are selected, and at least one of those shapes is a line or open path. This option trims the ends of intersecting lines, paths, or connections when the intersection is near the end of the line/path.
Reverse Lines/Paths	The Reverse Lines/Paths menu item flips or reverses the direction of the decorations (arrowhead, diamond, square, etc.) within selected lines and/or paths.
Switch Arc Direction	The Switch Arc Direction menu item reverses the direction of an arc within the Drawing Canvas. See Elliptical Arc Tool and Circular Arc Tool for more information.
Make Compound Path	The Make Compound Path menu item is enabled when two or more paths are selected. This option combines two or more selected paths into one compound path to provide attribute-sharing capabilities.

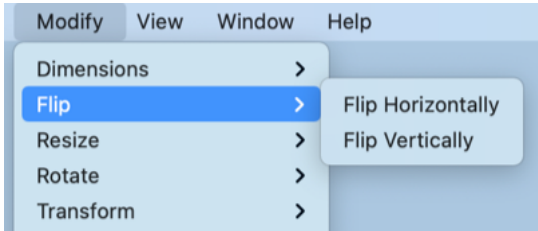
TouchDraw 2 for Mac

Menu Item	Description
Separate Compound Path	The Separate Compound Path menu item is enabled when one or more compound paths are selected. This option separates a compound path into individual paths.
Add Shapes	The Add Shapes menu item is enabled when two shapes and/or closed paths are selected. This option combines two selected shapes into one figure.
Subtract Shapes	The Subtract Shapes menu item is enabled when two shapes and/or closed paths are selected. This option removes the intersecting portions of the second selected shape from the first figure selected in the drawing canvas.
Intersect Shapes	The Intersect Shapes menu item is enabled when two shapes and/or closed paths are selected. This option removes all non-intersecting portions of selected figures from the drawing canvas.
Exclude Shapes	The Exclude Shapes menu item is enabled when two shapes and/or closed paths are selected. This option removes the intersecting portions of selected figures from the drawing canvas.
Convert Shape to Path	The Convert Shape to Path is enabled when one or more shapes or lines are selected. This option converts the bordering lines of a selected shape into a closed path by adding the necessary handles.
Convert Text to Path	The Convert Text to Path is enabled when one or more text figures are selected. This option converts a text figure created with the Text tool into a path.

4.1.5.1. Flip Submenu

Use the **Flip Submenu** to access actions for flipping the selected figures within a drawing.

When this submenu is selected within the [Modify Menu](#), the options shown below will appear.



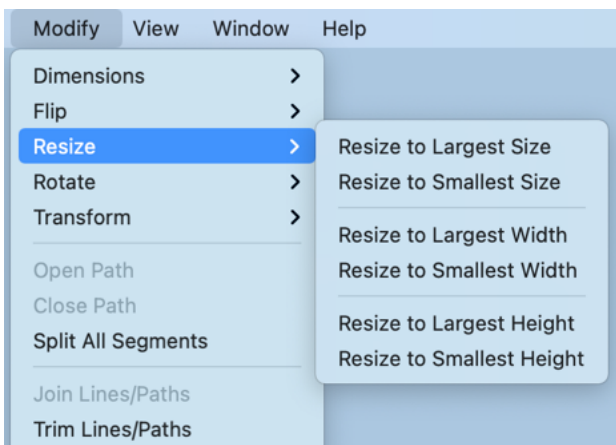
Click on the name of the menu item to find out more details about what action occurs when it is selected.

Menu Item	Description
Flip Horizontally	The Flip Horizontally menu item interchanges the position of a figure horizontally.
Flip Vertically	The Flip Vertically menu item interchanges the position of a figure vertically.

4.1.5.2. Resize Submenu

The **Resize Submenu** can be used to resize selected figures based on the largest or smallest size, width, or height. At least two figures must be selected within the drawing for these options to appear within the [Modify Menu](#).

TouchDraw 2 will resize all figures to match either the size, width, or height of the smallest or largest figure among the selections in the drawing.



Click or Tap on a Resize option to learn more about what it does.

Option Name	Description
Resize to Largest Size	The Resize to Largest Size option can be used to resize all selected figures within the drawing to match the largest sized figure.
Resize to Smallest Size	The Resize to Smallest Size option can be used to resize all selected figures within the drawing to match the smallest sized figure.
Resize to Largest Width	The Resize to Largest Width option can be used to resize all selected figures within the drawing to match the largest width within the selections.
Resize to Smallest Width	The Resize to Smallest Width option can be used to resize all selected figures within the drawing to match the smallest width within the selections.
Resize to Largest Height	The Resize to Largest Height option can be used to resize all selected figures within the drawing to match the largest height within the selections.

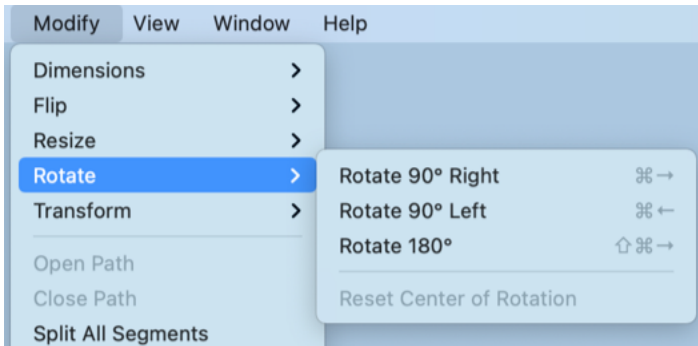
TouchDraw 2 for Mac

Option Name	Description
Resize to Smallest Height	The Resize to Smallest Height option can be used to resize all selected figures within the drawing to match the smallest height within the selections.

4.1.5.3. Rotate Submenu

Use the **Rotate Submenu** to access actions for rotating the selected figures within a drawing.

When this submenu is selected within the [Modify Menu](#), the options shown below will appear.



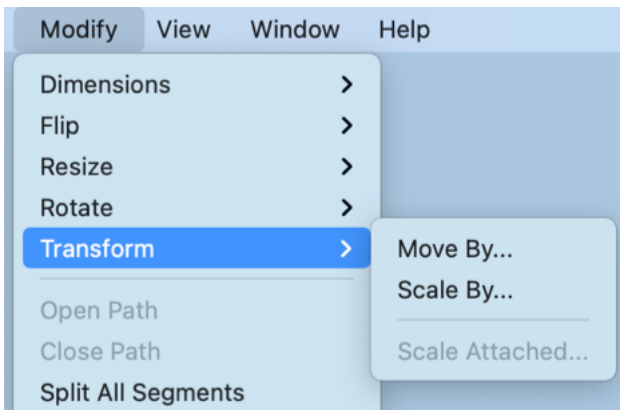
Click on the name of the menu item to find out more details about what action occurs when it is selected.

Menu Item	Description
Rotate 90° Right	The Rotate 90° Right menu item rotates a selected figure to the right by 90°.
Rotate 90° Left	The Rotate 90° Left menu item rotates a selected figure to the left by 90°.
Rotate 180°	The Rotate 180° menu item rotates a selected figure by 180°. The figure is flipped upside down or back to its original position depending on the number of times this selection is made.
Reset Center Rotation	The Reset Center Rotation menu item is enabled when the "Center of Rotation" option in the Handles Settings popup menu is selected and has been altered on a shape. This option changes the "Center of Rotation" for a shape back to its original centered location.

4.1.5.4. Transform Submenu

Use the **Transform Submenu** to access actions for transforming (moving, scaling, etc...) the selected figures within a drawing.

When this submenu is selected within the [Modify Menu](#), the options shown below will appear.

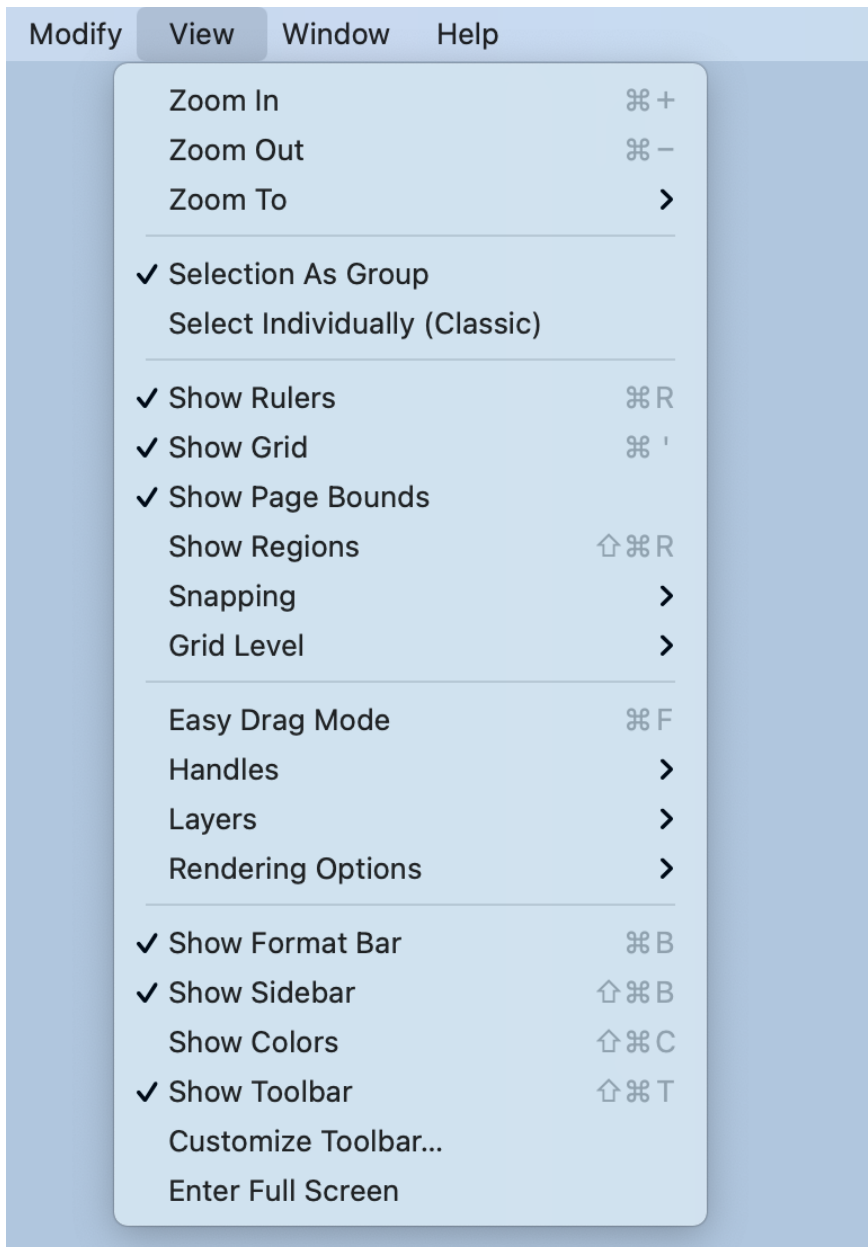


Click on the name of the menu item to find out more details about what action occurs when it is selected.

Menu Item	Description
Move By...	The Move By... menu item changes the location of a figure based on input coordinates.
Scale By...	The Scale By... menu item alters figure size based on input coordinates to create a smaller or larger figure spanning over a specific area.
Scale Attached...	The Scale Attached... menu item can be used to scale an image, such as a floor plan, to match the grid and trace or perform other actions within the drawing “at scale.”

4.1.6. View Menu

Use the **View Menu** to access actions for changing settings of the currently visible drawing canvas. When this menu is selected, the options shown below will appear.



Click on the name of the menu item to find out more details about what action occurs when it is selected.

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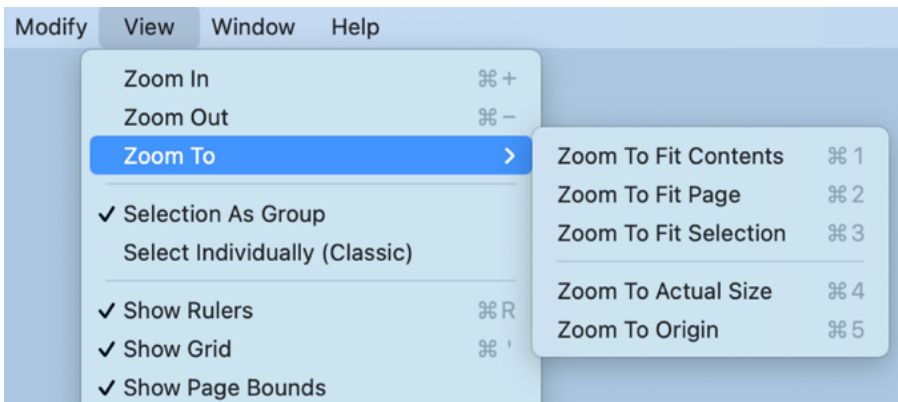
Menu Item	Description
Zoom In	The Zoom In menu item increases the magnification level of the Drawing Canvas to allow for working on the drawing in more detail.
Zoom Out	The Zoom Out menu item decreases the magnification level of the Drawing Canvas to make a larger portion of the drawing viewable in the window at once.
Zoom To Submenu	The Zoom To Submenu can be used to access additional zooming options for a drawing.
Selection As Group	The Selection As Group option is the default setting for TouchDraw 2. When enabled, multiple shapes selected at once will be treated as a group and can be resized, rotated, etc., as a group.
Select Individually (Classic)	The Select Individually (Classic) option enables the same behavior experienced when selecting shapes in TouchDraw 1. All of the handles for all of the selected shapes will be displayed in the Drawing Canvas .
Show Rulers	The Show Rulers menu item displays the left and top rulers from the main application window. Select this menu option again for the rulers to reappear.
Show Grid	The Show Grid menu item displays the background grid from the main application window to show a blank canvas. Select this menu option again for the grid to reappear.
Show Page Bounds	The Show Page Bounds menu item places page boundary lines on the drawing canvas when enabled. This option is disabled by default within TouchDraw 2 and must be selected from the menu to be enabled. Select this menu option again to disable it and remove the boundary lines.
Show Regions	The Show Regions menu item can be used to show (or hide) regions within a drawing.
Snapping Submenu	The Snapping submenu contains options related to the snapping behavior of the active drawing canvas.
Grid Level Submenu	The Grid Level Submenu can be used to choose if the grid is rendered in the background (underneath the drawing) or the foreground (above the drawing).
Easy Drag Mode	The Easy Drag Mode option hides all handles to prevent a selected figure from being altered as it is moved. The option can be applied to a single figure by selecting the object prior to choosing this setting or set when no figures are selected to apply the setting to every item on the drawing canvas.

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Menu Item	Description
Handles Submenu	The Handles Submenu contains options for enabling and disabling the visibility of certain handles within a drawing.
Layers Submenu	The Layers Submenu contains options for application setup and operational characteristics of TouchDraw 2 for layers.
Rendering Options	The Rendering Options Submenu can be used to enable and disable drawing rendering options within Touchdraw 2.
Show Format Bar	The Show Format Bar menu item displays the formatting bar from the TouchDraw 2 application window. Select this menu option again for the formatting bar to reappear.
Show Sidebar	The Show Sidebar menu item displays the sidebar from the TouchDraw 2 application window. Select the menu option again for the sidebar to reappear.
Show Colors	The Show Colors menu item can be used to toggle the visibility of the Mac OS X standard color picker.
Show Toolbar	The Show Toolbar menu item displays the main toolbar from the TouchDraw 2 application window. Select the menu option again for the toolbar to reappear.
Customize Toolbar	The Customize Toolbar menu item can be used to alter what buttons appear in the main toolbar.
Enter Full Screen	The Enter Full Screen menu item switches the main application window from the current setting to full screen mode.

4.1.6.1. Zoom To Submenu

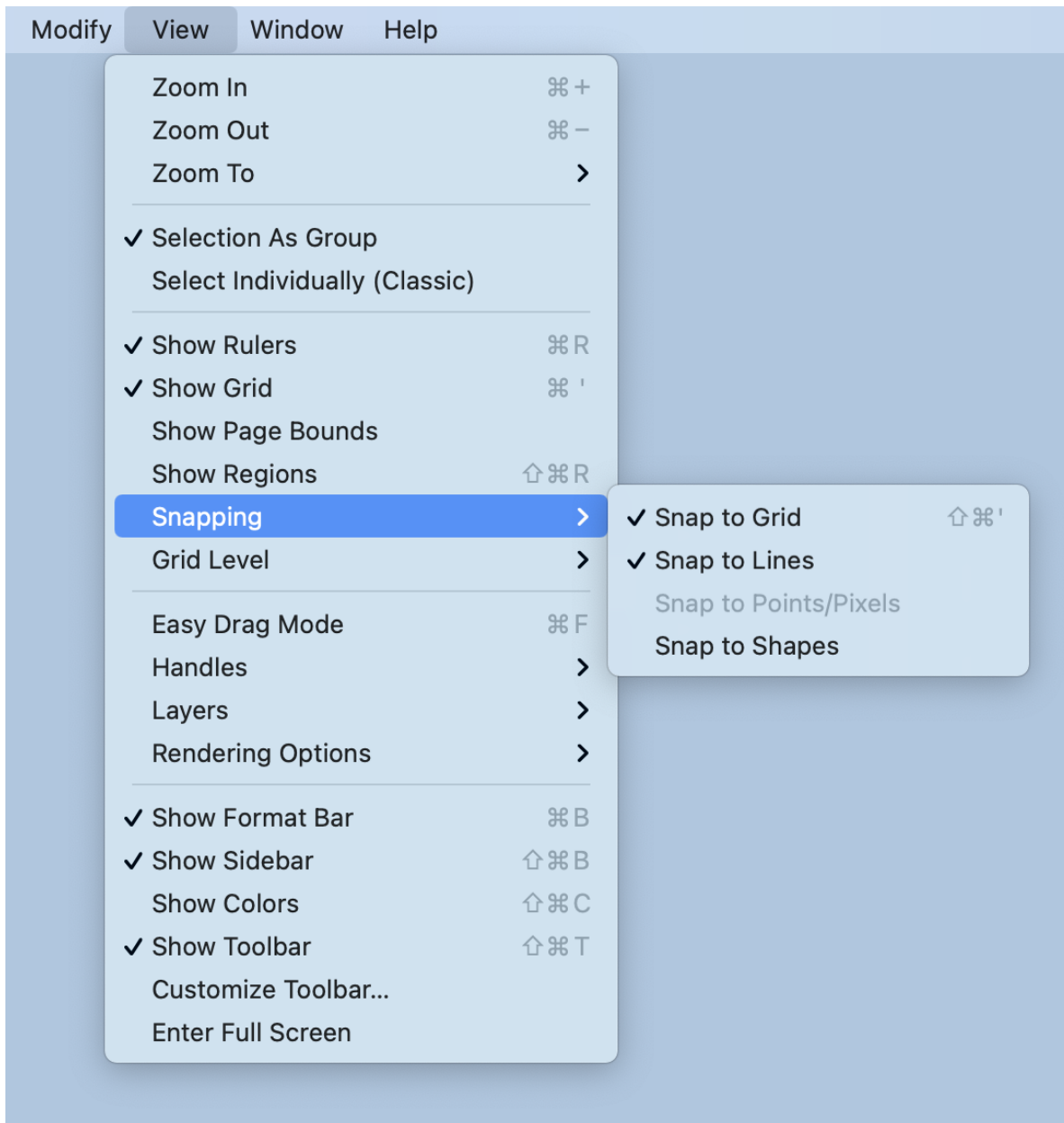
The **Zoom To Submenu** options can be used to dynamically resize the magnification level and the location of the drawing within the drawing canvas to make the complete drawing visible in the window based on the drawing contents, page, or current selection. You can also return the drawing back to fit its normal magnification level in this submenu.



Option Name	Description
Zoom To Fit Contents	The Zoom To Fit Contents menu option can be used to zoom in and fit the drawing figures so that they are shown within the window.
Zoom To Fit Page	The Zoom To Fit Page menu option can be used to fit the entire page within the window.
Zoom To Fit Selection	The Zoom To Fit Selection menu option can be used to zoom in on the drawing so that the selected figures are shown within the window.
Zoom to Actual Size	The Zoom To Actual Size menu option can be used to 100% drawing size based on the page size (8 1/2 by 11, etc.).
Zoom To Origin	The Zoom to Origin menu option returns a drawing to its normal magnification level (100%) and resets the visible portion of the drawing canvas so that the coordinates 0,0 are in the upper left-hand corner.

4.1.6.2. Snapping Submenu

Use the **Snapping Submenu** to access the settings related to the snapping for the active [Drawing Canvas](#). When this submenu is selected within the [View Menu](#), the options shown below will appear.



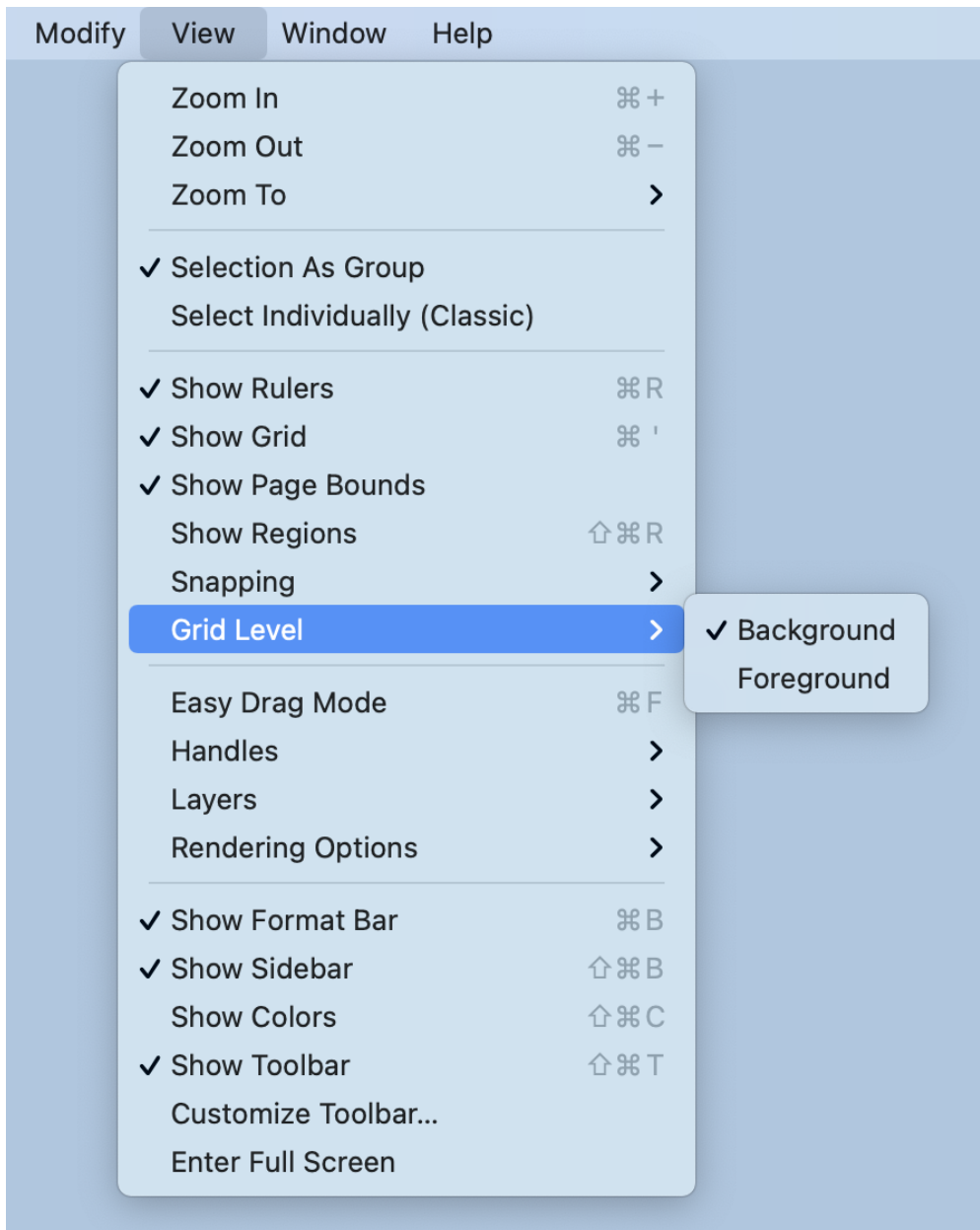
Click on the name of the menu item to find out more details about what action occurs when it is selected.

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Menu Item	Description
	modifications.
Snap to Lines	The Snap to Lines menu item aligns objects with the nearest lines.
Snap to Pixels/Points	The Snap to Pixels/Points menu item aligns objects to whole pixel numbers for simplified object modification and increased accuracy.
Snap to Shapes	The Snap to Shapes option snaps a figure to a selected shape vertex or center point. To see this option in action, disable the Snap to Grid option, make certain Snap to Shapes is enabled, and then draw a star or rectangle. Once the shape is completed, select the Line Tool and try to draw a line from one of the vertexes of the shape or its center point. The drawn line will snap to one of these locations.

Grid Level Submenu

The **Grid Level Submenu** can be used to choose if the grid is rendered in the background (underneath) the drawing or in the foreground (above) the drawing.



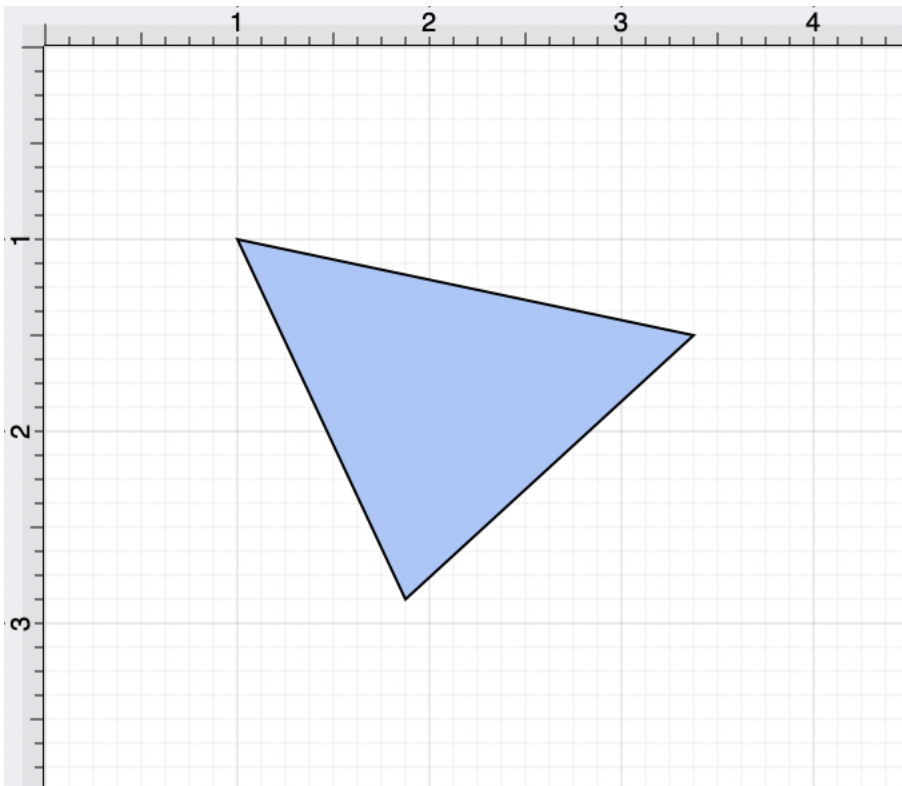
Option Name	Description
Background	The Background option can be used to render the grid within the background

TouchDraw 2 for Mac

Option Name	Description
	(underneath) of the drawing. This option is selected by default.
Foreground	The Foreground option can be used to render the grid within the foreground (above) of the drawing.

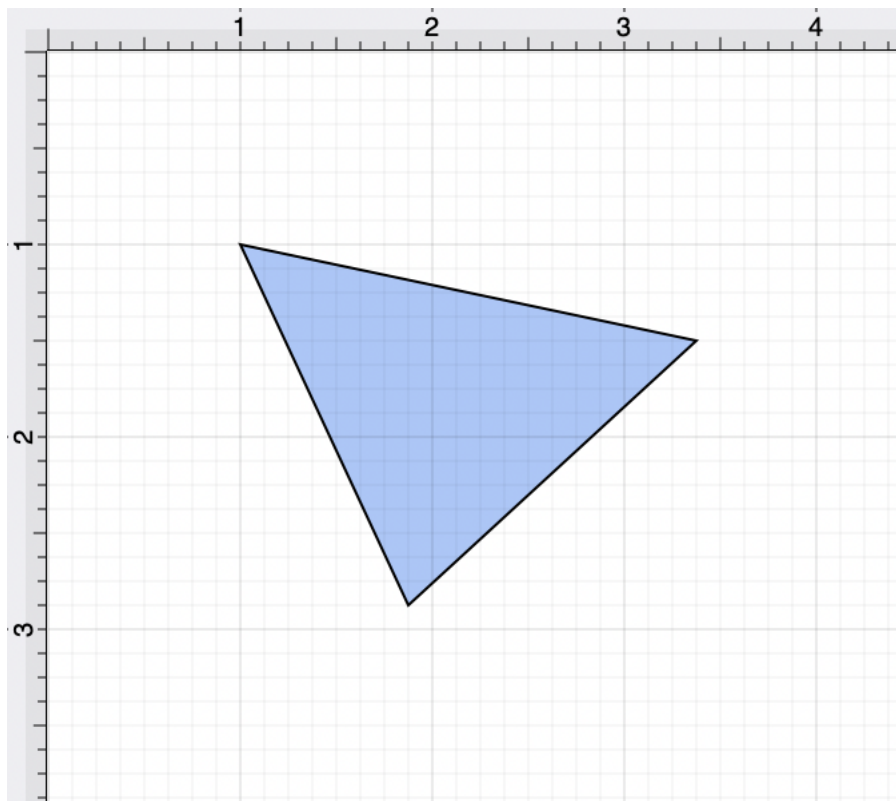
Background Example

The drawing will appear similar to what is shown below when the **Background** grid level option is selected.



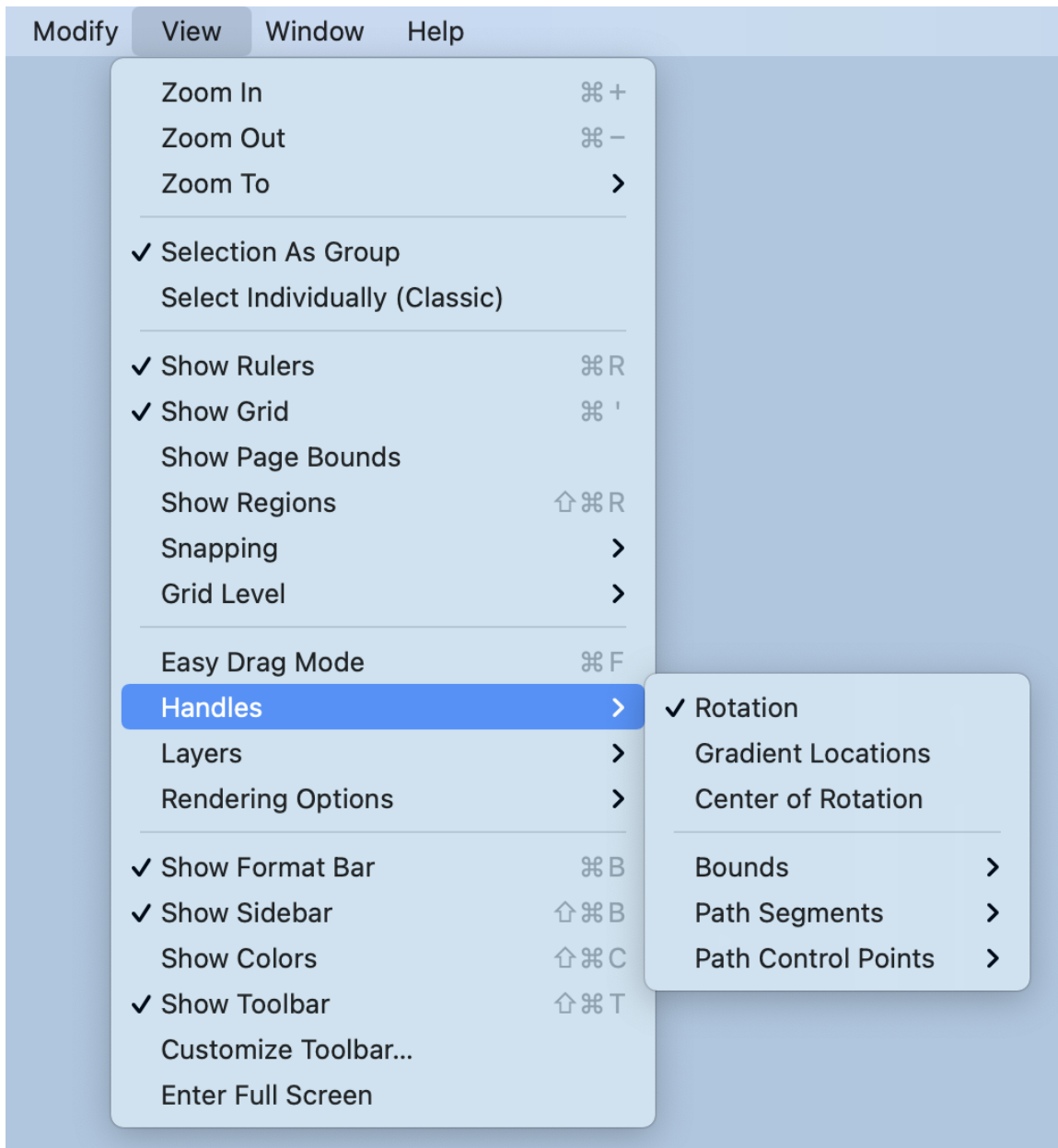
Foreground Example

The drawing will appear similar to what is shown below when the **Foreground** grid level option is selected.



4.1.6.3. Handles Submenu

The **Handles Submenu** contains options for configuring which handles are visible for figures residing on the Drawing Canvas.



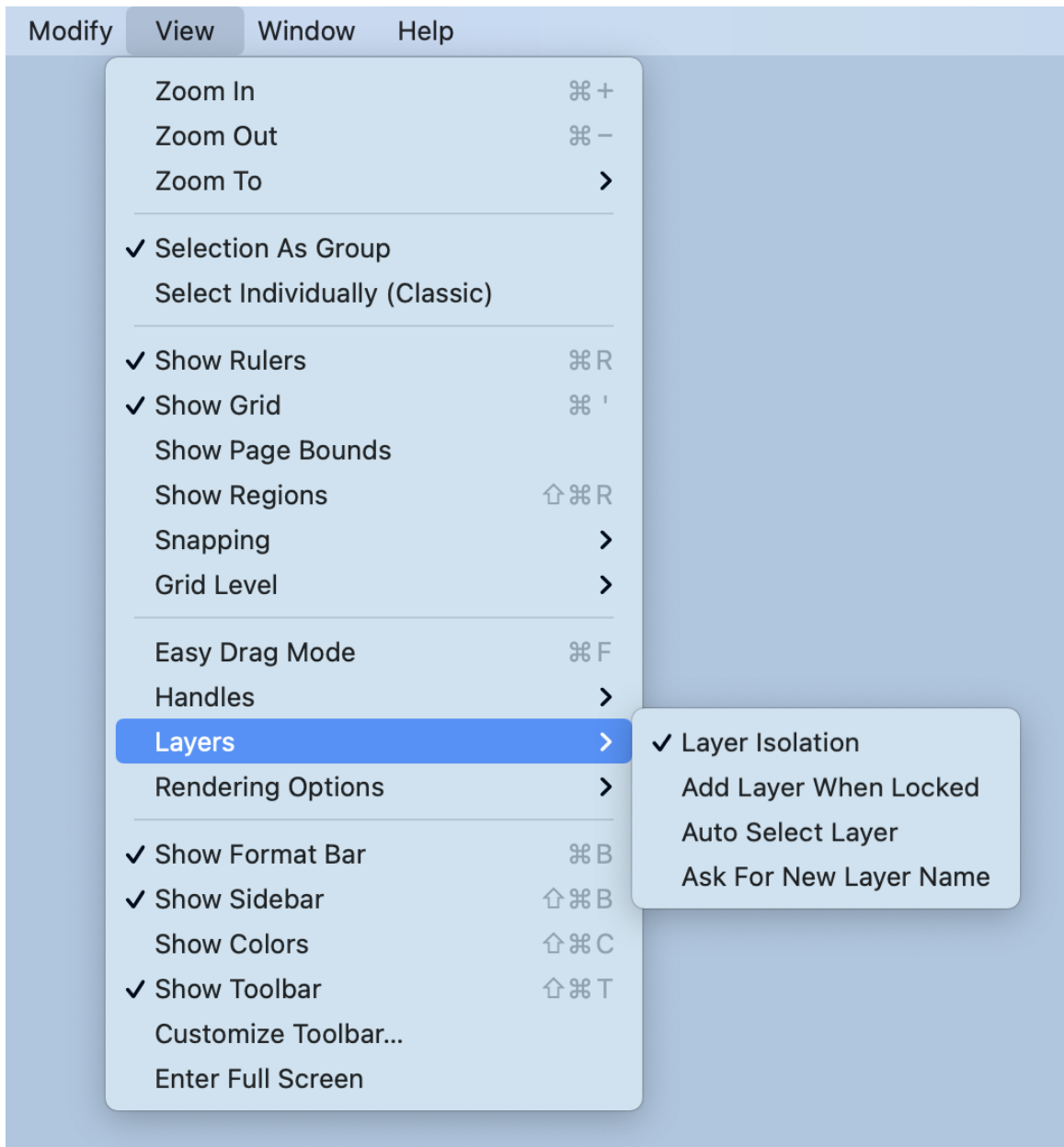
Click or Tap on the corresponding Handles Option name to learn more about what the option does.

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Option Name	Description
	Canvas.
Gradient Locations	The Gradient Locations option toggles the visibility of the gradient location handle within a figure(s) on the Drawing Canvas.
Center of Rotation	Enabling the Center of Rotation option allows the point at which a figure or shape is rotated around to be edited.
Bounds Submenu	The Bounds Submenu can be used to toggle the visibility of the boundaries of path handles. Boundaries can be shown on handles for all figures, strokes, and paths or for everything but paths.
Path Segments Submenu	The Path Segments Submenu can be used to toggle the visibility of segment handles for paths.
Path Control Points Submenu	The Path Control Points Submenu can be used to toggle the visibility of path control points between always showing, only showing active points, or showing none at all.

4.1.6.4. Layers Submenu

The **Layers Submenu** contains options for application setup and operational characteristics of TouchDraw 2 for layers.



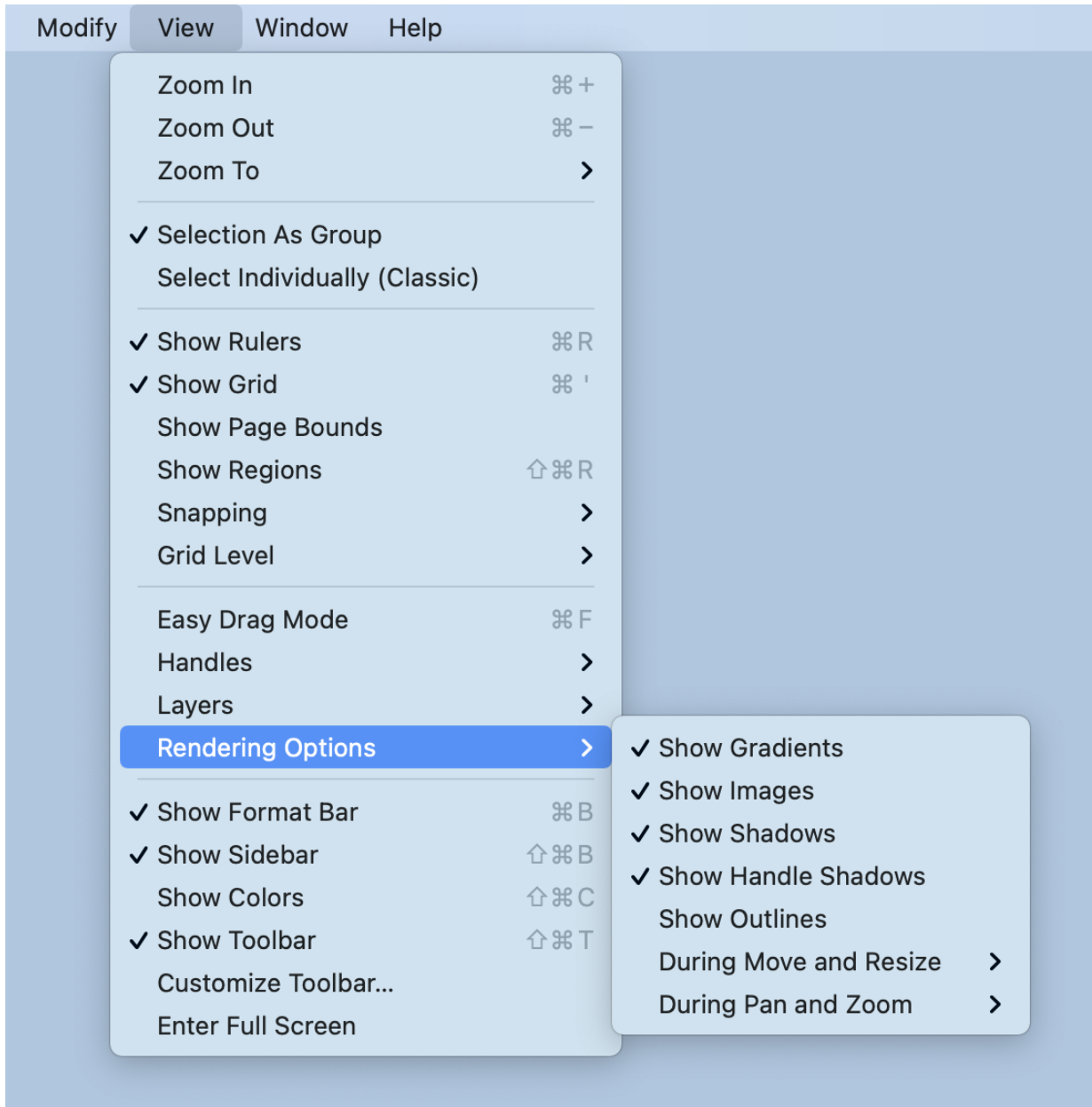
Note: Enabled options will have a checkmark to the left of their name within the menu.

TouchDraw 2 for Mac

Preference Name	Description
	and prevents other existing layers from being selected for editing. **This preference is enabled by default.
Add Layer When Locked	The Add Layer When Locked preference automatically creates another layer if a figure is added to the drawing canvas when the current layer is locked.
Auto-Select Layer	The Auto-Select Layer preference alters the currently active layer to the residing layer of a selected figure unless the layer has been locked. Note: This option does not work when Layer Isolation is on, since that setting only allows you to select figures within the currently selected layer.
Ask For New Layer Name	The Ask For New Layer Name preference opens a prompt window for naming a layer any time a new layer is created.

Rendering Options Submenu

The **Rendering Options Submenu** contains options for

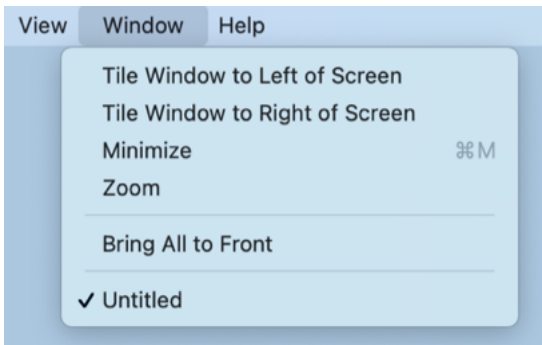


Note: Enabled options will have a checkmark to the left of their name within the menu.

Preference Name	Description
Show Gradients	The Show Gradients option toggles whether or not gradient fills (both linear and radial) are rendered in the Drawing Editor. If gradients are hidden, that does not mean they have been removed from your drawing. It simply means that they won't be drawn in the editor to increase rendering speed.
Show Images	The Show Images The option toggles whether or not images are rendered in the Drawing Editor. If images are hidden, that does not mean they have been removed from your drawing. It simply means that they won't be drawn in the editor to increase rendering speed.
Show Shadows	The Show Shadows option toggles whether or not shadows are rendered in the Drawing Editor. If shadows are hidden, that does not mean they have been removed from your drawing. It simply means that they won't be drawn in the editor to increase rendering speed.
Show Handle Shadows	The Show Handle Shadows option shows handle shadows while images are being rendered within the Drawing Editor. This does not mean that shadows have been removed from the drawing. Instead, shadows are not drawn in the editor to provide increased rendering speed.
Show Outlines	The Show Outlines option only shows the outlines of shapes within the Drawing Editor. All fills and shadows are disabled when this option is enabled.
During Move and Resize Submenu	The During Move and Resize Submenu may be used to enable or disable options for showing gradients, images, shadows, and text when moving or resizing within the Drawing Editor.
During Pan and Zoom Submenu	The During Pan and Zoom Submenu may be used to enable or disable options for showing gradients, images, shadows, and text when panning and zooming within the Drawing Editor.

4.1.7. Window Menu

Use the **Window Menu** to access actions applicable to the active window. When this menu is selected, the options shown below will appear.

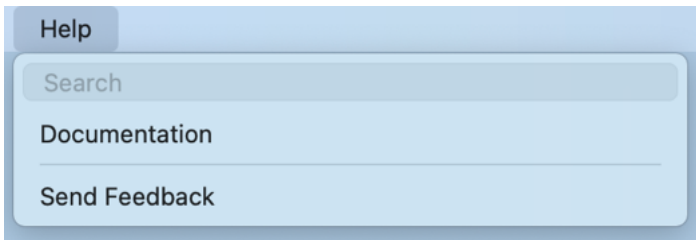


Click on the name of the menu item to find out more details about what action occurs when it is selected.

Menu Item	Description
Tile Window to Left of Screen	The Tile Window to Left of Screen option tiles the window to the left side of the screen.
Tile Window to Right of Screen	The Tile Window to Right of Screen option tiles the window to the right side of the screen.
Minimize	The Minimize menu item minimizes the main application window.
Zoom	The Zoom menu item expands and decreases the main application window.
Bring All to Front	The Bring All to Front menu item moves TouchDraw 2 application windows to the front of all other currently open Mac application windows.

4.1.8. Help Menu

Use the **Help Menu** to access help and feedback options for TouchDraw 2. When you select this menu, the options shown below will appear.



Click on the name of the menu item to find out more details about what action occurs when it is selected.

Menu Item	Description
Search	The Search menu item can be used to search the general Mac OS X help topics.
Documentation	The Documentation menu item will take you to this documentation.
Send Feedback...	The Send Feedback menu item will create a new feedback email message in your preferred email client addressed to the TouchDraw 2 team.

4.2. Toolbar

The **Main Toolbar** appears at the top of the main screen, as shown below, and can be used to perform various functions on selected objects or an entire drawing.



In addition to the actions that are shown by default, you can configure the main toolbar to add or remove other actions based on how you want to use TouchDraw 2.






Changing the actions in the toolbar is covered in the [Customizing the Main Toolbar](#) section.

- [Toolbar Actions](#)
- [Customizing the Main Toolbar](#)









4.2.1. Toolbar Actions

The following list describes all of the actions that are available to be configured as part of the toolbar:













Icon	Name	Description
	Lock	This option will be enabled if one or more unlocked figures are selected in the current drawing window. The Lock toolbar option prevents moving and resizing actions on the selected figure(s).
	Unlock	This option will be enabled if one or more locked figures are selected in the current drawing window. The Unlock toolbar option removes a lock on single or multiple figures for moving and resizing.
	Group	This option will be enabled if two or more figures are selected in the current drawing window. The Group toolbar option combines selected figures into a single object for performing manipulation actions.
	Ungroup	This option will be enabled if one or more grouped figures are selected in the current drawing window. The Ungroup toolbar option separates a previously grouped set of figures for individual manipulation.
	Front	This option will be enabled if one or more figures are selected in the current drawing window. The Front toolbar option will move the currently selected figure(s) to the front of all other figures within the layer they reside in.
	Forward	This option will be enabled if one or more figures are selected





TouchDraw 2 for Mac

Icon	Name	Description
		in the current drawing window. The Forward toolbar option will move the currently selected figure(s) one step closer to the top of the stack within their residing layer.
	Backward	This option will be enabled if one or more figures are selected in the current drawing window. The Backward toolbar option will move the currently selected figure(s) one step closer to the bottom of the stack within their residing layer.
	Back	This option will be enabled if one or more figures are selected in the current drawing window. The Back toolbar option will move the currently selected figure(s) behind all other figures within their residing layer.
	Left	This option will be enabled if two or more figures are selected in the current drawing window. The Align Left toolbar option moves all currently selected figures to match the left (X position) of the first selected figure.
	Horizontal Center	This option will be enabled if two or more figures are selected in the current drawing window. The Align Horizontal Center toolbar option moves all currently selected figures to match the horizontal center (X position + 1/2 of the width) of the first selected figure.
	Right	This option will be enabled if two or more figures are selected in the current drawing window. The Align Right toolbar option moves all currently selected figures to match the right (X position + Width) of the first selected figure.
	Top	This option will be enabled if two or more figures are selected in the current drawing window. The Align Top toolbar option moves all currently selected figures to match the top (Y position) of the first selected figure.
	Vertical Center	This option will be enabled if two or more figures are selected in the current drawing window. The Align Vertical Center toolbar option moves all currently selected figures to match the vertical center (Y position + 1/2 of the height of all figures) of

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Icon	Name	Description
		the first selected figure.
	Bottom	This option will be enabled if two or more figures are selected in the current drawing window. The Align Bottom toolbar option moves all currently selected figures to match the bottom (Y position + Height) of the first selected figure.
	Align to Grid	The Align to Grid toolbar option aligns a selected figure(s) with the grid.
	Flip Horizontally	The Flip Horizontally toolbar option interchanges the position of selected figures horizontally.
	Flip Vertically	The Flip Vertically toolbar option interchanges the position of selected figures vertically.
	Distribute Horizontally	This option will be enabled when three or more unlocked figures are selected in the drawing canvas. The Distribute Horizontally option adjusts the positioning of selected figures to create an even amount of horizontal space between each figure.
	Distribute Vertically	This option will be enabled when three or more unlocked figures are selected in the drawing canvas. The Distribute Vertically option adjusts the positioning of selected figures to create an even amount of vertical space between each figure.
	Rotate 90° Right	The Rotate 90° Right toolbar option rotates selected figures in the current drawing to the right by 90°.
	Rotate 90° Left	The Rotate 90° Left toolbar option rotates selected figures in the current drawing to the left by 90°.
	Rotate 180°	The Rotate 180° toolbar option rotates selected figures in the current drawing by 180°. The figure is flipped upside down or back to its original position depending on the number of times this selection is made.
	Add	This option will be enabled if two figures are selected in the current drawing window. The Add toolbar option will combine two selected figures to form one object.

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Icon	Name	Description
	Subtract	This option will be enabled if two figures are selected in the current drawing window. The Subtract toolbar option will remove the bottom layered figure from the drawing canvas along with any portion intersecting the additionally selected figure.
	Intersect	This option will be enabled if figures are selected in the current drawing window. The Intersect toolbar option will remove all portions of the two selected figures while leaving the section where they meet.
	Exclude	This option will be enabled if two figures are selected in the current drawing window. The Exclude toolbar option will remove the intersecting portion of two selected figures while leaving the remaining portions on the drawing canvas.
	Sidebar	The Sidebar toolbar option will toggle (display or hide based on the current state) the sidebar for the current drawing window.

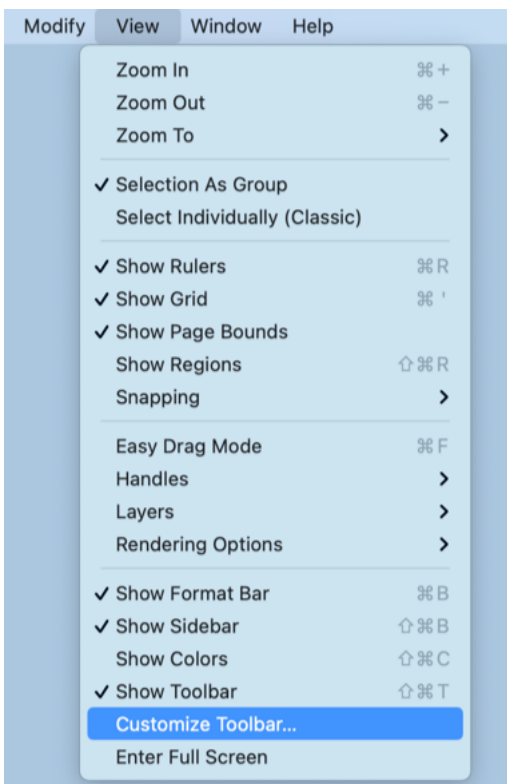
4.2.2. Customizing the Main Toolbar

The **Main Toolbar** is located above the menu bar in the TouchDraw 2 application window and can be used to perform specific drawing manipulation functions quickly with a single mouse click.

The toolbar can be customized to show a desired set of functions or contain a default set depending on user preferences.

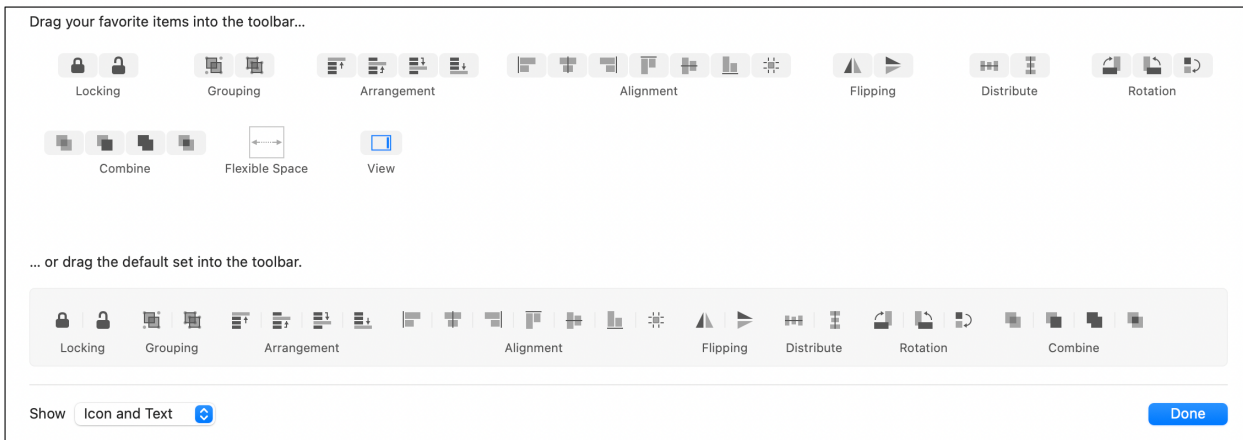
Follow the steps below to alter what icons appear when using the application.

1. Select the [View Menu](#) and then **Customize Toolbar...** to open the customization window.



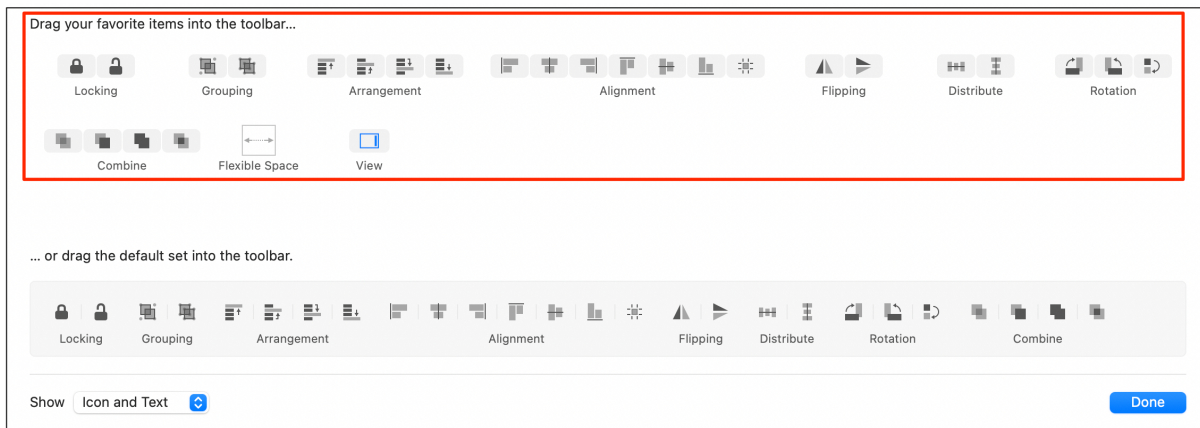
2. The customization window will appear as shown below:

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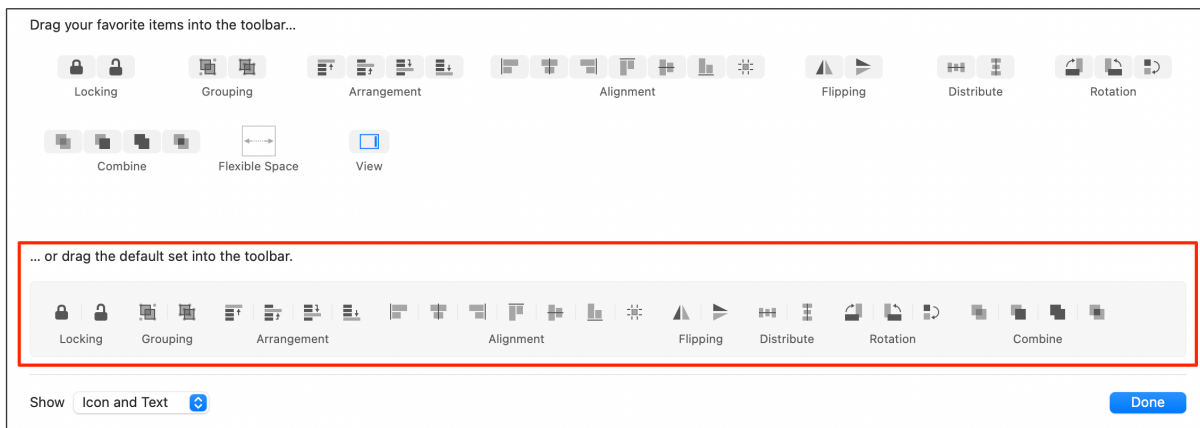


The **Main Toolbar** is customized by one of two actions:

1. Dragging individually selected icons to a desired position in the [Main Toolbar](#).



2. Dragging the default set onto the [Main Toolbar](#).



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3. The **Show** drop-down menu options alter how the selected icons appear within the **Main Toolbar: Icons and Text, Icons Only, or Text Only**. Use the **Show Small Size** setting to make shown icons appear smaller and receive increased space for additional toolbar selections.



4. Click on the **Done Button** when all desired actions and settings have been chosen.



4.3. Format Bar

The **Format Bar** appears between the main toolbar and the drawing canvas of the application window.

It can be used to perform text, stroke, and fill color alterations on a selected object or an entire drawing.

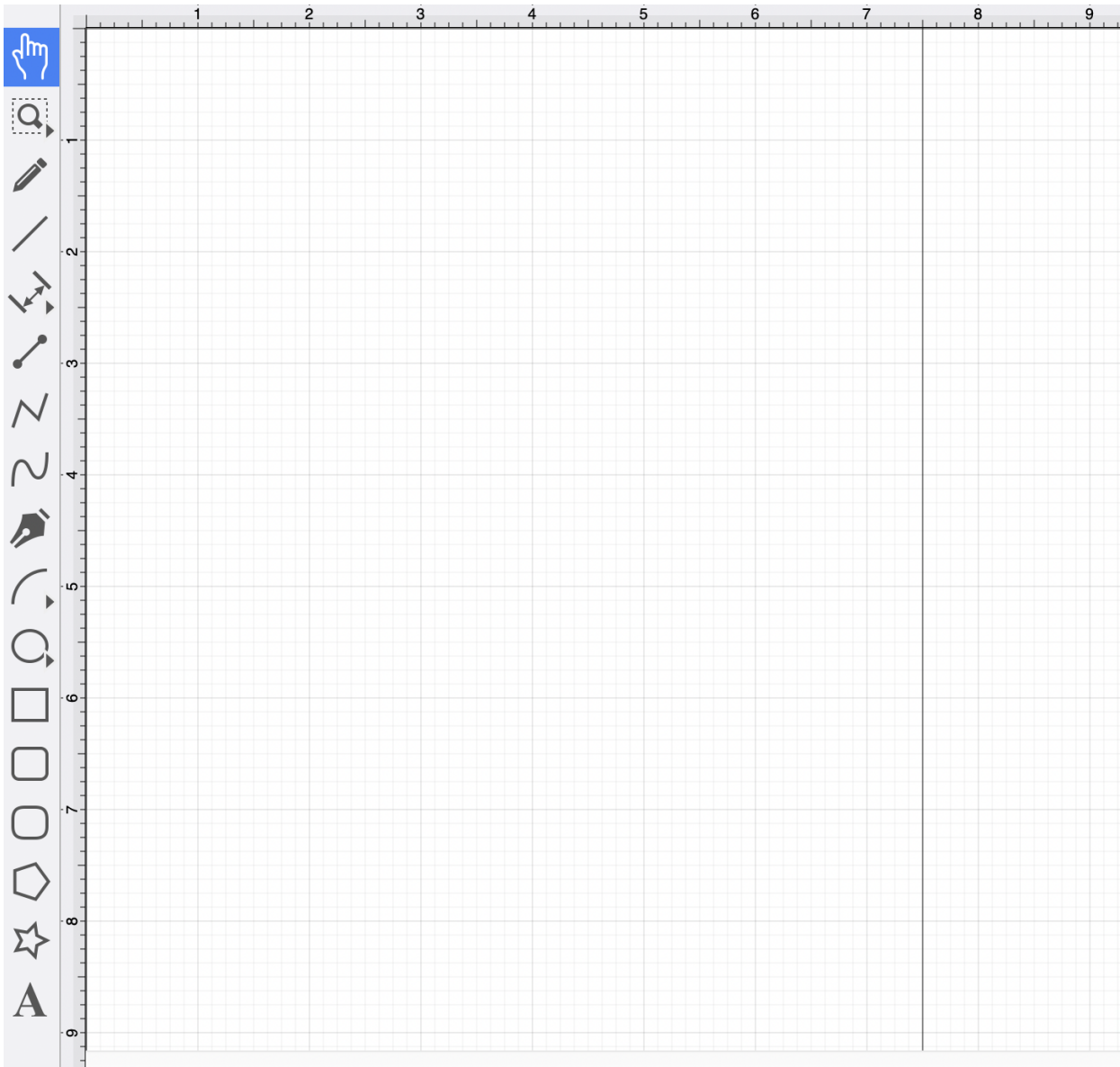


Click on the name of the menu item to find out more details about what action occurs when the menu item is selected.

Name	Description
Text Attributes	The Text Attribute buttons are used to change font family, style, size, color, and additional text properties for currently selected figures or an entire drawing.
Stroke Attributes	The Stroke Attribute buttons are used to change style, size, and color stroke properties for currently selected figures or an entire drawing.
Fill Attributes	The Fill Attribute button alters the fill color of a selected figure, group of figures, or an entire drawing.

4.4. Drawing Canvas

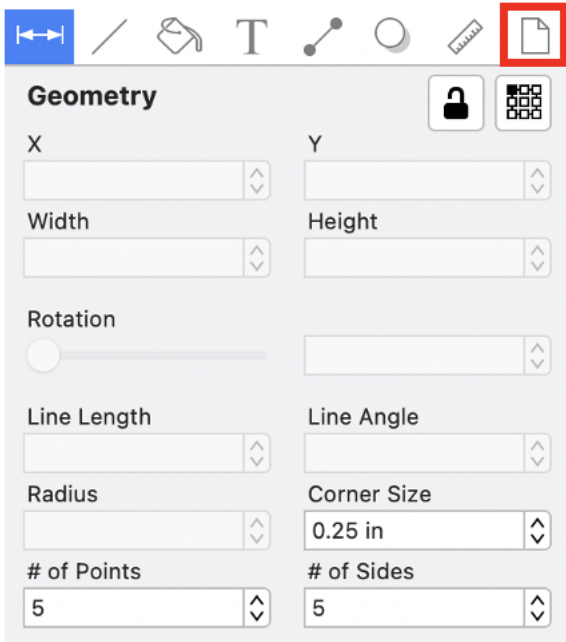
The **Drawing Canvas** is the area of the screen that displays the currently active drawing. All added figures appear in this portion of the TouchDraw 2 application.



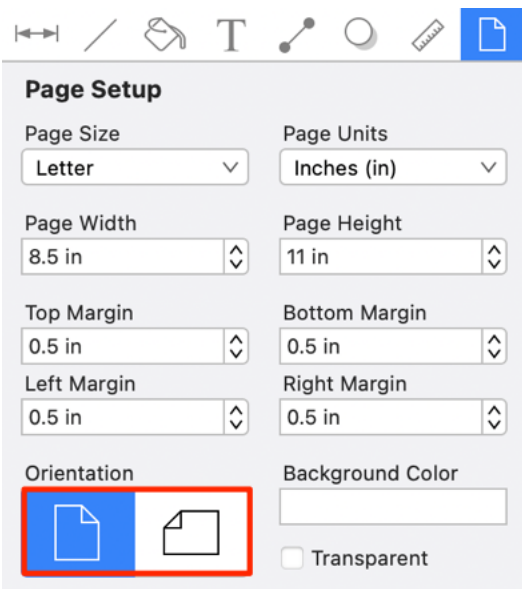
Besides being able to change the measurement and grid lines, the orientation for the **Drawing Canvas** itself may be changed from portrait to landscape as well.

By default, the setting is configured for portrait mode but can be changed by completing these steps:

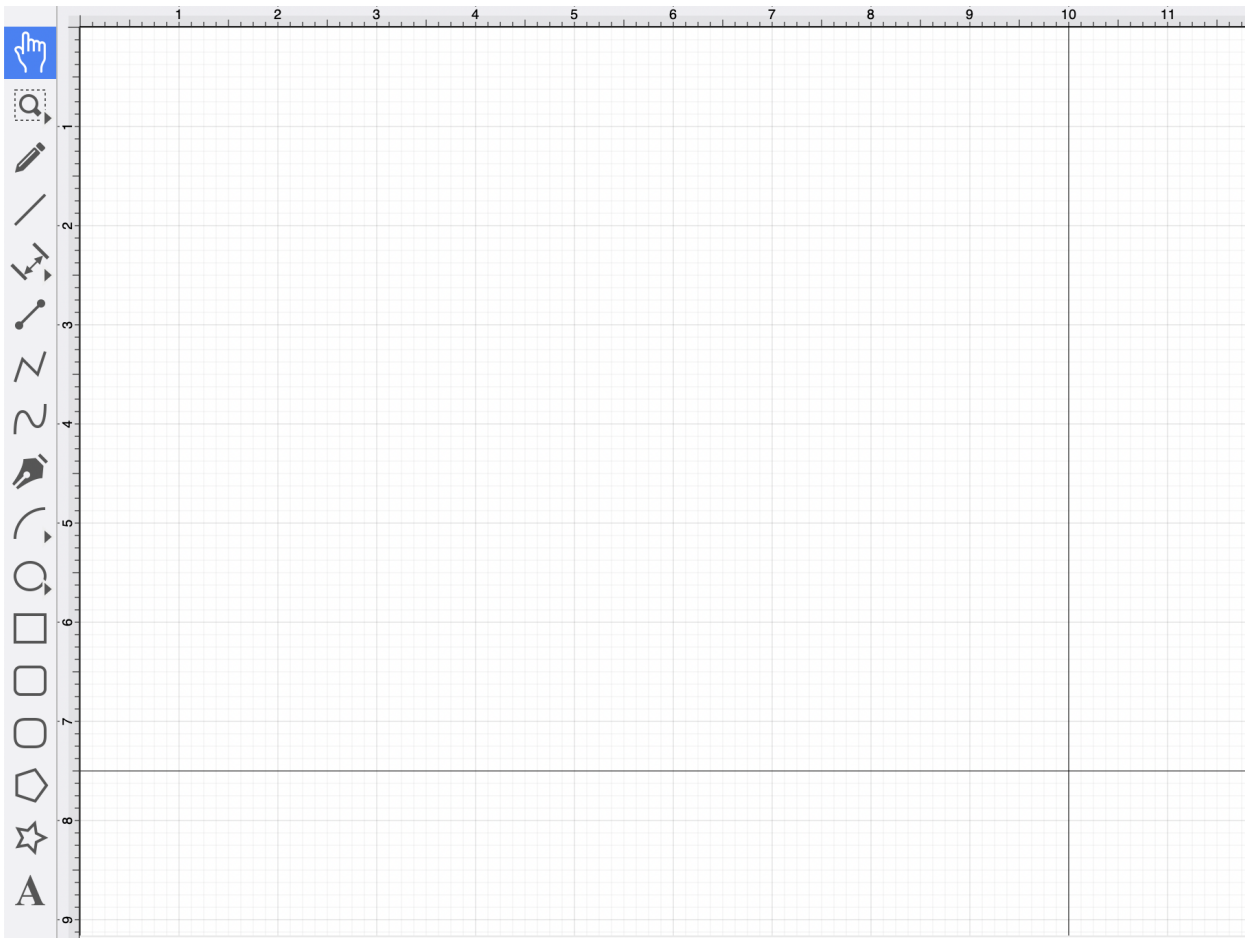
Step 1: Click on the [Page Setup Tab](#) within the [Sidebar](#).



Step 2: Click on the desired option (portrait or landscape) at the bottom left corner.



The following image shows the drawing canvas in landscape mode.



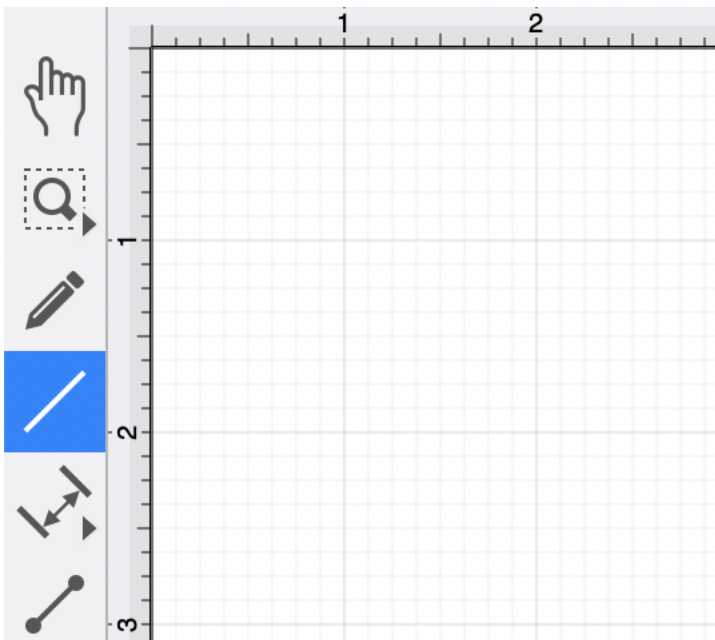
Note: The [Drawing Toolbar](#) has an intuitive design, meaning that the available tools will be condensed into expandable groups when a Mac has a smaller screen area.

4.5. Drawing Toolbar

The **Drawing Toolbar**, located on the left side of the screen, contains all available drawing tools for adding to or manipulating the current drawing. The tools and their exact functionality are detailed in the following sections; however, there are some general concepts of the toolbar that need to be discussed first. All tools, with the exception of the [Selection Tool](#), can operate in two modes: "Normal" or "Sticky".

Normal Mode

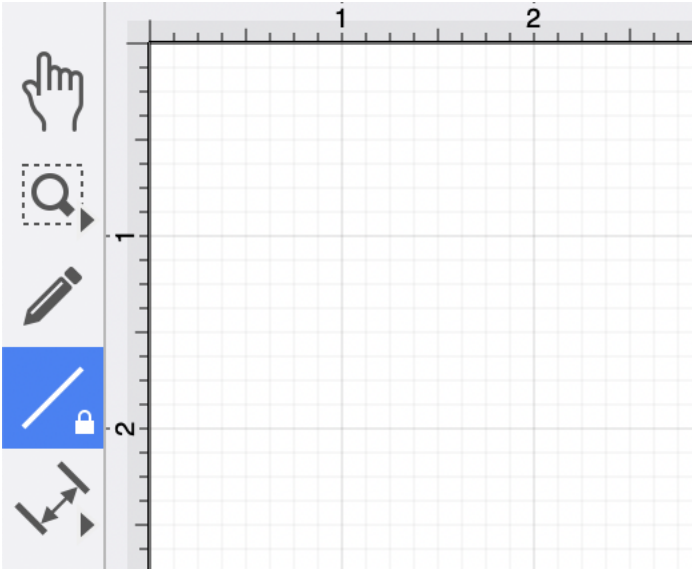
In **Normal Mode**, which is activated by selecting the tool through a single click, the tool is used to insert one figure into the drawing. Upon completion of creating that figure, the **Selection Tool** will be reactivated, and the newly created figure is selected. A tool is in **Normal Mode** when its background is highlighted with a blue gradient as shown in the first figure below.



Sticky Mode

Sticky Mode, which is activated by selecting a tool with a double click, makes it possible to add many figures into the drawing without having to reselect the tool. Upon completion of creating a figure, the tool will remain selected, and you can immediately begin creating/inserting additional figures of the same type.

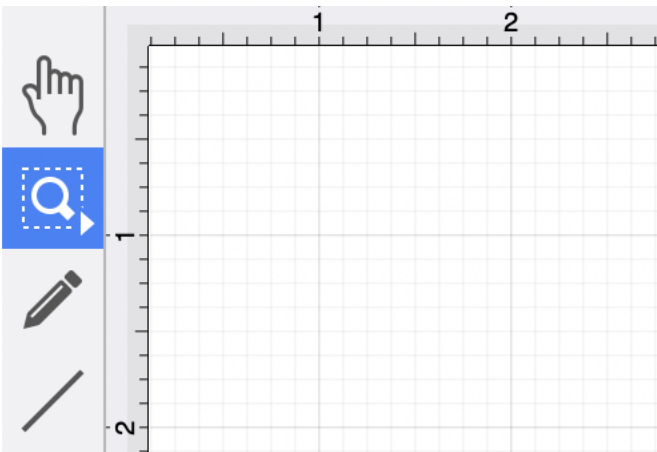
To cancel/end creating the selected figure type, simply select another tool. A tool is in **Sticky Mode** when its background is highlighted with a blue gradient and contains a lock symbol in the lower right-hand corner, as shown in the figure below.



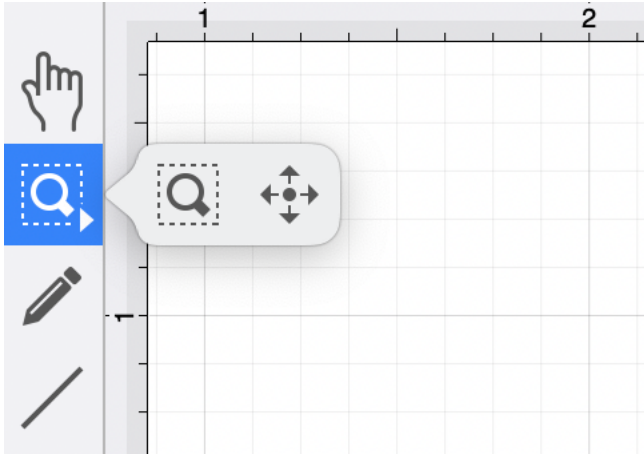
Collapsed Drawing Tool Options

The **Drawing Toolbar** has an intuitive design where certain drawing tools are grouped into expandable menus for smaller screen sizes.

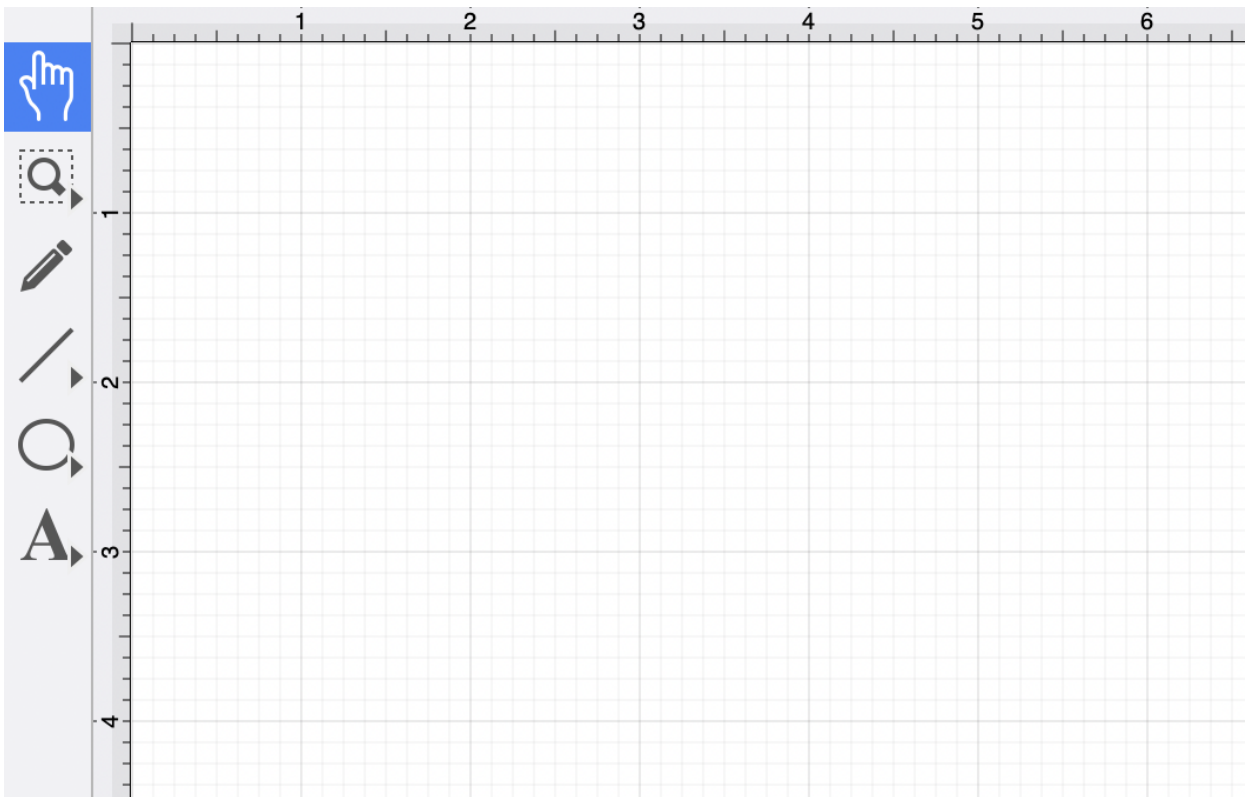
For example, the Pan and Zoom group contains the [Move and Zoom Tool](#) and the [Zoom Rectangle Tool](#), as indicated by the arrow at the bottom right of each button in the toolbar.



Perform an **Extended Click** action to access these features and then click on the provided choices to make a selection. Available choices will appear as shown below:

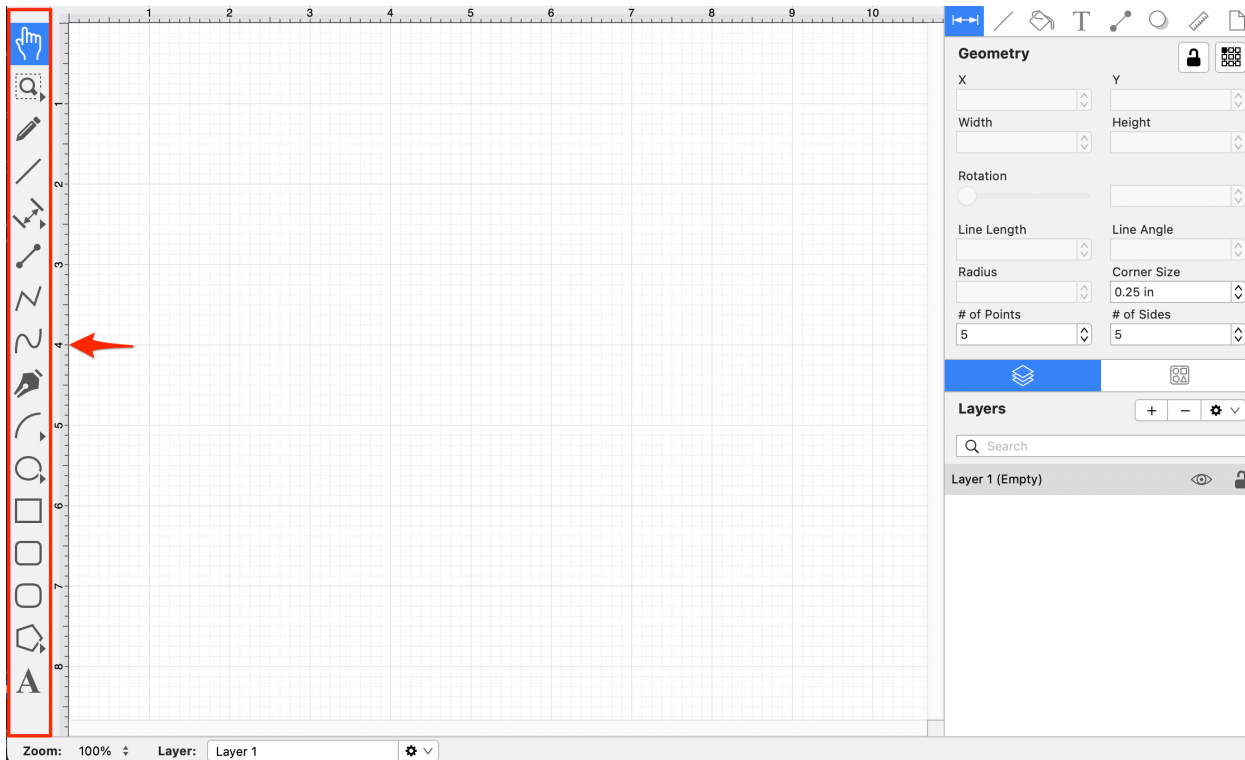


Other tools, such as the [Oval Tool](#) and [Line Tool](#) are also grouped together for smaller screen areas.



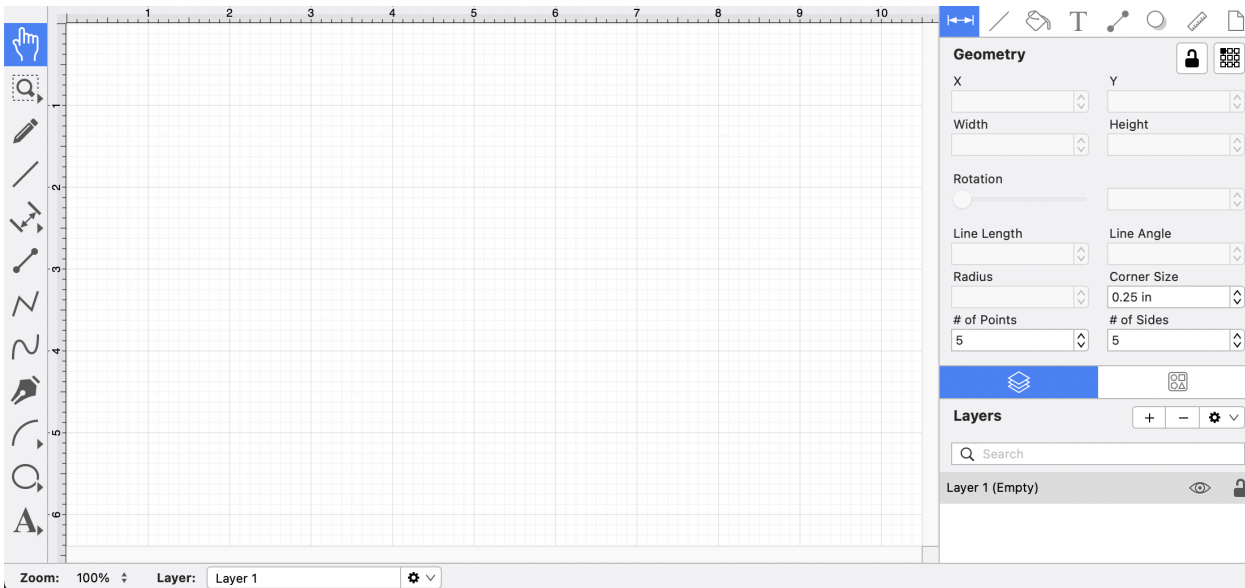
4.5.1. Drawing Toolbar Options

The **Drawing Toolbar**, located on the left side of the screen, contains all available drawing tools for adding to or manipulating the current drawing.

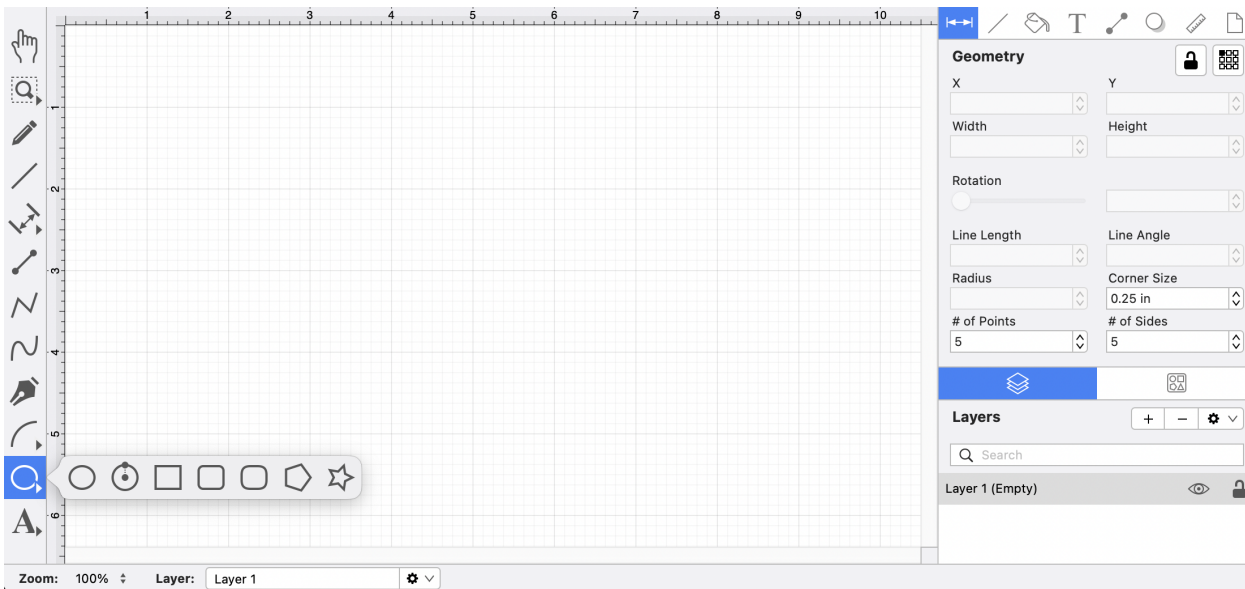


The **Drawing Toolbar** has an intuitive design where similar drawing tools collapse into groups when there is not enough room on the screen to display them all individually.


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To access these tools when collapsed, you will need to perform an **Extended Click** on the displayed drawing tool in the toolbar and then **Click** on the desired tool in the expanded selection menu.















Click or tap on the corresponding Drawing Toolbar item name to learn more about its functionality.

Icon	Option Name	Description
	Selection Tool	The Selection Tool is the chosen tool default within the

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Icon	Option Name	Description
		application each time a drawing is created or opened. It can be used for figure selection.
	Move and Zoom Tool	The Move and Zoom Tool can be used to move the visible portion of the drawing with a click/drag combination for performing panning or zooming actions on an entire drawing rather than moving the objects residing on the Drawing Canvas .
	Zoom Rectangle Tool	The Zoom Rectangle Tool can be used to draw a rectangle over a portion of the Drawing Canvas to specify a precise zooming location. It provides finer control than the Pinch and Zoom gesture when zooming in on specific figures within the Drawing Canvas .
	Free Form Tool	The Free Form Tool is a gesture-recognizing tool that can be used to draw freehand lines, circles, ovals, etc. It detects what is being drawn and automatically turns it into the appropriate shape. For lines between shapes, the Free Form Tool will convert the line into a connection line.
	Line Tool	The Line Tool can be used to draw straight lines.
	Linear Dimension Tool	The Linear Dimension Tool can be used to draw a linear dimension line.
	Horizontal Distance Dimension Tool	The Horizontal Distance Dimension Tool can be used to draw a horizontal dimension line.
	Vertical Distance Dimension Tool	The Vertical Distance Dimension Tool can be used to draw a vertical dimension line.
	Callout Tool	The Callout Tool can be used to draw a callout to a location in the drawing.
	Connection Tool	The Connection Tool can be used to draw lines for connecting one figure to another and makes it easy to create connected graphs such as flow charts.
	Polyline Tool	The Polyline Tool can be used to draw line segments only and works similar to the <i>Path Tool</i> . Dragging your finger on the

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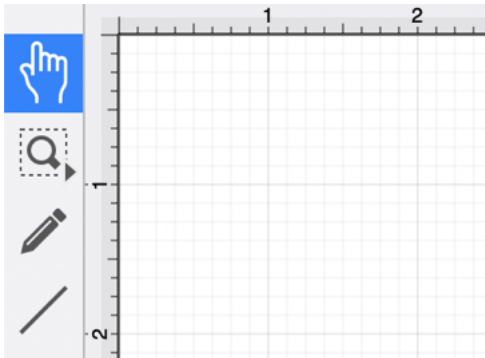
Icon	Option Name	Description
		Drawing Canvas will result in line endpoints. A Double Click ends the current polyline creation. A Triple Click will end the creation of the current polyline and close it to create a closed polygon.
	Pen Tool	The Pen Tool uses a technique called curve fitting to create a smooth curve from a drawn freehand path.
	Path Tool	The Path Tool is the most powerful and complex tool available within TouchDraw 2. It can be used to create complex curves and shapes with detailed control on every aspect of the shapes appearance.
	Elliptical Arc Tool	The Elliptical Arc Tool is used to create a shape consisting of half of an ellipse.
	Circular Arc Tool	The Circular Arc Tool creates a perfect circular arc where the position, length, and angle increases in proportional increments as the size of the shape increases.
	Oval Tool	The Oval Tool can be used to create ovals or circles within a drawing.
	Circle Tool	The Circle Tool can be used to create a perfect circle where the radius increases in increments as the size of the shape increases.
	Rectangle Tool	The Rectangle Tool can be used to create rectangles or squares within a drawing.
	Rounded Rectangle Tool	The Rounded Rectangle Tool can be used to create rounded rectangles or rounded squares within a drawing.
	Squircle Tool	The Squircle Tool can be used to create squircles within a drawing.
	Polygon Tool	The Polygon Tool can be used to create regular polygons within a drawing.
	Star Tool	The Star Tool can be used to create stars within a drawing.
	Text Tool	The Text Tool can be used to create a text area within a

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Icon	Option Name	Description
		drawing.

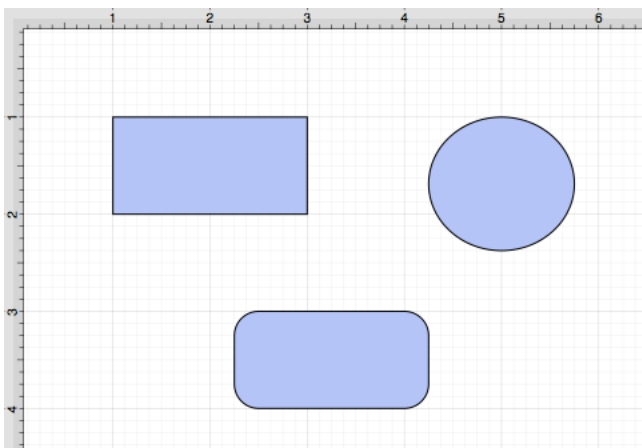
4.5.2. Selection Tool

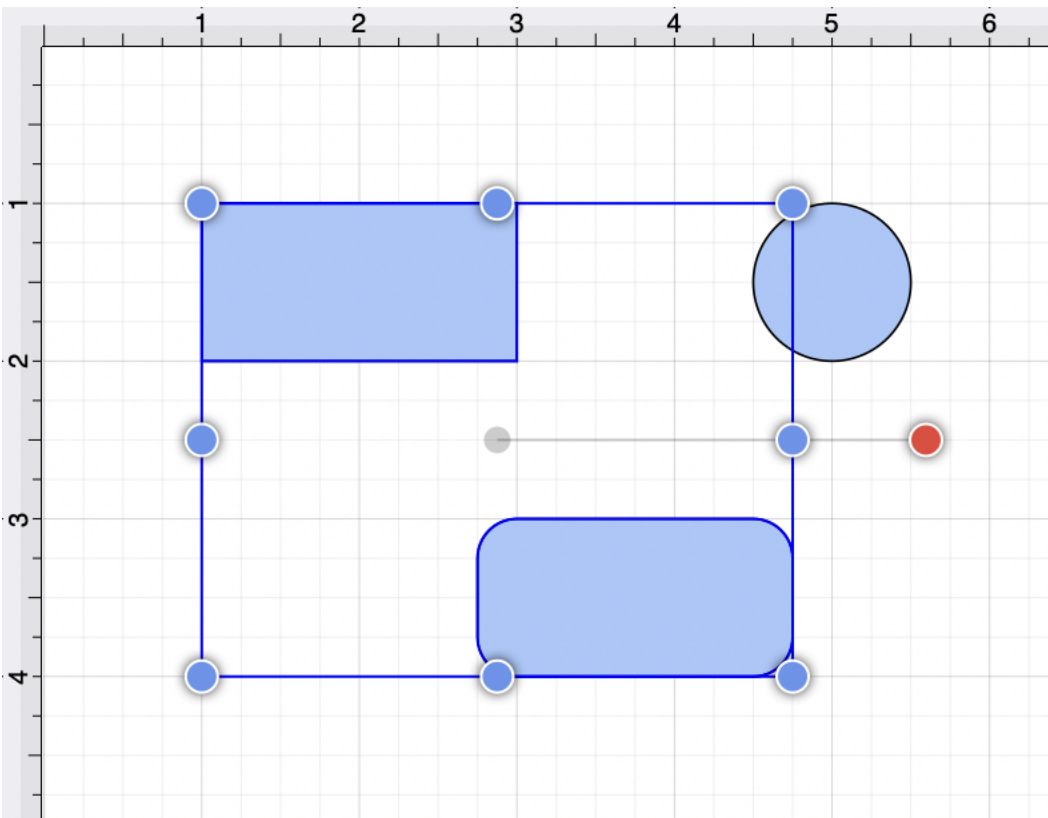
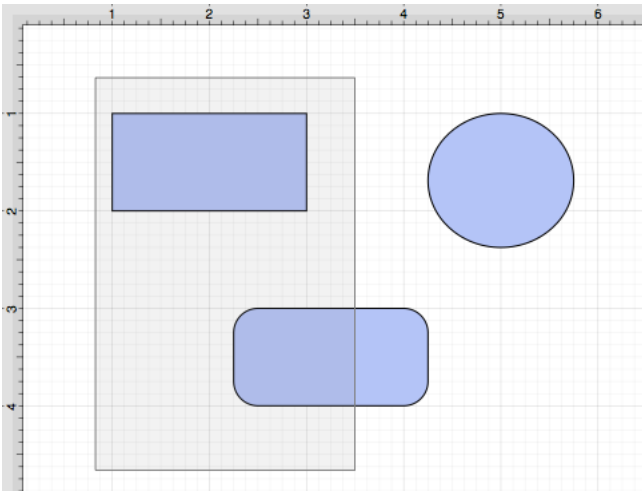
The **Selection Tool** is the chosen tool default within the application each time a drawing is created or opened. The following described functions can be performed when this tool is selected.



The simplest and most common method for selecting objects is to perform a click within bounds of a figure (for ovals, rectangles, rounded rectangles, polygons, filled paths, text, and images) or on a line (for lines and paths). [Handles](#) are displayed as a visual indicator of successful figure selection.

Figures can also be selected by outlining an area within the grid. Click in a grid location where no figures are present and drag the selection rectangle over the drawing canvas to select all objects within a desired area. All figures residing in or intersecting the defined area are automatically selected when the drag action is completed.





Single Selection

Using the methods above, without pressing the **Shift** key, results in what TouchDraw 2 considers to be single selection. By single selection, we mean that only the figure or figures selected within the enactment of one action will be selected.

Multiple Selection

To select multiple figures individually, hold down the **Shift** key and click on the desired figure. Each "shift-click" will add the figure as part of the overall selection when not already selected or deselect the figure if it is already selected. This application option allows you to have fine-grained control over the selected figures.

Zooming

To zoom in or out when viewing a drawing, you can use one of two methods:

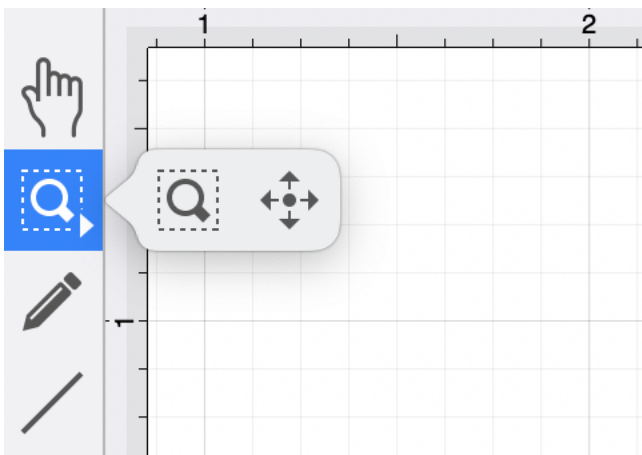
1. Use a pinching action on the mousepad. Bring your fingers together on the mousepad to zoom in and move them away from each other to zoom out.
2. Use the **Zoom In** and **Zoom Out** options within the [View Menu](#).

Moving (Panning)

To move around in a drawing, make sure the cursor is within the [Drawing Canvas](#) and then drag two fingers (without pinching or expanding them) on the mousepad to pan around.

Pan and Zoom Tool

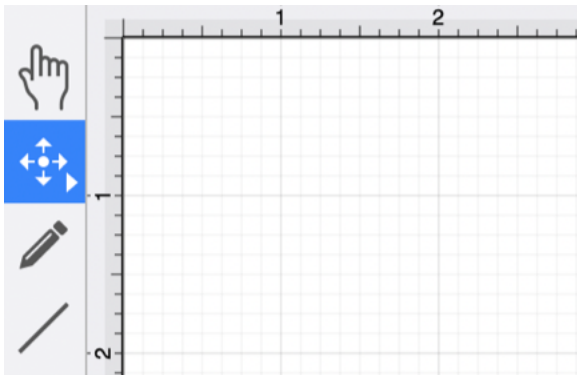
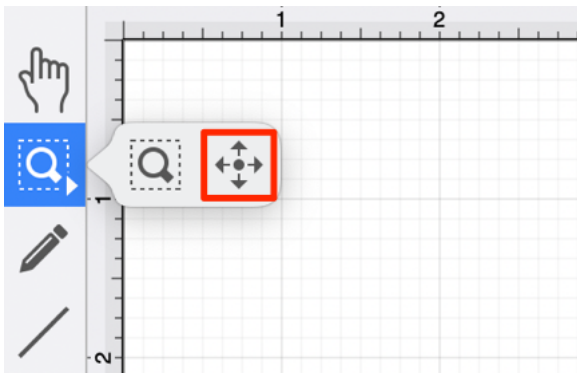
Note Additional options for panning and zooming are provided with the [Pan and Zoom Tool](#).



4.5.3. Move and Zoom Tool

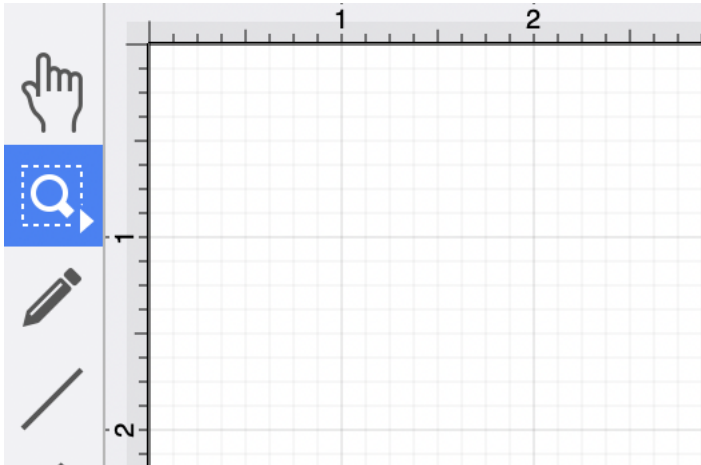
The **Move and Zoom Tool** selection allows the visible portion of the drawing to be moved with a **Click/Drag** action for performing panning or zooming actions on an entire drawing rather than moving the objects residing on the [Drawing Canvas](#).

This option is accessible when an extended **Click** is performed over the [Zoom Rectangle Tool](#) and will appear as shown below.



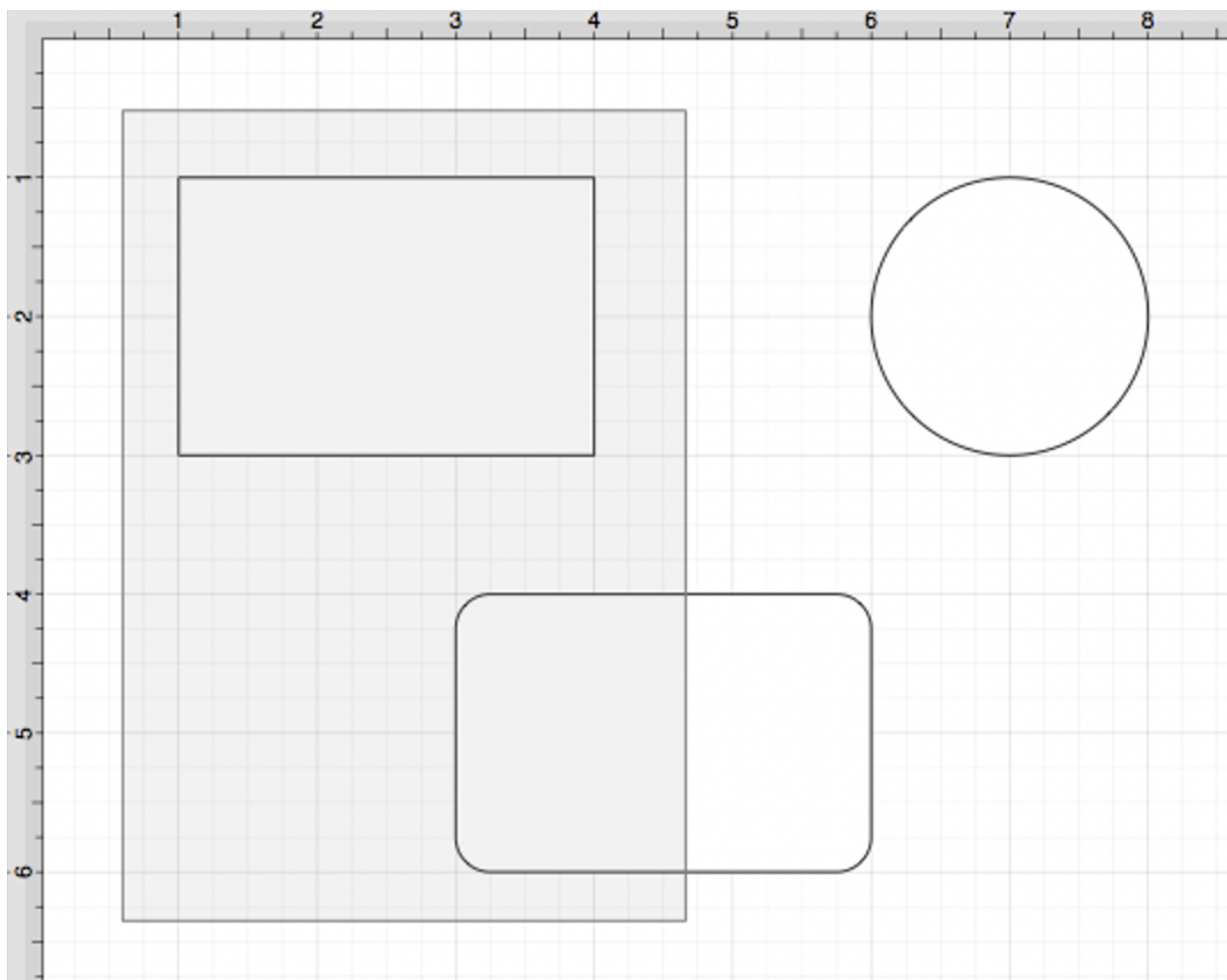
4.5.4. Zoom Rectangle Tool

The **Zoom Rectangle Tool** selection can be used to draw a rectangle over a portion of the [Drawing Canvas](#) to specify a precise zooming location. It provides finer control than the Pinch and Zoom gesture when zooming in on specific figures within the [Drawing Canvas](#).

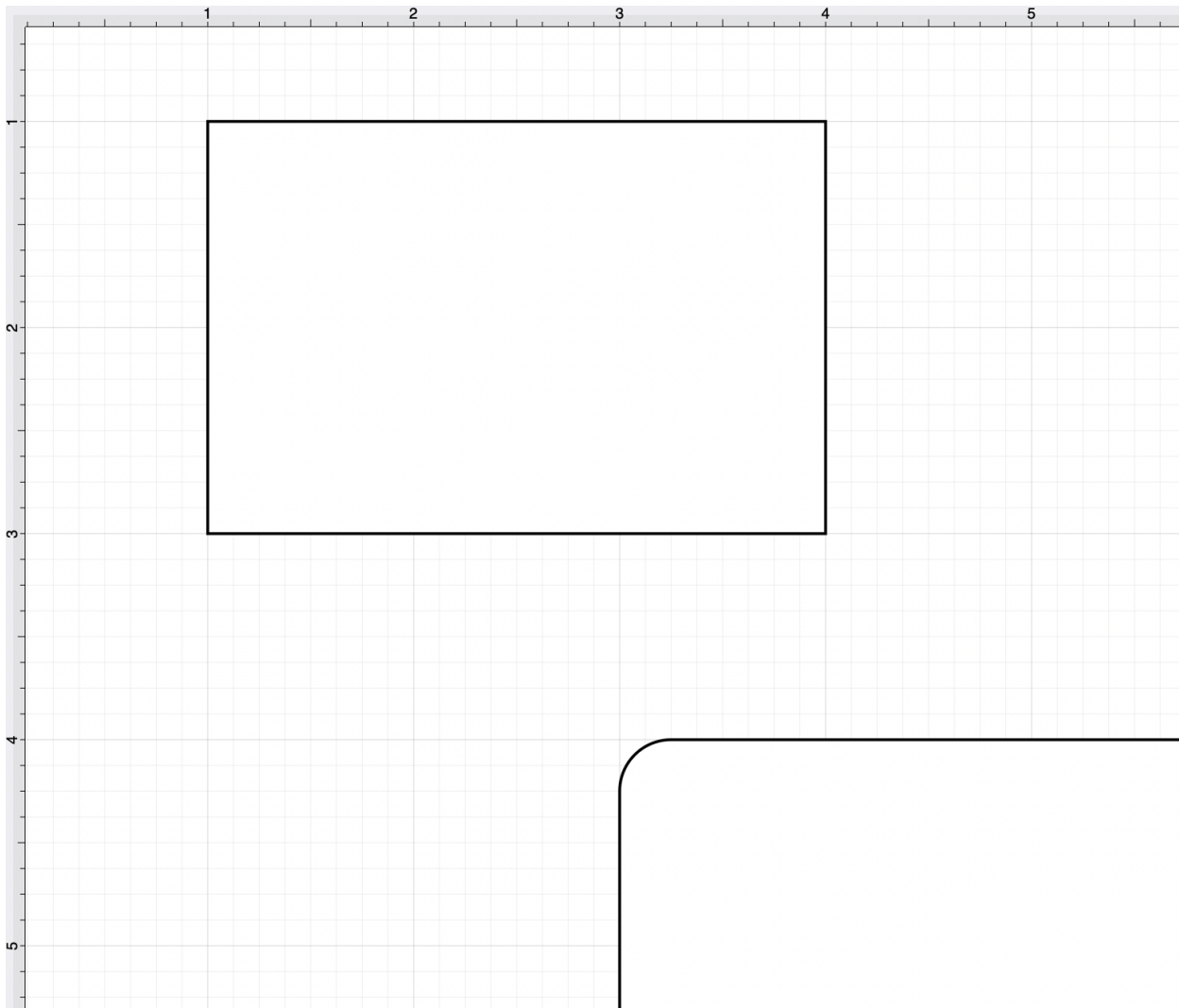


Select the **Zoom Rectangle Tool**. Then use a **Click/Drag** action to drag the rectangle over a desired area and then release this action to complete the selection.

In the example below, the rectangle and rounded rectangle are selected with the **Zoom Rectangle Tool**.

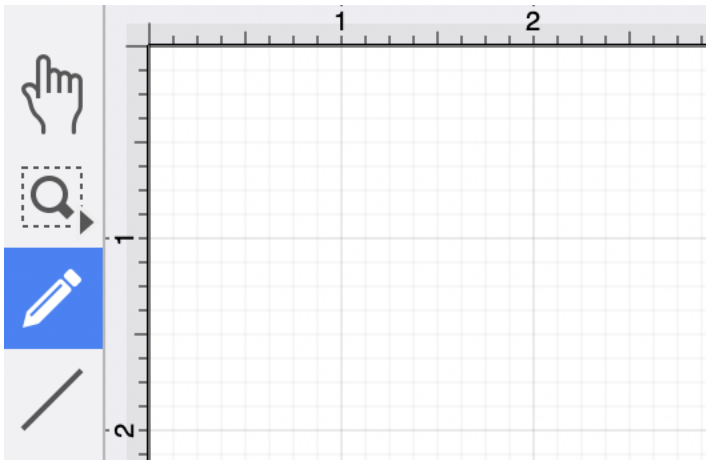


The [Drawing Canvas](#) will automatically zoom in on the figures within the selected area.



4.5.5. Free Form Tool

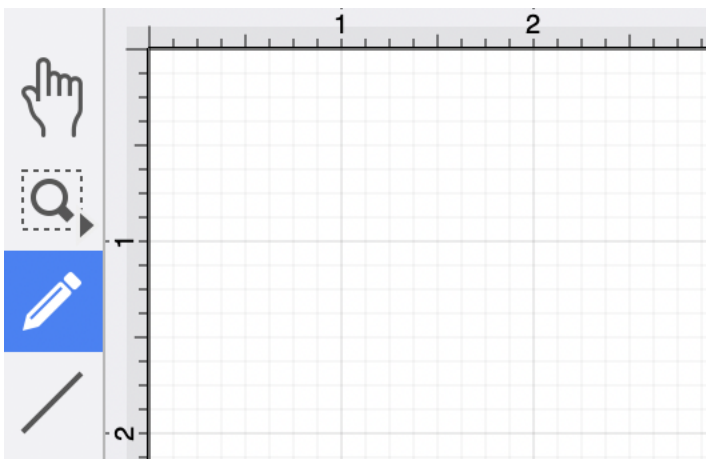
The **Free Form Tool** can be used to draw freehand lines, squares, rectangles, circles, and ovals. Once you have started drawing, the tool will automatically detect what is being drawn and turn it into that shape.



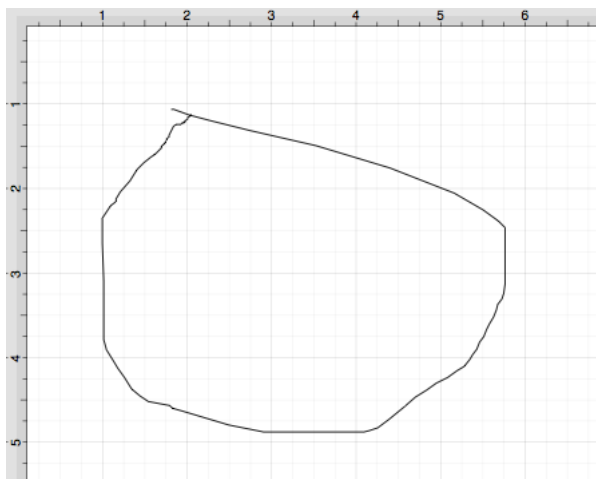
Note: For lines between shapes, the Free Form Tool will convert the line into a connection line automatically.

To use this tool, complete the following steps:

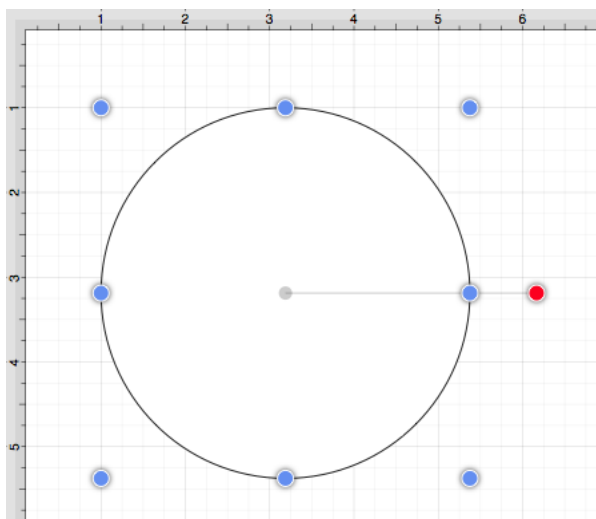
Step 1: Click on the **Free Form Tool** within the [Drawing Toolbar](#).



Step 2: Begin to draw a shape or line by performing a **Click/Drag** action on the [Drawing Canvas](#). Do not release the click until your freehand shape or line has been completed.

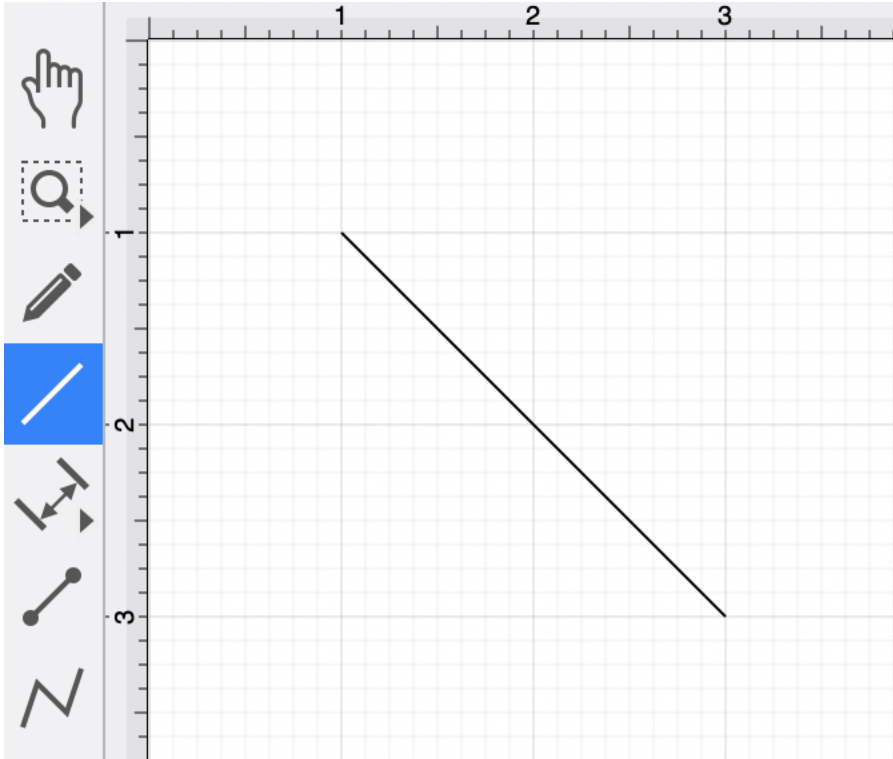


Step 3: Release the click action once you have finished drawing the shape or line. The application will then complete the shape or line accordingly.



4.5.6. Line Tool

The **Line Tool** can be selected to draw straight lines. Use a **Click/Drag** combination to draw the line from a set starting point to a desired end point. The trackpad performs the necessary dragging action between two line points and a release of the **Click** action completes this drawing function.

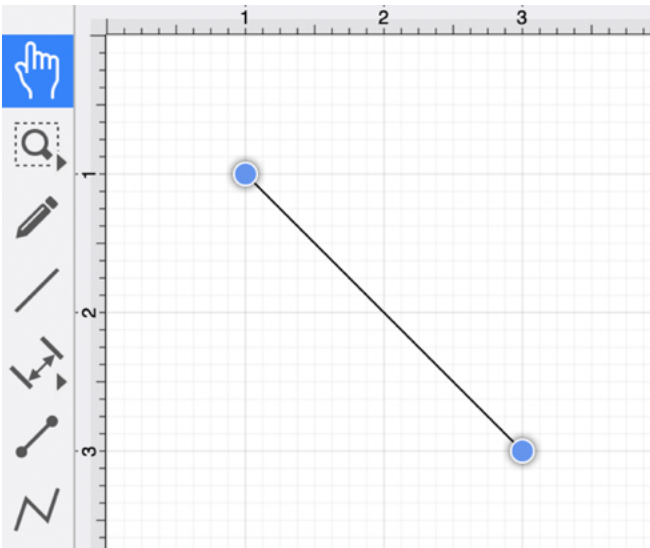


Note: Holding down the **Shift Key** during line creation constrains the line to increments of 90 degrees.

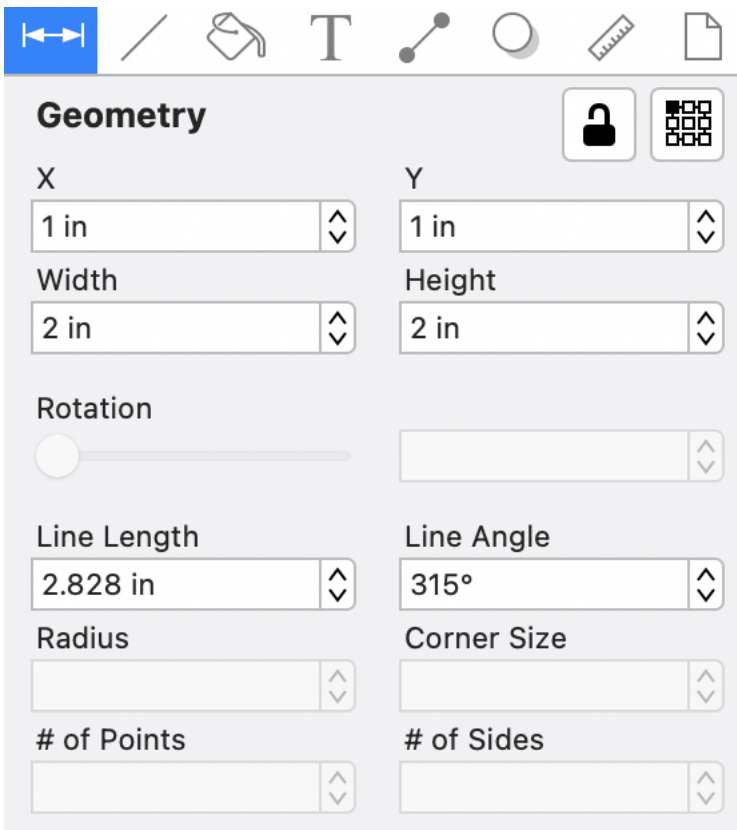
How to Change the Line Length and Angle

The length and angle of a line can be altered any time after a line has been created. To alter the length or angle of a line:

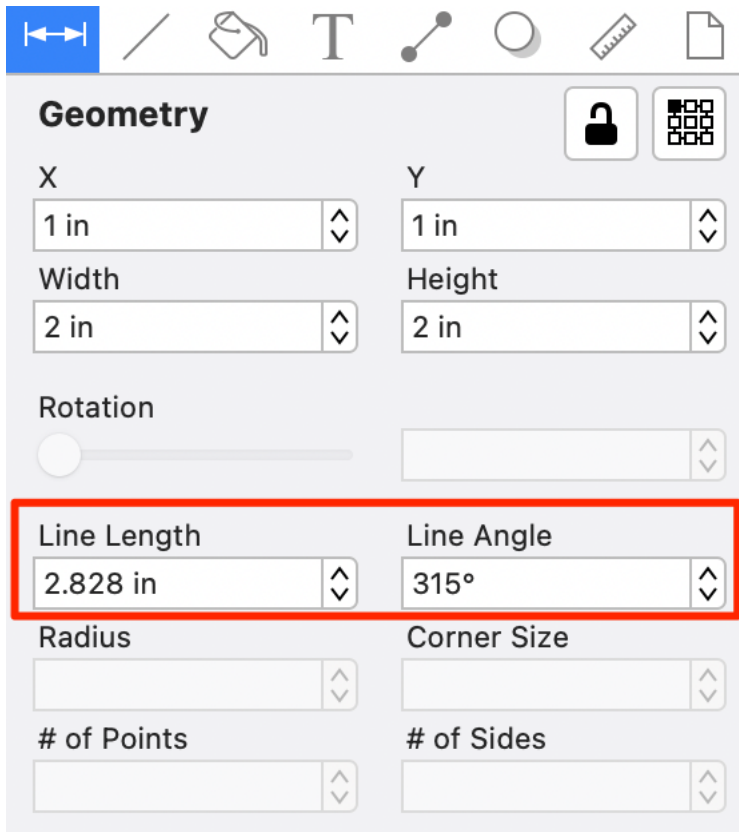
Step 1: Choose the **Selection Tool** in the [Drawing Toolbar](#) and highlight the desired line.



Step 2: Select the [Geometry Tab](#) in "Info" section of the [Sidebar](#).



Step 3: The **Line Length** and **Line Angle** options are located toward the bottom of the [Geometry Tab](#). Use the "up" or "down" arrow buttons to change either value or click on the text entry field to key in a value.



The image shows the 'Geometry' panel of the TouchDraw 2 for Mac application. The panel has a light gray background and contains several input fields and controls. At the top, there is a toolbar with icons for undo, redo, text, line, circle, and file. Below the toolbar, the 'Geometry' section is titled. It includes a 'Lock' icon and a 'Grid' icon. The main area contains input fields for 'X' (1 in), 'Y' (1 in), 'Width' (2 in), and 'Height' (2 in). There is a 'Rotation' slider and a corresponding input field. A red rectangle highlights the 'Line Length' (2.828 in) and 'Line Angle' (315°) fields. Below these are fields for 'Radius', 'Corner Size', '# of Points', and '# of Sides'.

Geometry

X: 1 in

Y: 1 in

Width: 2 in

Height: 2 in

Rotation:

Line Length: 2.828 in

Line Angle: 315°

Radius:

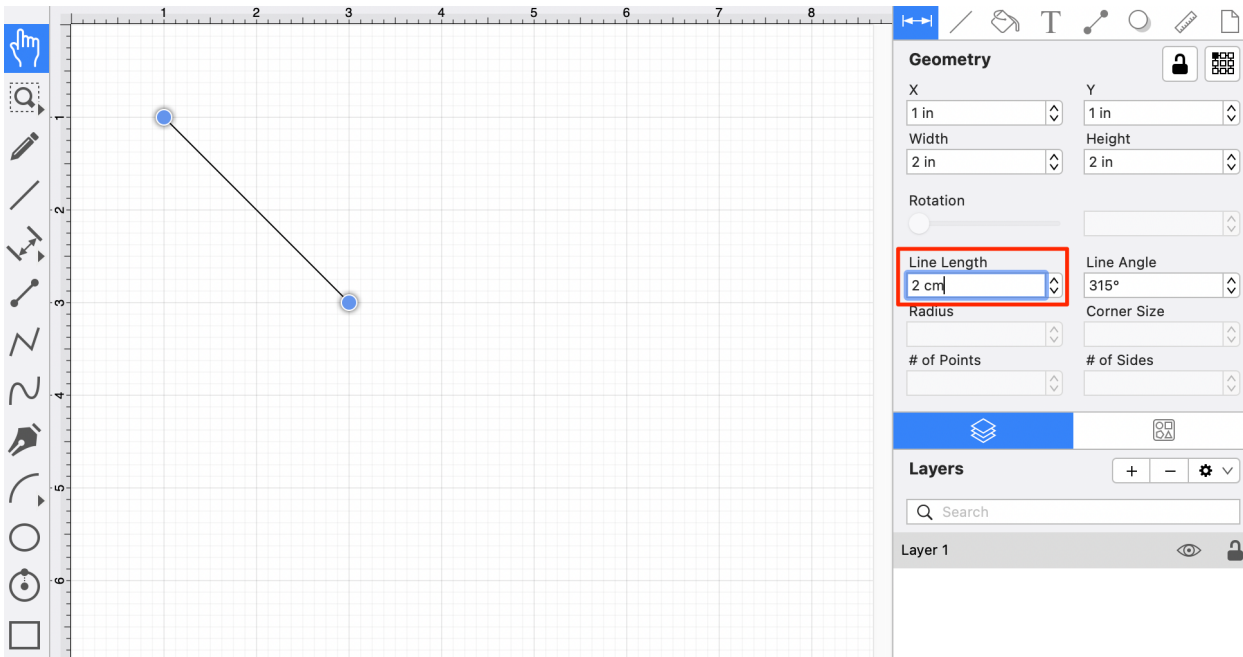
Corner Size:

of Points:

of Sides:

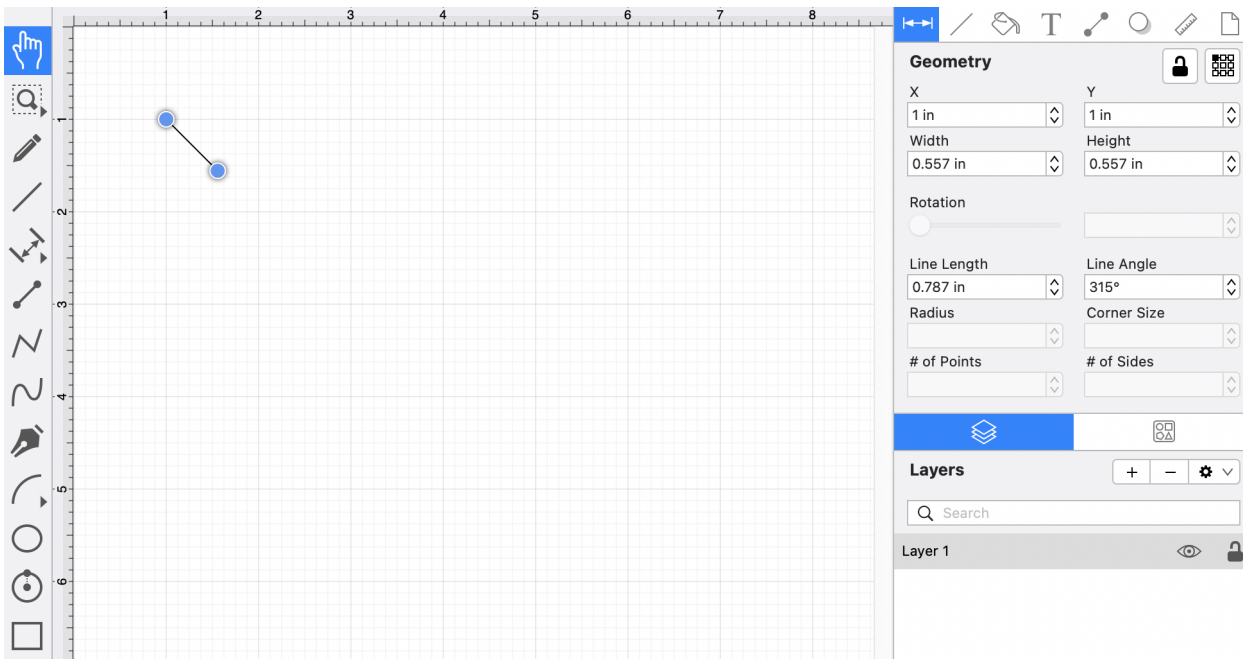
Step 4: When entering a value into the **Line Length** or **Line Angle** options, a different unit of measure other than the default of *Inches* or *Degrees* can be entered. For example, the **Line Length** value could be 10 centimeters (10 cm) or 50 millimeters (50 mm), and the **Line Angle** could be 5 radians (5 rad).

Enter the desired value and unit of measurement. For this example, 2 cm has been entered for the Line Length.



Step 5: Once entered, use the **Enter Key** on your keyboard or click in another area of TouchDraw 2, and the entered value will automatically be converted to its equivalent value in *Inches*.

The selected line and line length within the [Geometry Tab](#) will appear as shown below. For this example, the entry of 2 cm has been converted to its equivalent in inches (0.787 in) and appears much shorter than the original line figure.



Example 1: Entering 10 cm for the Line Length

A value of 10 centimeters (10 cm) is entered for the line length and converted to 3.937 inches.

Line Length	Line Angle
10 cm	315°
Radius	Corner Size
# of Points	# of Sides

Line Length	Line Angle
3.937 in	315°
Radius	Corner Size
# of Points	# of Sides

Example 2: Entering 50 mm for the Line Length

A value of 50 millimeters (50 mm) is entered for the line length and converted to 1.969 inches.

Line Length	Line Angle
50 mm	315°
Radius	Corner Size
# of Points	# of Sides

Line Length	Line Angle
1.969 in	315°
Radius	Corner Size
# of Points	# of Sides

Example 3: Entering 5 rad for the Line Angle

A value of 5 radians (5 rad) is entered for the line length and converted to 286.479 degrees.

Line Length	Line Angle
1.969 in	5 rad
Radius	Corner Size
# of Points	# of Sides

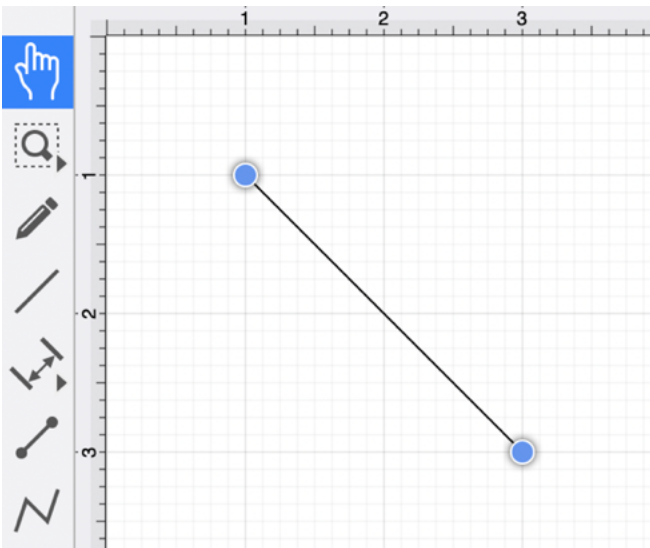
Line Length	Line Angle
1.969 in	286.479°
Radius	Corner Size
# of Points	# of Sides

Style as Dimension Line

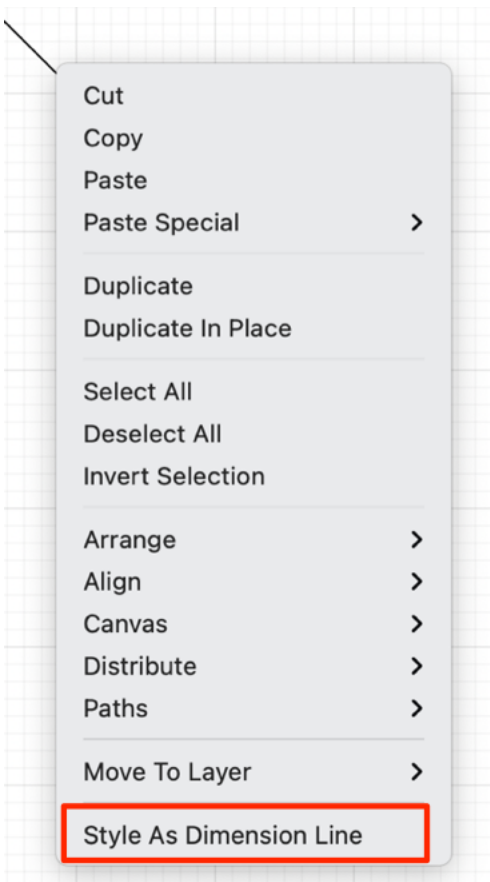
The **Style As Dimension Line** option within the [Contextual Menu](#) may be used to add dimensional aspects to an existing line figure. When this option is used, TouchDraw 2 automatically adds arrowheads and a variable to the selected line(s).

At least one line must be selected in the [Drawing Canvas](#) for this option to appear within the [Contextual Menu](#). Follow the steps shown below to use this option:

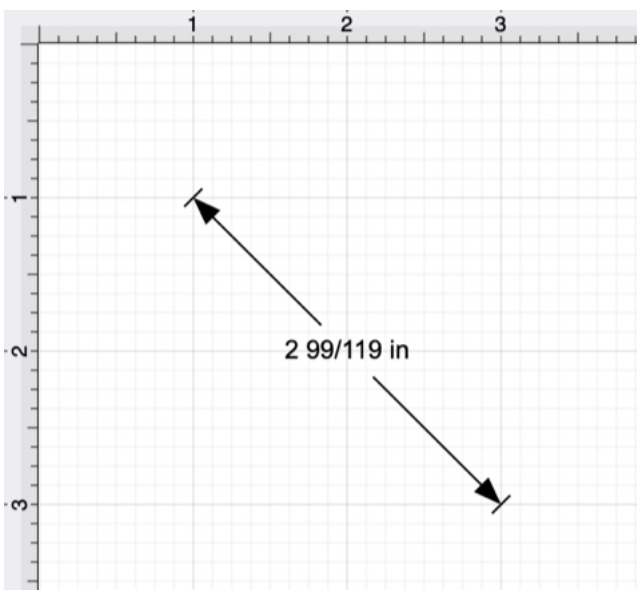
Step 1: Select the line figure you would like to alter.



Step 2: Then right-click on the [Drawing Canvas](#) to bring up the [Contextual Menu](#).

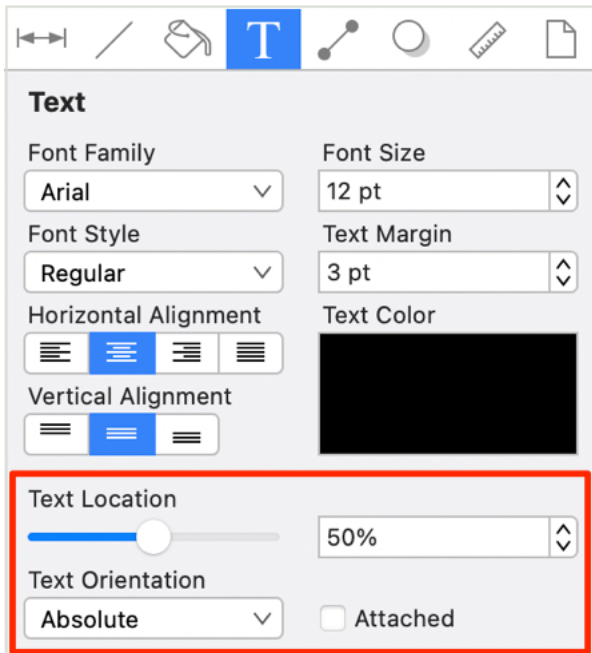


Step 3: Click on **Style As Dimension Line**, and the selected line figure(s) will appear similar to the example shown below:



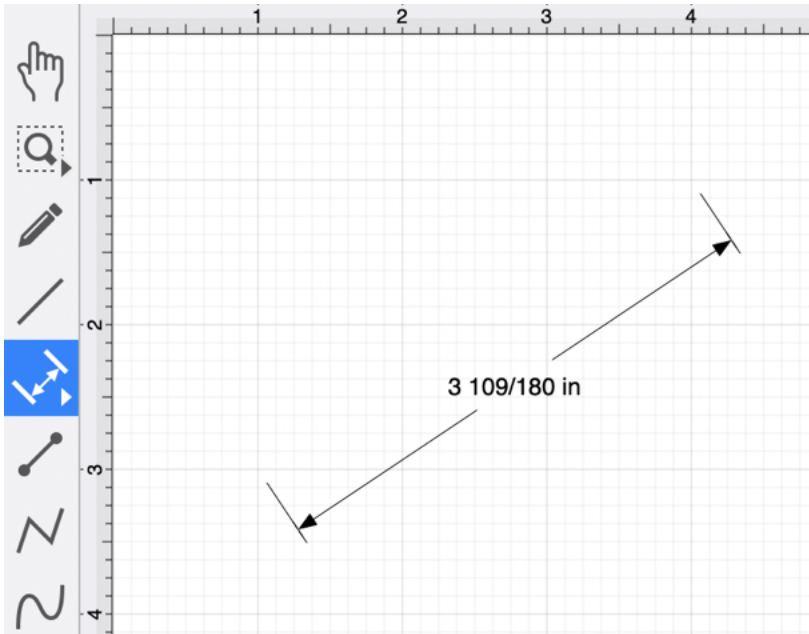
Text Location and Orientation

Text can be added to a Line. The [location](#) and [orientation](#) of the attached text can be altered for Line Figures within the **Text Tab**.



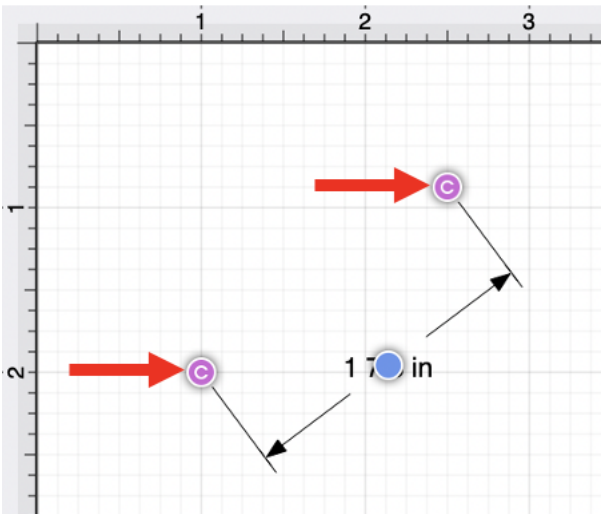
4.5.7. Linear Dimension Tool

The **Linear Dimension Tool** can be selected to draw a linear dimension line. Use a **Click/Drag** combination to draw the linear dimension line from a set starting point to a desired end point and then release the click to complete the drawing action.

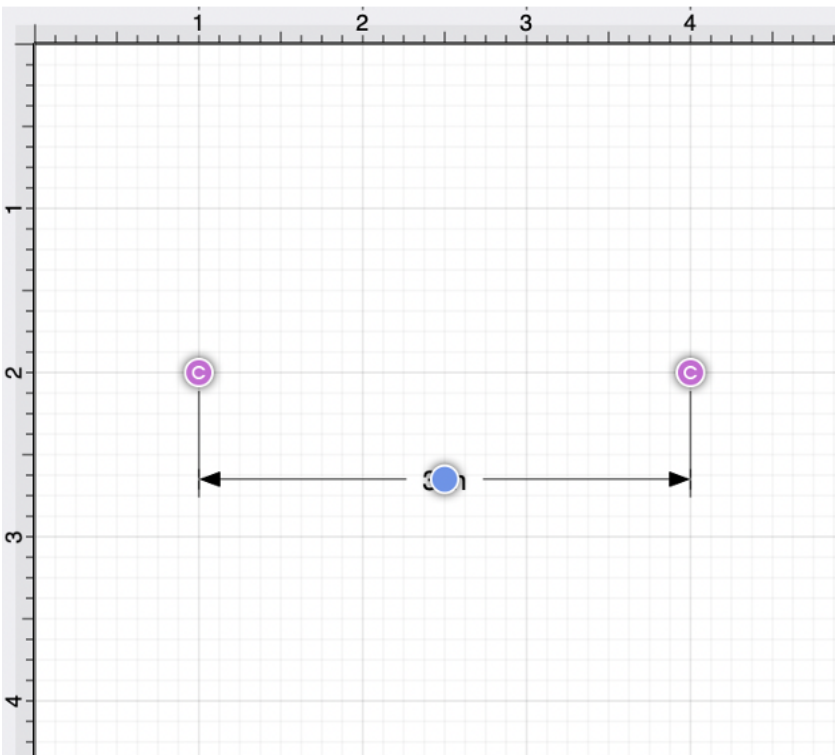


How to Alter Dimension Line Size, Angle, and Position

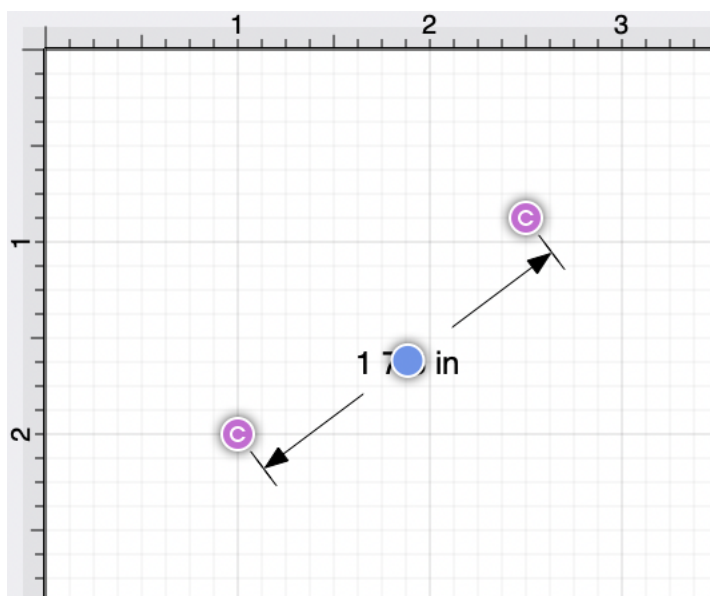
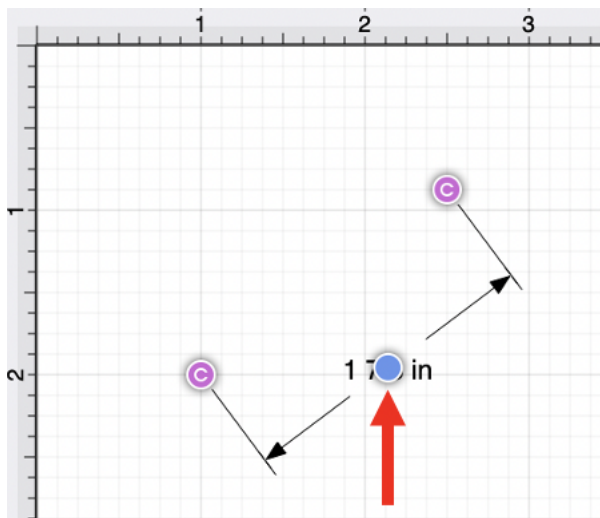
To alter the length or angle of a linear dimension line, click and drag using one of the connection handles on each end of the dimension line.



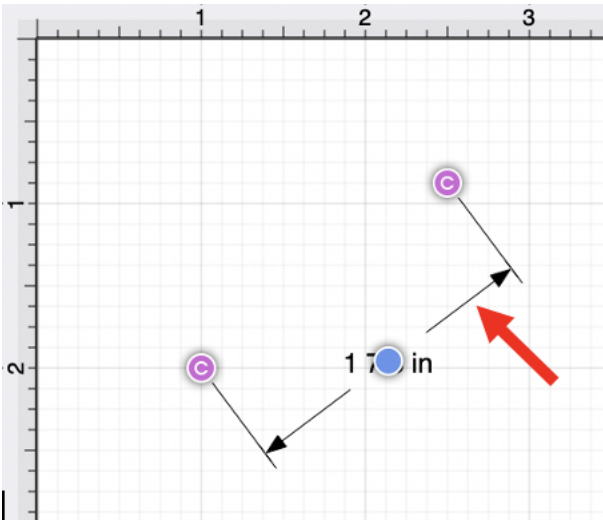
Do not release the click until the end of the dimension line is in the desired location. In the example below, the right connection point has been moved down and to the left.



Click and Drag on the blue bounds handle to change the position of the dimension line between the connection handles.



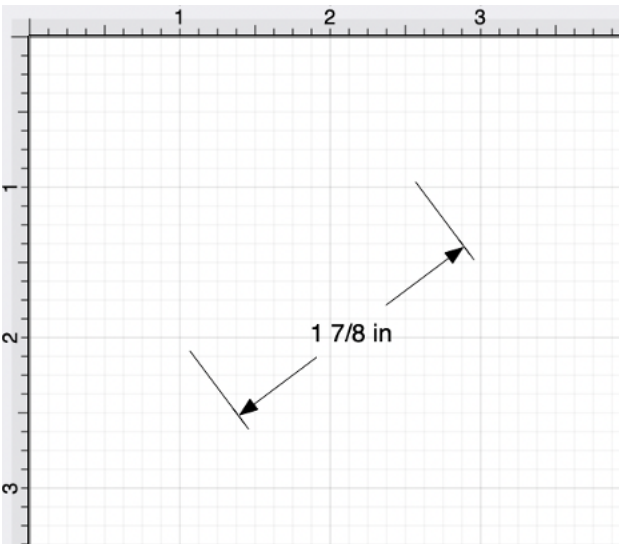
Click and Drag on the dimension line to change its position within the Drawing Canvas.



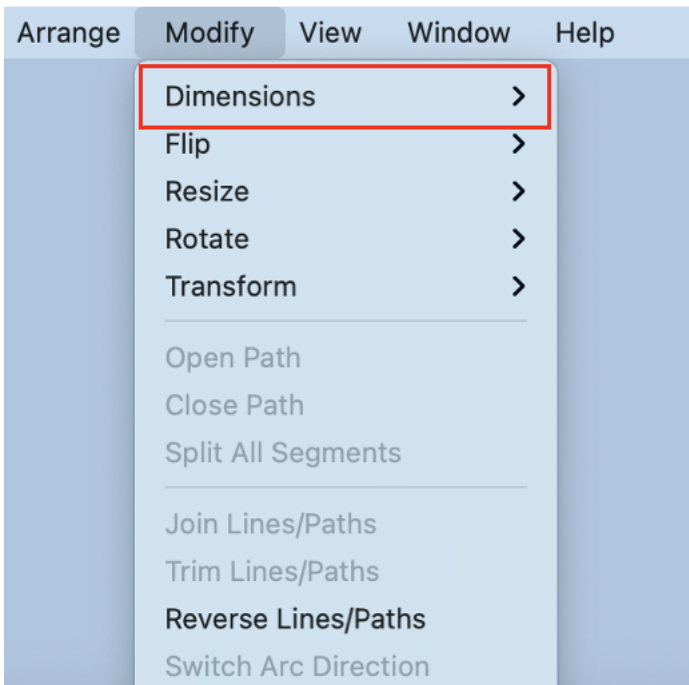
How to Alter the Arrowhead Locations

The arrowhead locations within a linear dimension line can be located on the inside or outside.

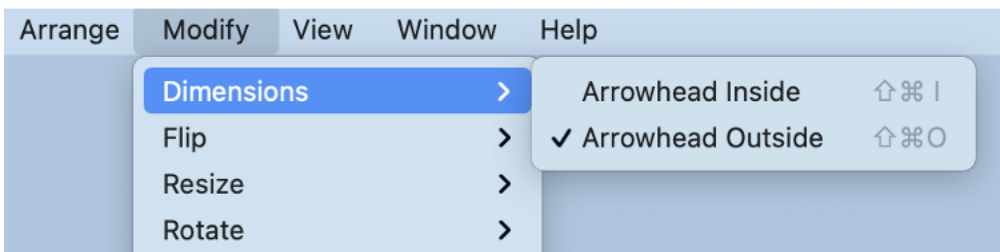
When located on the inside, a dimension line will appear as shown below. This is the default selection.



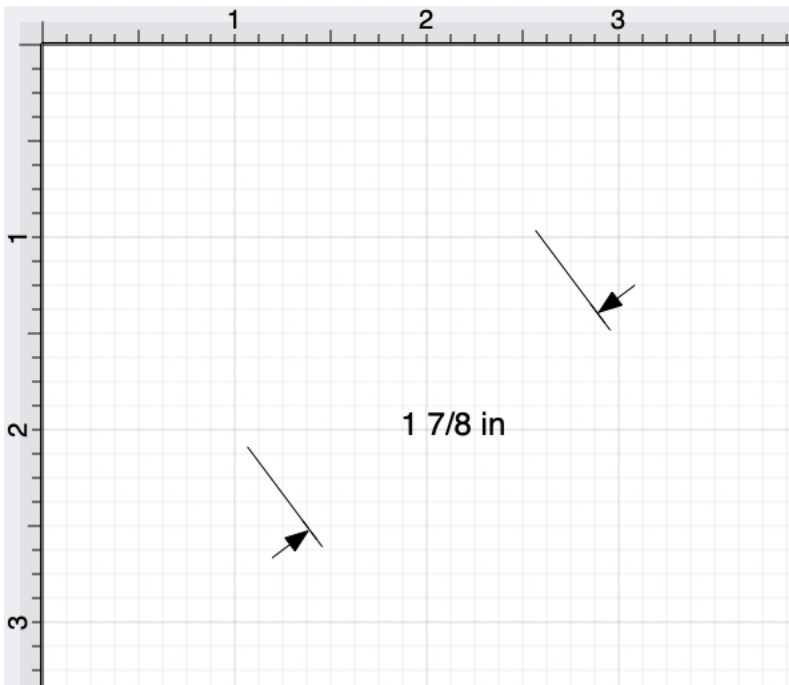
To change the arrowhead location to the outside for a selected dimension line, click on the [Modify Menu](#) and click on the **Dimensions Submenu**.



Next, select the **Arrowhead Outside** option to change the arrowhead location to outside. A checkmark will be present for the currently enabled arrowhead option.

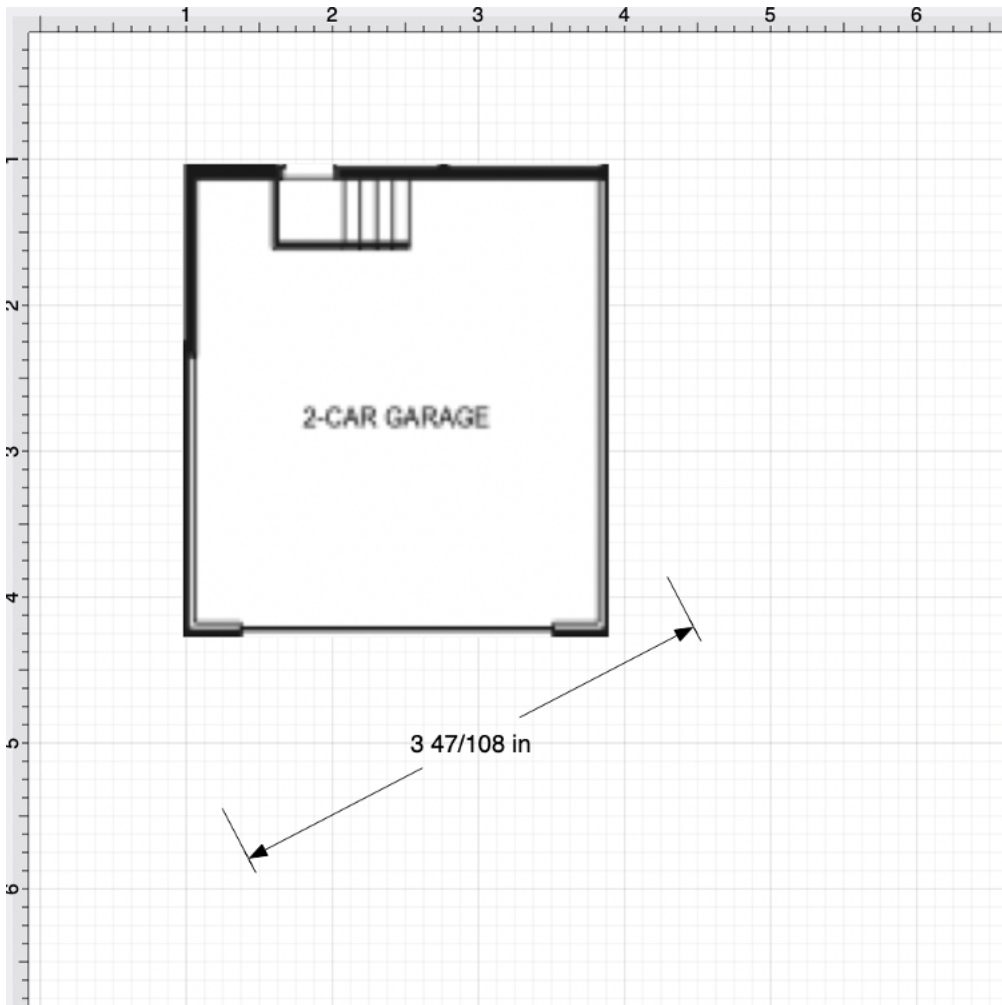


The linear dimension line will appear as shown below when arrowheads are on the outside.



How to Connect a Linear Dimension Line to Images/Figures

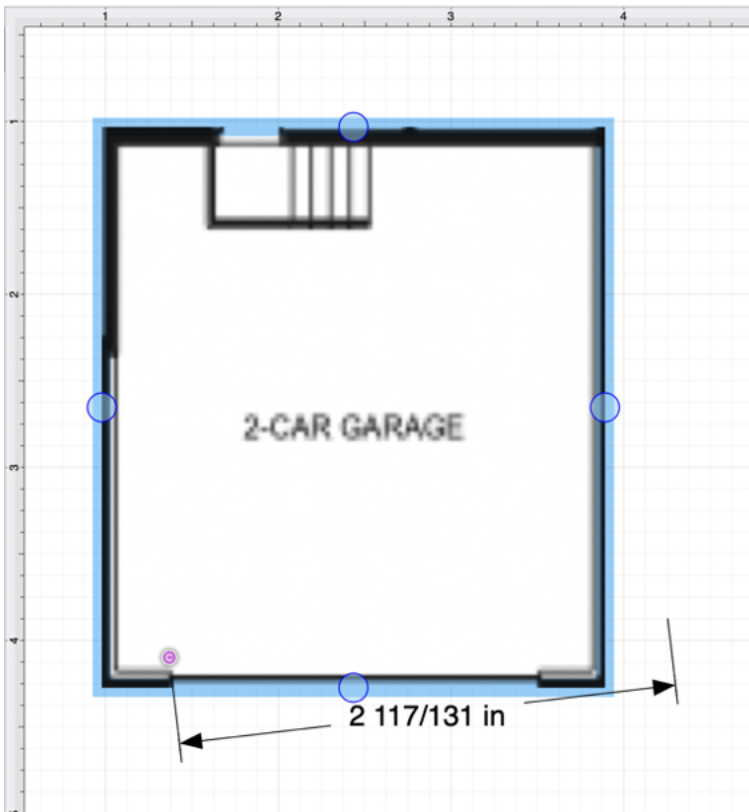
For this example, the **Linear Dimension Line** will be connected to two points within a simple garage floor plan image. The image and Linear Dimension Line have already been added to the drawing, as shown below.



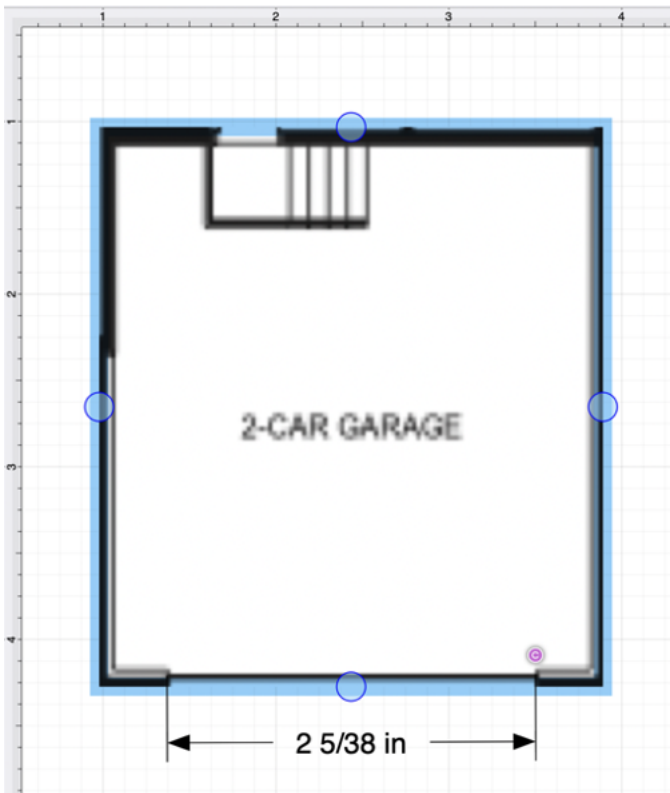
Note: A linear dimension line can also be connected to two points on a figure or two separate figures when it is drawn.

Perform a **Click/Drag** action on a connection handle within the dimension line to connect it to a point within a figure.

For more control over the position of each end of the dimension line, disable the [Snap to Grid](#) and/or the [Snap to Lines](#) options. A **Shift/Click** action can also be performed when moving each connection handle.



Perform this action again for the second connection handle within the dimension line.

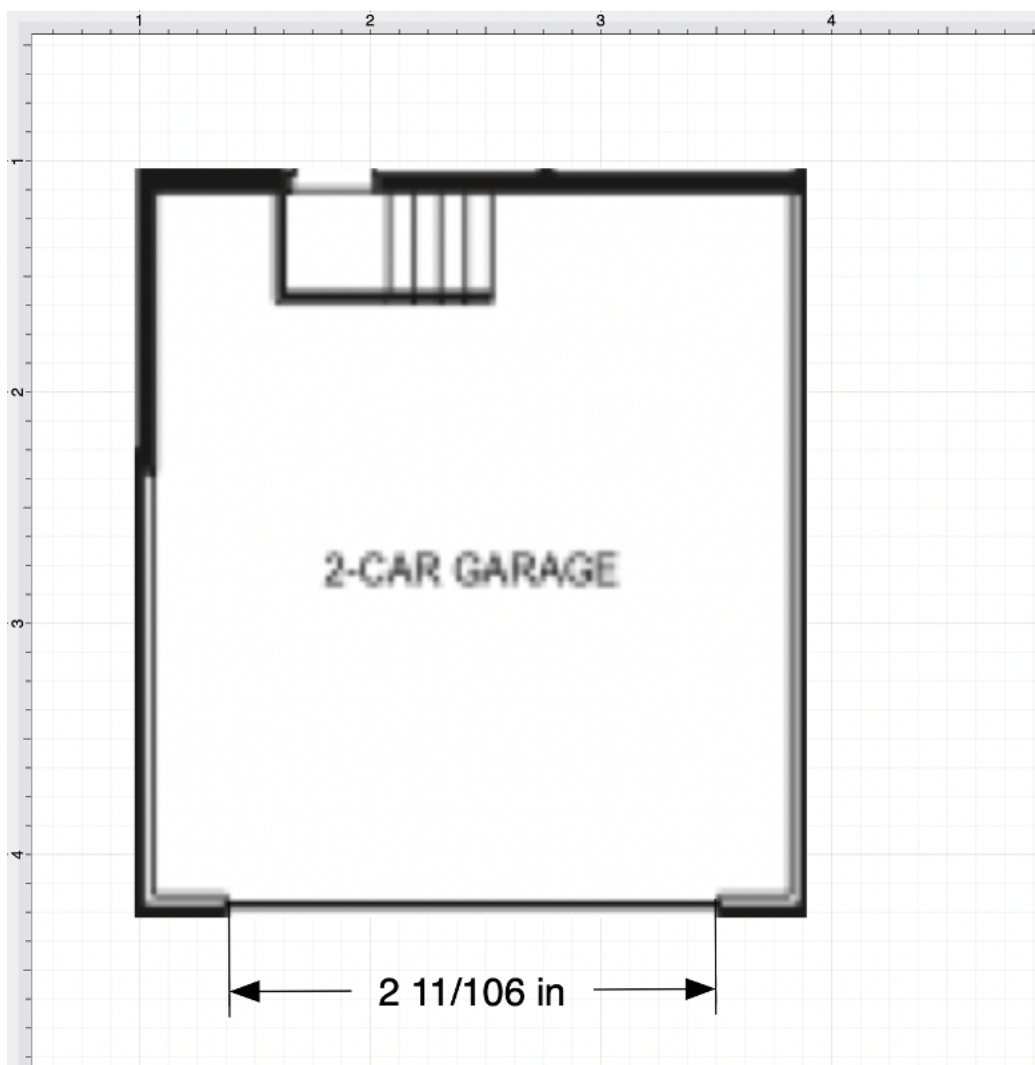


Note: A **Linear Dimension Line** can also be drawn between two points on any figure or from one point on a figure to a point on another figure.

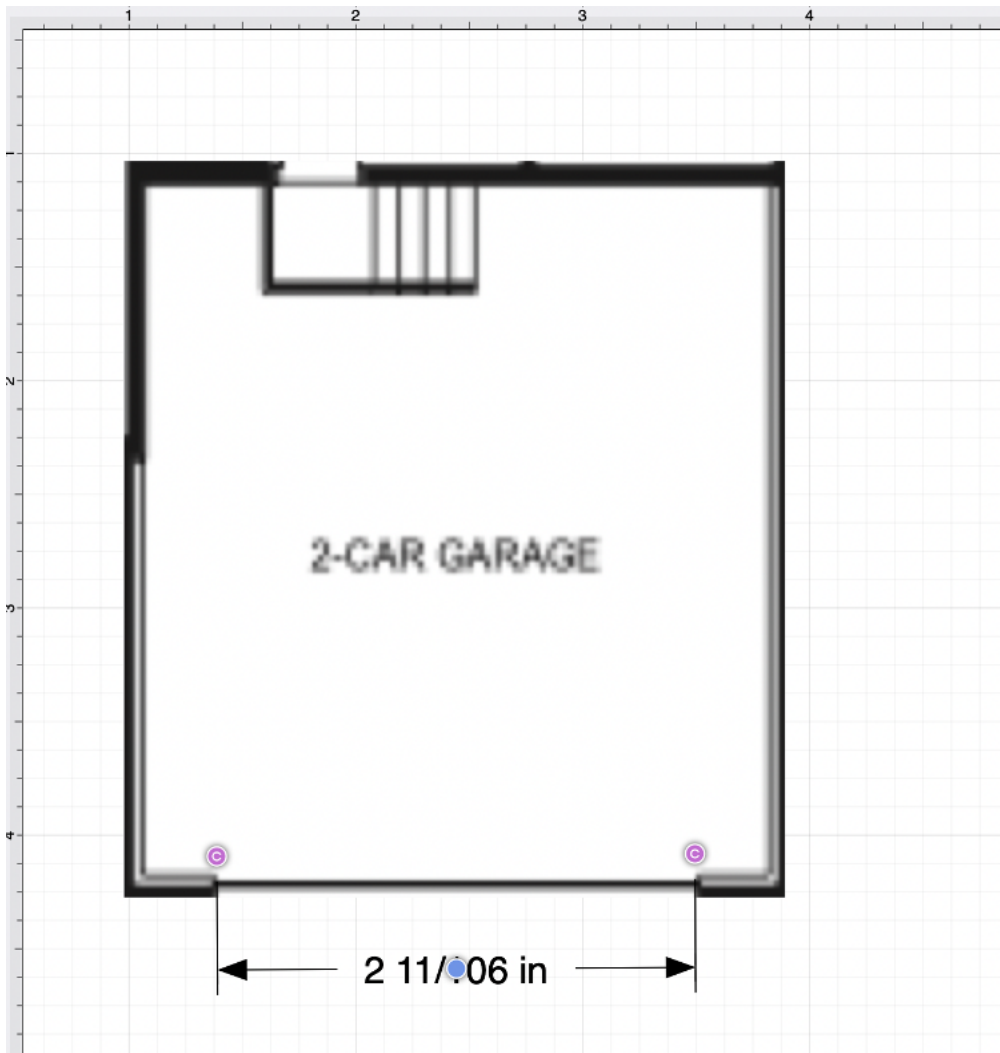
Using the Scale Attached... Option

The **Linear Dimension Tool** can be paired with the **Scale Attached...** option within the [Modify Menu](#) to scale an image, such as a floor plan, to match the grid and trace or perform other actions within the drawing “at scale.”

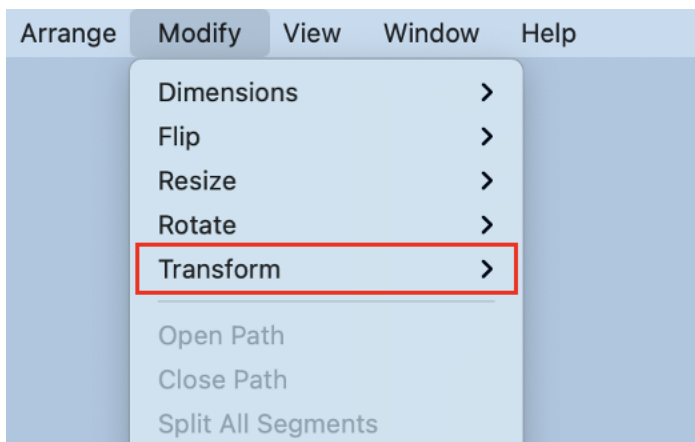
For this example, a simple garage floor plan image will be used to demonstrate the **Scale Attached...** option. The **Linear Dimension Line** has been connected to each end of the garage opening, as shown below.



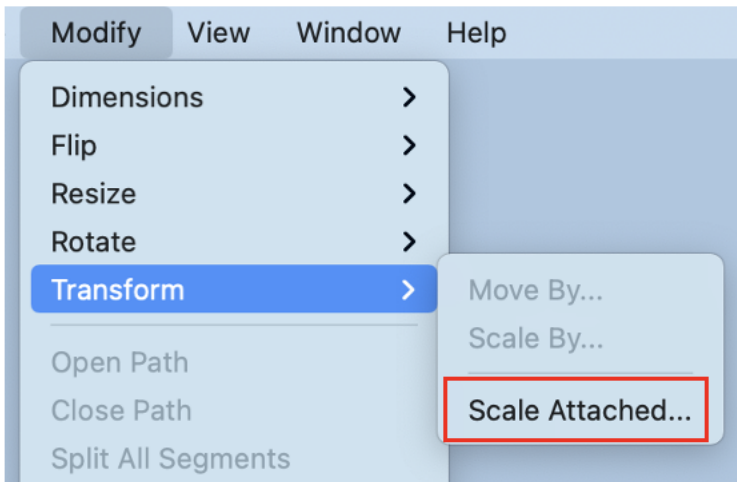
Step 1: Click on the **Linear Dimension Line** to select it within the drawing.



Step 2: Click on [Modify Menu](#) and click on the **Transform Submenu**.

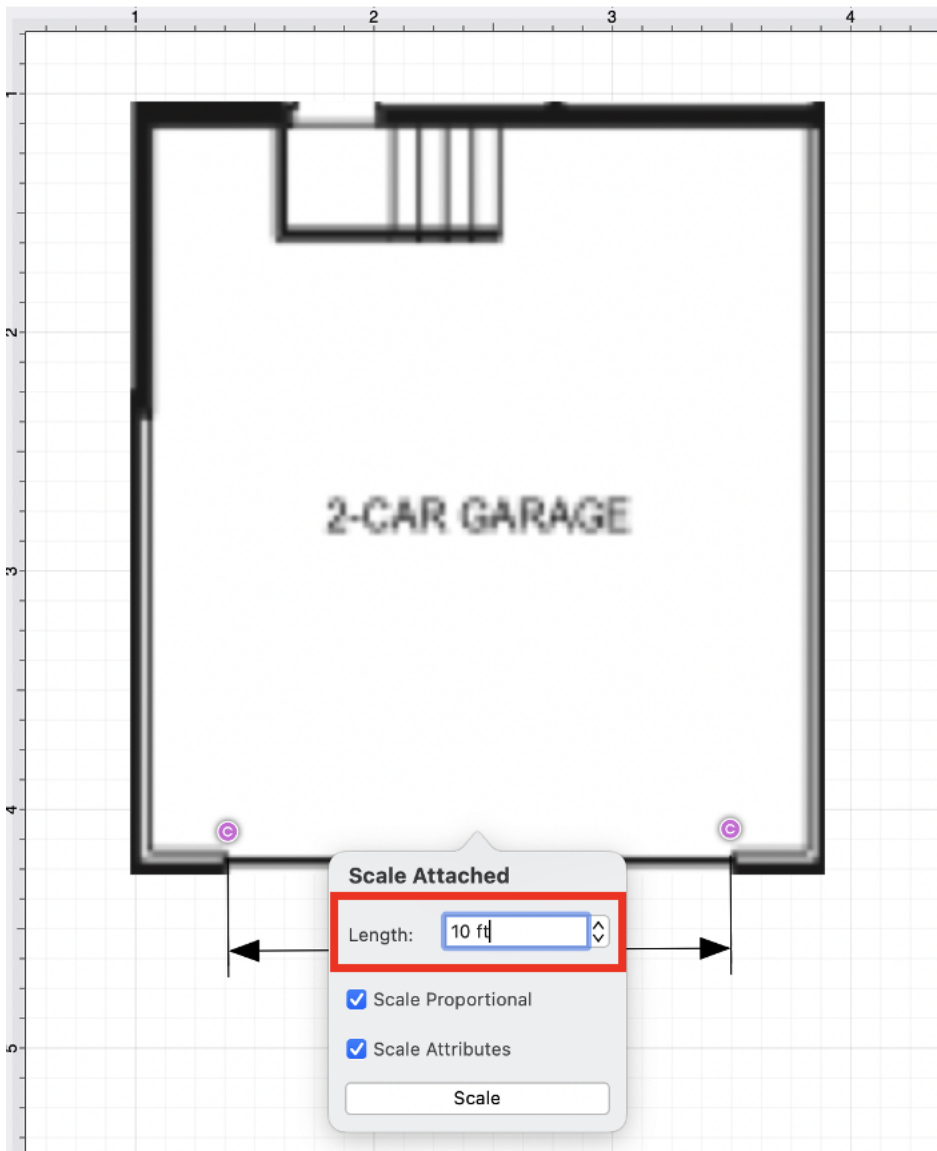


Step 3: Select the **Scale Attached...** option



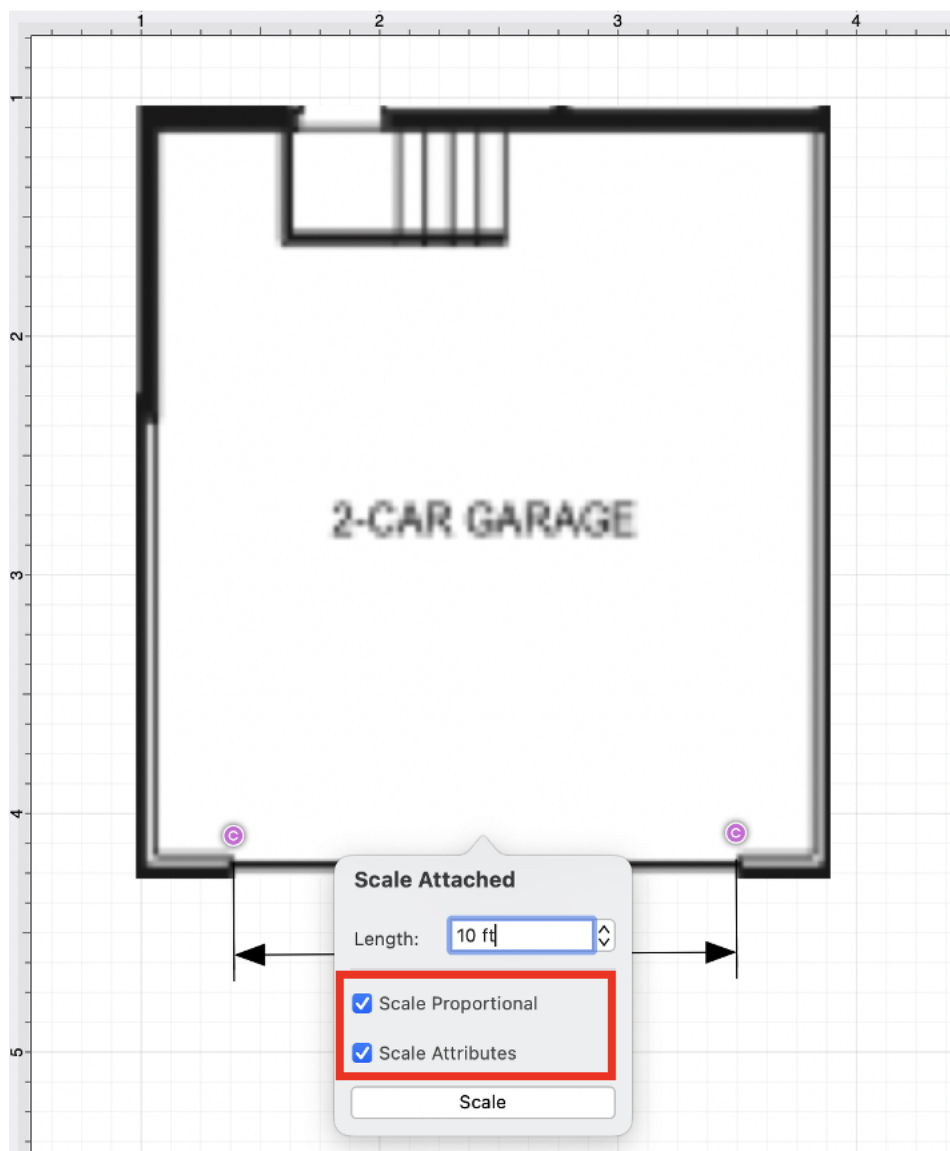
Step 4: Change the linear dimension line length by clicking on the Length field and using the keyboard to enter a new value.

The “up” and “down” buttons can also be used to increase or decrease the Length value by 1.

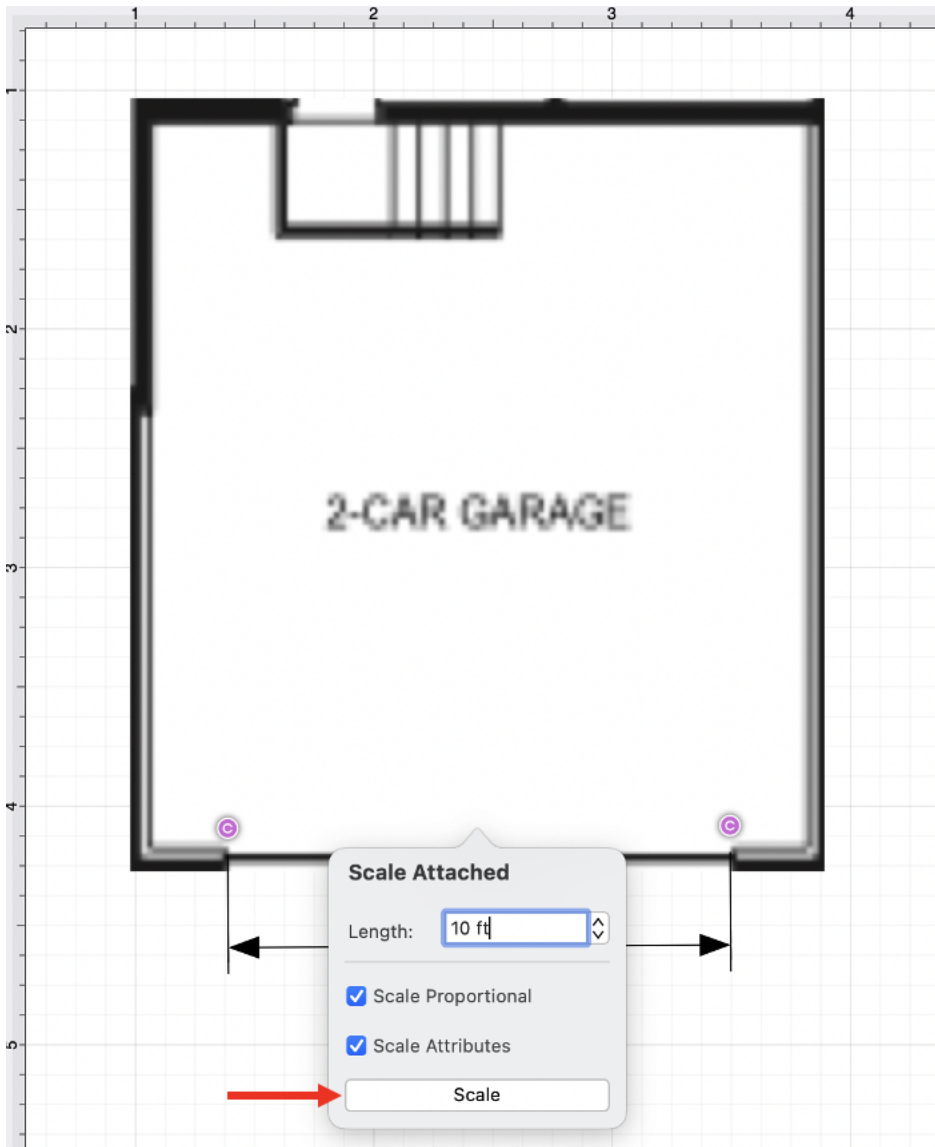


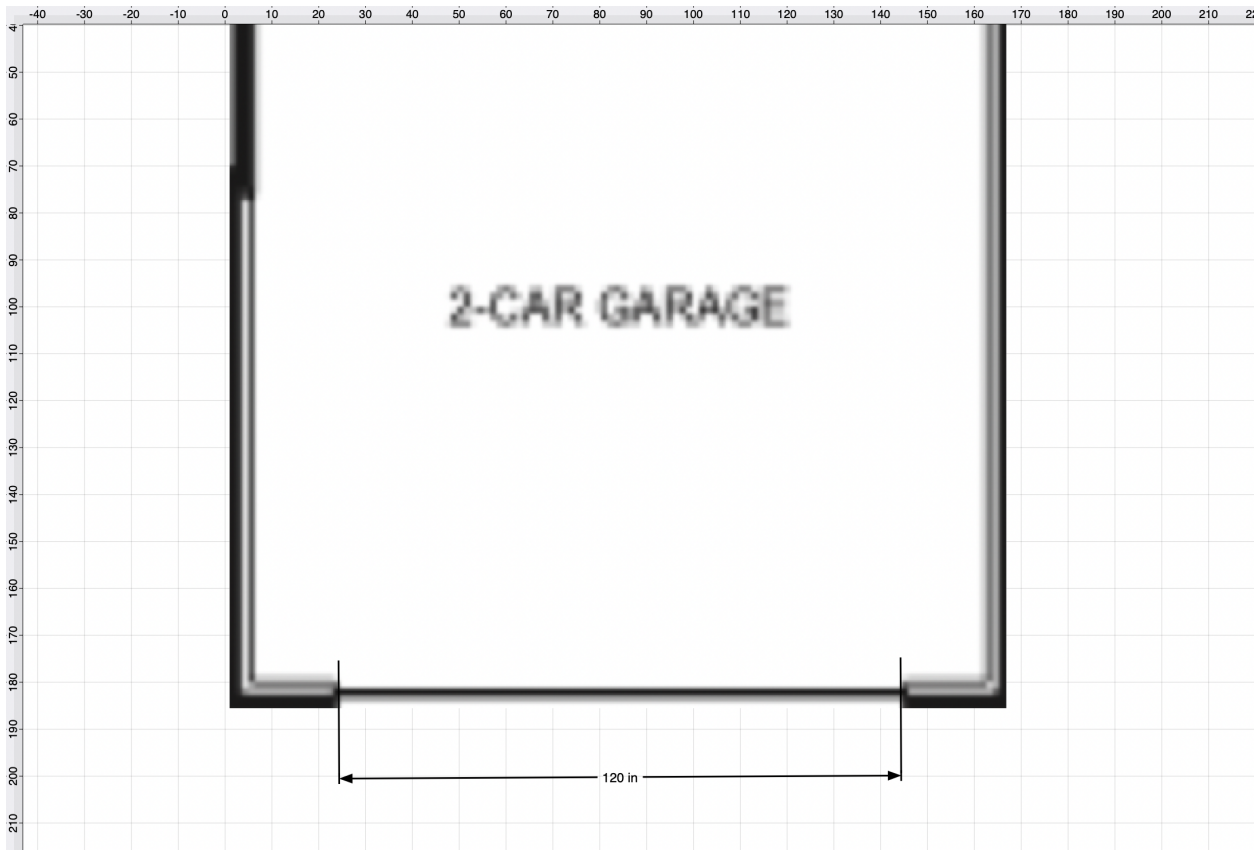
Step 5: Next, use the toggle sliders to enable or disable the Scale Proportional and Scale Attributes options before scaling the image or figure.

- **Scale Proportional** - Scale the image up to match the grid based on the entered dimension line length.
- **Scale Attributes** - Scale the attributes (stroke, text, etc.) based on the entered dimension line length.



Step 6: Once finished, click on **Scale** within the pop-up window.



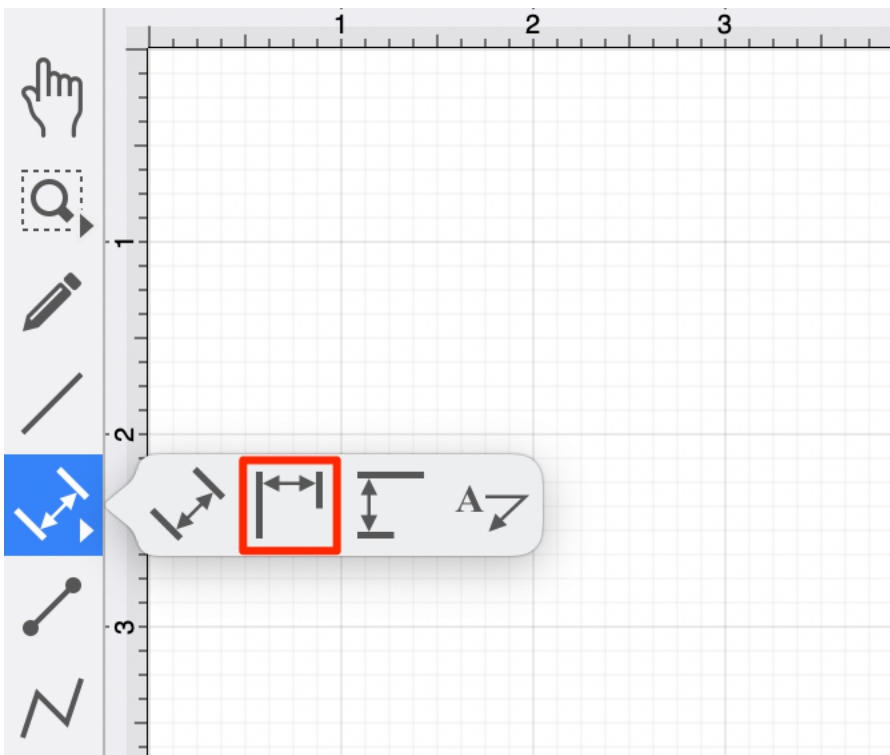


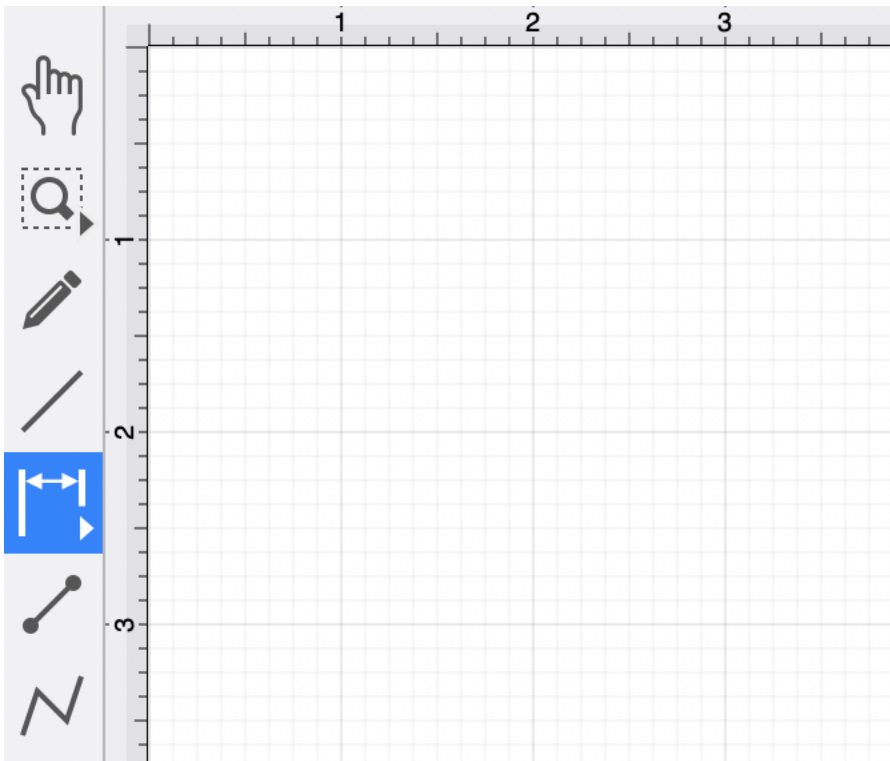
Note: If the **Scale Attributes** option is disabled, then Attributes will not be scaled.

4.5.8. Horizontal Distance Dimension Tool

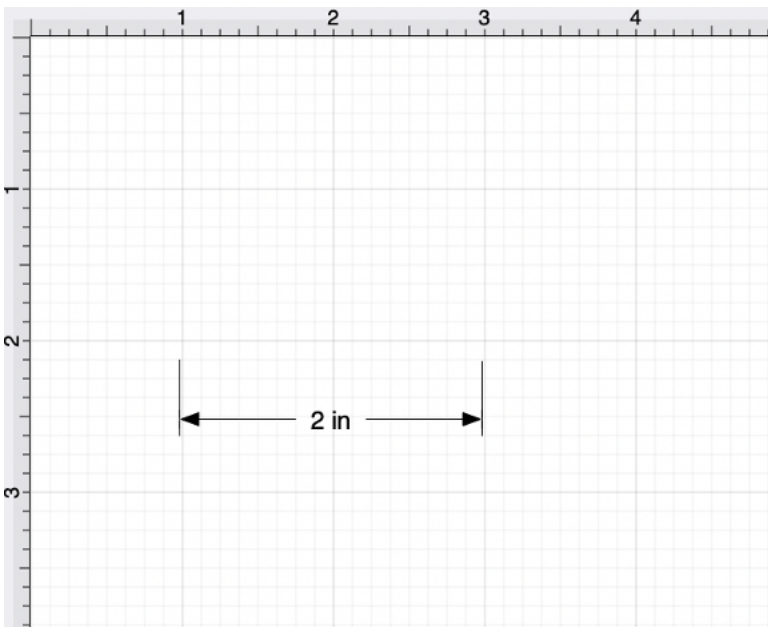
The **Horizontal Distance Dimension Tool** can be used to draw a horizontal distance dimension line. The dimension line can be drawn between any two points on the grid or be connected to selected connection points on one or multiple figures within a drawing.

This tool can be selected by performing an **extended click** on the [Linear Dimension Tool](#) in the Drawing Toolbar. Click on the Horizontal Distance Dimension Tool to select it.



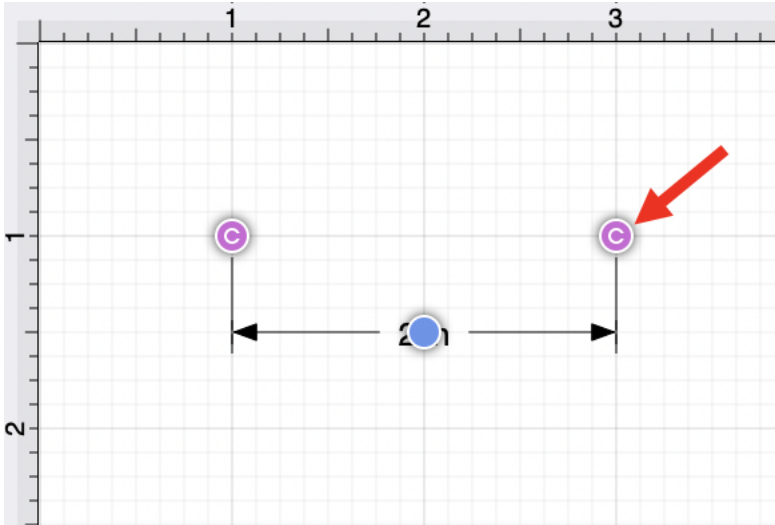


Use a **Click/Drag** action to draw the Horizontal Dimension Line from a set starting point to a desired end point and then release the click to complete the drawing action.



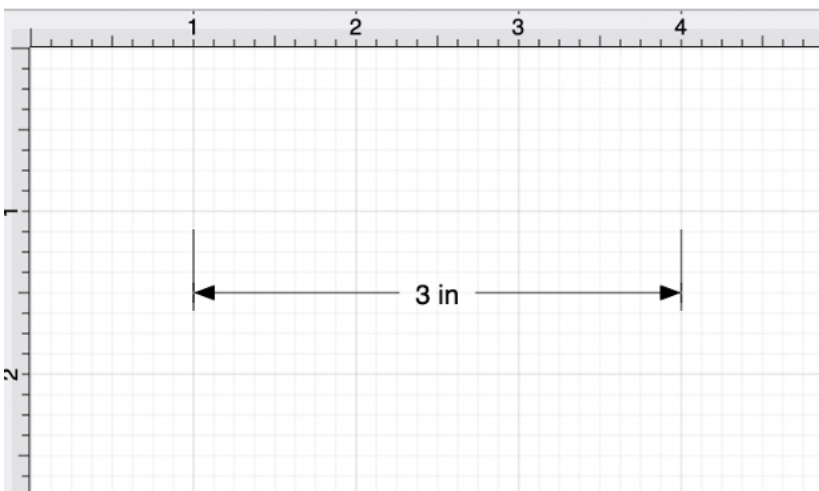
How to Alter Dimension Line Size and Position

To alter the length of a dimension line, perform a **Click/Drag** action on one of the dimension line's connection handles.

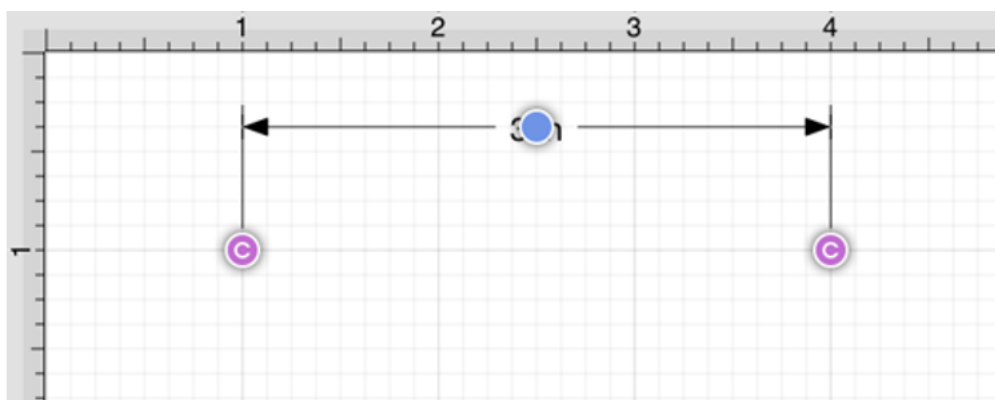
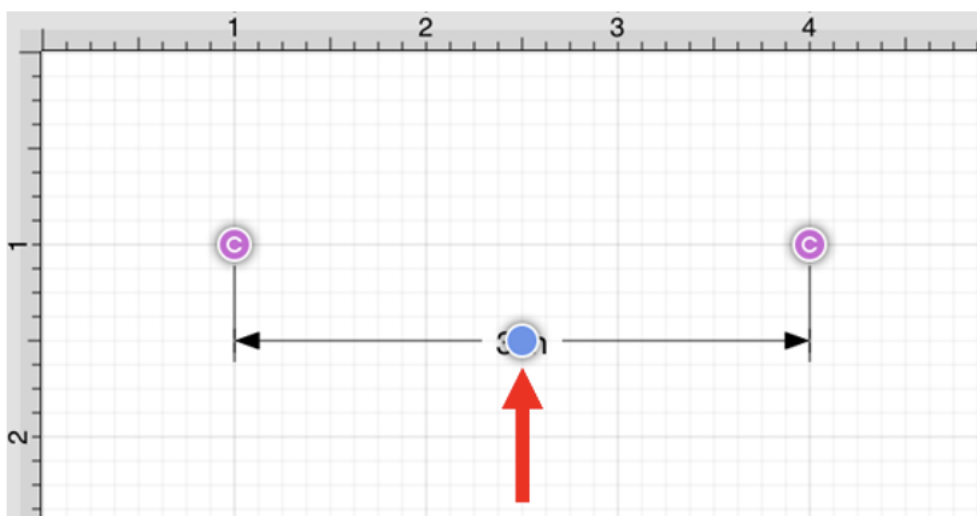


Do not release the click action until the end of the dimension line is in the desired location.

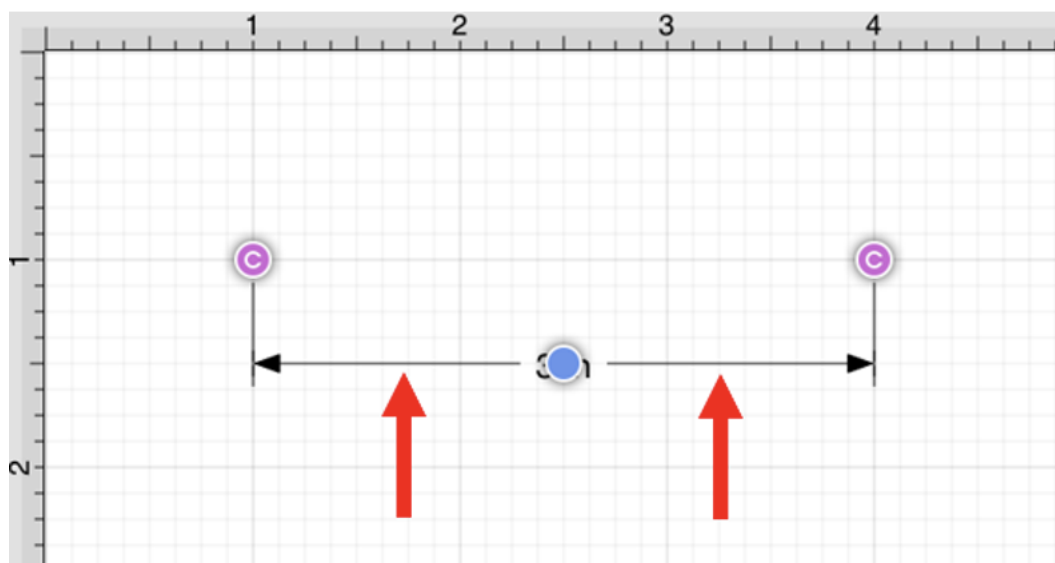
In the example below, the right connection handle has been moved to the right to make the dimension line larger.



Click and Drag on the blue bounds handle to change the position of the dimension line.



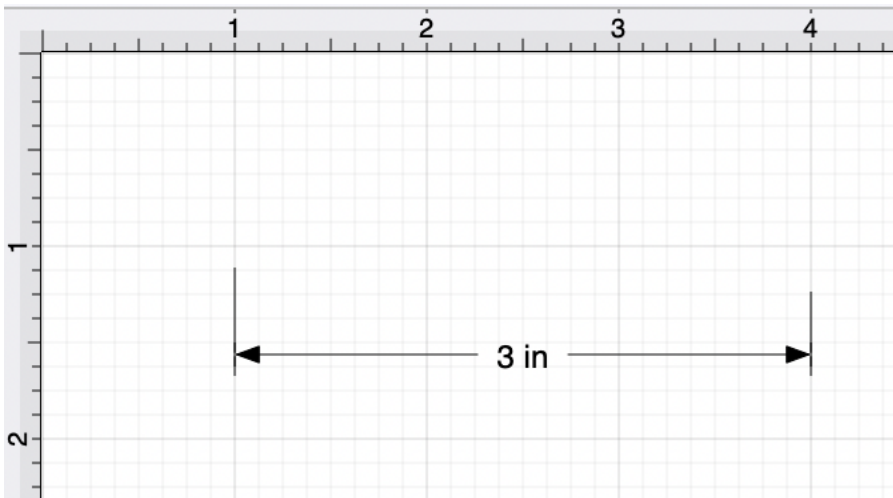
Click and Drag on the dimension line to change its position within the Drawing Canvas.



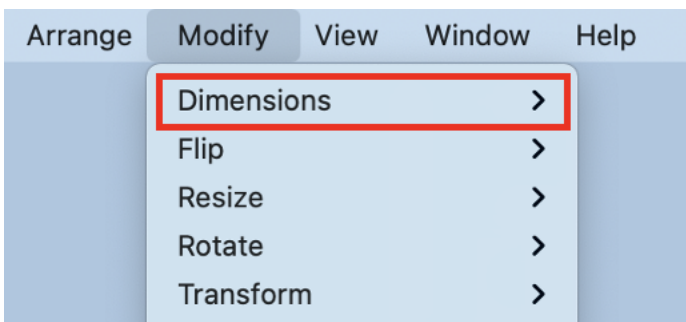
How to Alter the Arrowhead Locations

The arrowhead locations within a horizontal distance dimension line can be located on the inside or outside of the dimension line.

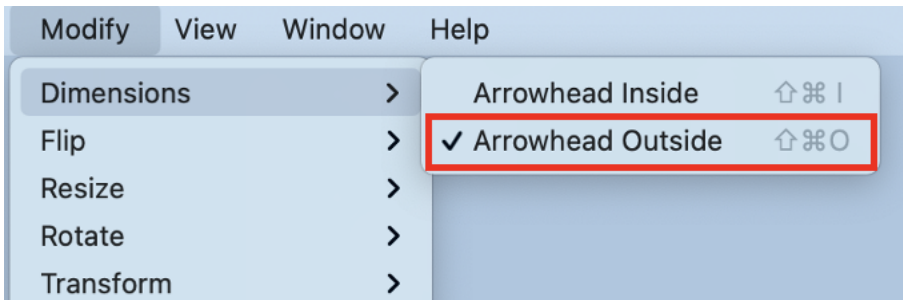
When located on the inside, a horizontal distance dimension line will appear as shown below. This is the default selection.



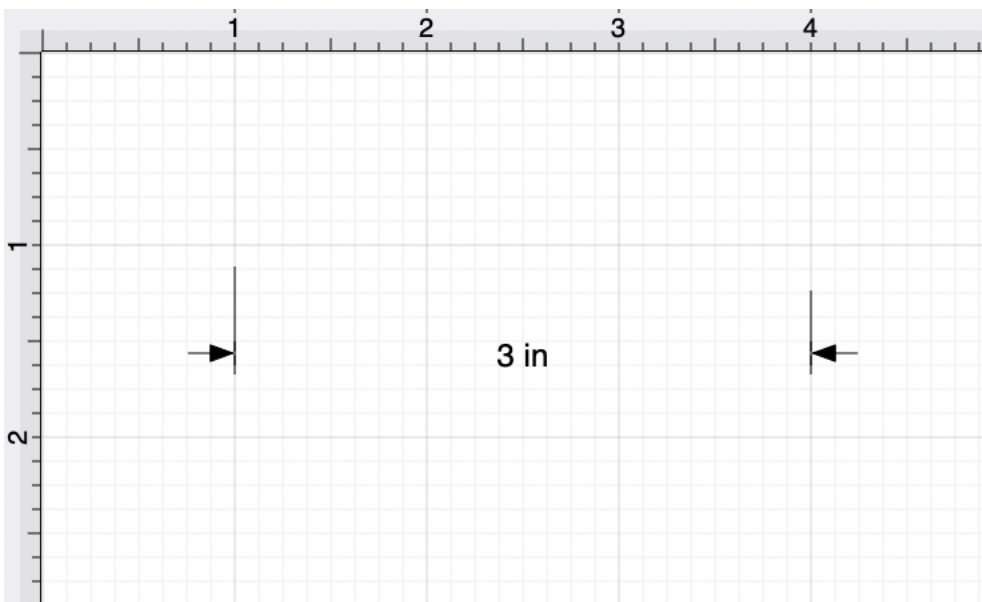
To change the arrowhead location to the outside for a selected dimension line, click on the [Modify Menu](#) and select the **Dimensions Submenu**.



Next, click on the **Arrowhead Outside** option to change the arrowhead location to outside. A checkmark will be present for the currently enabled arrowhead option.



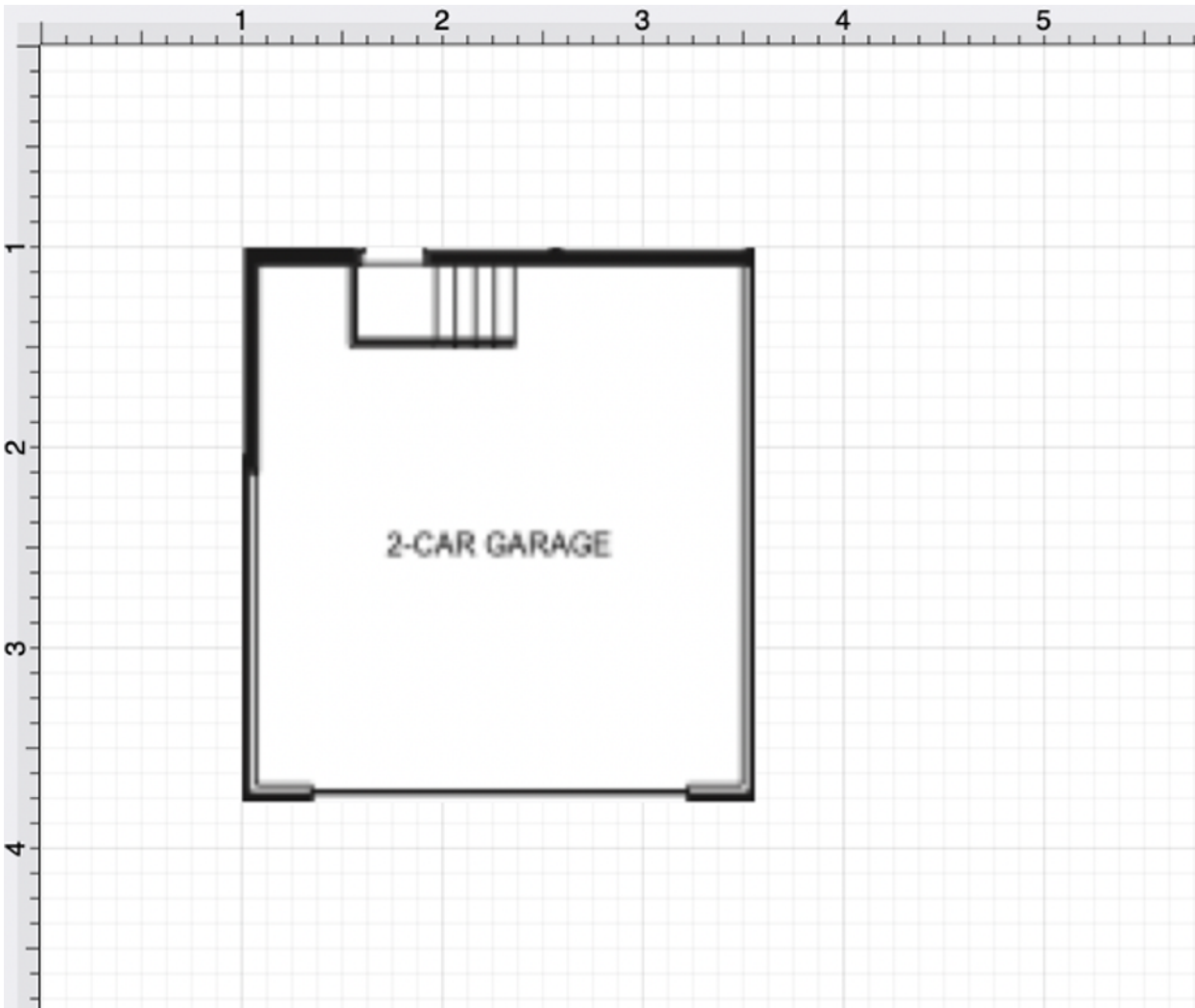
The Horizontal Distance Dimension Line will appear as shown below when arrowheads are on the outside.



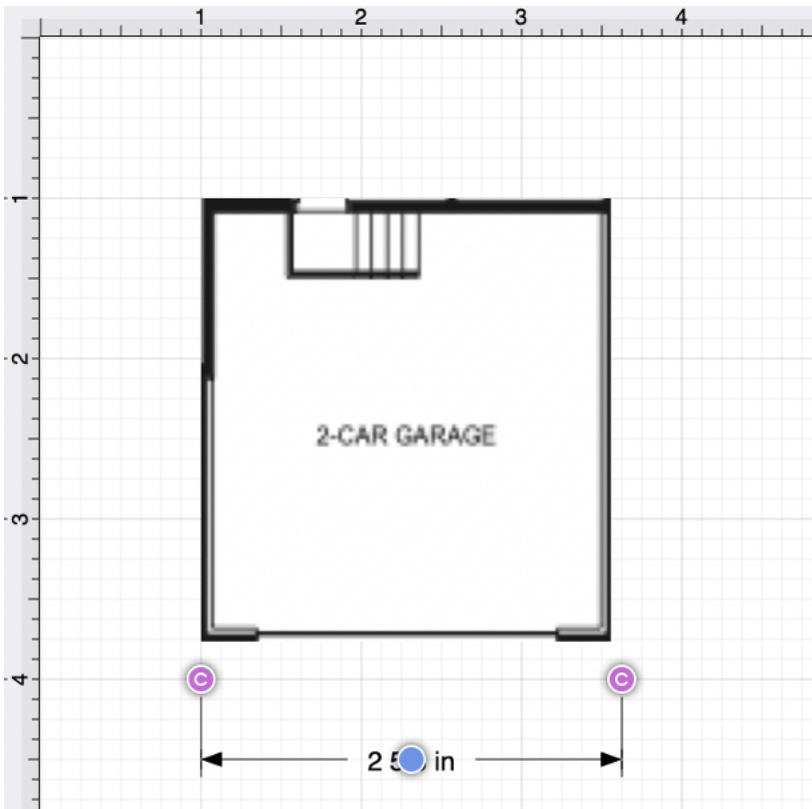
How to connect a Horizontal Distance Dimension Line to Images/Figures

A **Horizontal Dimension Line** can be connected to specific locations within an image and used to scale the image. It can also be connected to points within one or more figures.

A garage floor plan image has already been added to the drawing for this example.

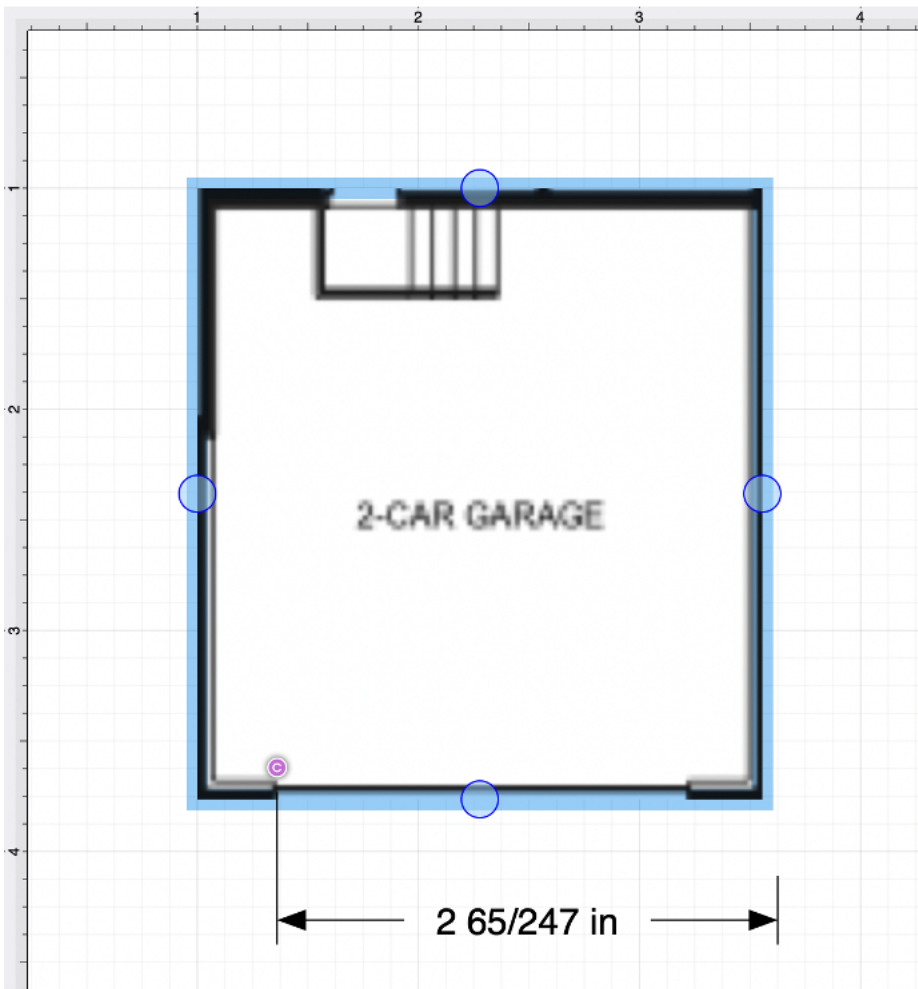


Next, a **Horizontal Distance Dimension Line** will be drawn along the garage opening.

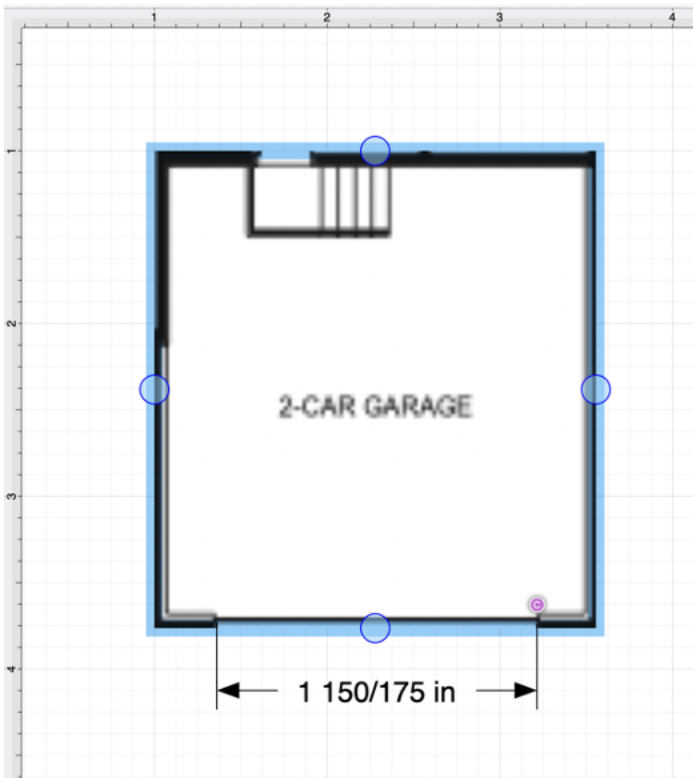


Perform a **Click/Drag** action on a connection handle within the dimension line to connect it to a point within an image or figure.

For more control over the position of each end of the dimension line, disable the [Snap to Grid](#) and/or [Snap to Lines](#) options. A **Shift/Click** action can also be performed when moving each connection handle.



Perform this action again for the second connection handle within the dimension line.

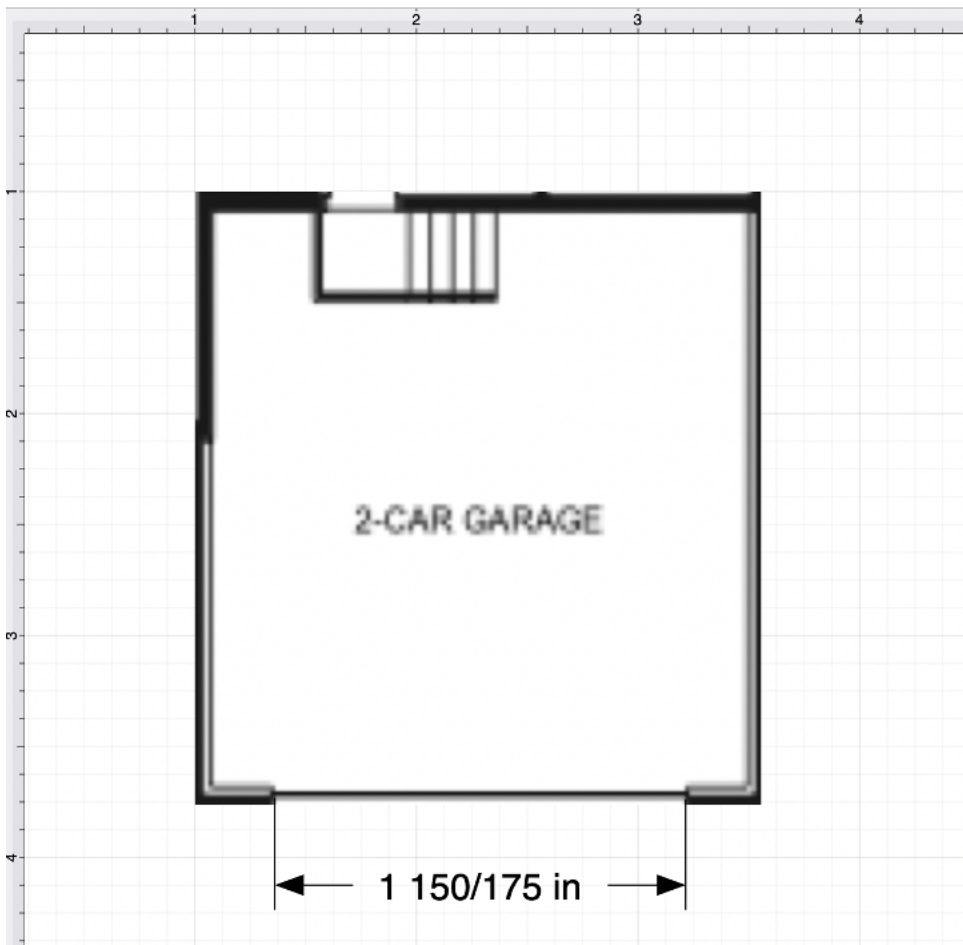


Note: A **Horizontal Distance Dimension Line** can also be drawn between two points on any figure or from one point on a figure to a point on another figure.

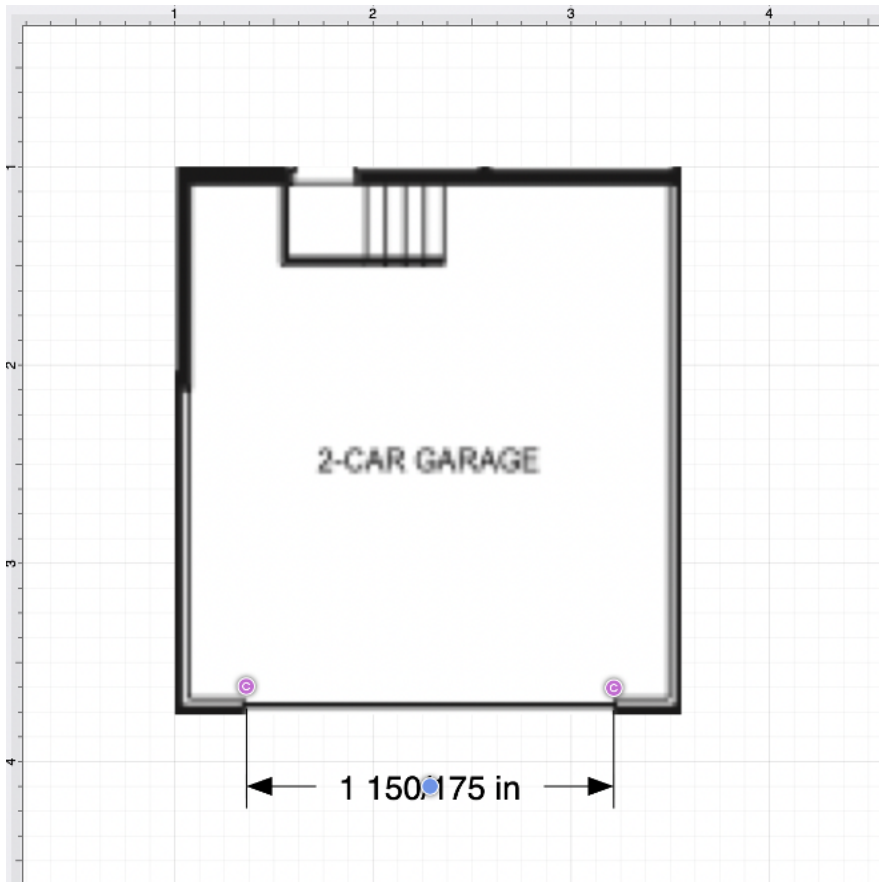
Using the Scale Attached... Option

The **Horizontal Distance Dimension Tool** can be paired with the **Scale Attached...** option within the [Modify Menu](#) to scale an image, such as a floor plan, to match the grid and trace or perform other actions within the drawing “at scale.”

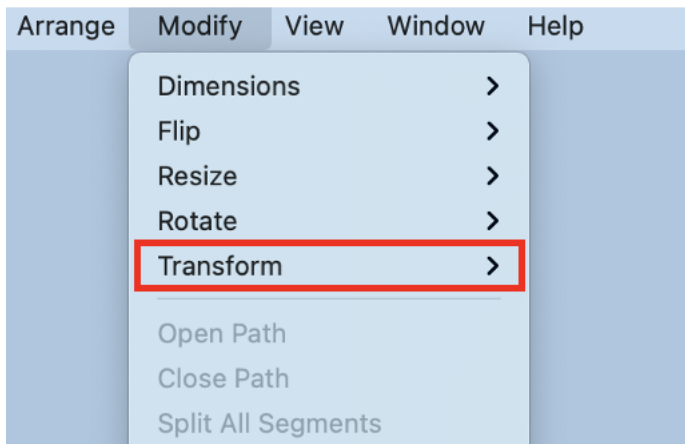
For this example, a simple garage floor plan will be used to demonstrate the **Scale Attached...** option. The **Horizontal Distance Dimension Line** has been connected to each end of the rectangle.



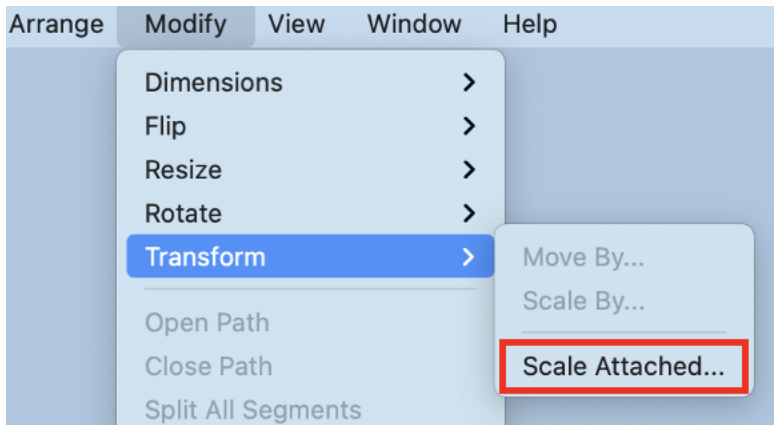
Click on the **Horizontal Distance Dimension Line** to select it within the drawing.



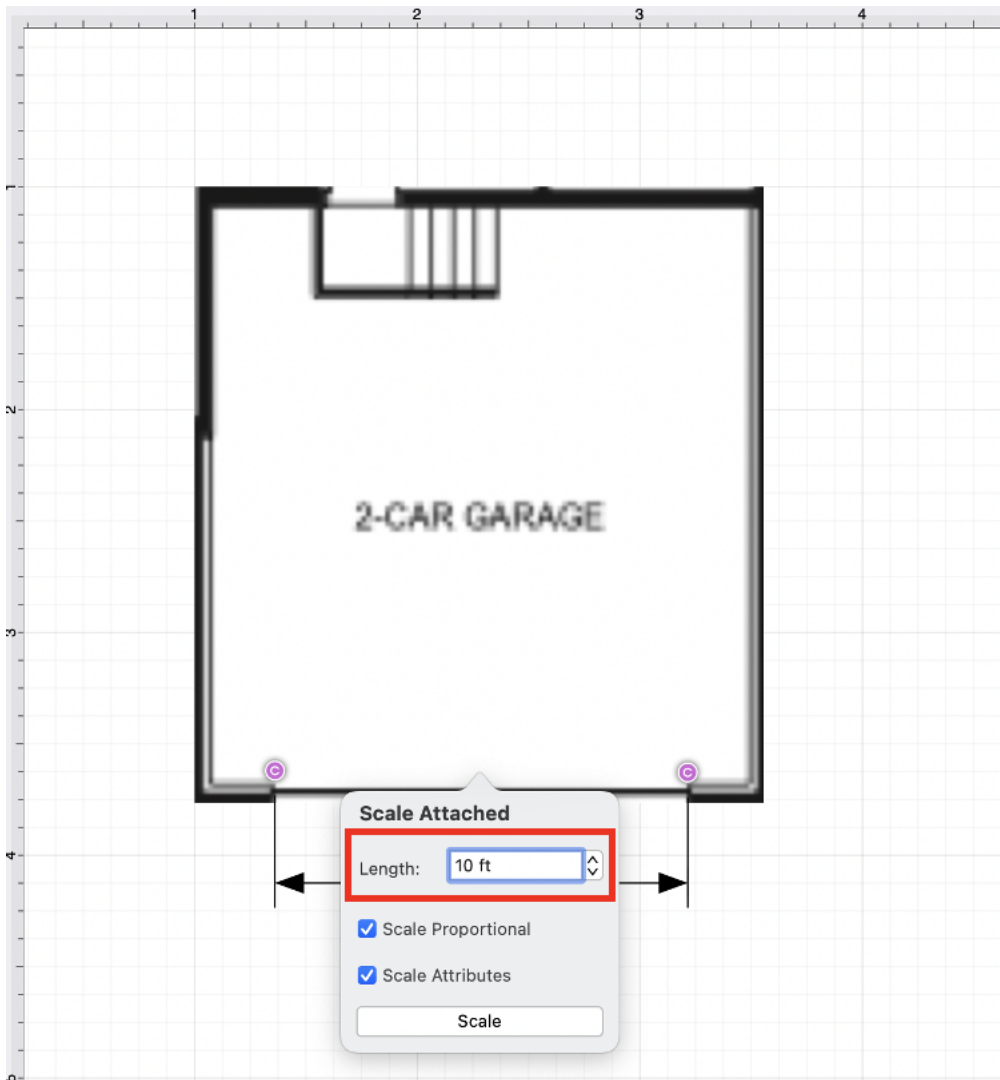
Click on [Modify Menu](#) and select the **Transform Submenu**.



Next, click on the **Scale Attached...** option.

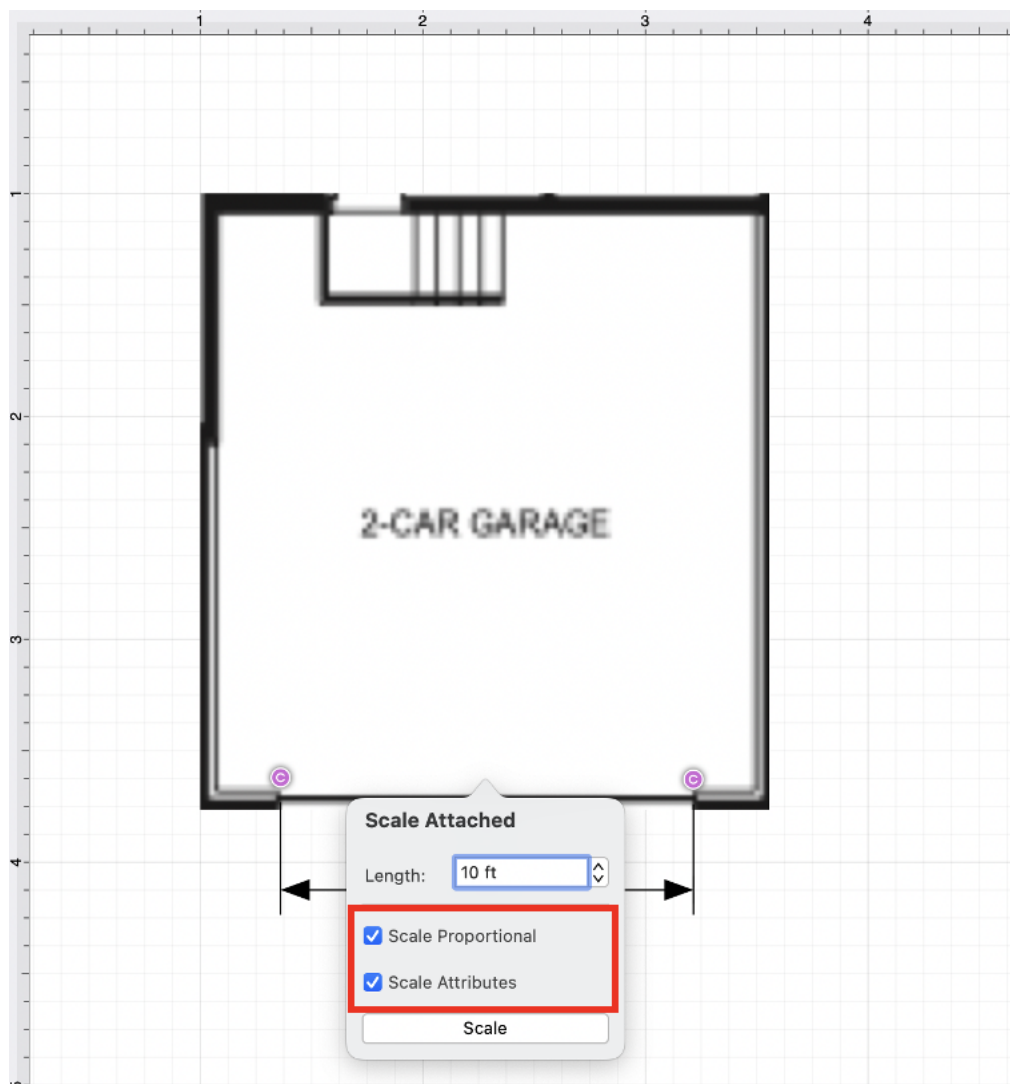


Click on the **Length** field to enter a new value. The “up” and “down” buttons can also be used to increase or decrease the **Length** value by 1.

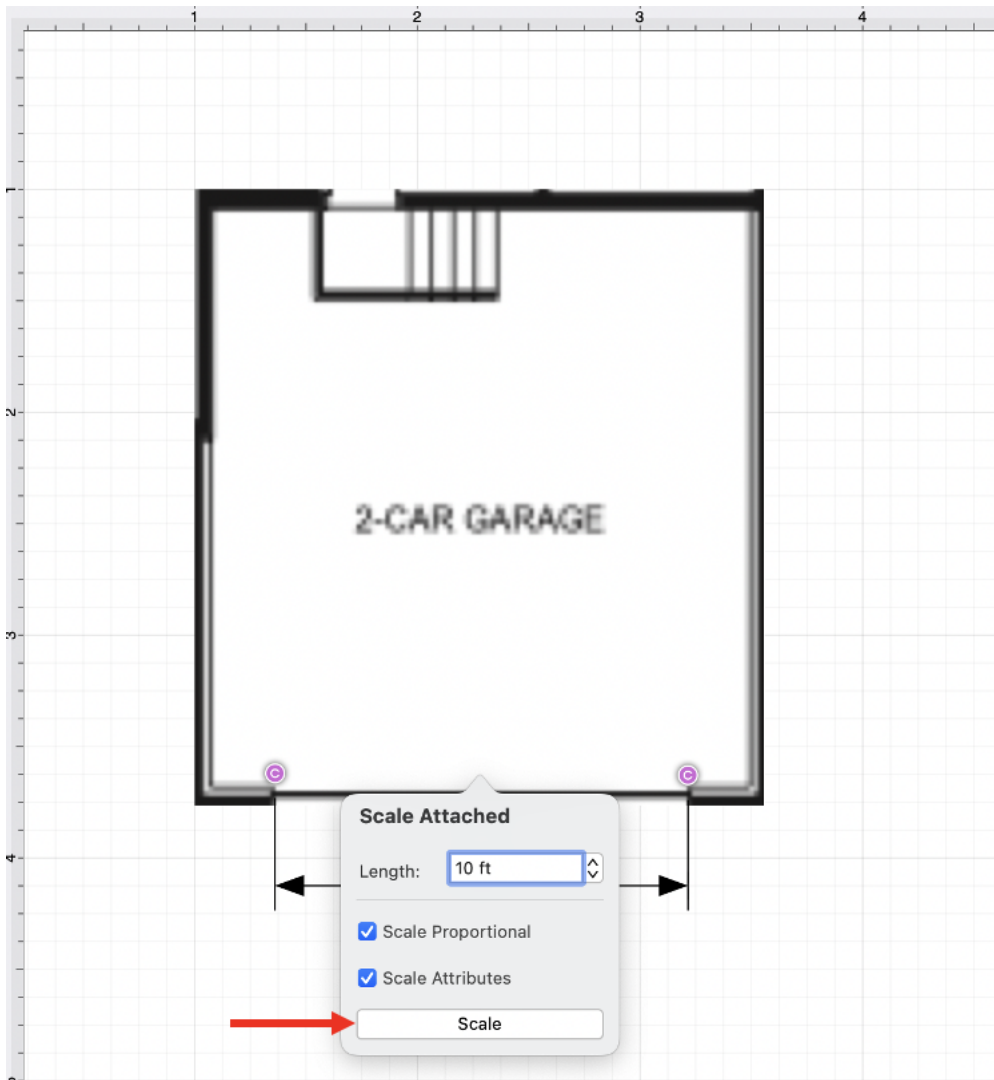


Next, use the checkboxes to enable or disable the **Scale Proportional** and **Scale Attributes** options.

- **Scale Proportional** - Scale the image up to match the grid based on the entered dimension line length.
- **Scale Attributes** - Scale the attributes (stroke, text, etc.) based on the entered dimension line length.



Once finished, click on the **Scale** button within the pop-up window.



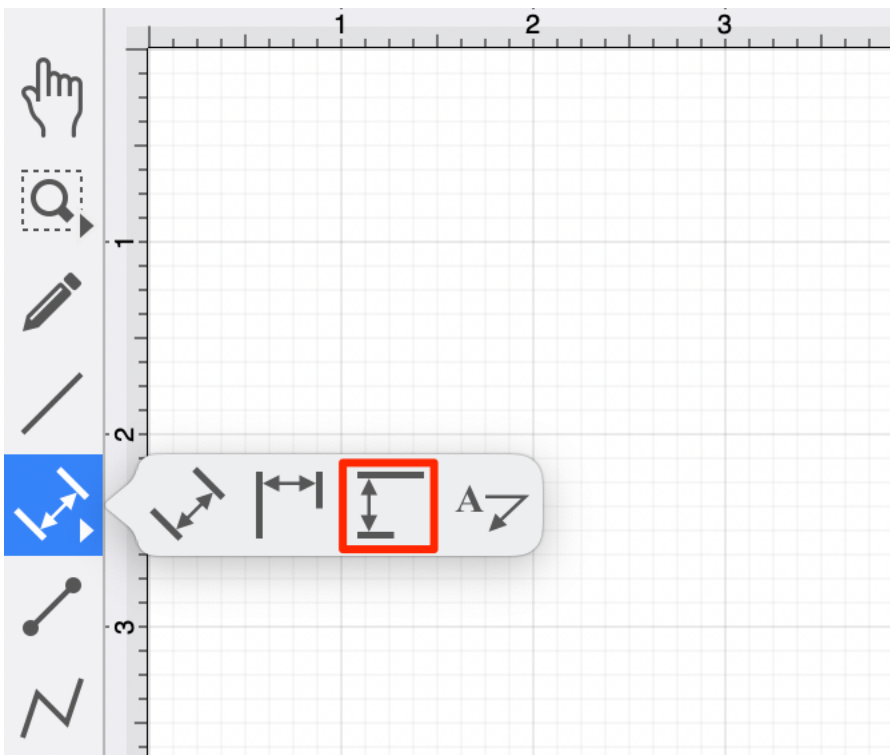


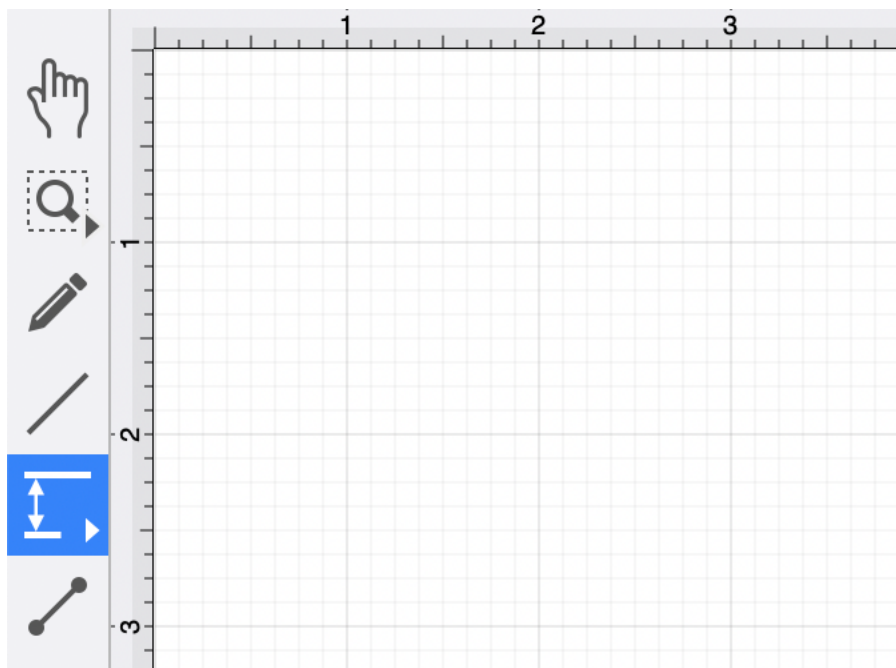
Note: If **Scale Attributes** has been disabled, the Attributes will not scale, only the image or figure.

4.5.9. Vertical Distance Dimension Tool

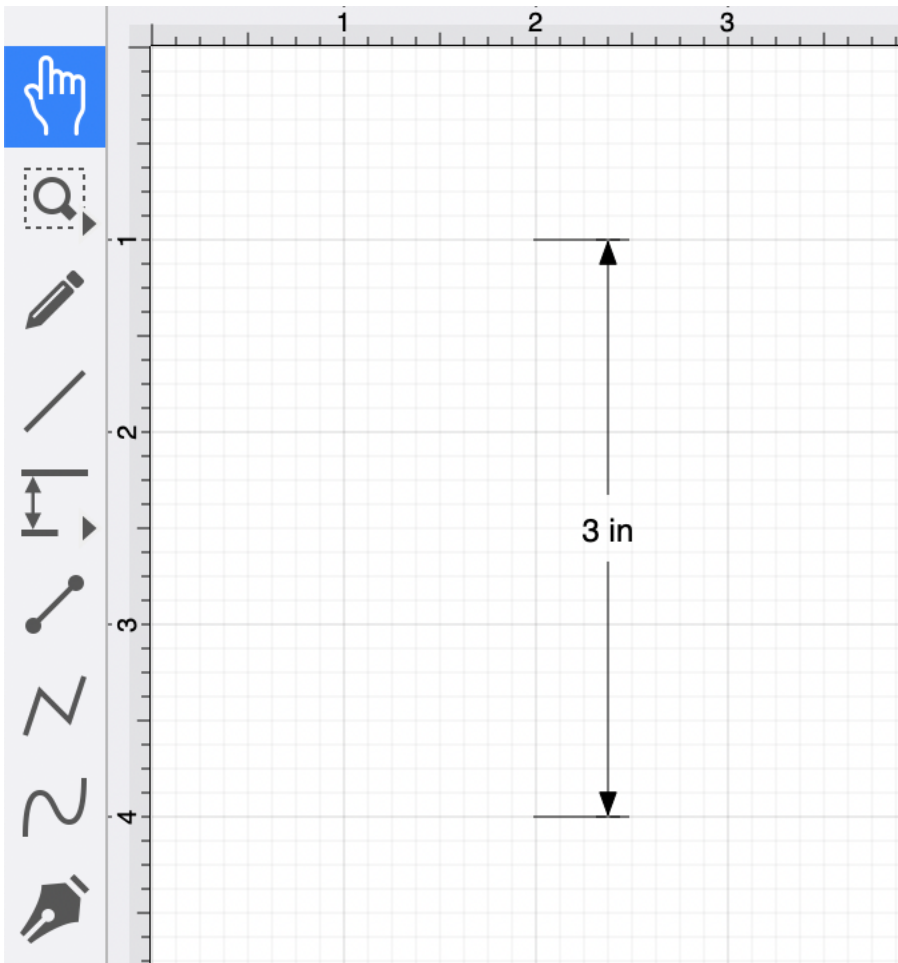
The **Vertical Distance Dimension Tool** can be used to draw a vertical distance dimension line. The dimension line can be drawn between any two points on the grid or be connected to selected connection points on figures within a drawing.

This tool can be selected by performing an **extended click** on the [Linear Dimension Tool](#) in the Drawing Toolbar. Click on the Vertical Distance Dimension Tool to select it.





Use a **Click/Drag** action to draw the Vertical Dimension Line from a set starting point to a desired end point, and then release the click to complete the drawing action.

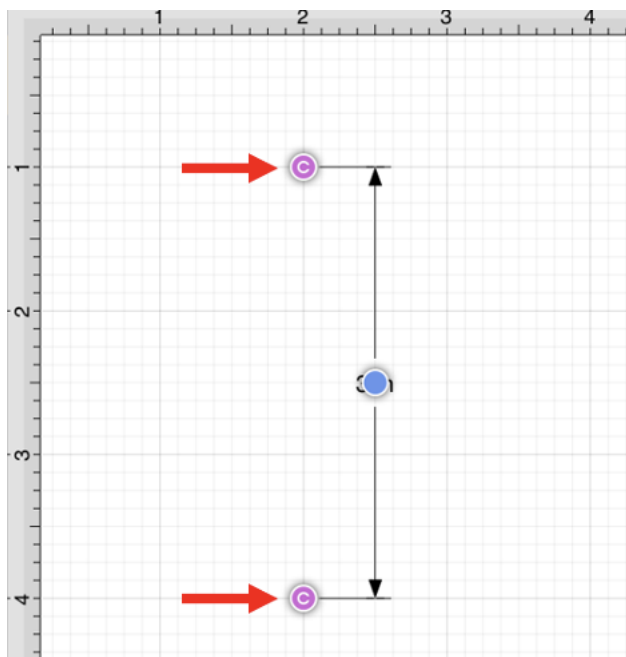


How to Alter Dimension Line Size and Position

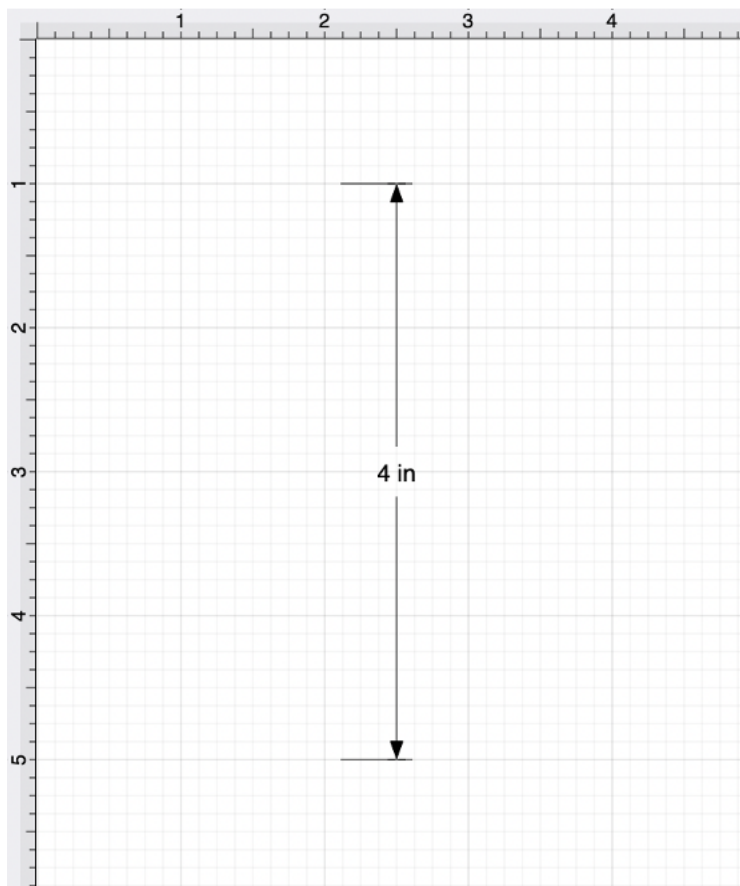
The length of a Vertical Distance Dimension Line can be altered after it has been created.

Perform a **Click/Drag** action on one of the dimension line's connection handles.

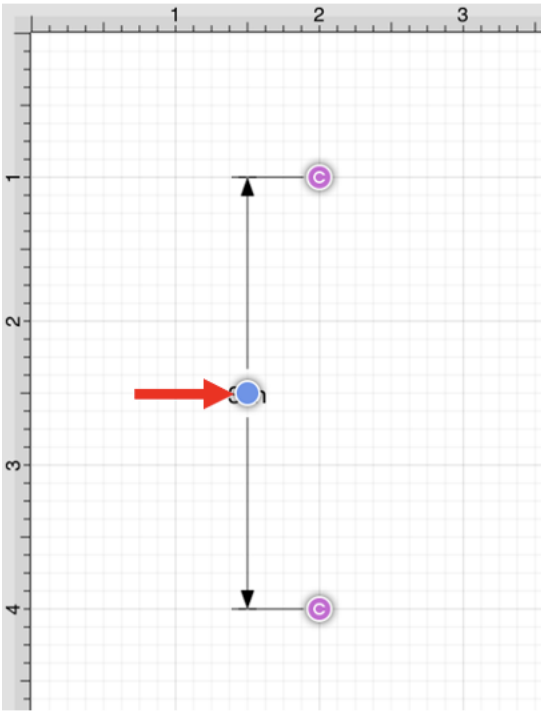
Do not release the click until the end of the dimension line is in the desired location.



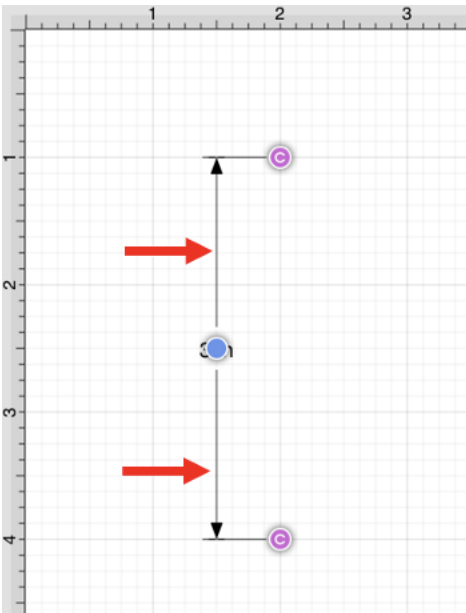
The bottom connection handle has been moved downward to make the dimension line larger in the example below.



Click and Drag on the blue bounds handle to change the position of the dimension line.



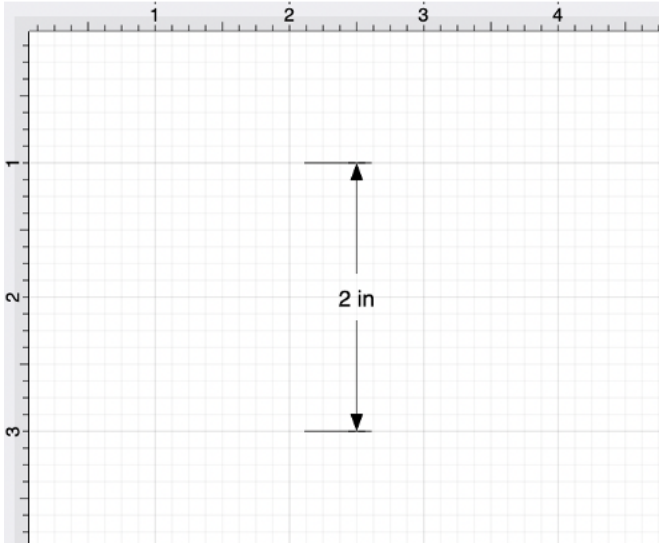
Click and Drag on the dimension line to change its position within the Drawing Canvas.



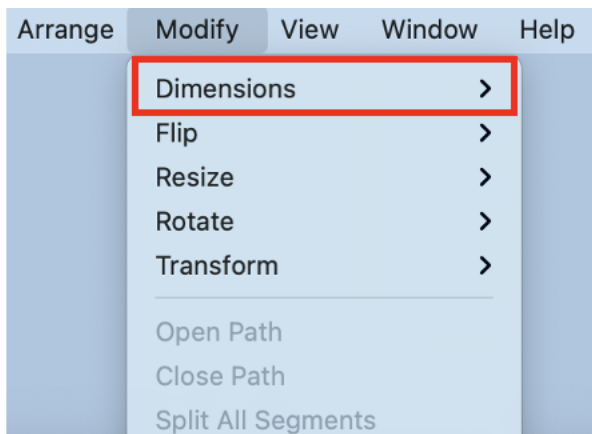
How to Alter the Arrowhead Locations

The arrowhead locations within a vertical distance dimension line can be located on the inside or outside.

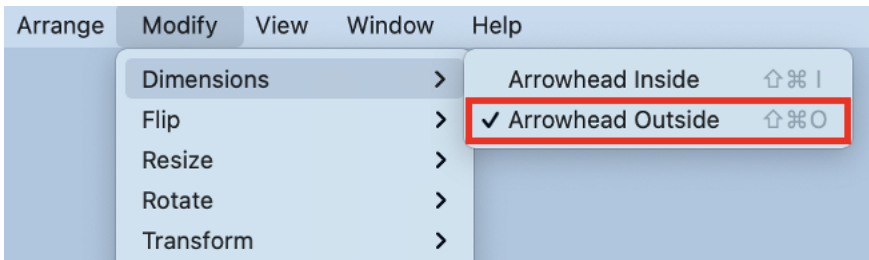
When located on the inside, a vertical distance dimension line will appear, as shown below. This is the default selection.



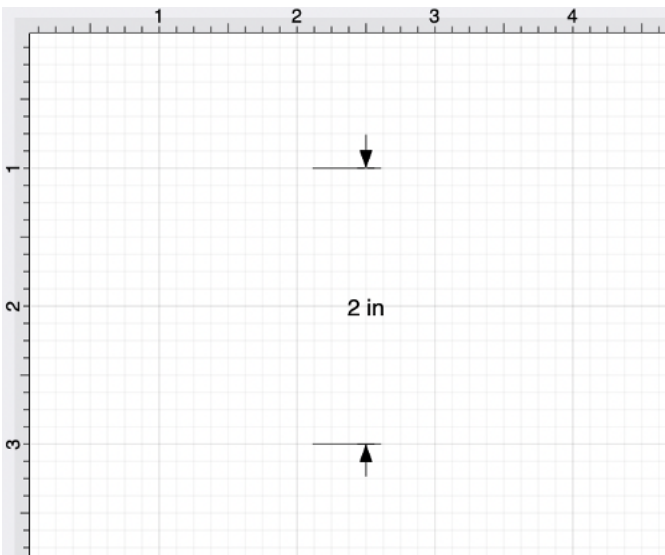
To change the arrowhead location to the outside for a selected dimension line, click on the [Modify Menu](#) and select the **Dimensions Submenu**.



Next, click on the **Arrowhead Outside** option to change the arrowhead location to outside. A checkmark will be present for the currently enabled arrowhead option.



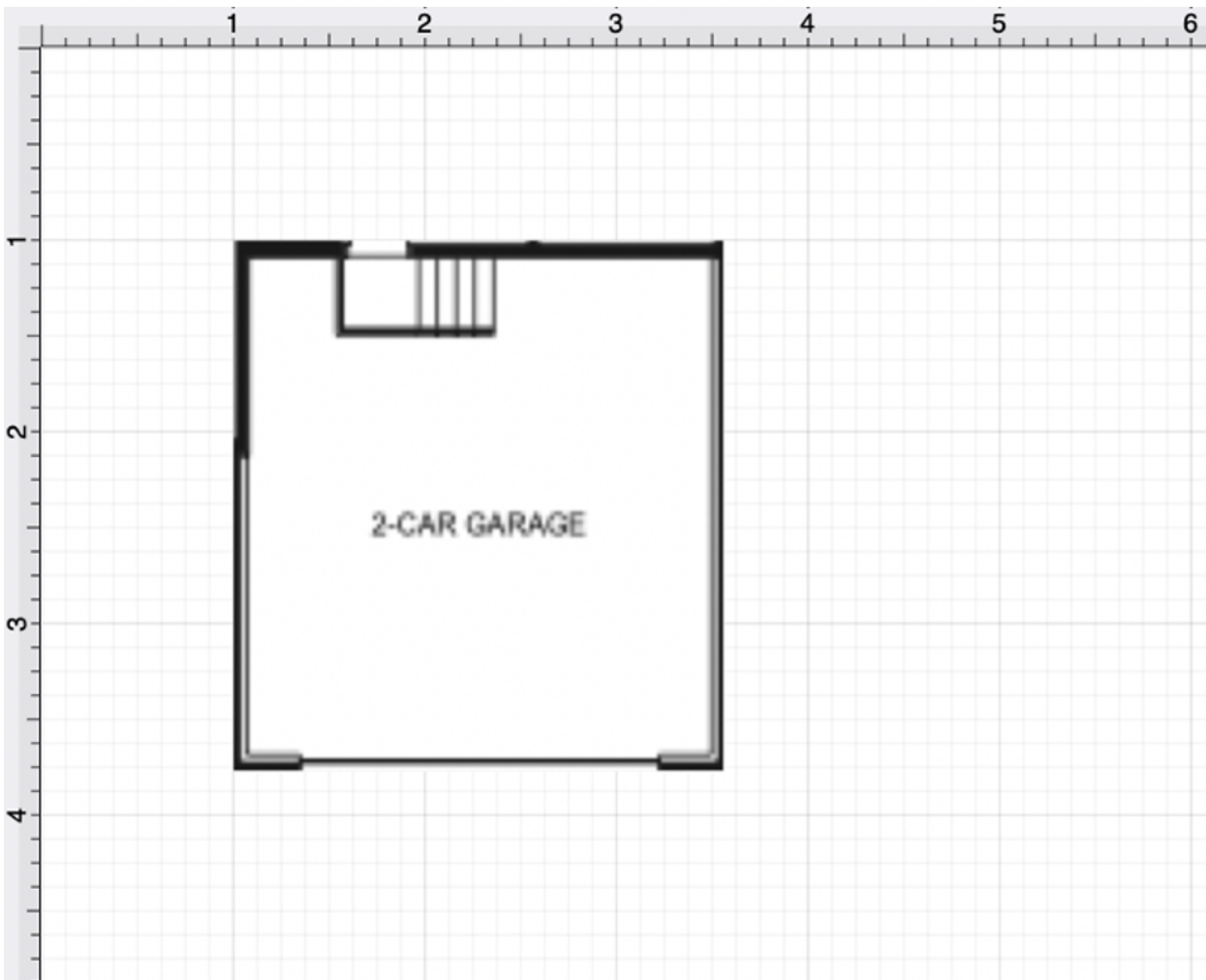
The Vertical Distance Dimension Line will appear as shown below when arrowheads are on the outside.



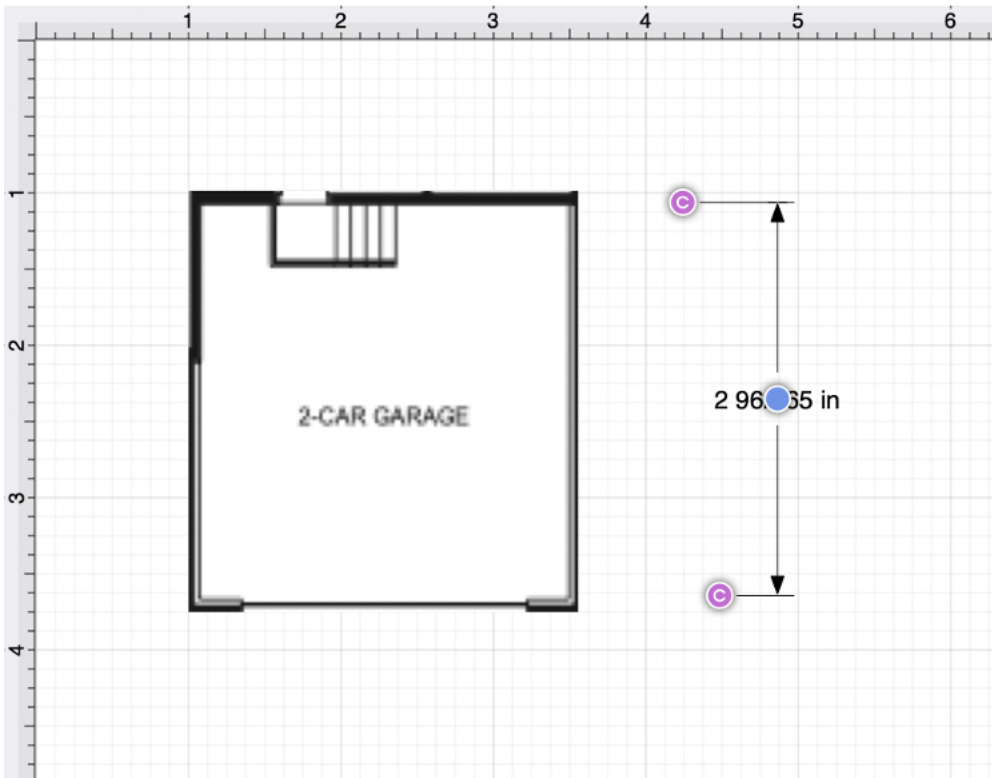
How to Connect a Vertical Distance Dimension Line to Images/Figures

A **Vertical Distance Dimension Line** can be connected to any two locations within an image or figure. It can also be connected to two separate figures in a drawing.

An image of a garage floor plan has already been added to the drawing for this example.

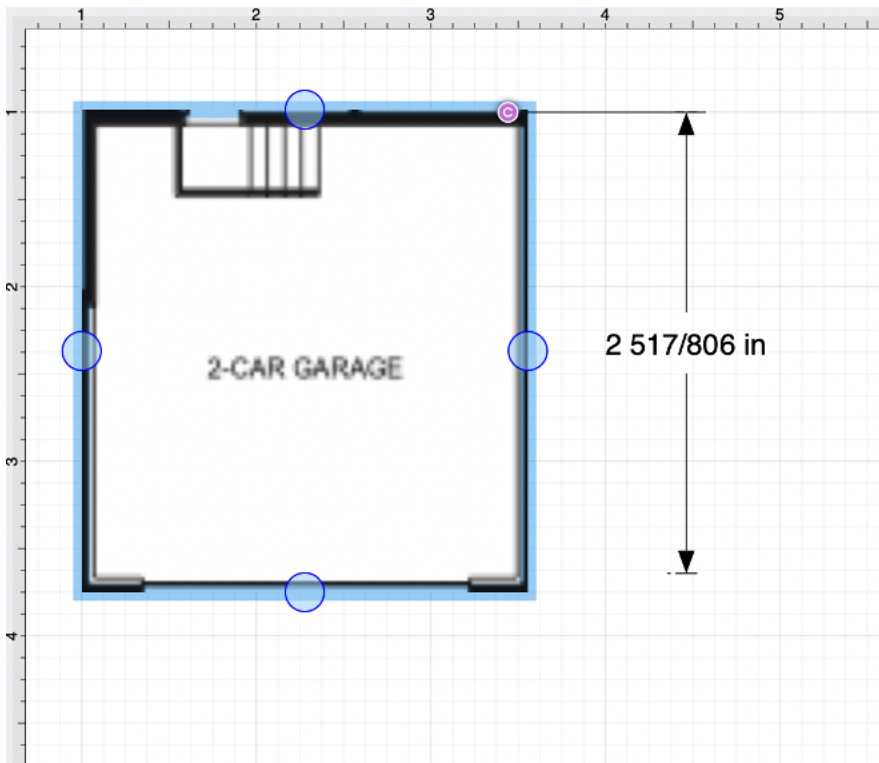


Next, a **Vertical Distance Dimension Line** will be drawn on the right side of the garage floor plan image.

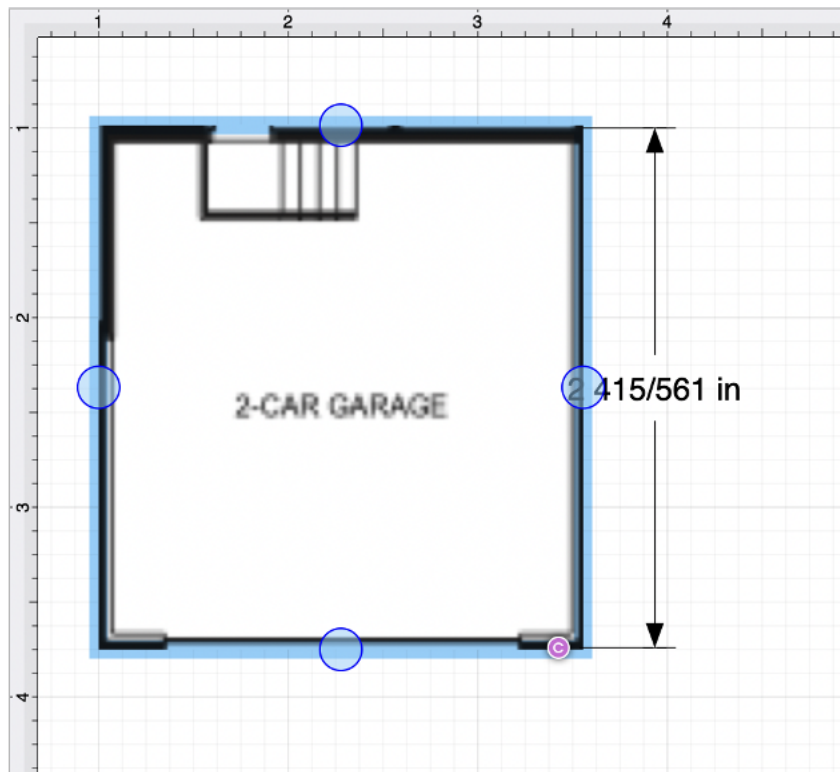


Perform a **Click/Drag** action on a connection handle within the dimension line to connect it to a point within a figure.

For more control over the position of each end of the dimension line, disable the [Snap to Grid](#) and/or the [Snap to Lines](#) options. A **Shift/Click** action can also be performed when moving each connection handle.



Perform this action again for the second connection handle within the dimension line.

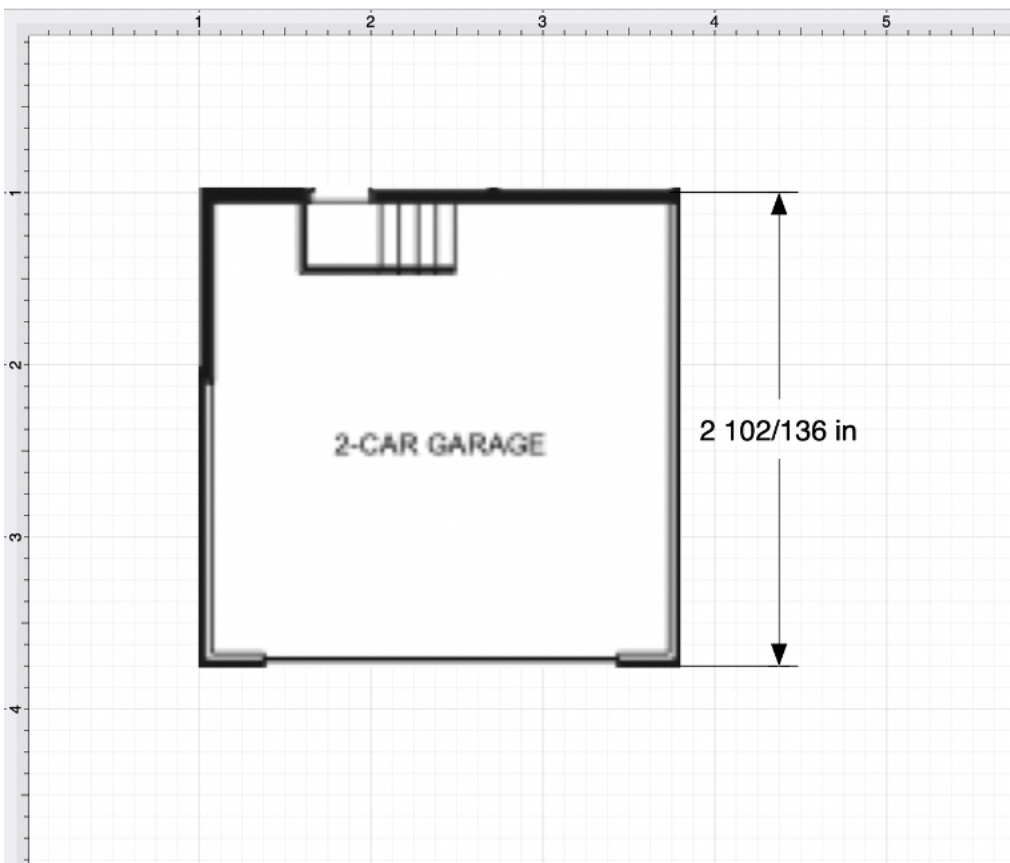


Note: A **Vertical Distance Dimension Line** can also be drawn between two points on any figure or from one point on a figure to a point on another figure.

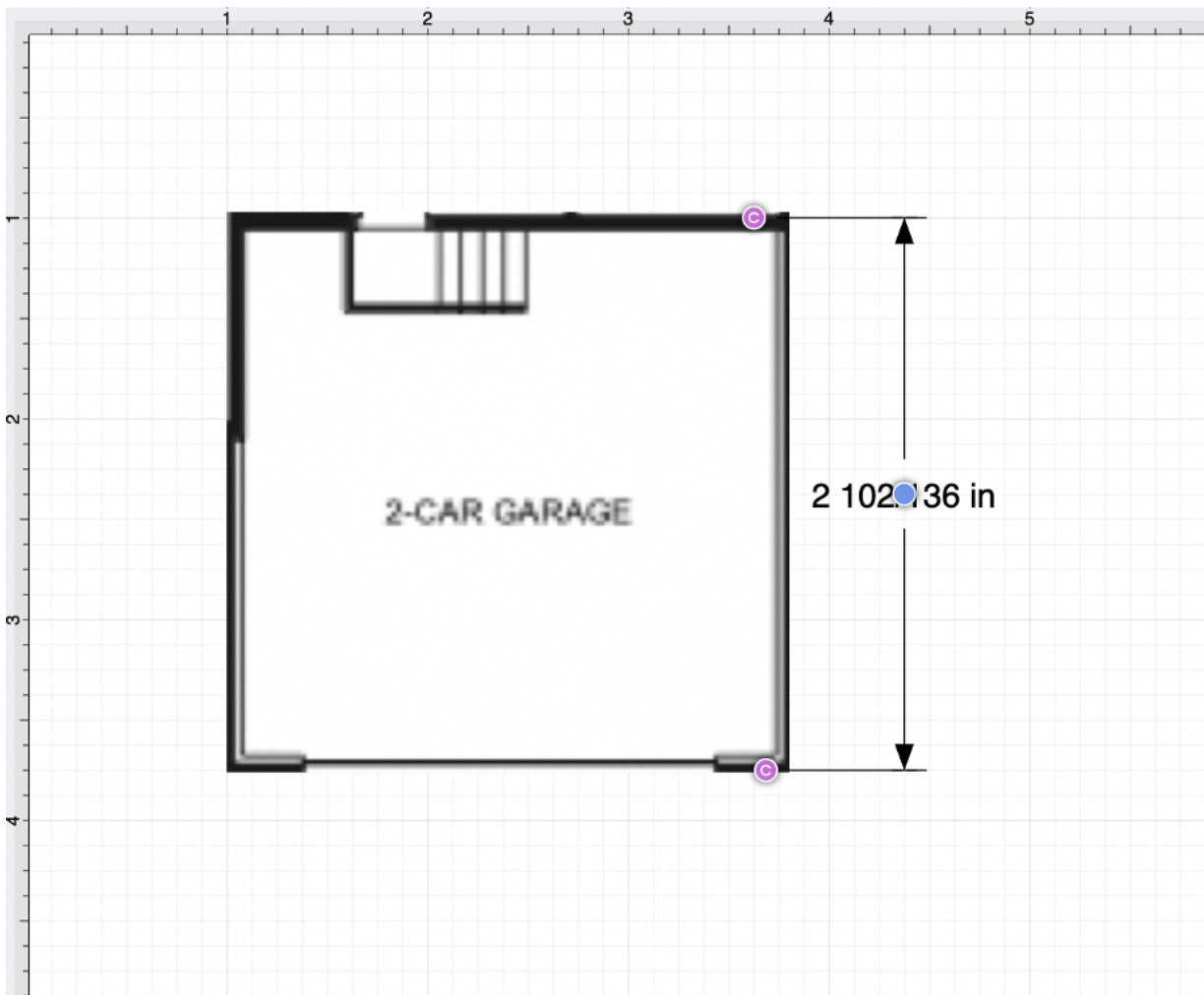
Using the Scale Attached... Option

The **Vertical Distance Dimension Tool** can be paired with the **Scale Attached...** option within the [Modify Menu](#) to scale an image, such as a floor plan, to match the grid and trace or perform other actions within the drawing “at scale.”

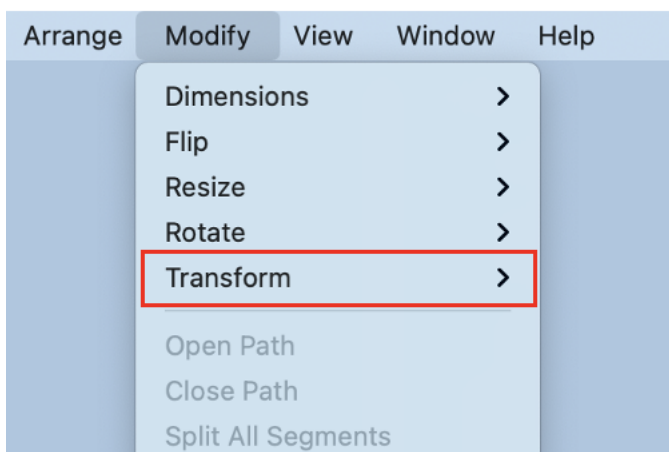
For this example, a Garage portion of a floor plan will be used to demonstrate the **Scale Attached...** option. The Vertical Distance Dimension Line has been connected to the right side of the garage.



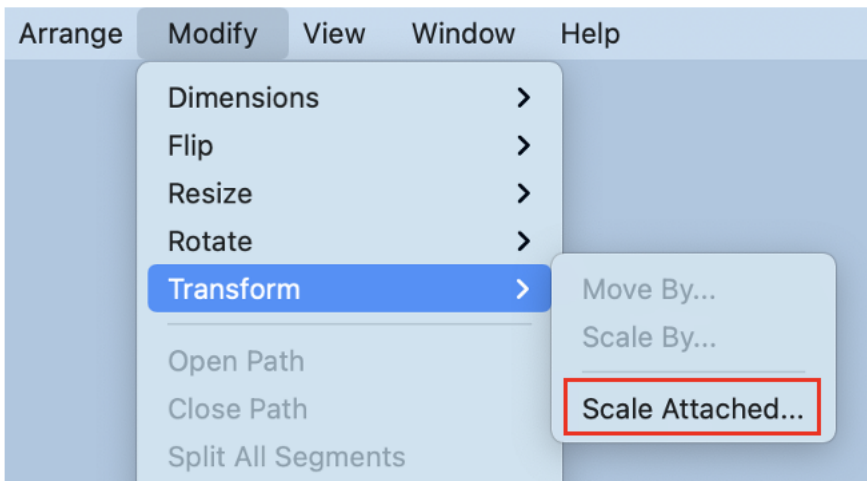
Click on the **Vertical Distance Dimension Line** to select it within the drawing.



Click on [Modify Menu](#) and click on the **Transform Submenu**.

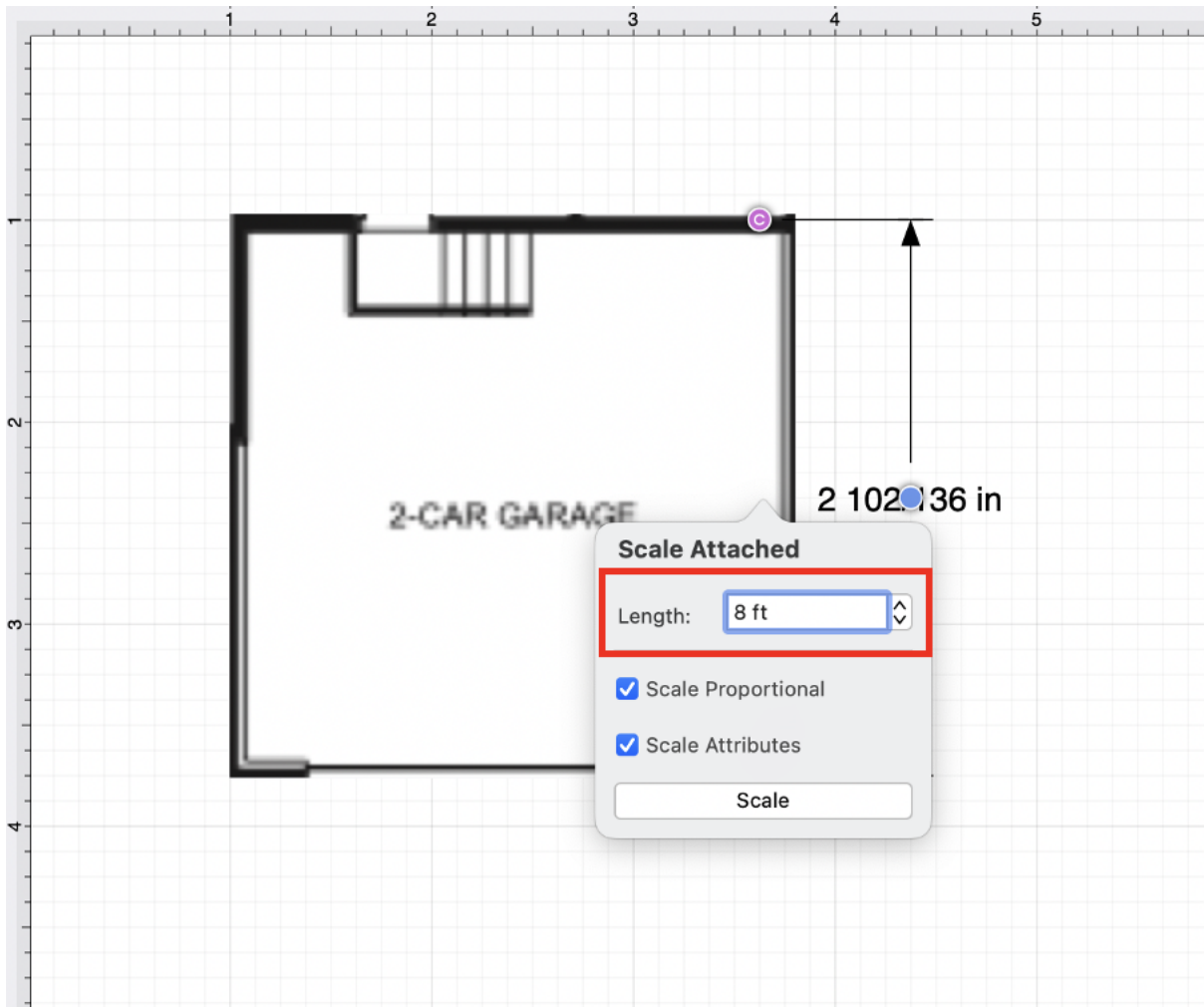


Select the **Scale Attached...** option.



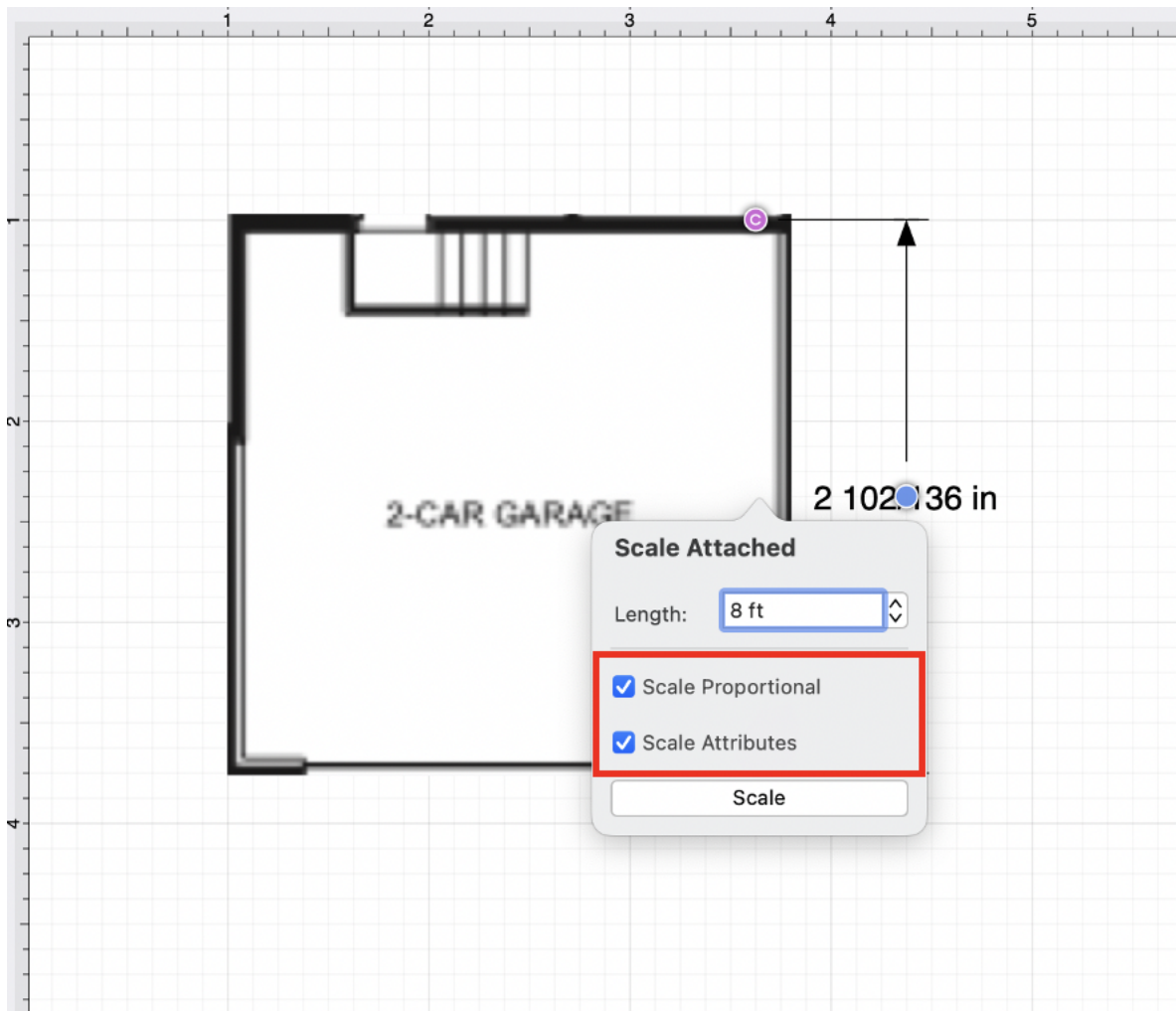
Change the Vertical Distance Dimension Line length by clicking on the **Length** field and entering a new value.

The “up” and “down” buttons can also be used to increase or decrease the Length value by 1.

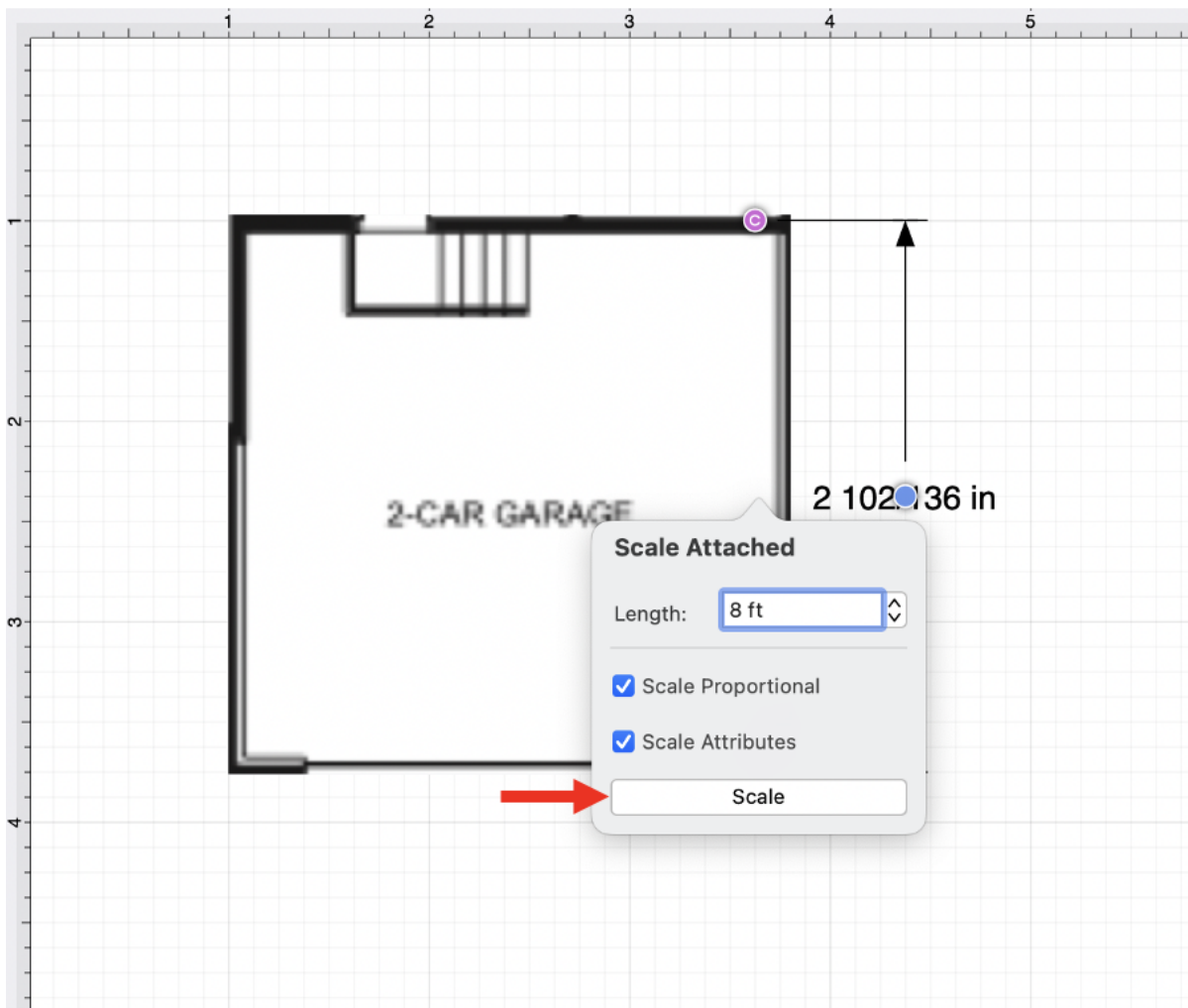


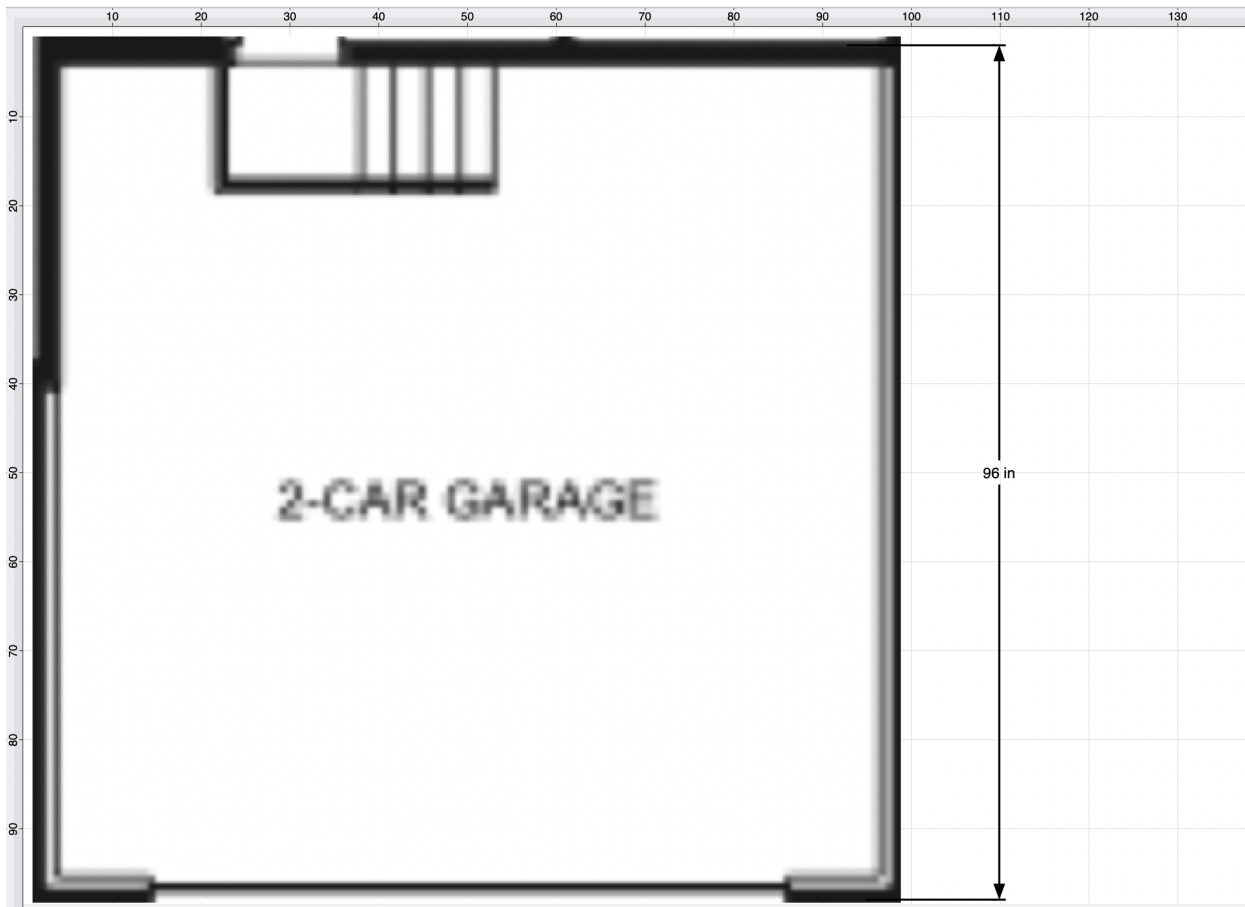
Next, use the checkboxes to enable or disable the **Scale Proportional** and **Scale Attributes** options before scaling.

- **Scale Proportional** - Scale the image up to match the grid based on the entered dimension line length.
- **Scale Attributes** - Scale the attributes (stroke, text, etc.) based on the entered dimension line length.



Once finished, click on **Scale** within the pop-up window.



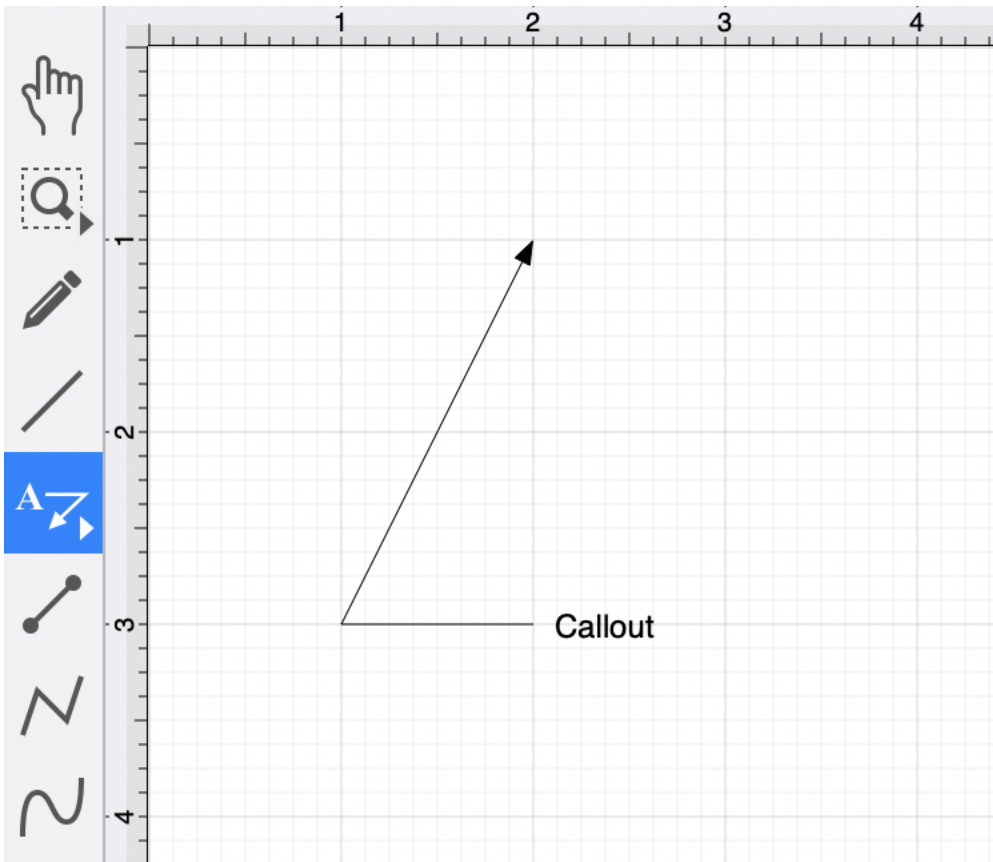


Note: If **Scale Attributes** has been disabled, then Attributes (text, stroke, etc.) will not scale according to the entered length value.

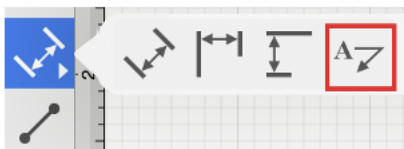
4.5.10. Callout Tool

The **Callout Tool** can be used to add a callout to any location within a drawing. A callout figure contains one connection handle, two bounds handles, and default text.

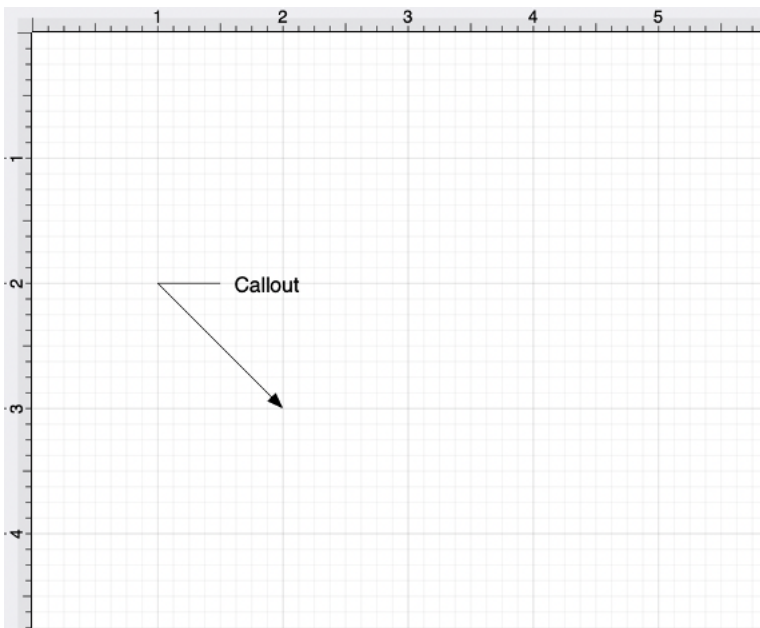
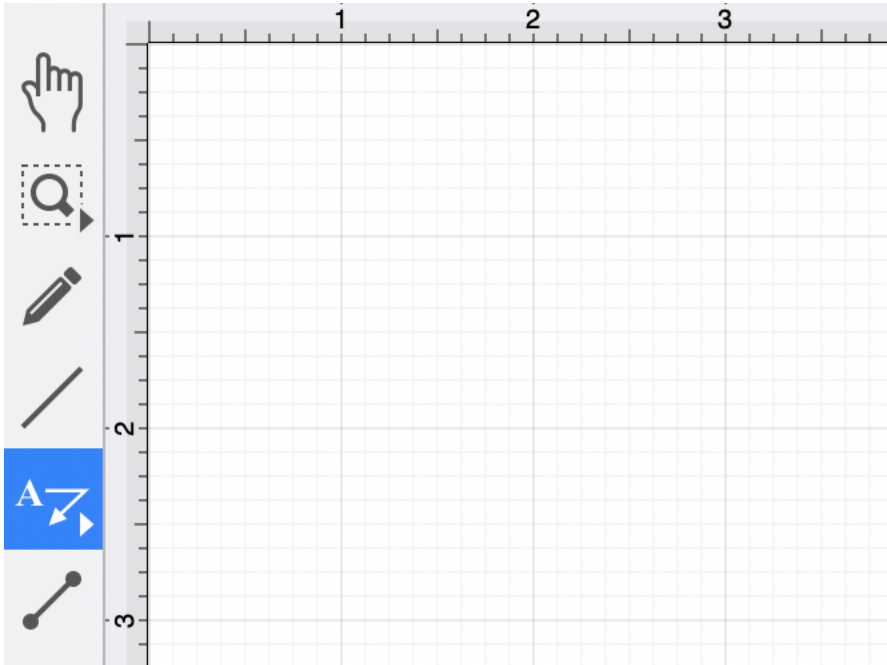
The connection handle can be used to connect the callout to a figure, and the bounds handles can be used to alter the appearance of the callout.



This tool can be selected by performing an **extended Click** on the **Linear Dimension Tool**. Click on the tool to select it.

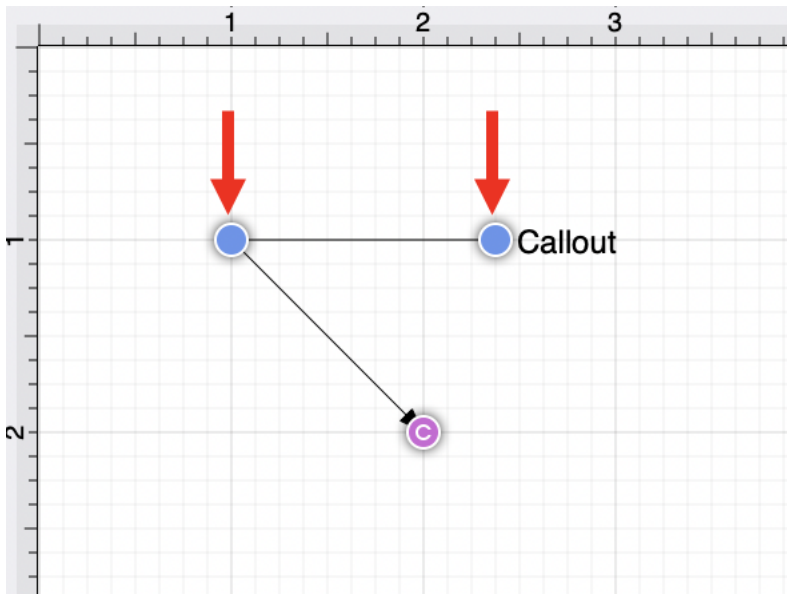


Use a **Click/Drag** action to draw the callout from a set starting point to a desired end point and then release the click to complete the drawing action. The arrow will be where the action is completed.

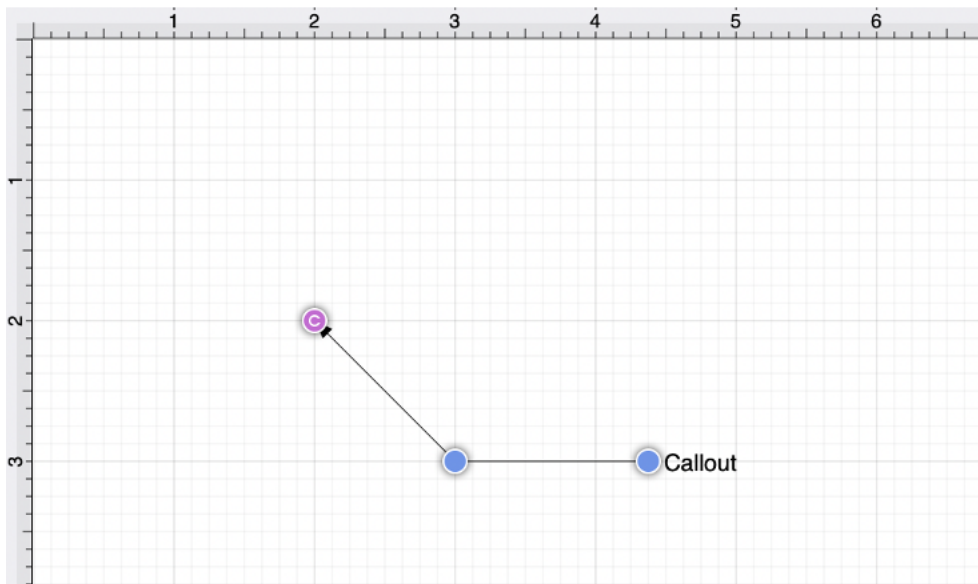


Using the Bounds Handles

A callout has two **Bounds Handles (blue)**, which can be used to alter its position and size.

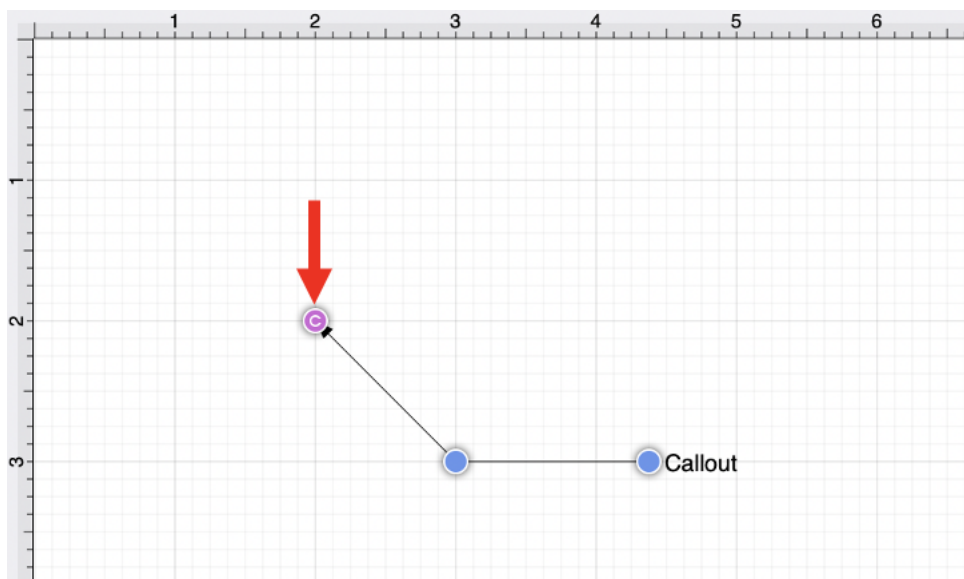


In this example, the bounds handle connecting the two lines will be moved to the right.

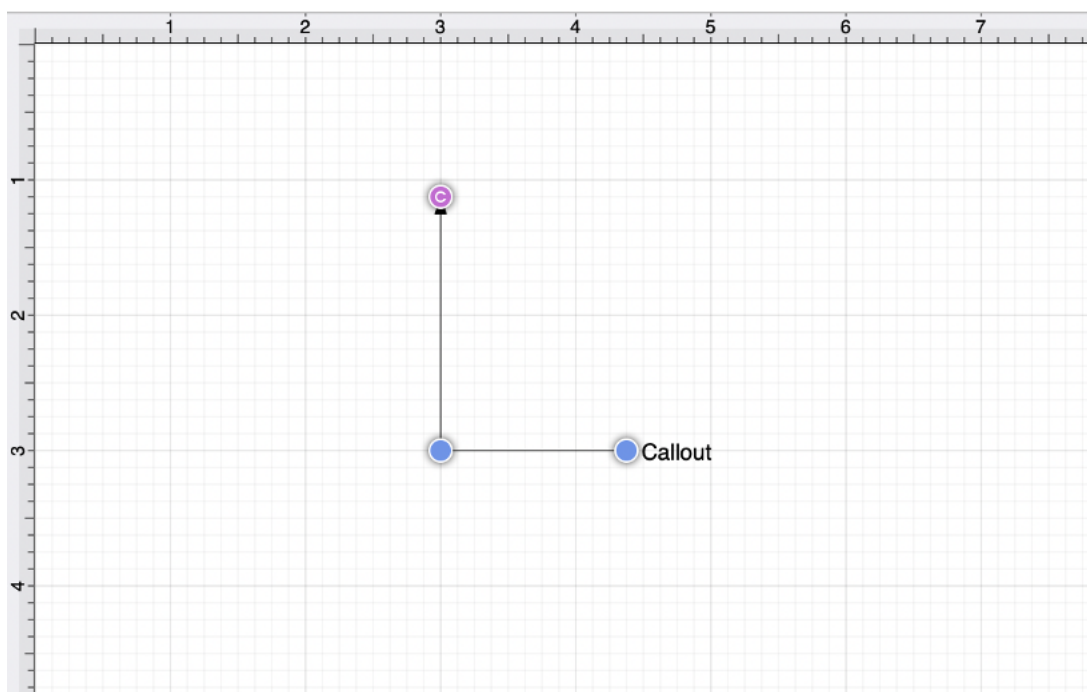


Using the Connection Handle

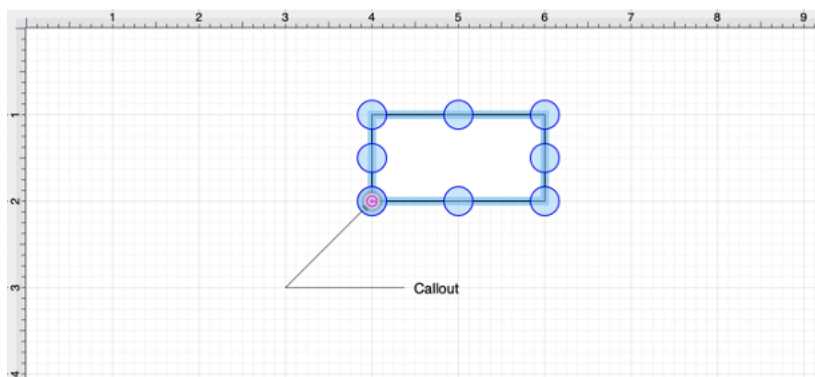
The **Connection Handle** can be used to alter where the callout figure points to within the drawing.



Perform a **Click/Drag** action to change the connection handle's position within the Drawing Canvas.

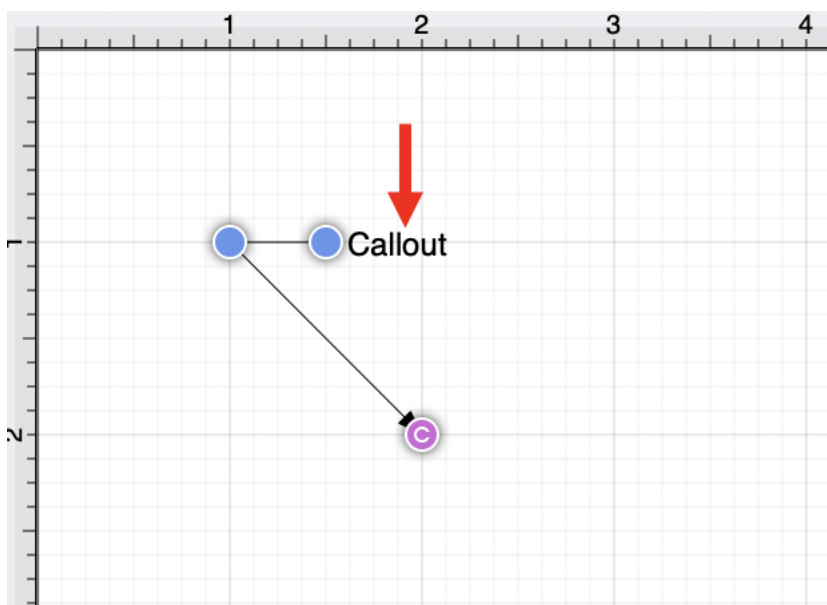


The connection handle can also be dragged to a specific connection point on a figure.

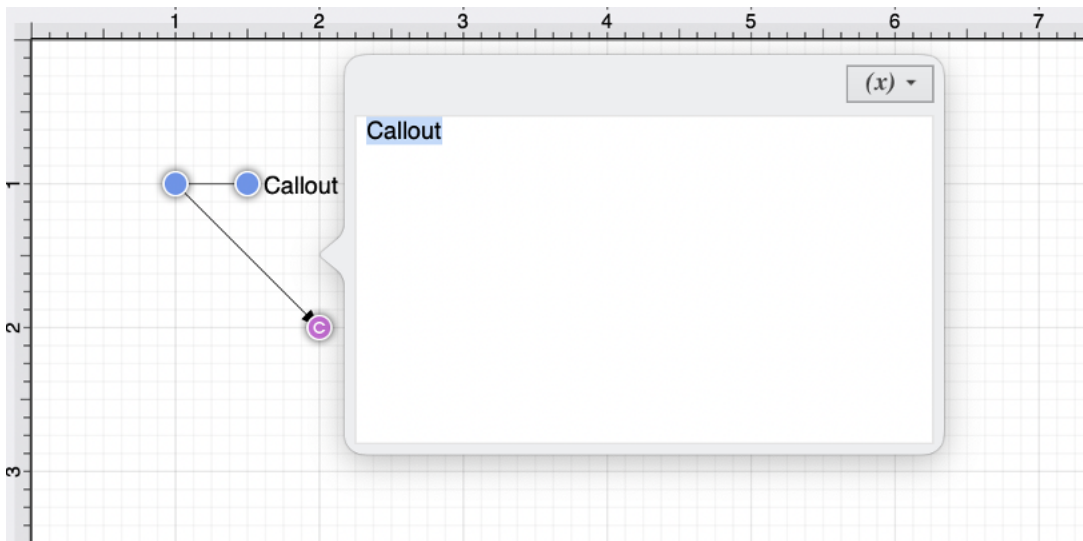


How to Change Callout Text

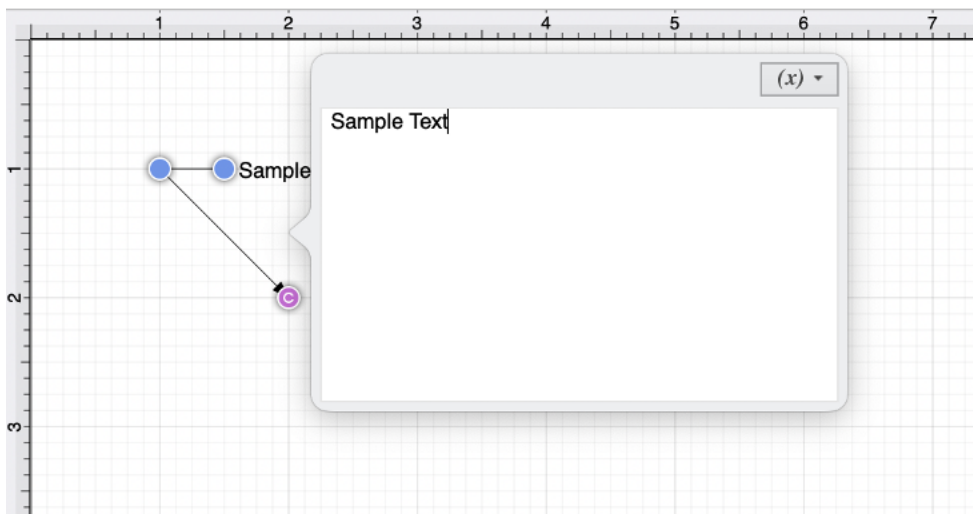
Perform a **Double Click** on the default “Callout” text to alter the text for the figure.



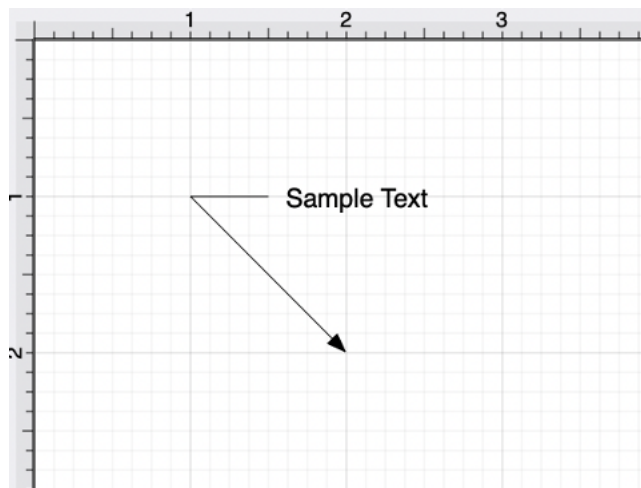
After double tapping, the Text Editor will appear as shown below.



Use the keyboard to enter different text for the callout figure. Once finished, click in any location outside of the supplied popover to dismiss the editor.



The figure will appear as shown below:

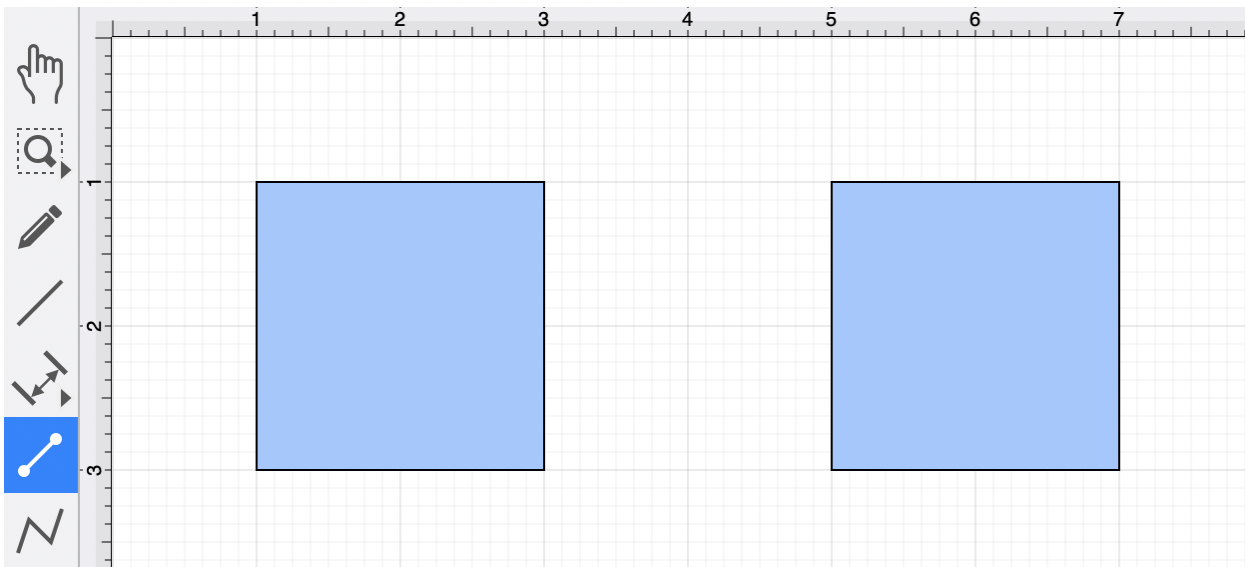


4.5.11. Connection Tool

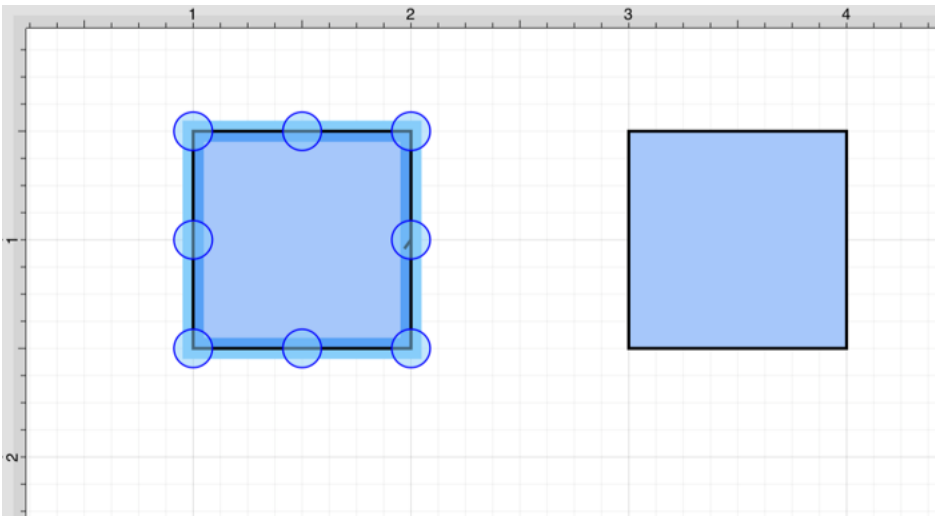
The **Connection Tool** can be used to draw lines for connecting one figure to another and makes it easy to create connected graphs such as flow charts.

Perform the following actions to create a connected graph on the [Drawing Canvas](#):

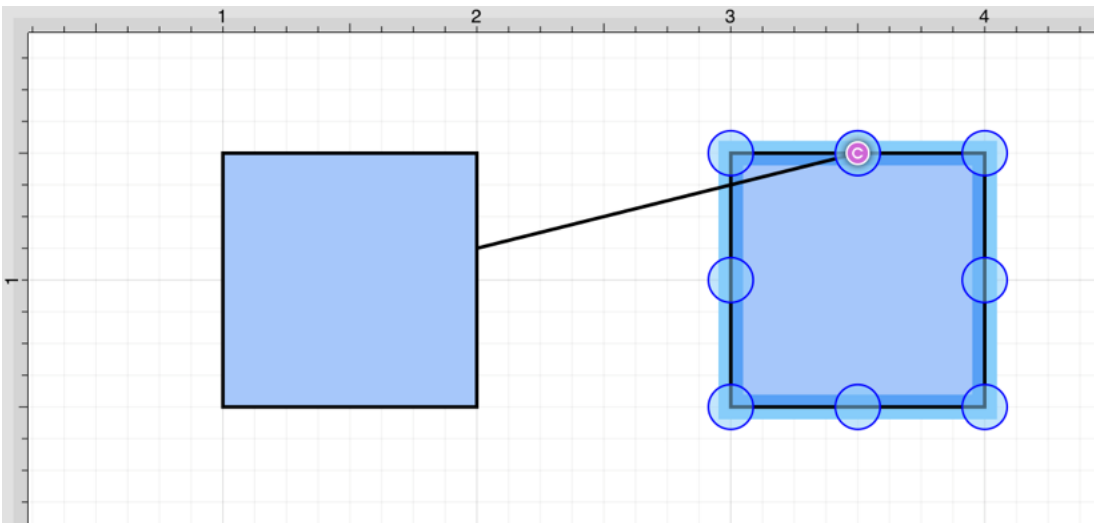
Step 1: Begin by creating two figures and then select the **Connection Tool**. All figures, including path shapes, text blocks, and images, can be connected except lines and open paths.



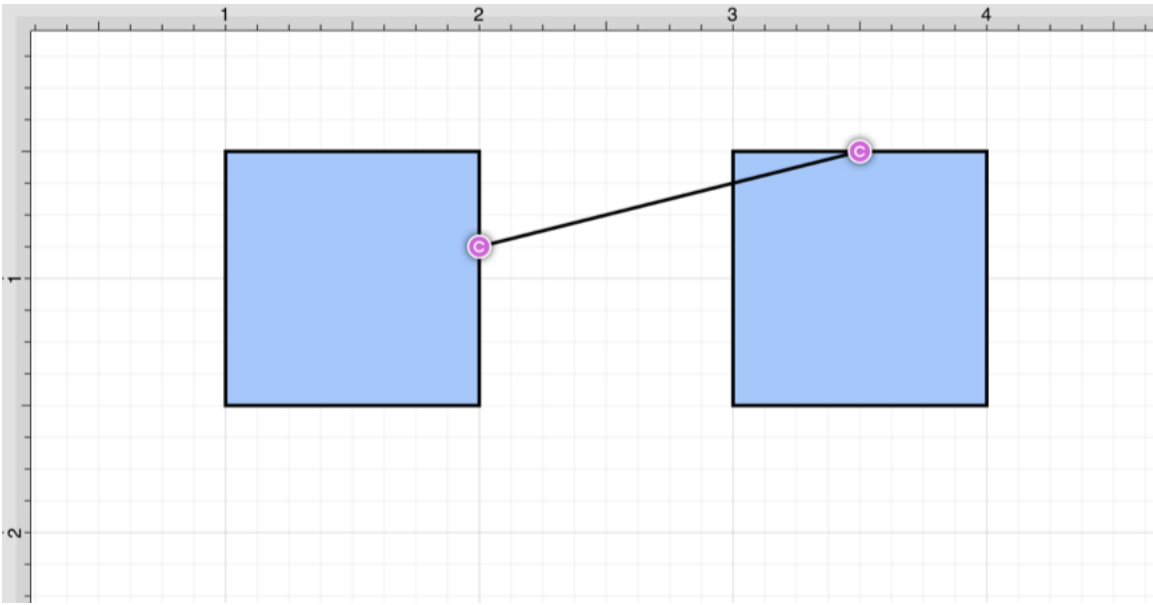
Step 2: Maneuver the mouse to the desired connection point in the first figure and perform a **Click** action. The figure will be "highlighted" with a light blue border when the selection has been performed correctly. The light blue border indicates the ability to connect the figure.



Step 3: Use the trackpad to drag from a point in the start figure to a point in the end figure where the connection will terminate. When the mouse is within the "target" figure, it will be "highlighted" with a light blue border. The light blue border indicates the ability to connect the second figure to the source figure.

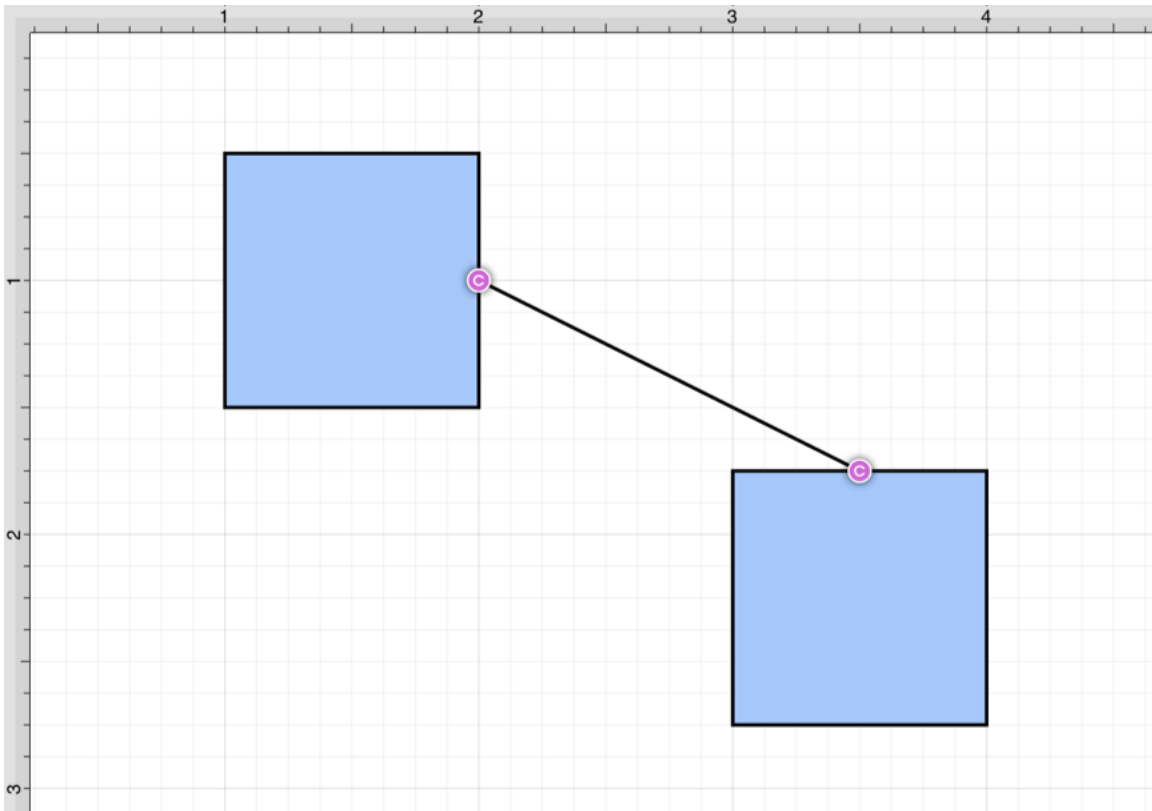


Step 4: The connection line will be created between a point on the start figure and the chosen point within the target figure when the **Click** action is released.



Note: After a connection line is created, perform a Click/Drag combination on a connection handle to change its position within the start or end figure.

Step 5: Performing a **Click/Drag** combination on the second figure after the connection is established results in the connection line position being adapted to keep the two figures connected.



Text Location and Orientation

Text can be added and attached to a Connection Line. The [location](#) and [orientation](#) of the attached text can be altered for Connection Lines within the **Text Tab**.



Additional Information

To learn more about using different connector types and the connection tool, please see the following pages:

- [Changing-Connection-Types](#)
- [Line Connection Tool](#)
- [East-West Connection Tool](#)
- [North-South Connection Tool](#)
- [Horizontal-Vertical Connection Tool](#)
- [Vertical-Horizontal Connection Tool](#)
- [Path Connection Tool](#)
- [Hub Connection Tool](#)

4.5.11.1. Changing Connection Types

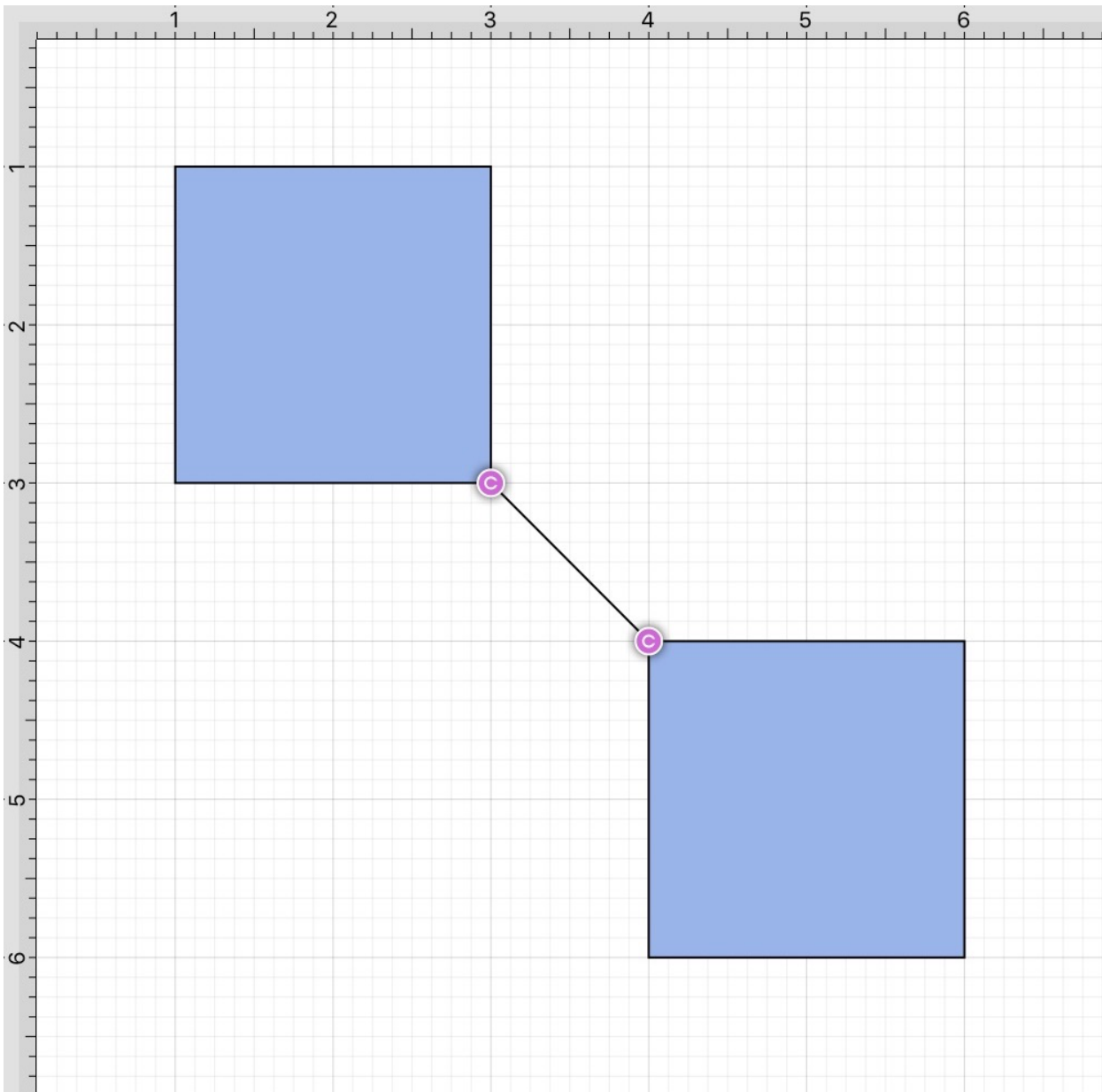
The **Connection Type** of a selected connection line can be changed before or after creating a connection line in TouchDraw 2.

To change the **Connection Type** before drawing the connection line, click on the [Connection Type Tab](#) within the [Sidebar](#).

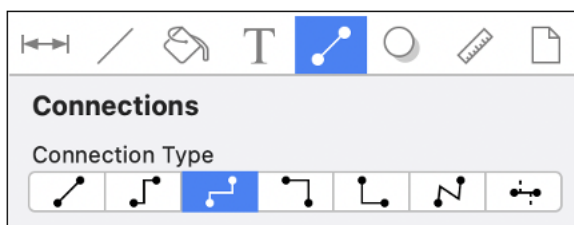


To change the connection type for an existing connection line:

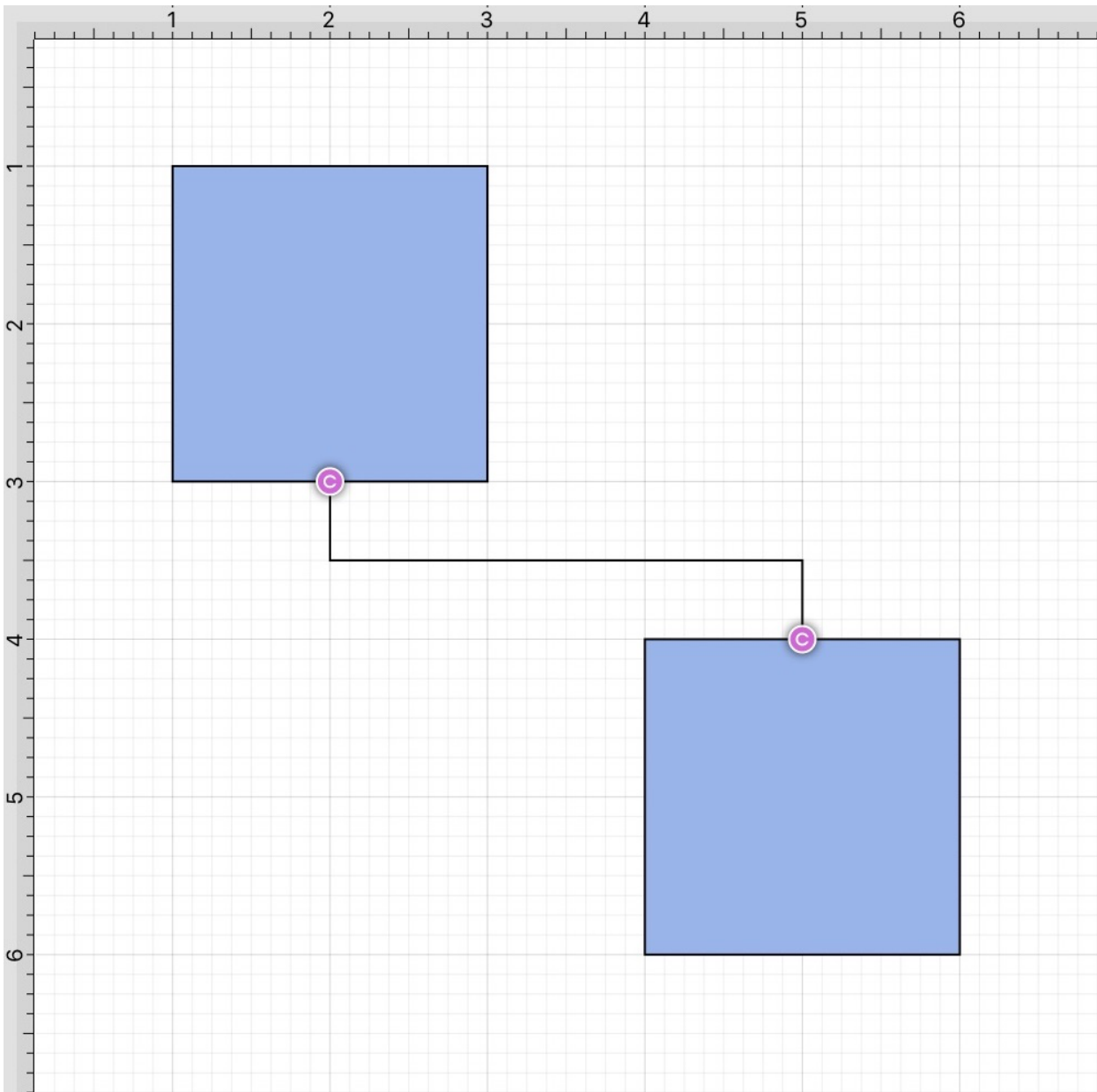
Select the connection line within the [Drawing Canvas](#).



Follow the steps above to access available connection types and make a selection. In this example, a North-South connection line is selected.



As shown below, the connection line will automatically change and adapt based on the selected type.

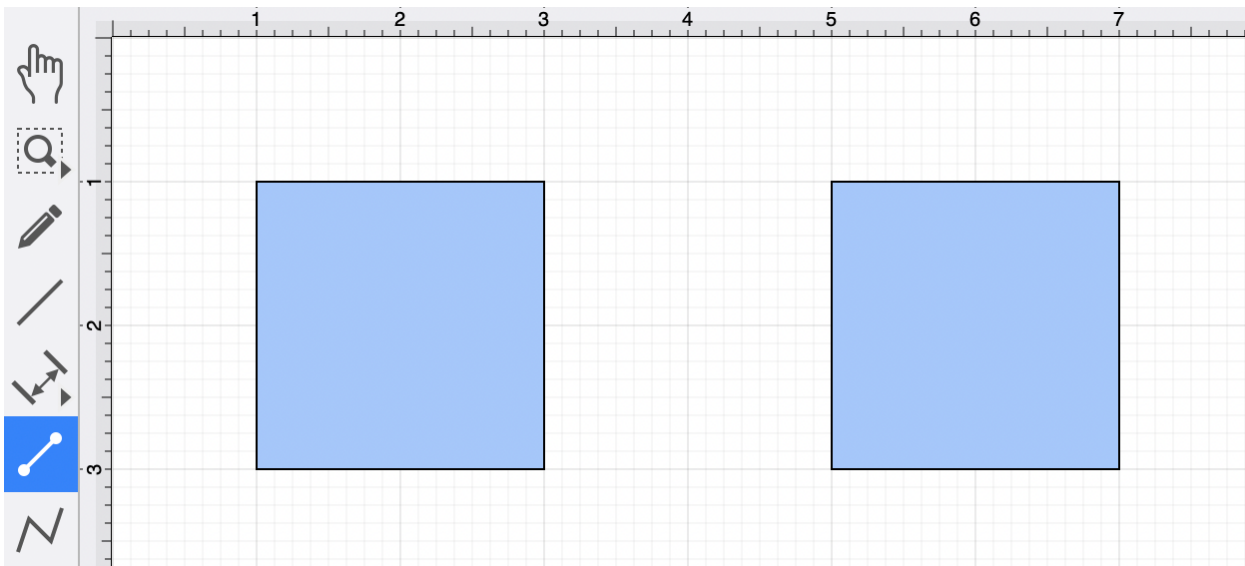


4.5.11.2. Line Connection Tool

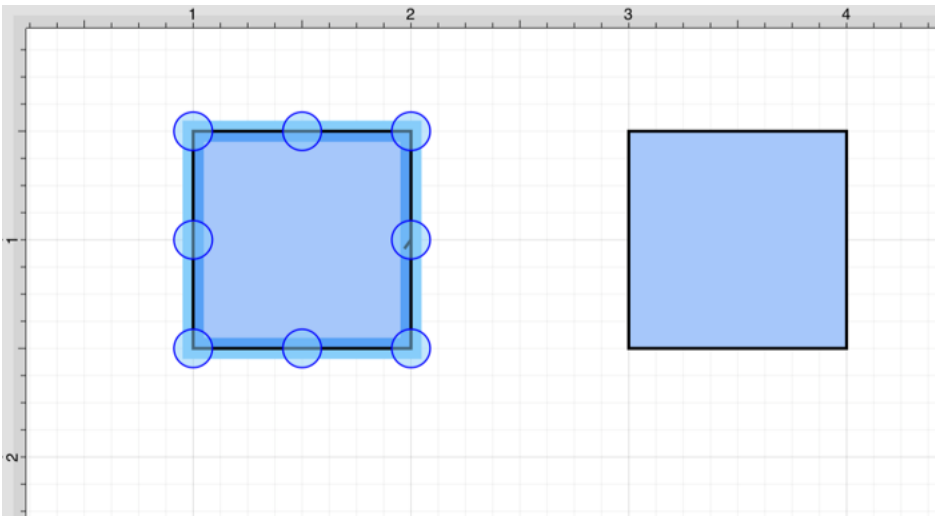
The **Line Connection Tool** draws a line connection from a source figure and connects in the shortest way to a target figure. The start, line, and end points of a connection line can be altered in the [Stroke Tab](#) located in the **Info** portion of the [Sidebar](#).

To create a connection with this tool, complete these steps:

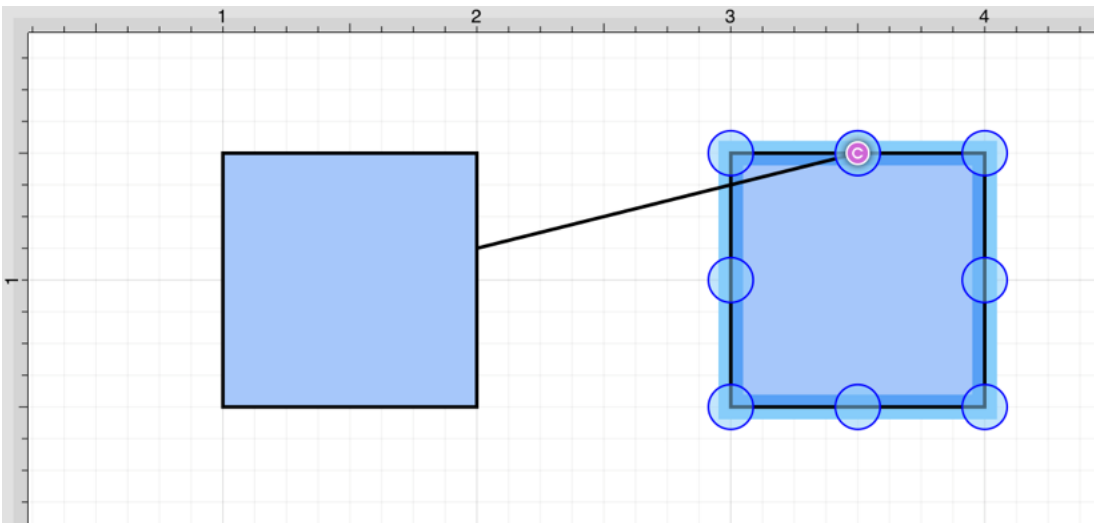
Step 1: Select the **Line Connection Tool** in the [Drawing Toolbar](#).



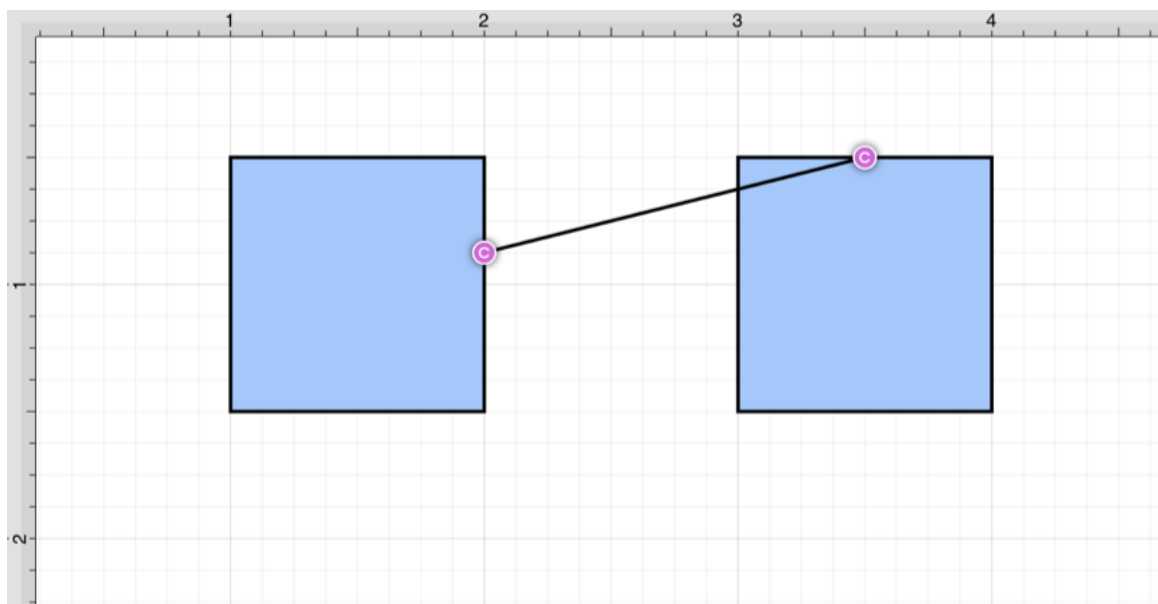
Step 2: Perform a **Click/Drag** combination at the desired starting point on the source figure and move the handle to a desired end point on the target figure.



Step 3: Release the **Click** action to complete the connection line. Each selected figure will be highlighted in blue when a valid connection has been made.



Step 4: The completed connection line will appear as shown below:

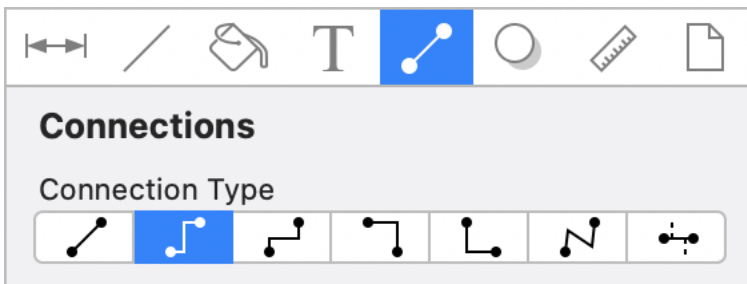


Note: Performing a **Click/Drag** combination on the second figure after the connection is established results in the connection line position being adapted to keep the two figures connected.

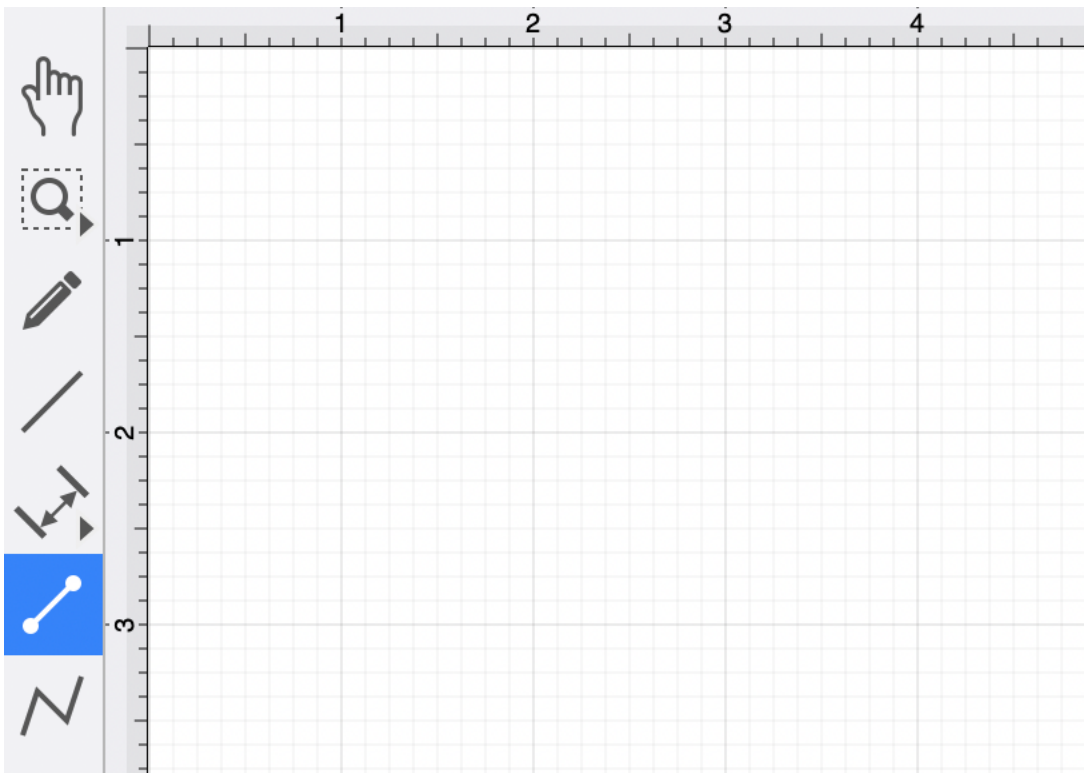
4.5.11.3. East-West Connection Tool

The **East-West Connection Tool** draws a connection line that originates from the side (either west/left or east/right) of the source figure and connects to the side (either west/left or east/right) of the target figure. To select the East-West Connection Tool, perform the following steps:

Step 1: Click on the [Connection Type Tab](#) within the [Sidebar](#) and choose the **East-West Connection Tool**.

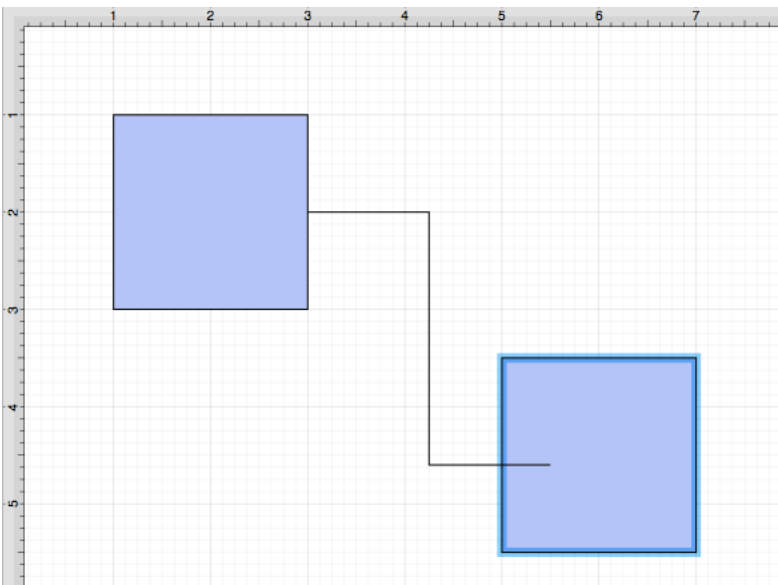
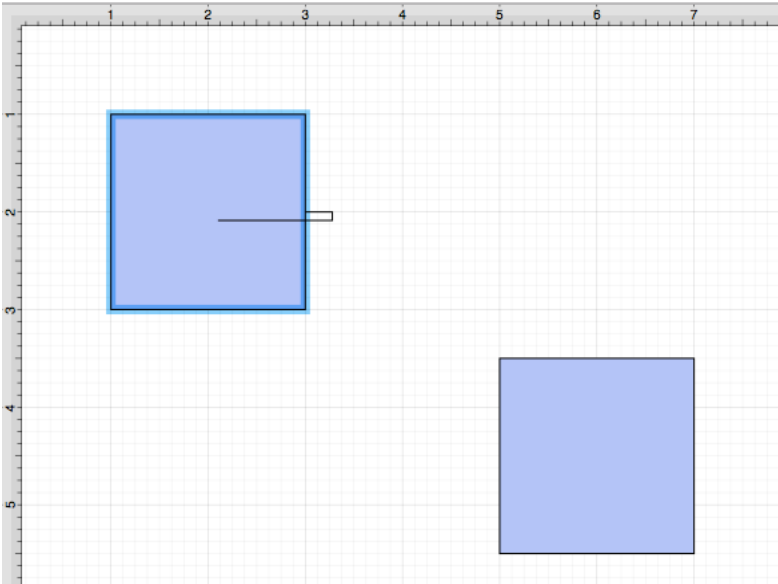


Step 2: Then click on the **Connection Tool** within the [Drawing Toolbar](#).

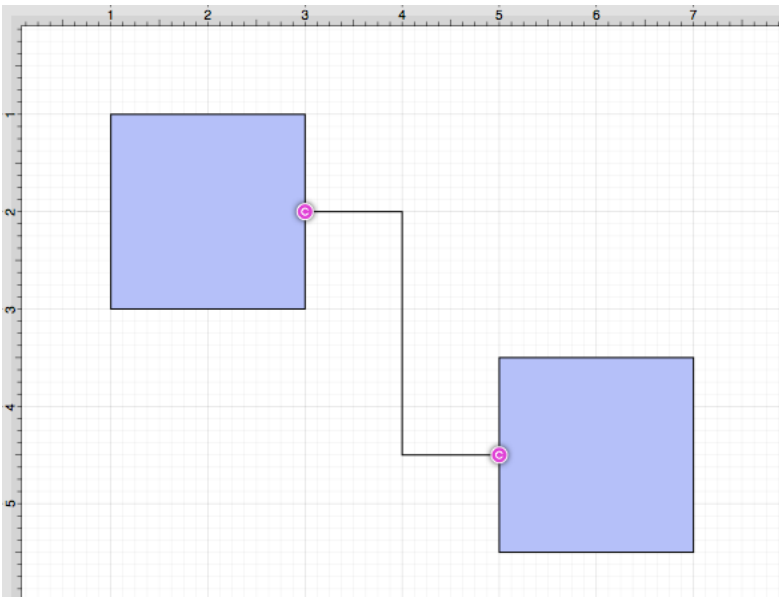


This connection between the figures is created in the same manner as with the [Line Connection Tool](#), but the connection path remains orthogonal with the source and target lines remaining horizontal.

Perform a **Click/Drag** combination from the desired starting point on a figure to the desired end point on another figure and then release the **Click** action to complete the connection. The selected figures will be highlighted in blue when a valid connection has been made. Refer to the images below:



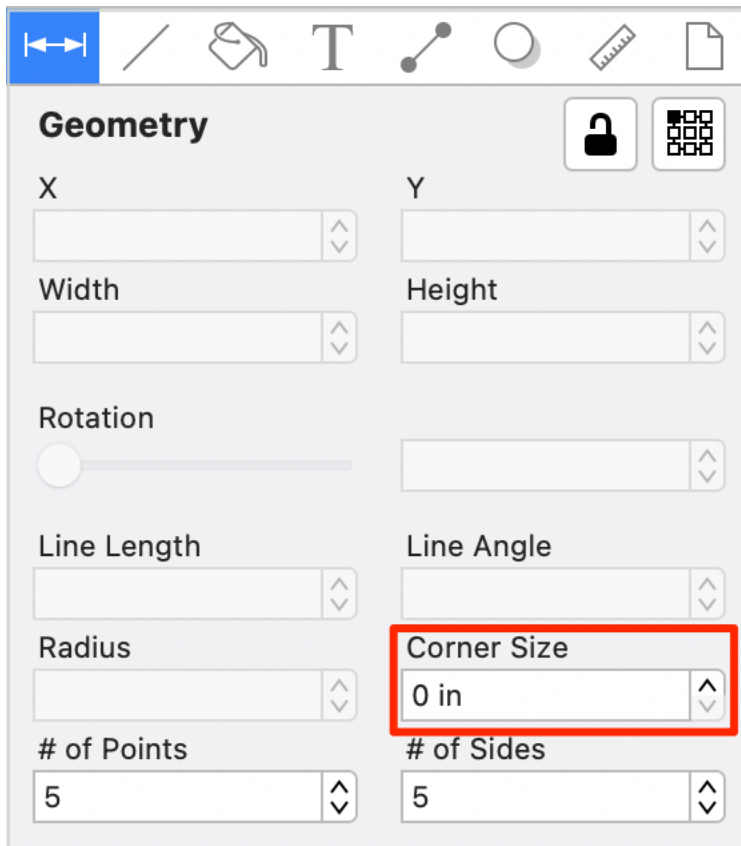
The completed connection line will appear as shown below:




How to Change the Corner Size

The created connection line will automatically contain squared (90-degree angle) corners.



To change the **Corner Size**, select the created connection line and click on the [Geometry Tab](#) in the [Sidebar](#). Then alter the **Corner Size** value by clicking on the **Up** and **Down** buttons.



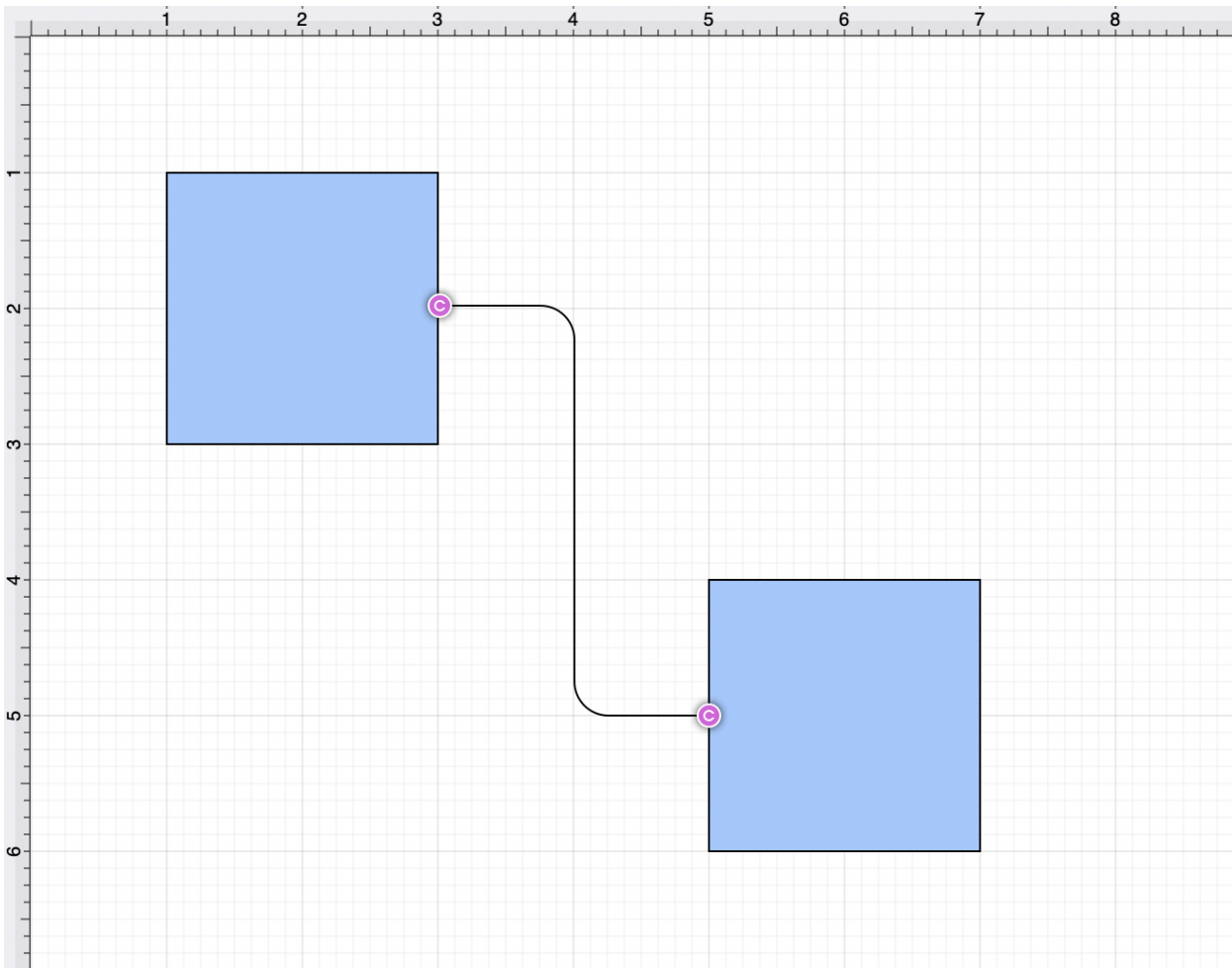
Changing the **Corner Size** to 0.25 inches for a selected connection line causes the corners to be rounded, as shown below.



Geometry



X	Y
<input type="text"/>	<input type="text"/>
Width	Height
<input type="text"/>	<input type="text"/>
Rotation	
<input type="range"/>	<input type="text"/>
Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text"/>	<input type="text" value="0.25 in"/>
# of Points	# of Sides
<input type="text" value="5"/>	<input type="text" value="5"/>



Note: Performing a **Click/Drag** combination on the second figure after the connection is established results in the connection line position being adapted to keep the two figures connected.

4.5.11.4. North-South Connection Tool

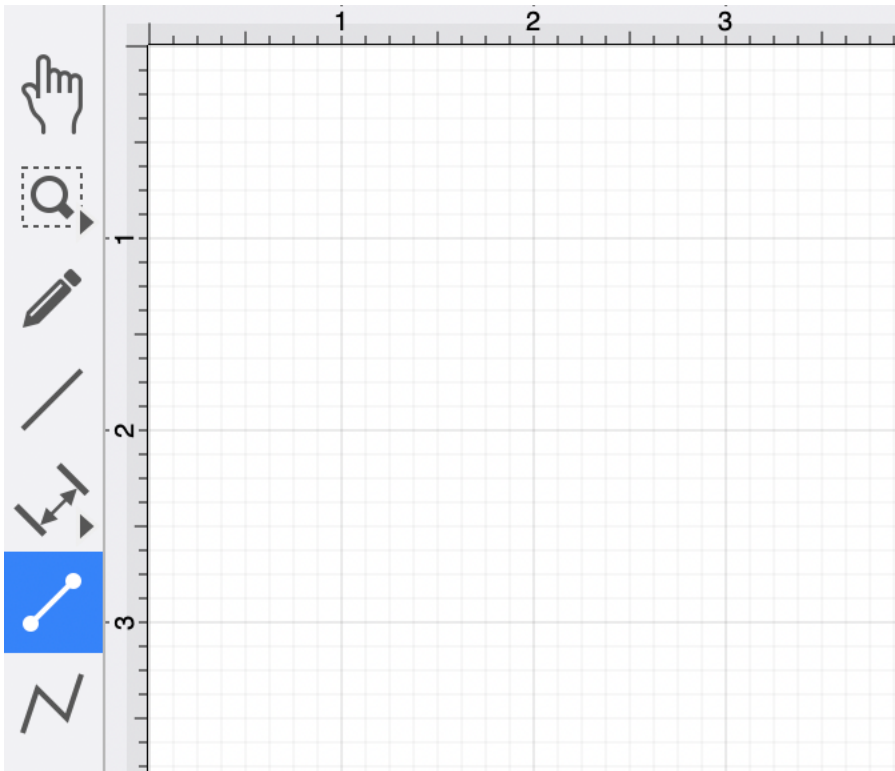
The **North-South Connection Tool** draws a connection line that originates from the side (either north/top or south/bottom) of the source figure and connects to the side (either north/top or south/bottom) of the target figure.

To select the **North-South Connection Tool**, complete the following steps:

Step 1: Click on the **North-South Connection Tool** option within the [Connection Type Tab](#) in the [Sidebar](#).



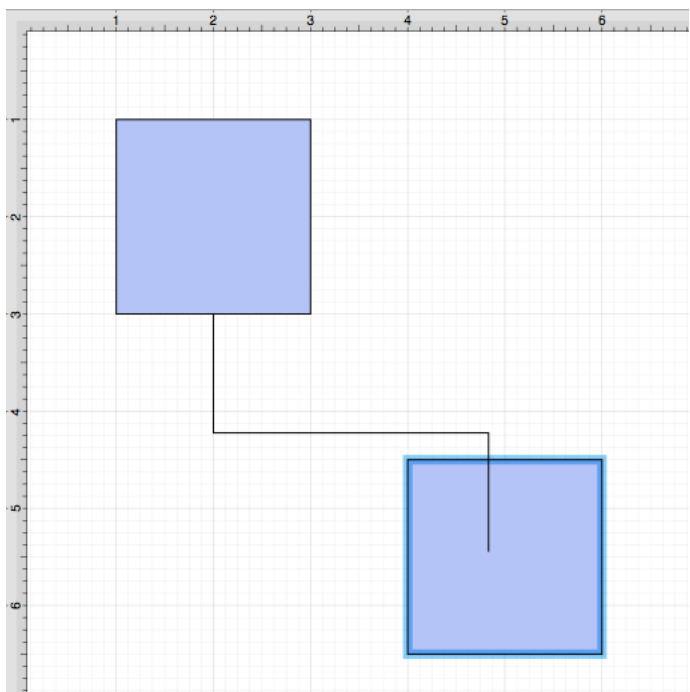
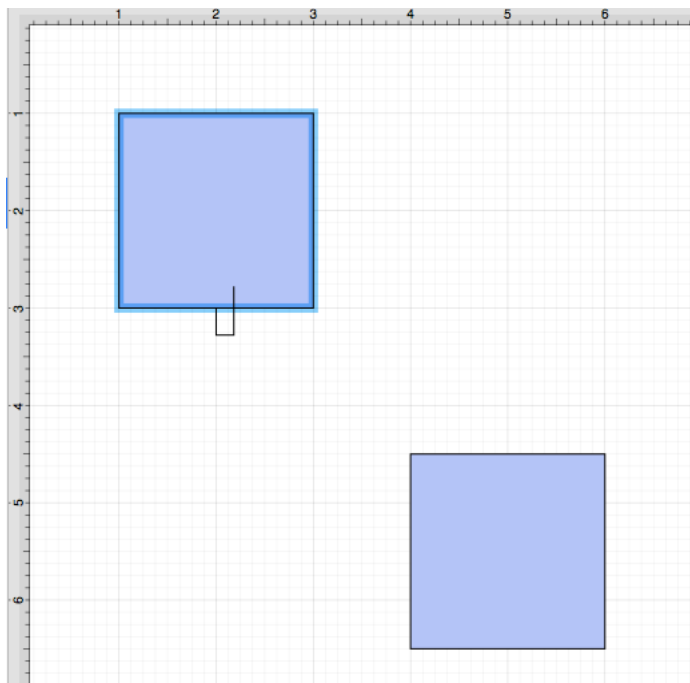
Step 2: Select the **Connection Tool** in the [Drawing Toolbar](#).



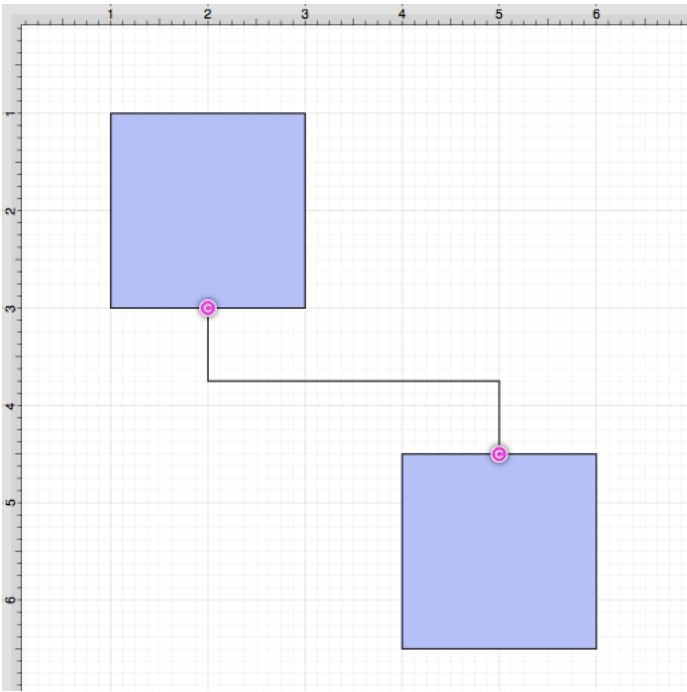
This connection between the figures is created in the same manner as with the [Line Connection Tool](#), but the connection path remains orthogonal with the source and target lines remaining vertical.

Perform a **Click/Drag** combination from the desired starting point on the source figure to the desired end point on the target figure, and then release the **Click** action to complete the connection.


The selected figures will be highlighted in blue when a valid connection has been made. Refer to the images below:





The completed connection line will appear as shown below.



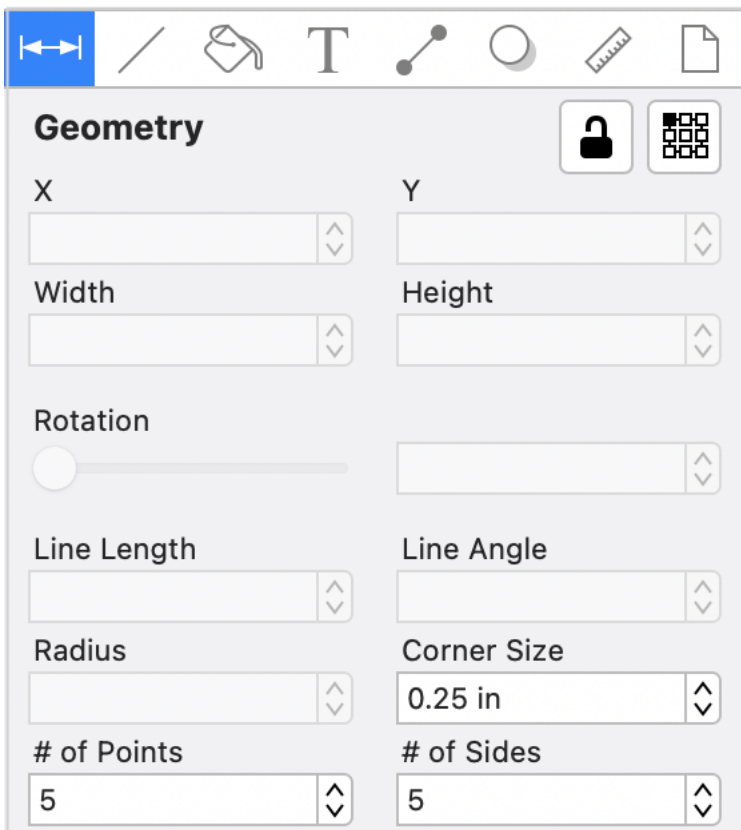
The connection line will automatically contain squared, 90-degree angle corners. To change the **Corner Size** of the created connection line, make certain it is selected. Then click on the [Geometry Tab](#) in the [Sidebar](#) and alter the **Corner Size** value by clicking on the **Up** and **Down** buttons.



Geometry



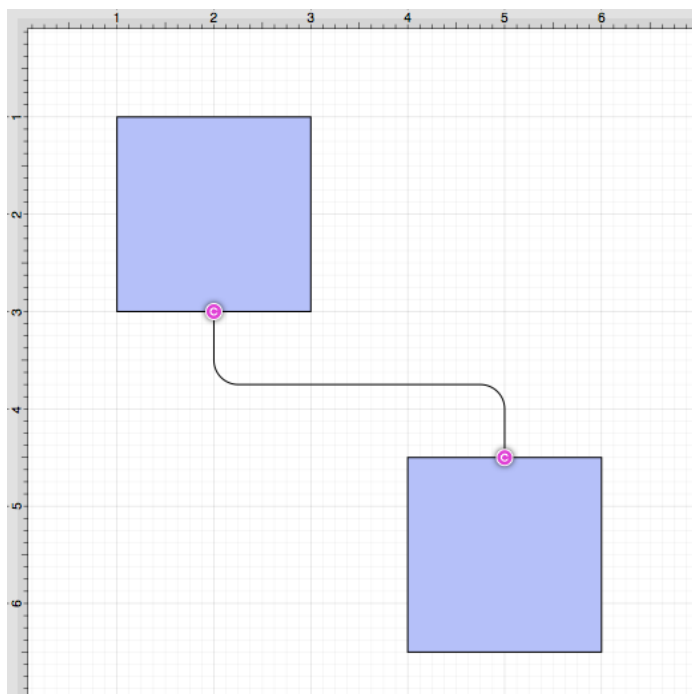
X	Y
<input type="text"/>	<input type="text"/>
Width	Height
<input type="text"/>	<input type="text"/>
Rotation	
<input type="range"/>	<input type="text"/>
Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text"/>	<input type="text" value="0 in"/>
# of Points	# of Sides
<input type="text" value="5"/>	<input type="text" value="5"/>



The image shows the 'Geometry' panel in TouchDraw 2 for Mac. At the top is a toolbar with icons for selection, line, curve, text, link, circle, ruler, and a document icon. The 'Geometry' panel itself has a title bar with a lock icon and a grid icon. Below the title bar are two columns of controls. The left column includes: 'X' coordinate (text input), 'Width' (text input), 'Rotation' (slider), 'Line Length' (text input), 'Radius' (text input), and '# of Points' (text input with value 5). The right column includes: 'Y' coordinate (text input), 'Height' (text input), a text input for an angle value, 'Line Angle' (text input), 'Corner Size' (text input with value 0.25 in), and '# of Sides' (text input with value 5). All text inputs have up and down arrow buttons for incrementing and decrementing values.

Geometry	
X	Y
Width	Height
Rotation	
Line Length	Line Angle
Radius	Corner Size
# of Points	# of Sides

Changing the **Corner Size** to zero for a selected connection line causes the corners to become ninety-degree angles, as shown below.



Note: Performing a **Click/Drag** combination on the second figure after the connection is established results in the connection line position being adapted to keep the two figures connected.

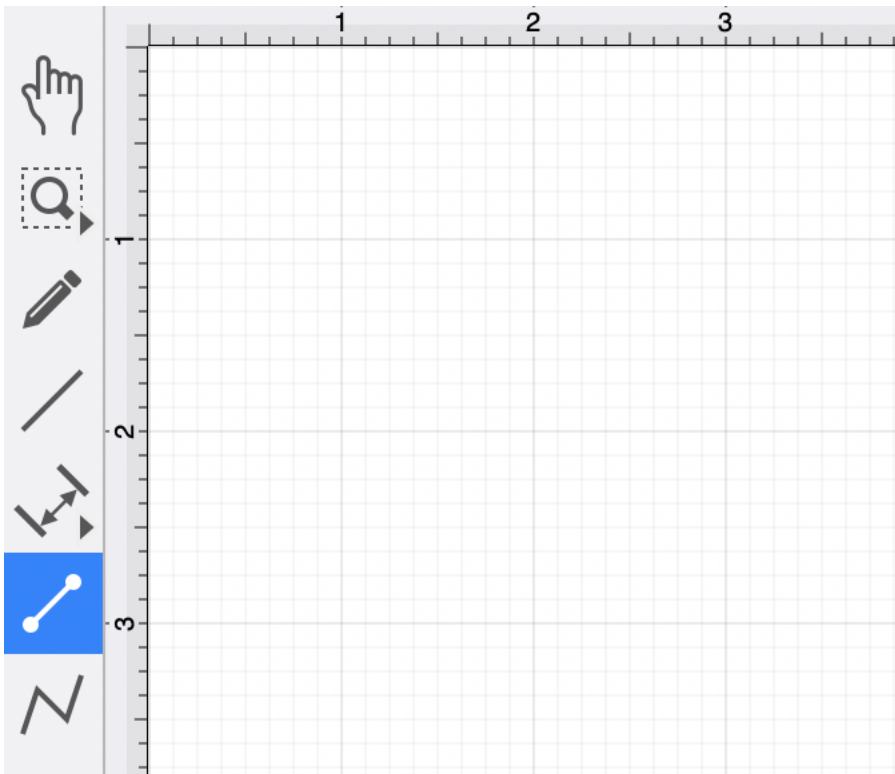
4.5.11.5. Horizontal-Vertical Connection Tool

The **Horizontal-Vertical Connection Tool** draws a connection line that originates horizontally from the right or left side of the source figure and connects vertically to the side (top) of the target figure. To select the **Horizontal-Vertical Connection Tool**, complete the following steps:

Step 1: Choose the **Horizontal-Connection-Tool** on the [Connection Type Tab](#) in the [Sidebar](#).

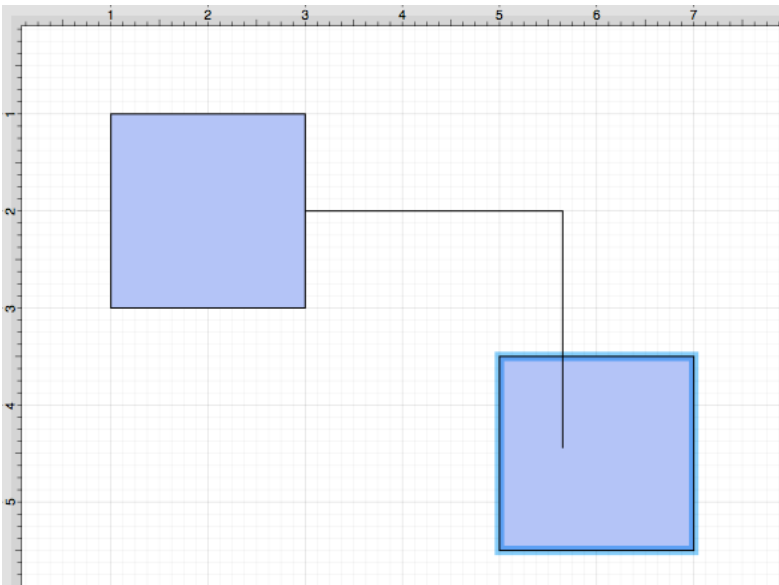
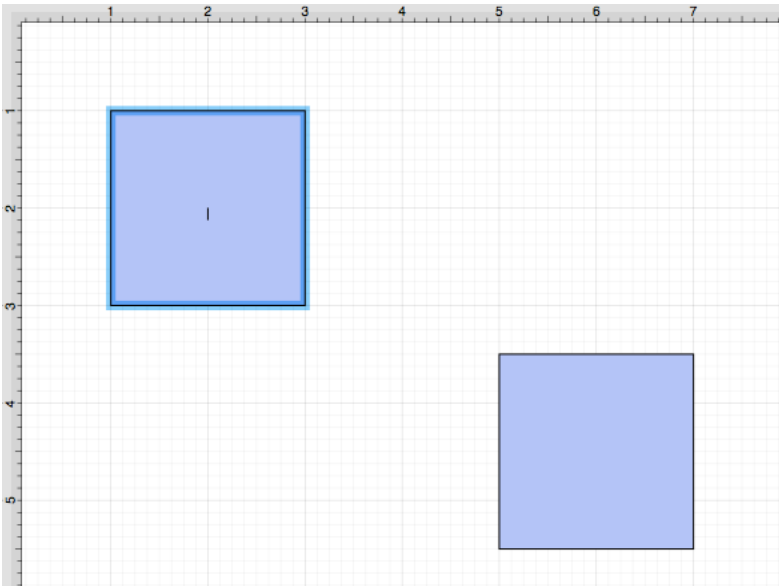


Step 2: Click on the **Connection Tool** within the [Drawing Toolbar](#).

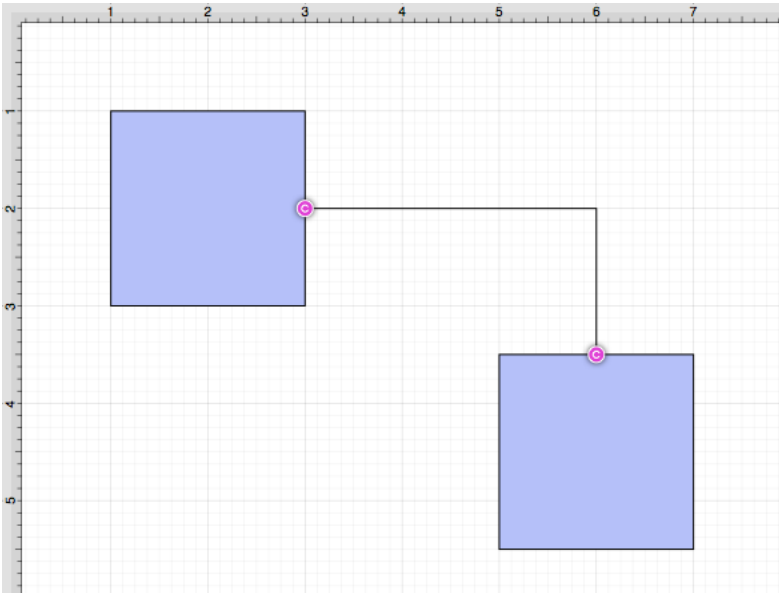


This connection between the figures is created in the same manner as with the [Line Connection Tool](#), but the connection path remains orthogonal with the source lines remaining horizontal and target lines remaining vertical.

Perform a **Click/Drag** combination from the desired starting point on the source figure to a desired end point on the target figure and then release the **Click** action to complete the connection. The selected figures will be highlighted in blue when a valid connection has been made. Refer to the images below:

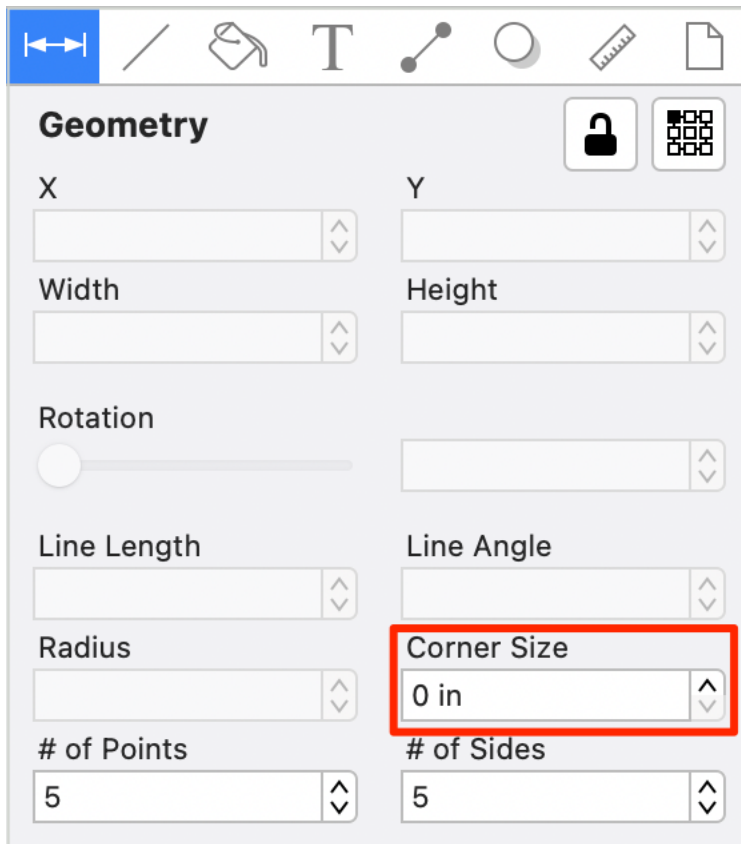


The connection line will appear as shown below:



The connection line will automatically contain squared, 90-degree angle corners. To achieve a rounded corner, you will need to change the **Corner Size** of the created connection line. Make certain the connection line has been selected, and then click on the [Geometry Tab](#) in the [Sidebar](#).

To alter the **Corner Size** value, click on the **Up** and **Down** buttons.



The image shows the 'Geometry' panel of the TouchDraw 2 for Mac application. The panel is titled 'Geometry' and contains various settings for geometric shapes. At the top right of the panel are two icons: a lock icon and a grid icon. The settings are organized into two columns. The left column includes: 'X' (a text input field), 'Width' (a text input field), 'Rotation' (a slider control), 'Line Length' (a text input field), 'Radius' (a text input field), and '# of Points' (a text input field with the value '5'). The right column includes: 'Y' (a text input field), 'Height' (a text input field), 'Line Angle' (a text input field), 'Corner Size' (a text input field with the value '0 in', which is highlighted with a red rectangle), and '# of Sides' (a text input field with the value '5'). Each text input field has small up and down arrow icons on its right side.

Geometry

X

Width

Rotation

Line Length

Radius

of Points

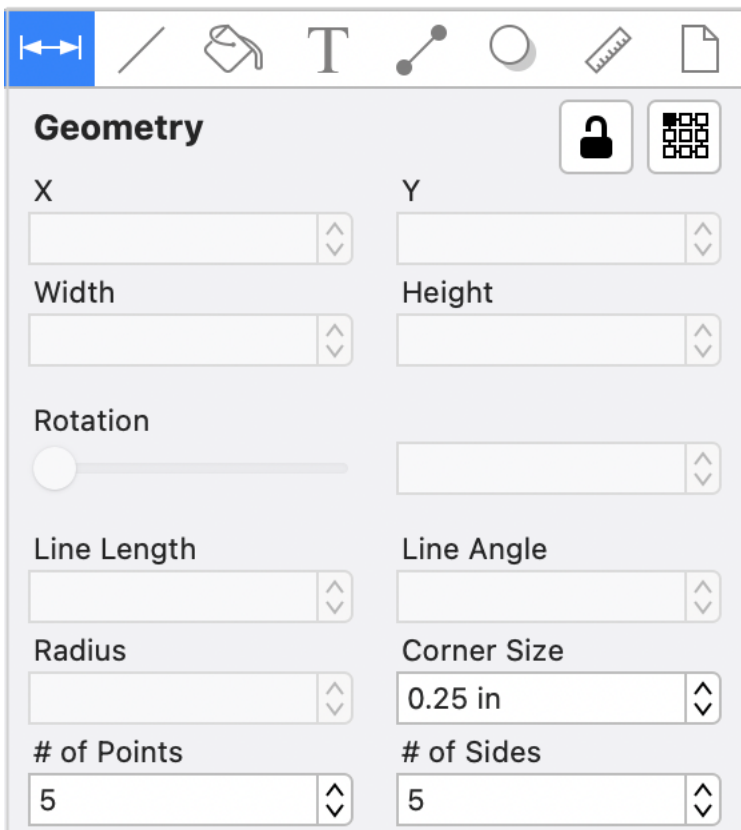
Y

Height

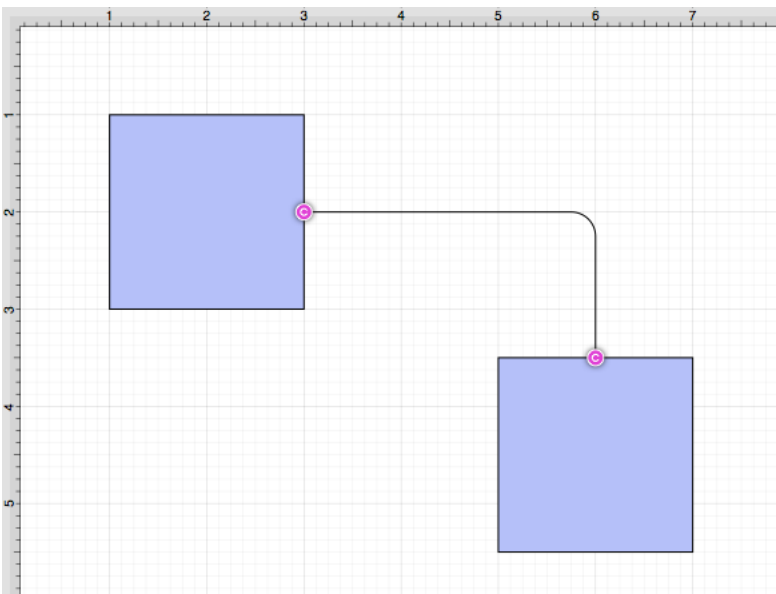
Line Angle

Corner Size

of Sides



Changing the **Corner Size** to 0.25 inches for a selected connection line causes the corners to become rounded, as shown below.



Note: Performing a **Click/Drag** combination on the second figure after the connection is established results in the connection line position being adapted to keep the two figures connected.

4.5.11.6. Vertical-Horizontal Connection Tool

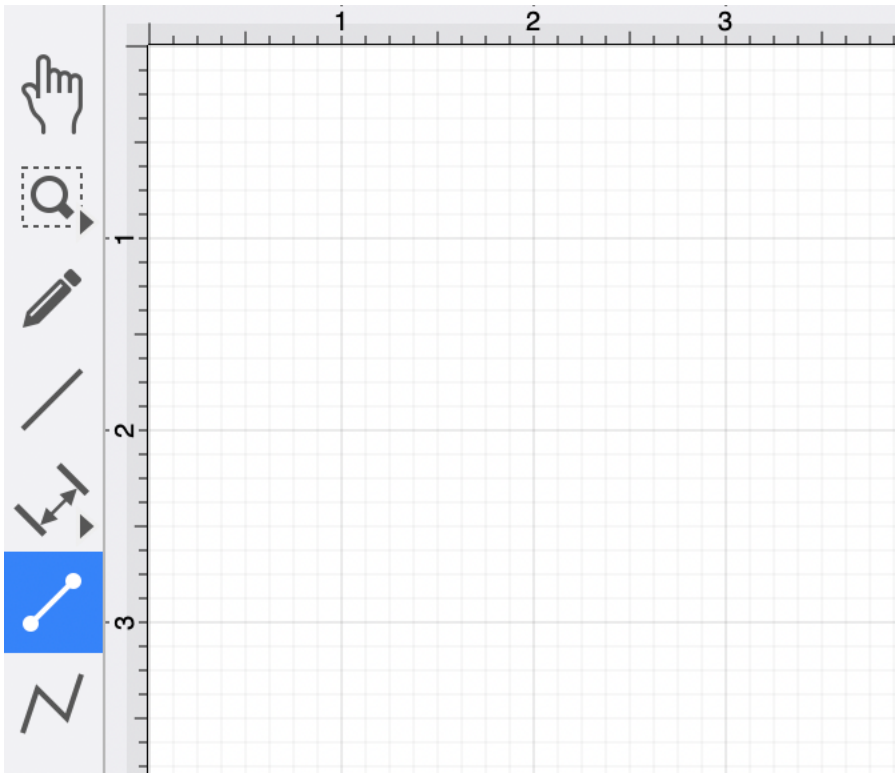
The **Vertical-Horizontal Connection Tool** draws a connection line that originates vertically from the side (either top or bottom) of the source figure and connects to the side (either left or right) of the target figure.

To select the **Vertical-Horizontal Connection Tool**, complete the following steps:

Step 1: Click on the **Vertical-Horizontal Connection Tool** option in the [Connection Type Tab](#) within the [Sidebar](#).

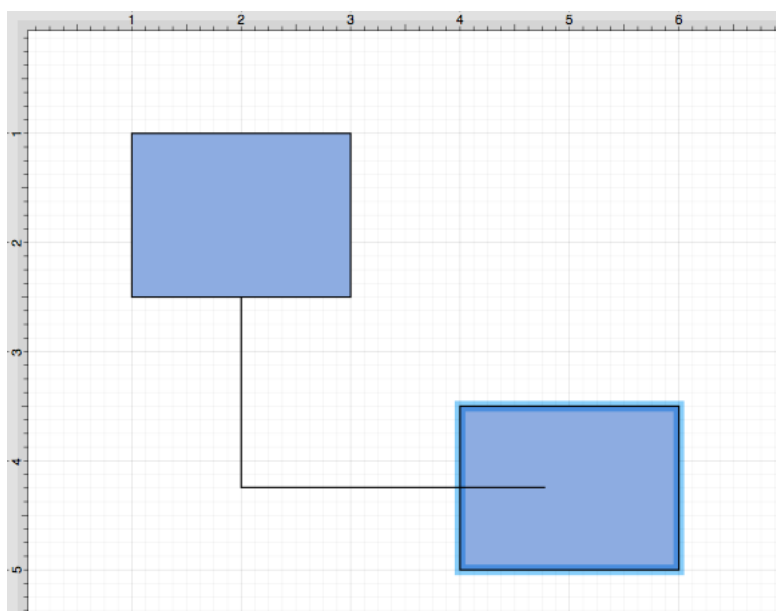
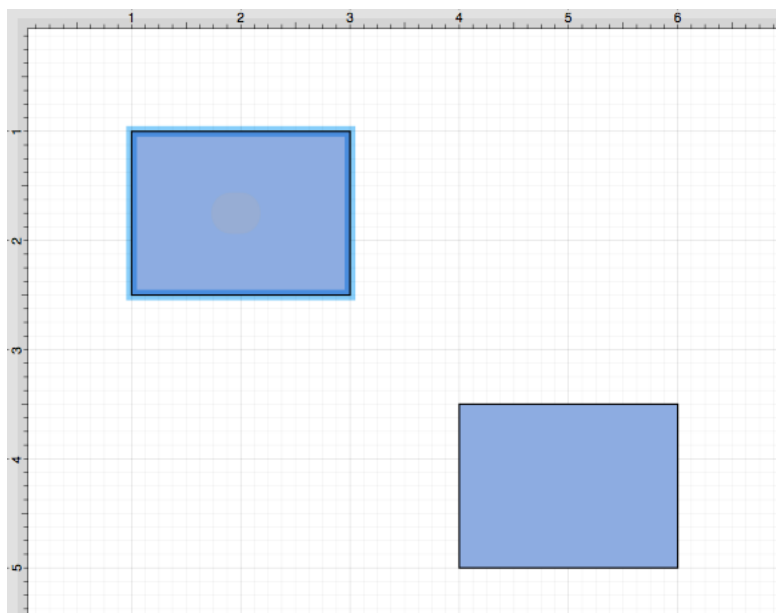


Step 2: Then select the **Connection Tool** within the [Drawing Toolbar](#).

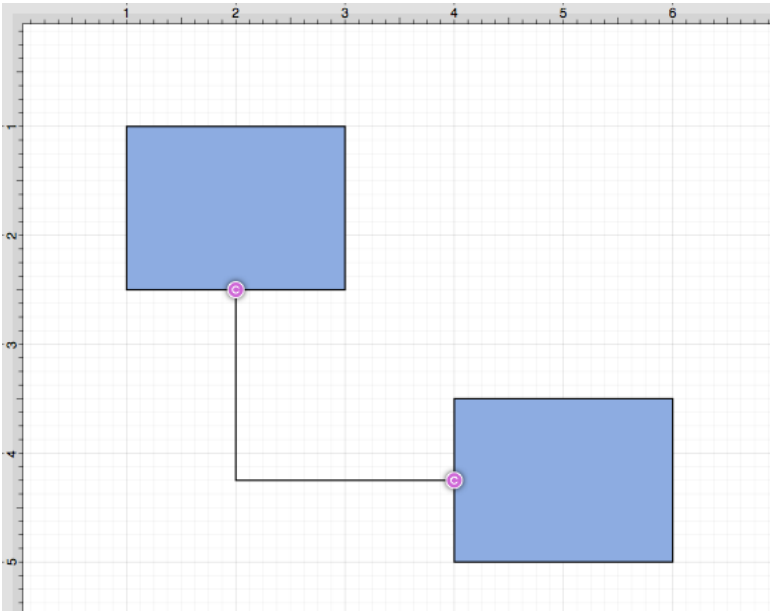


This connection between the figures is created in the same manner as with the [Line Connection Tool](#), but the connection path remains orthogonal with the source lines remaining vertical and target lines remaining horizontal.

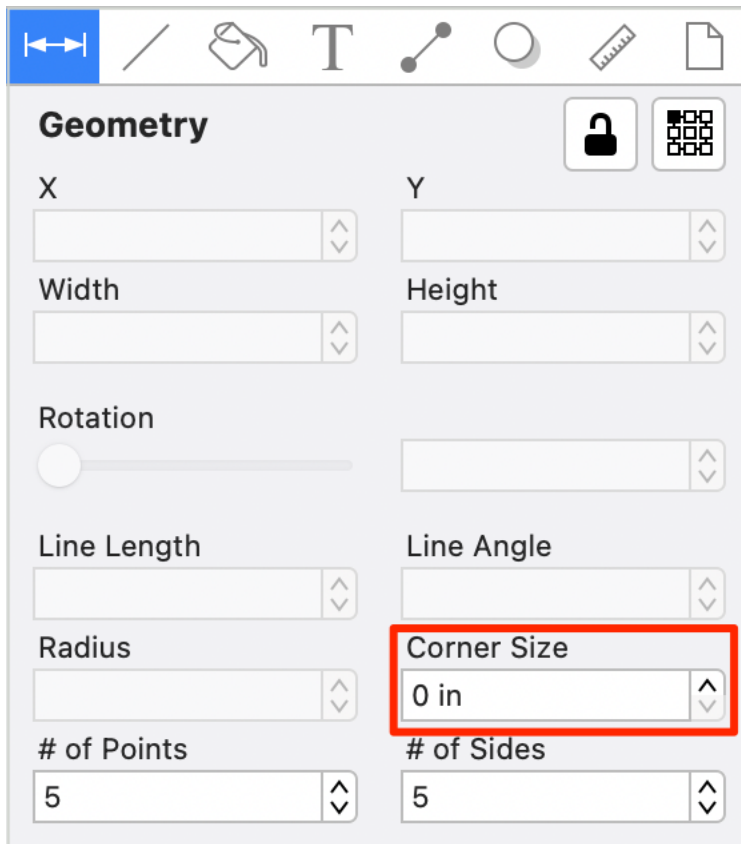
Perform a **Click/Drag** combination from the desired starting point on the source figure to a desired end point on the target figure, and then release the **Click** action to complete the connection. The selected figures will be highlighted in blue when a valid connection has been made. Refer to the images below:



The completed connection will appear as shown below.



The connection line will automatically contain a squared 90-degree angle corner. To change the **Corner Size** of the created connection line, make certain it is selected. Then click on the [Geometry Tab](#) in the [Sidebar](#) and alter the **Corner Size** value by clicking on the **Up** and **Down** buttons.



The image shows the 'Geometry' panel of the TouchDraw 2 for Mac application. The panel is titled 'Geometry' and contains various settings for geometric shapes. At the top right of the panel are two icons: a lock icon and a grid icon. The settings are organized into two columns. The left column includes: 'X' (a text input field), 'Width' (a text input field), 'Rotation' (a slider control), 'Line Length' (a text input field), 'Radius' (a text input field), and '# of Points' (a text input field with the value '5'). The right column includes: 'Y' (a text input field), 'Height' (a text input field), 'Line Angle' (a text input field), 'Corner Size' (a text input field with the value '0 in', which is highlighted with a red rectangle), and '# of Sides' (a text input field with the value '5'). Each text input field has small up and down arrow icons on its right side.

Geometry

X

Width

Rotation

Line Length

Radius

of Points

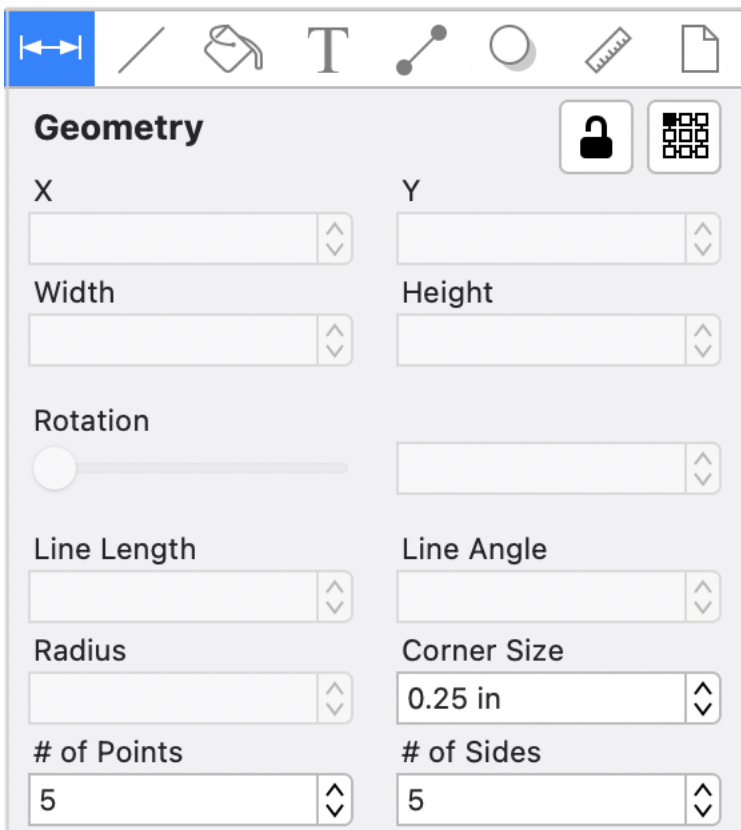
Y

Height

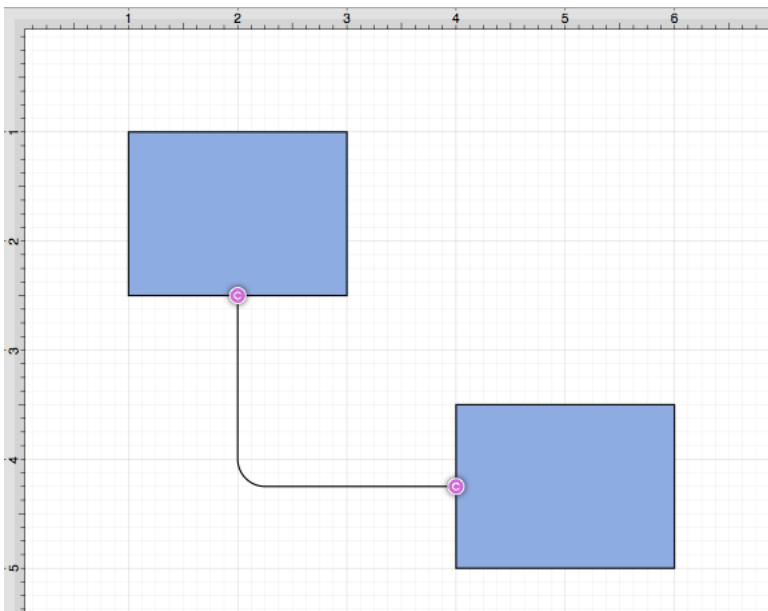
Line Angle

Corner Size

of Sides



Changing the **Corner Size** to 0.25 inches for a selected connection line causes the corners to become curved, as shown below.



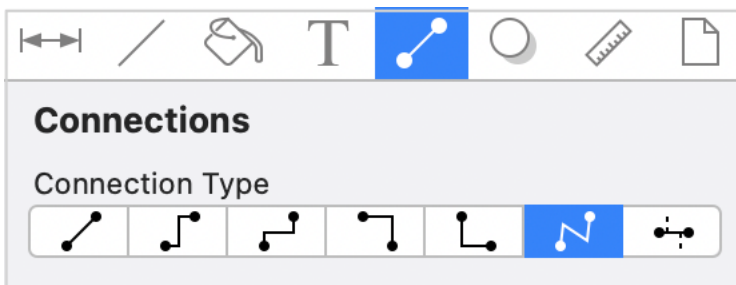
Note: Performing a **Click/Drag** combination on the second figure after the connection is established results in the connection line position being adapted to keep the two figures connected.

4.5.11.7. Path Connection Tool

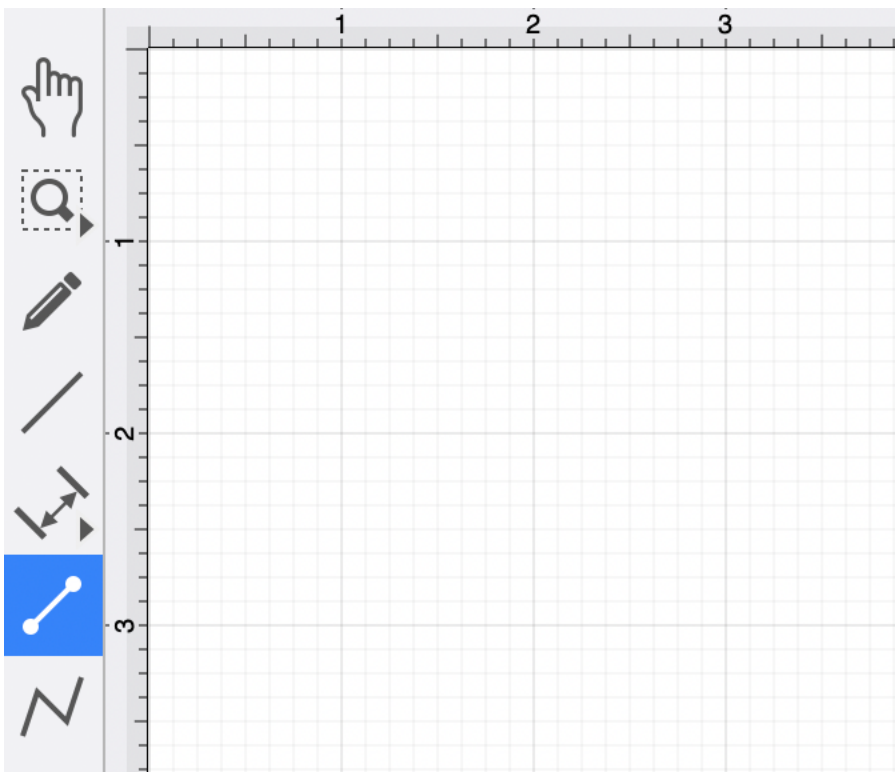
The **Path Connection Tool** creates a path connection that connects two shapes. As with paths created with the [Path Tool](#), path connections can be manipulated to add additional line or curve segments.

To select the **Path Connection Tool**, complete the following steps:

Step 1: Click on the **Path Connection Tool** option located on the [Connection Type Tab](#) in the [Sidebar](#).

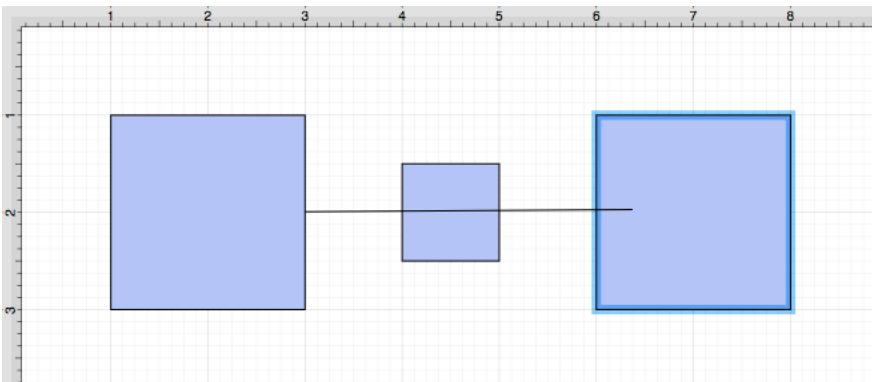
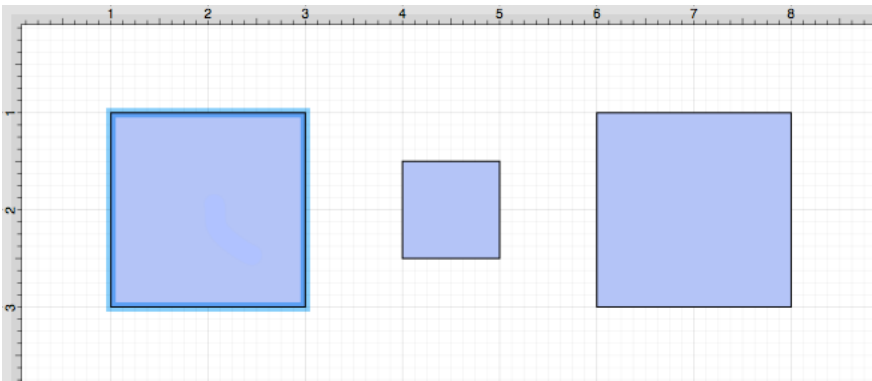


Step 2: Then select the Connection Tool within the [Drawing Toolbar](#).

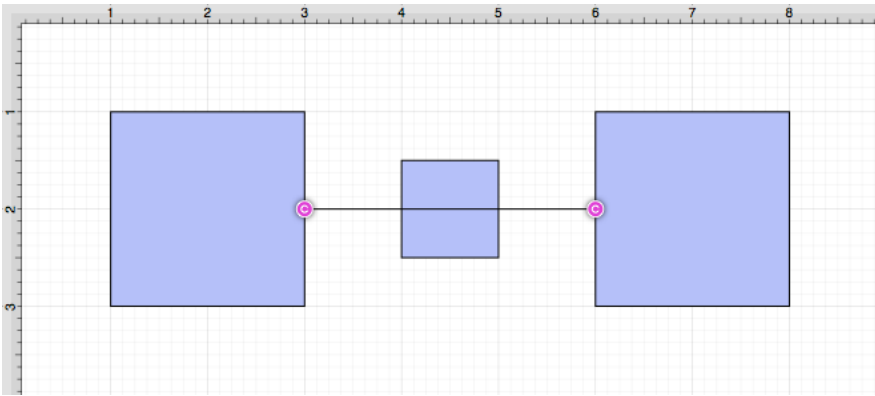


This connection between the figures is created in the same manner as with the [Line Connection Tool](#), but the created path can be modified just as items generated with the [Path Tool](#). See the [handling paths](#) section of this documentation to learn more.

Perform a **Click/Drag** combination from the desired starting point on the source figure to a desired end point on the target figure and then release the **Click** action to complete the connection. The selected figures will be highlighted in blue when a valid connection has been made. Refer to the images below:



The completed connection will appear as shown below.

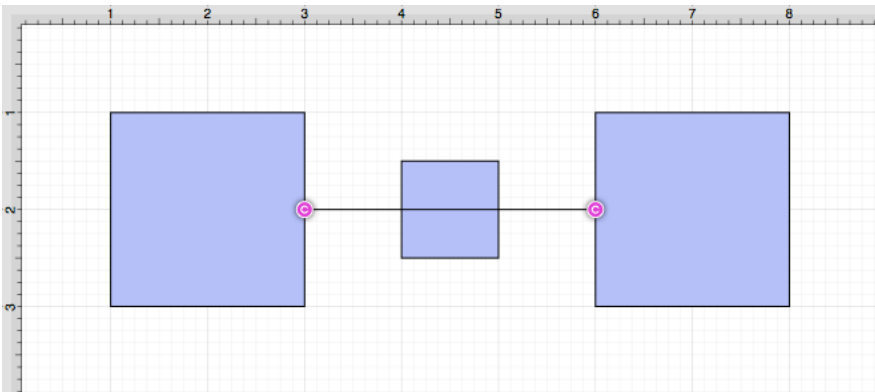


Note: Performing a **Click/Drag** combination on the second figure after the connection is established results in the connection line position being adapted to keep the two figures connected.

Altering the Route of Path Connection Lines

Once the **Path Connection Line** has been added to the desired target figure from the selected source figure, it can be manipulated in the same manner as a [Path Figure](#).

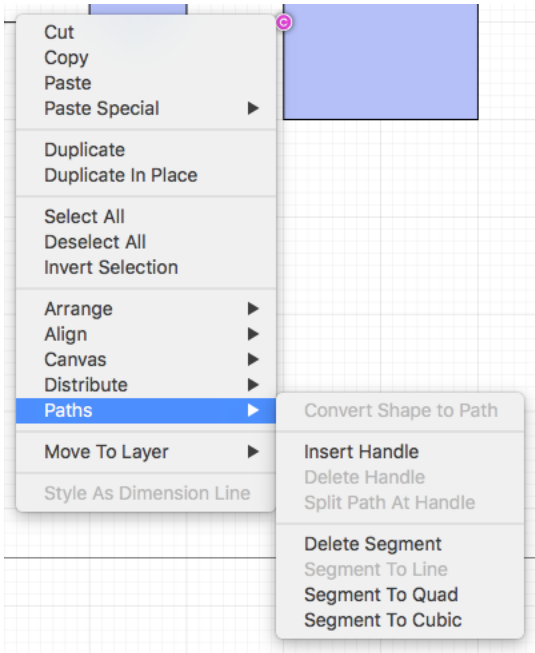
In this example, the connection line currently goes through the middle rectangle.



To route the **Path Connection Line** around another figure, handles must be added to the connection line, or it must be converted to a quadratic or cubic segment.

These options can be accessed by performing a **Right Click (Control/Click)** on the connection line to open the [Contextual Menu](#) and then selecting the **Paths Submenu**.

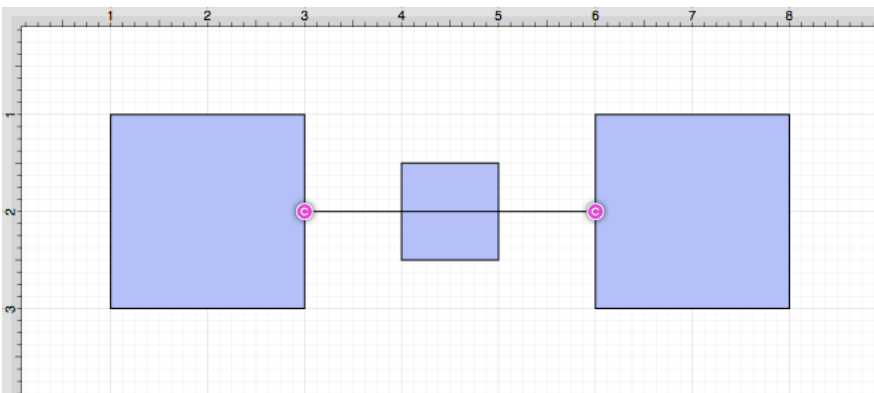
Several options will appear within the [Contextual Menu](#) for modifying the connection line and routing it around a specific figure. Handles or curved segments can be added to alter the route of the connection line.



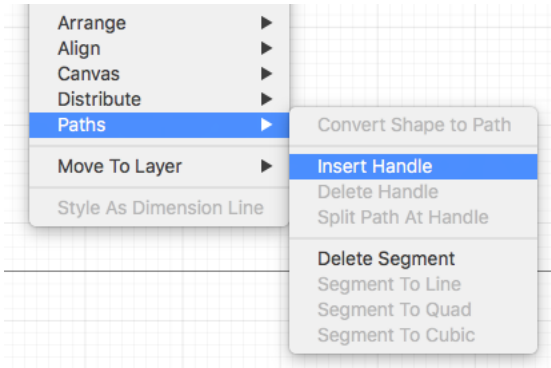
Note: If **Delete Segment** is selected without adding any additional handles or segments, the connection line will be removed entirely from the drawing.

Example 1: Inserting Handles

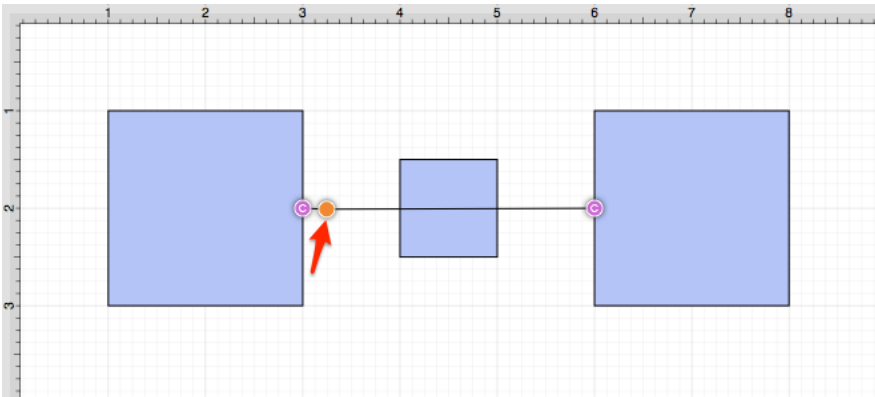
Inserting handles and then dragging them to desired points in the Drawing Canvas is one method for altering the route of a **Path Connection Line**. Follow the steps below to learn how to do so.



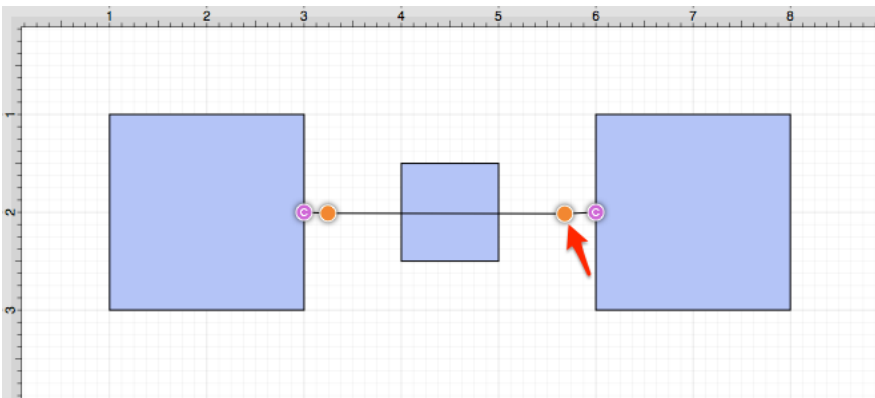
Step 1: Perform a **Right Click (Control/Click)** on the connection line in a location to the left of the crossed figure and then select **Insert Handle** from the Paths Submenu.



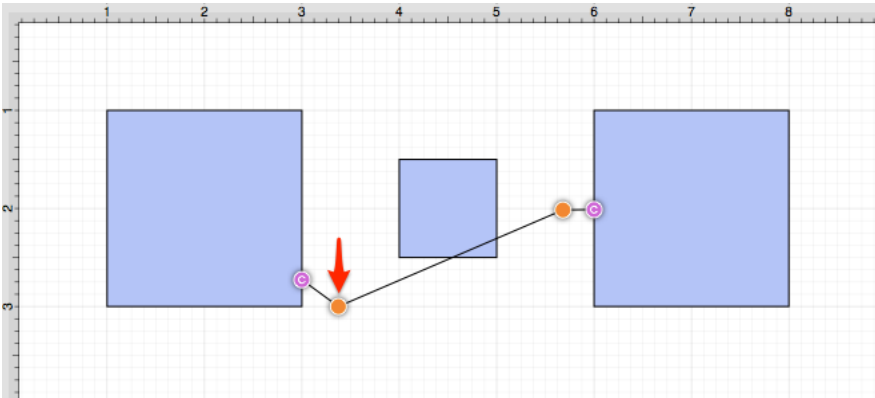
Step 2: A new **Path Handle** (Orange) will appear within the **Path Connection Line** as shown below:



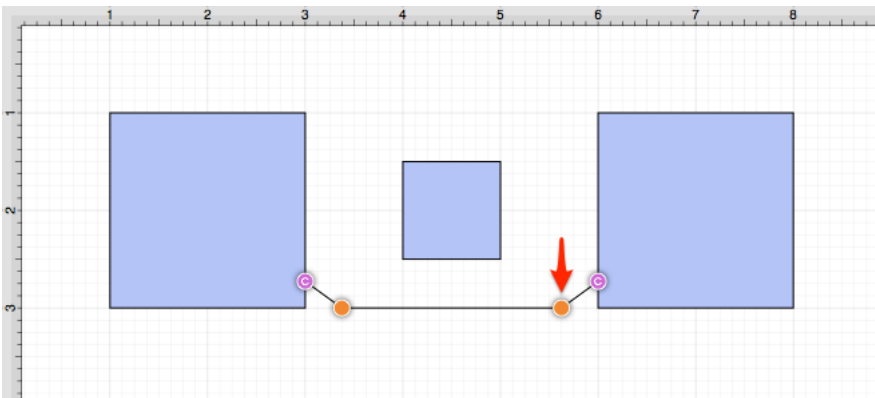
Step 3: Perform a **Right Click (Control/Click)** on the connection line in a location to the right of the crossed figure and then select **Insert Handle** from the menu again to add another Path Handle (Orange).



Step 4: Then click and drag down or up on the left handle to change the direction/path of the connection line.



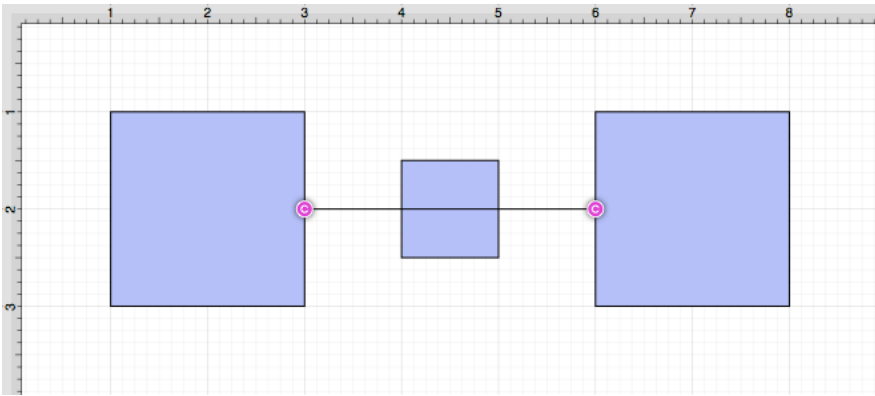
Step 5: Notice that the line still intersects the figure. Click and drag on the right handle to continue altering the direction/path of the connection line. This will result in the straight segment residing below the figure, and a successfully routed Path Connection Line.



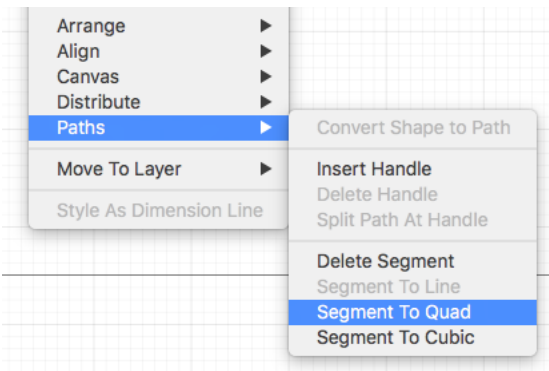
Note: The handles may be moved in any direction. For this example, both handles are moved down to route the connection line around the figure.

Example 2: Segment to Quad

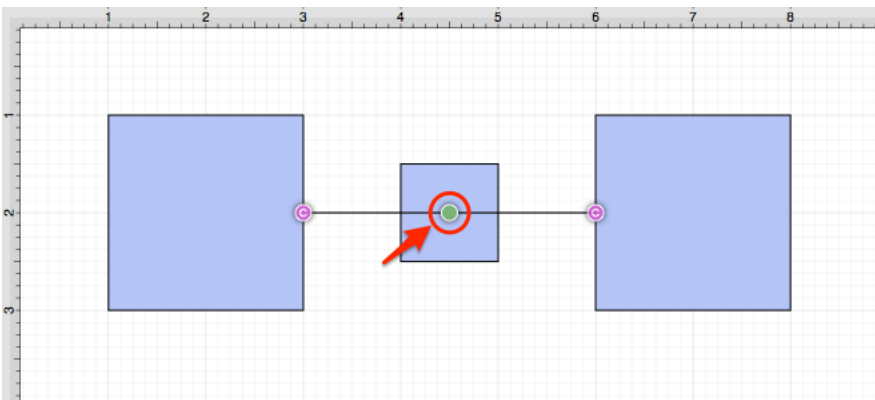
A **Path Connection Line** can also be routed differently by converting the line to a quadratic segment. This example will use the same original figures as shown previously and display how to convert the current connection line to a quadratic segment for path routing.



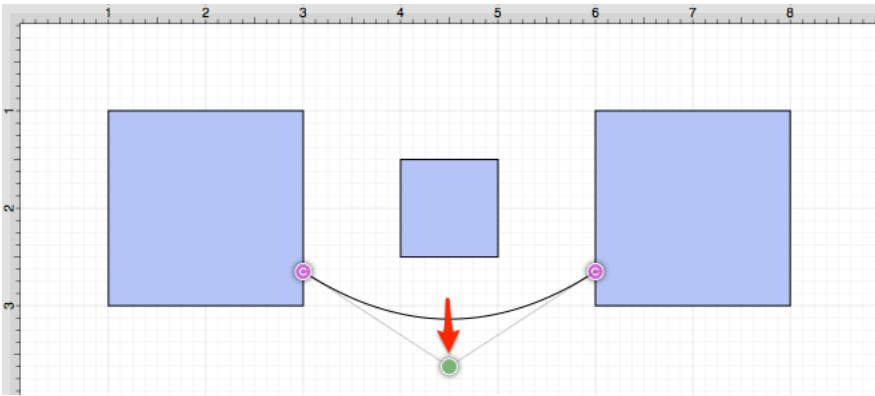
Step 1: Perform a **Right Click (Control/Click)** on the connection line and select **Segment to Quad** from the **Paths Submenu**.



Step 2: A **Control Point Handle (Green)** will appear in the middle of the connection line.

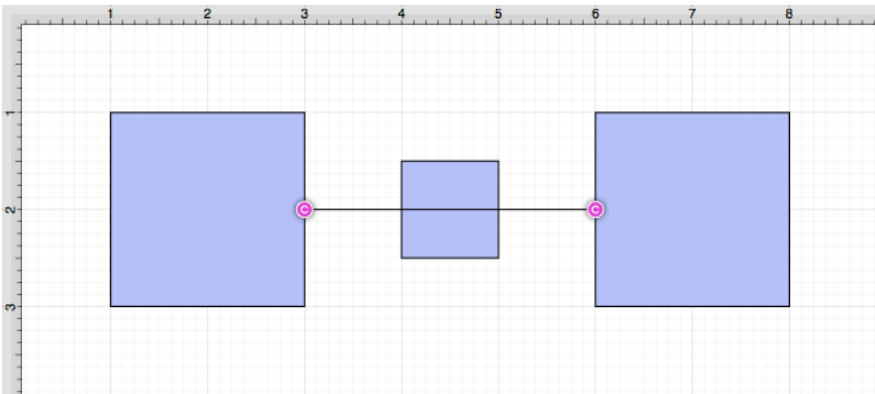


Step 3 Click and drag the handle downward (or upward) to create a curved segment. The **Control Point Handle** may be moved in any direction; however, it is moved downward below the figure for this example.

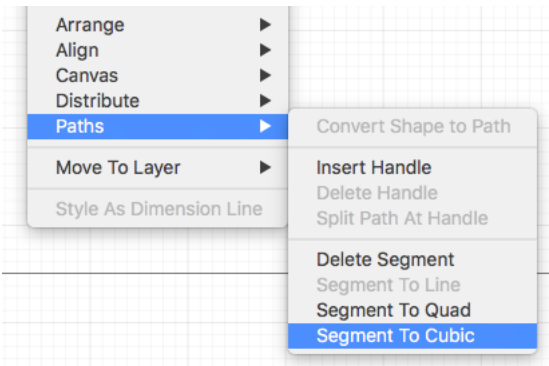


Example 3: Segment to Cubic

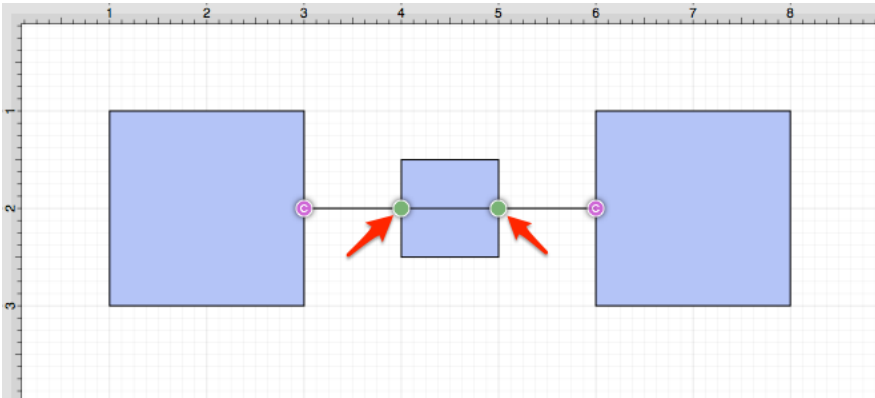
A **Path Connection Line** can also be routed differently by converting the line to a cubic segment. This example will use the same original figures as shown previously and display how to convert the current connection line to a quadratic segment for path routing.



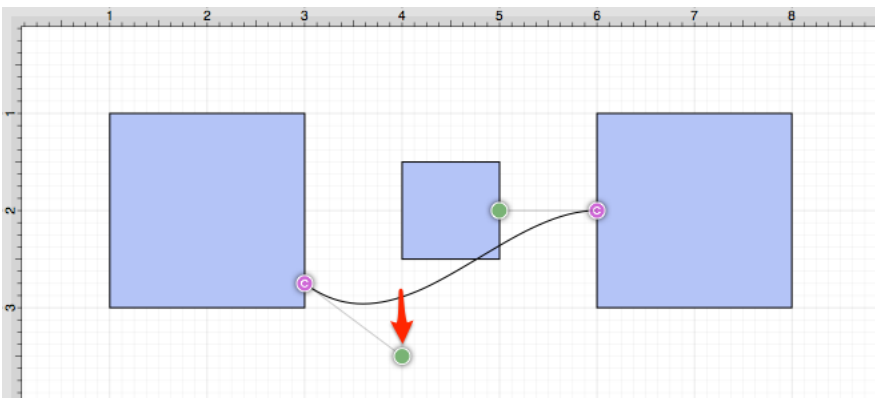
Step 1: Perform a **Right Click (Control/Click)** on the connection line and select **Segment to Cubic** from the menu.



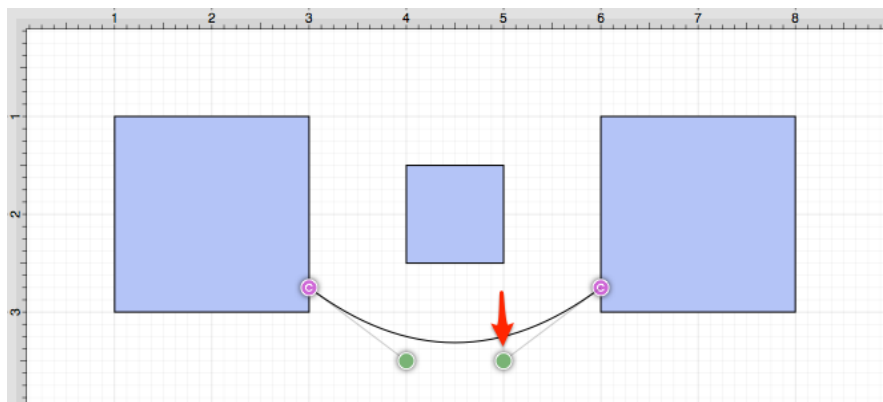
Step 2: Two **Control Point Handles (Green)** will appear within the connection line.



Step 3: Click and drag in any direction on the **left handle** to change the position of the **Path Connection Line**. In this example, both handles are dragged downward.



Step 4: Then do the same for the **right handle** to finish routing the connection line around a figure within a drawing.



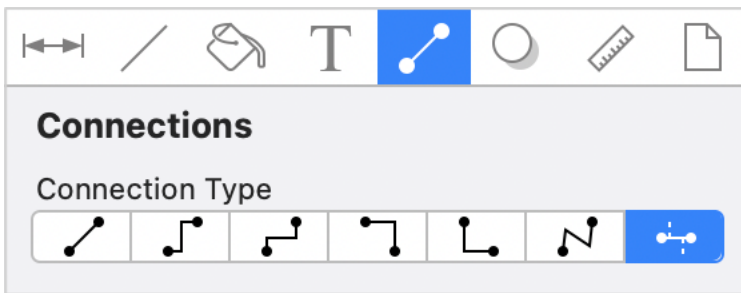
4.5.11.8. Hub Connection Tool

The **Hub Connection Tool** creates a connection line that is able to receive connections and is typically used for creating network diagrams.

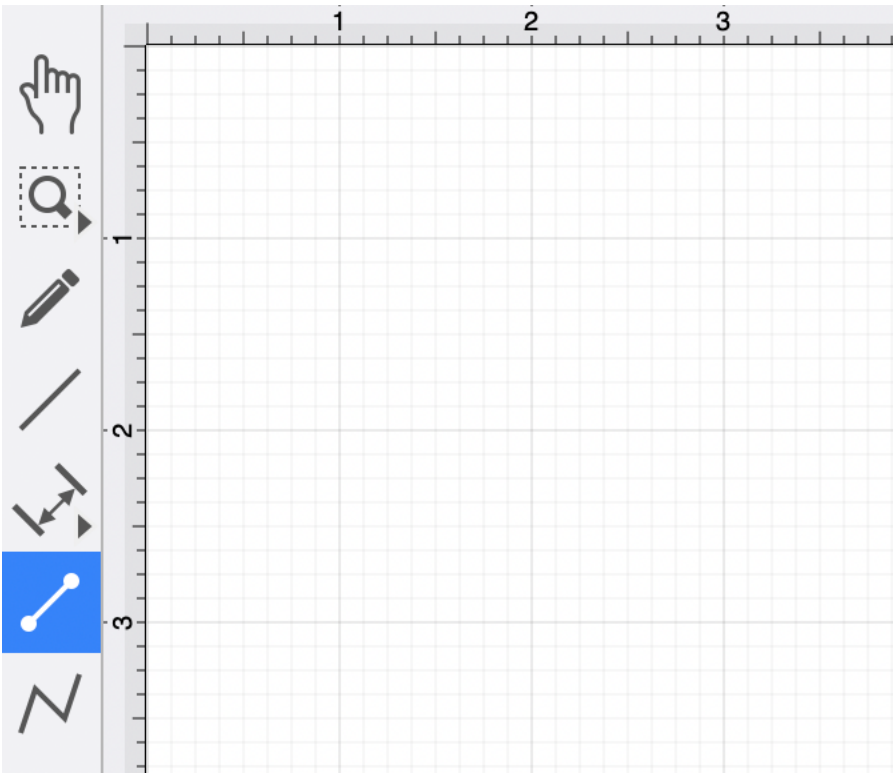
The connection line can originate from any side of the source figure and connects to any side of the target figure or another hub connection line.

To select the **Hub Connection Tool**, complete the following steps:

Step 1: Click on the **Hub Connection Tool** option within the [Connection Type Tab](#) in the [Sidebar](#).



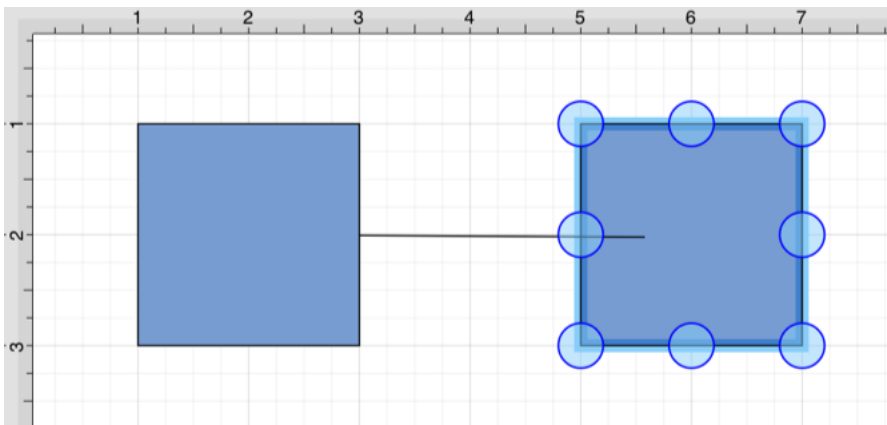
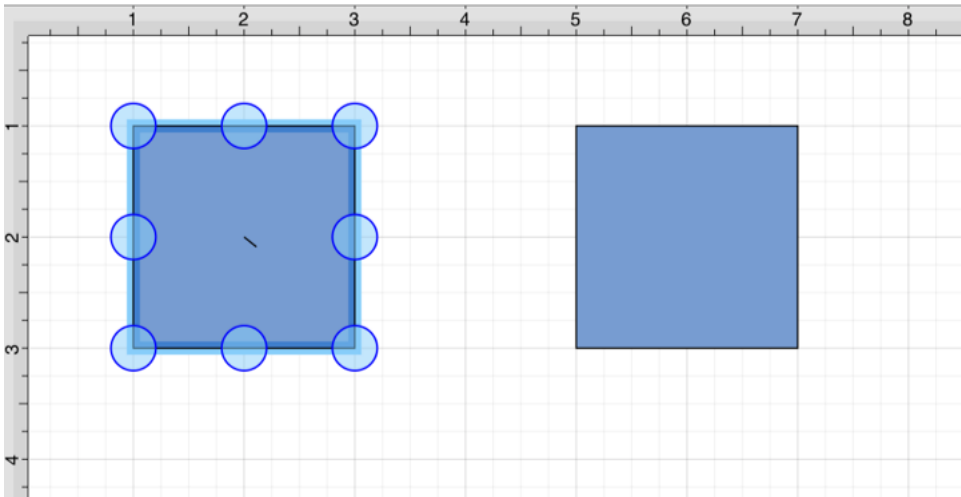
Step 2: Click on the **Connection Tool** within the [Drawing Toolbar](#).



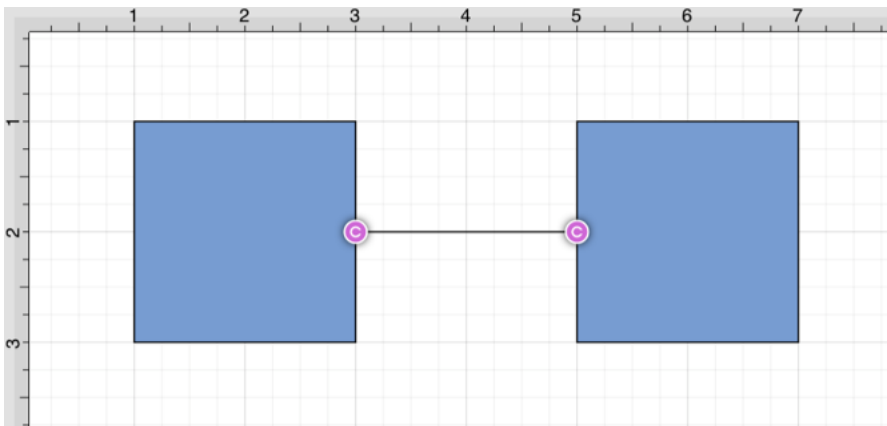
This connection between the figures is created in the same manner as with the [Line Connection Tool](#); however, the connection path can be placed between two hub connection lines to create a networking or alternative type of diagram.

Perform a **Click/Drag** combination from the desired starting point on the source figure to the desired end point on the target figure or hub connection line, and then release the **Click** action to complete the connection.

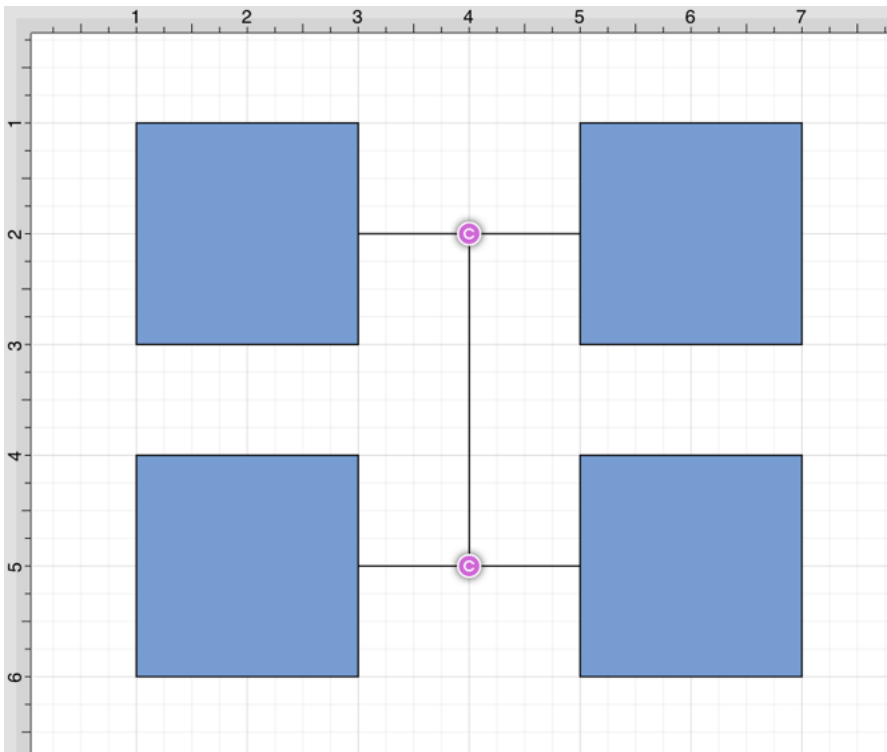
The selected figures or hub connection lines will be highlighted in blue when a valid connection has been made. Refer to the images below to see a hub connection between figures:



The completed connection line will appear as below.



The following example shows a hub connection line joining two previously drawn hub connection lines.

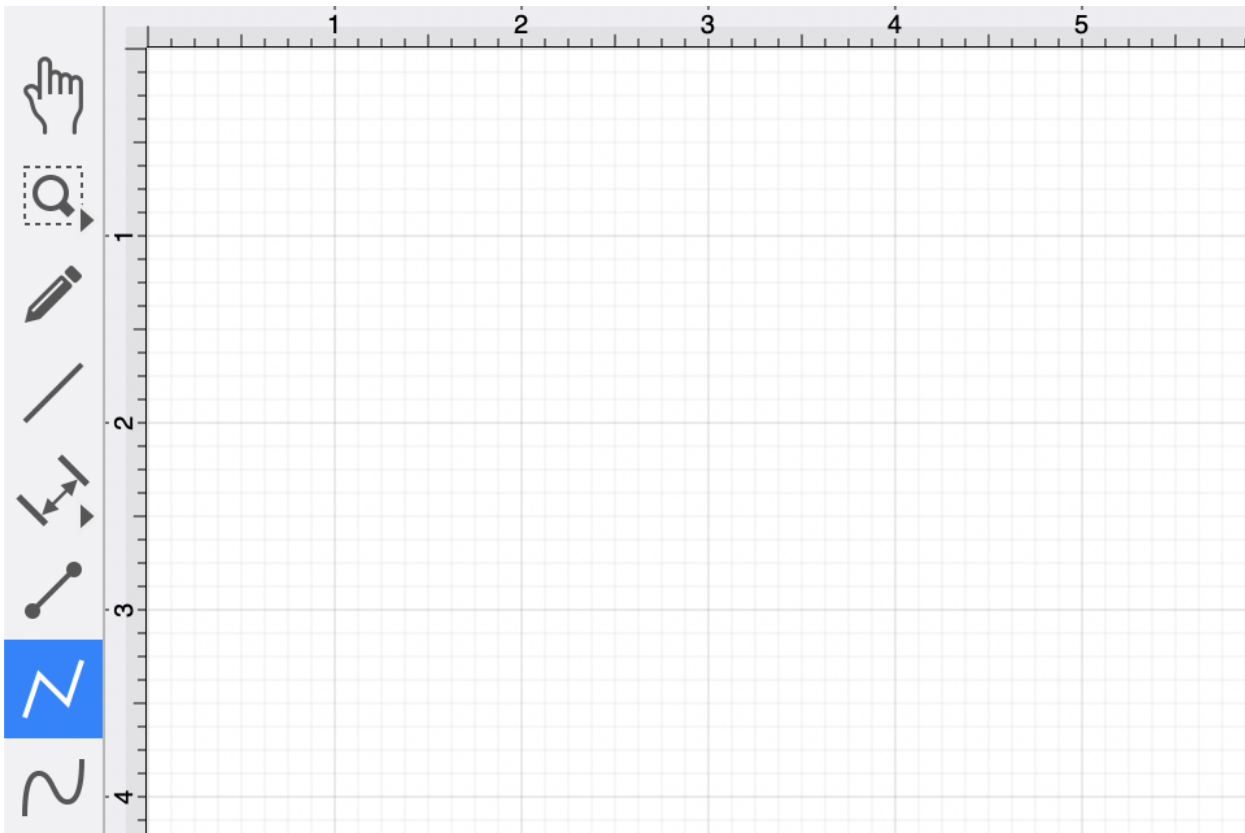


Note: Performing a **Click/Drag** combination on the second figure after the connection is established results in the connection line position being adapted to keep the two figures connected.

4.5.12. Polyline Tool

The **Polyline Tool** can be used to draw line segments only and functions similar to the [Path Tool](#). A click/drag combination can be used to drag the cursor on the [Drawing Canvas](#) and will result in line endpoints.

To use the tool, first **Click** on the **Polyline Tool Button** in the [Drawing Toolbar](#) to select it, and then use the actions listed below to create a polyline or closed polygon.



The following actions are available when using the Polyline Tool:

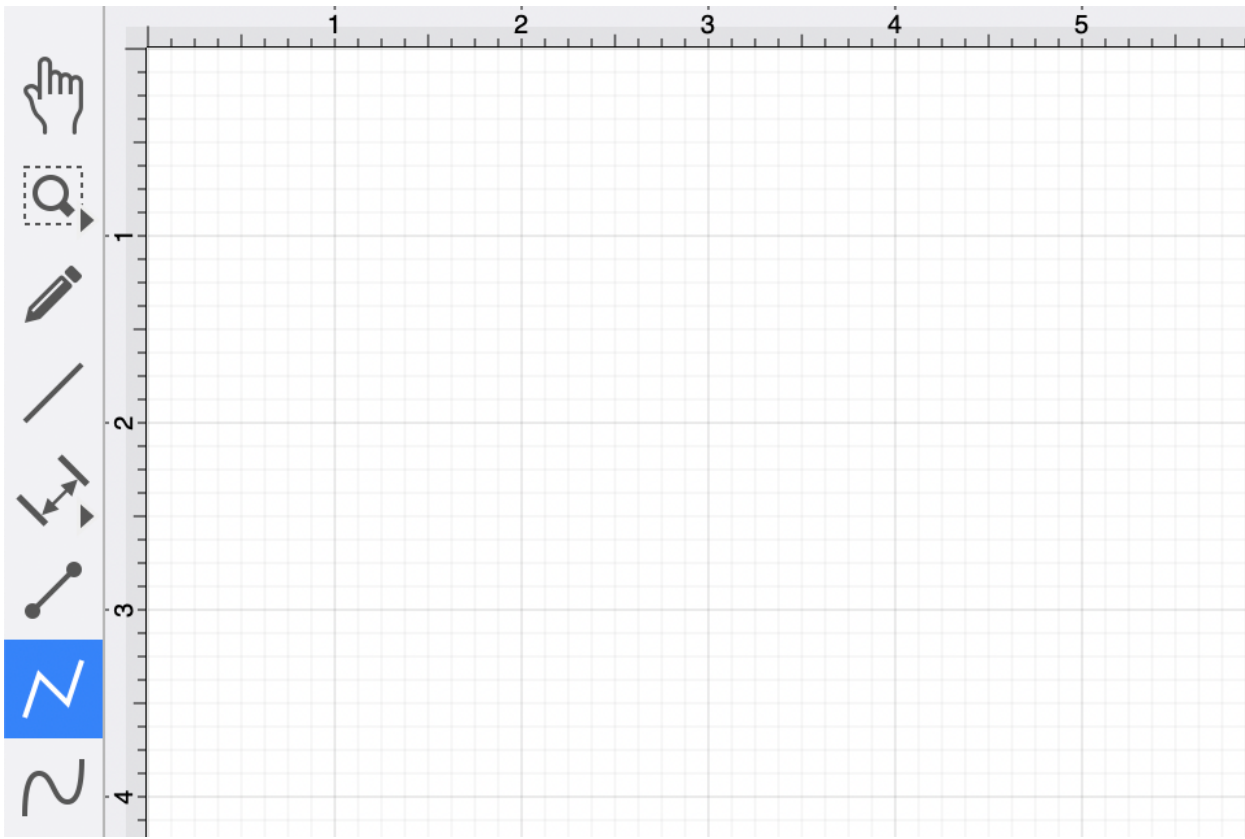
Action	Description
Click/Drag	A Click/Drag combination can be used to create a line end point and corresponding control point in one action. When using a Click/Drag gesture combination, do not release your finger until the line has been created. After the line has been created, additional gestures may be used to continue adding to the polyline figure.

Action	Description
Single Click	A Single Click adds a line end point to the figure. The line end point can then be dragged to any desired location on the Drawing Canvas .
Double Click	A Double Click action anywhere on the Drawing Canvas completes the current polyline connection and causes the Selection Tool to be automatically chosen as the active drawing tool.
Triple Tap	A Triple Tap will end the creation of the current polyline and close it to create a closed polygon.

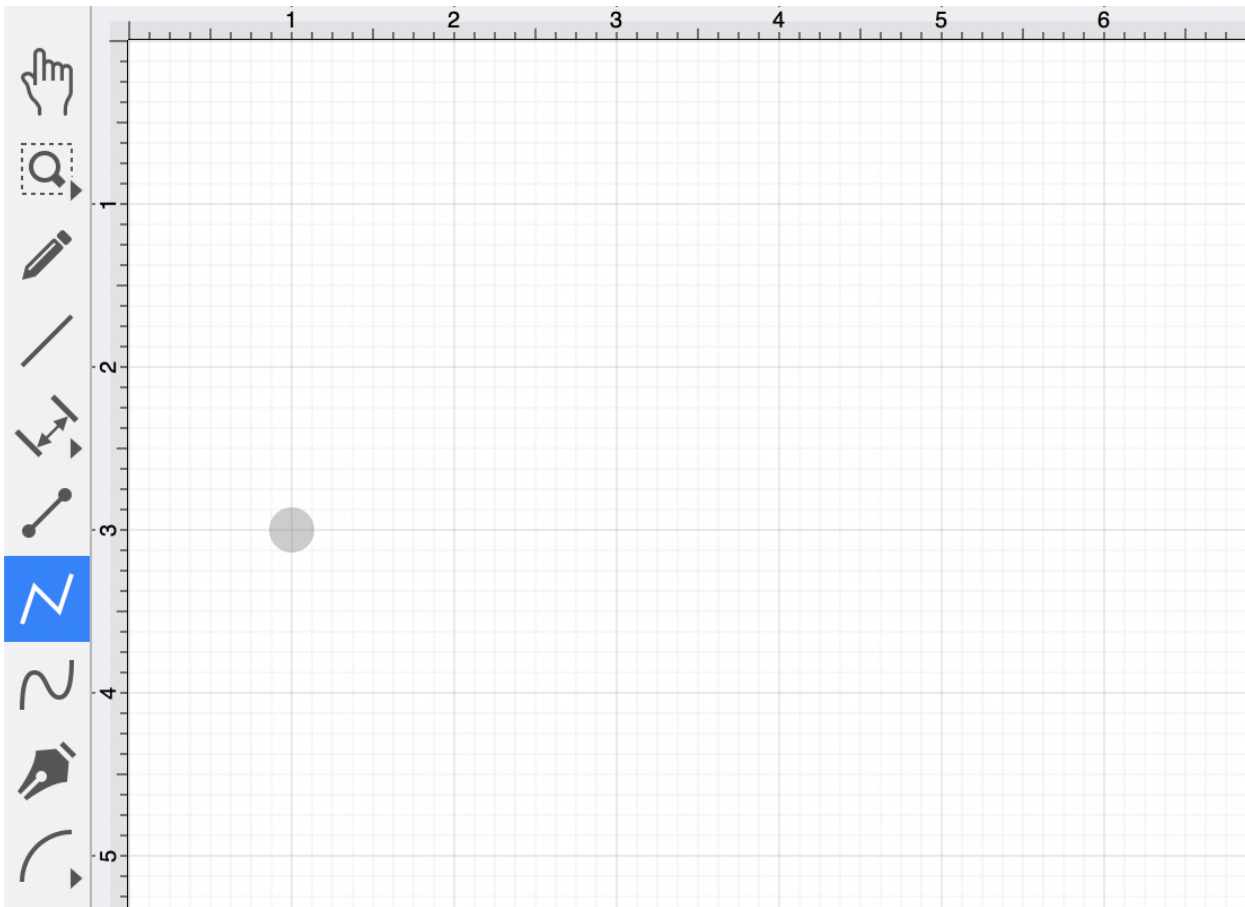
How to use the Polyline Tool

The following screenshots and description show how to use the polyline tool:

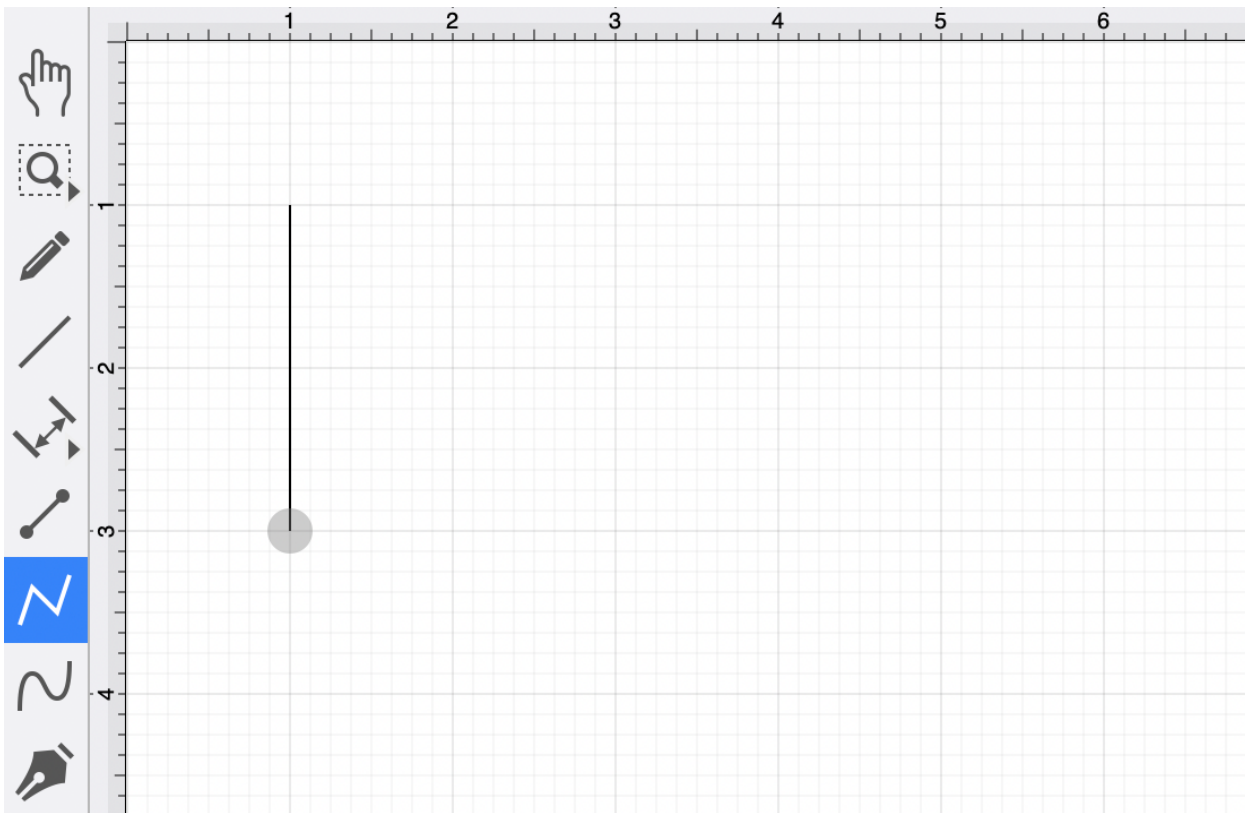
Select the **Polyline Tool** in the [Drawing Toolbar](#).



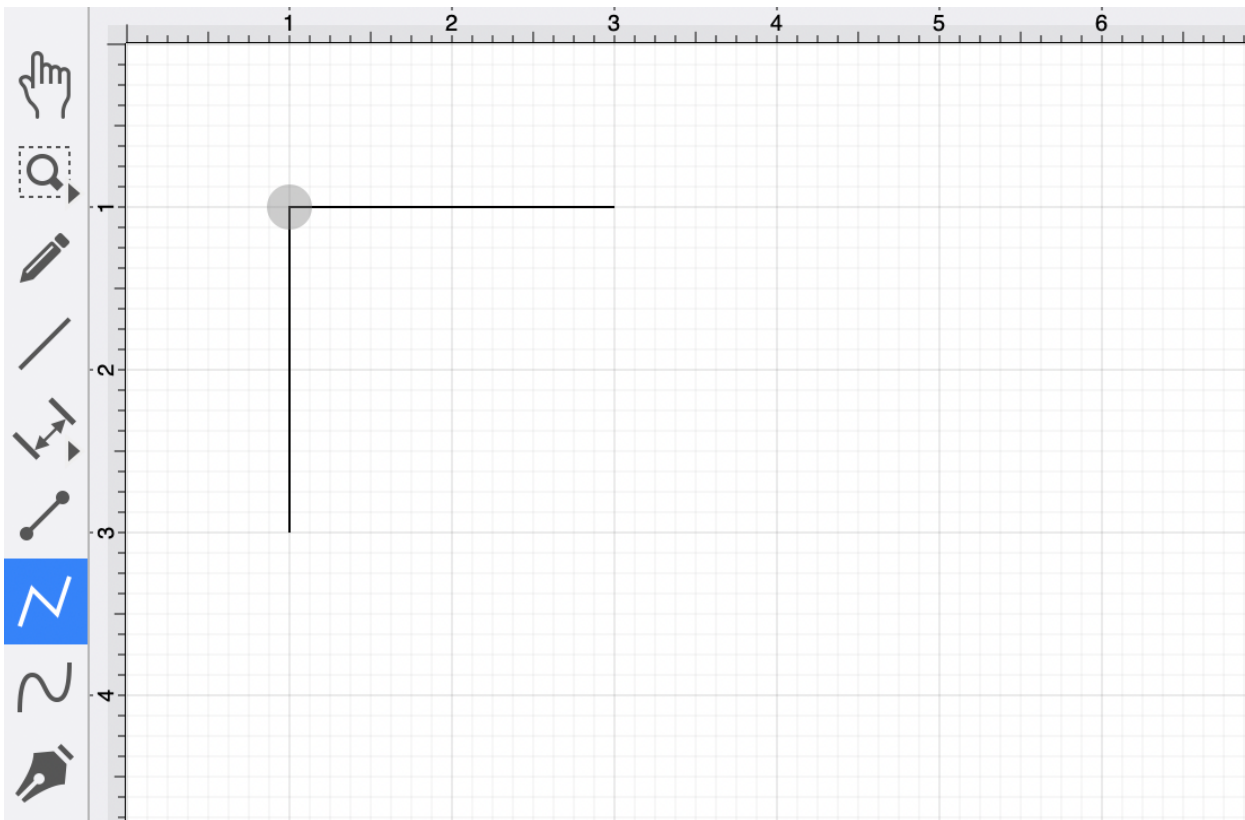
Perform a **Single Click** on the [Drawing Canvas](#) at the location where the starting point should be established for the polyline. A gray handle will appear in this specific location to signify the starting point of the polyline.



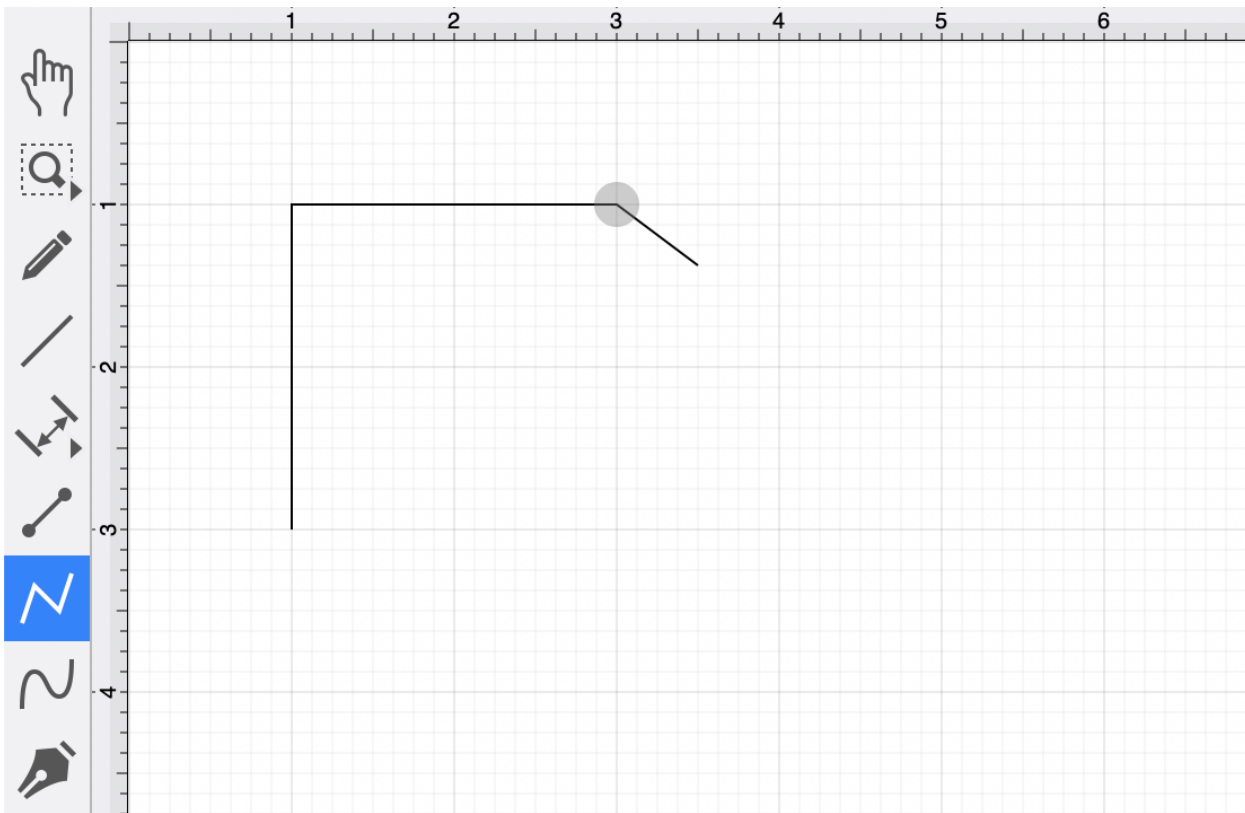
Then **Click** on the [Drawing Canvas](#) at the location where the second line end point should be for the polyline. This action draws a line between these two set points. It also creates a second gray handle at the point where the first segment ends and the second one begins.



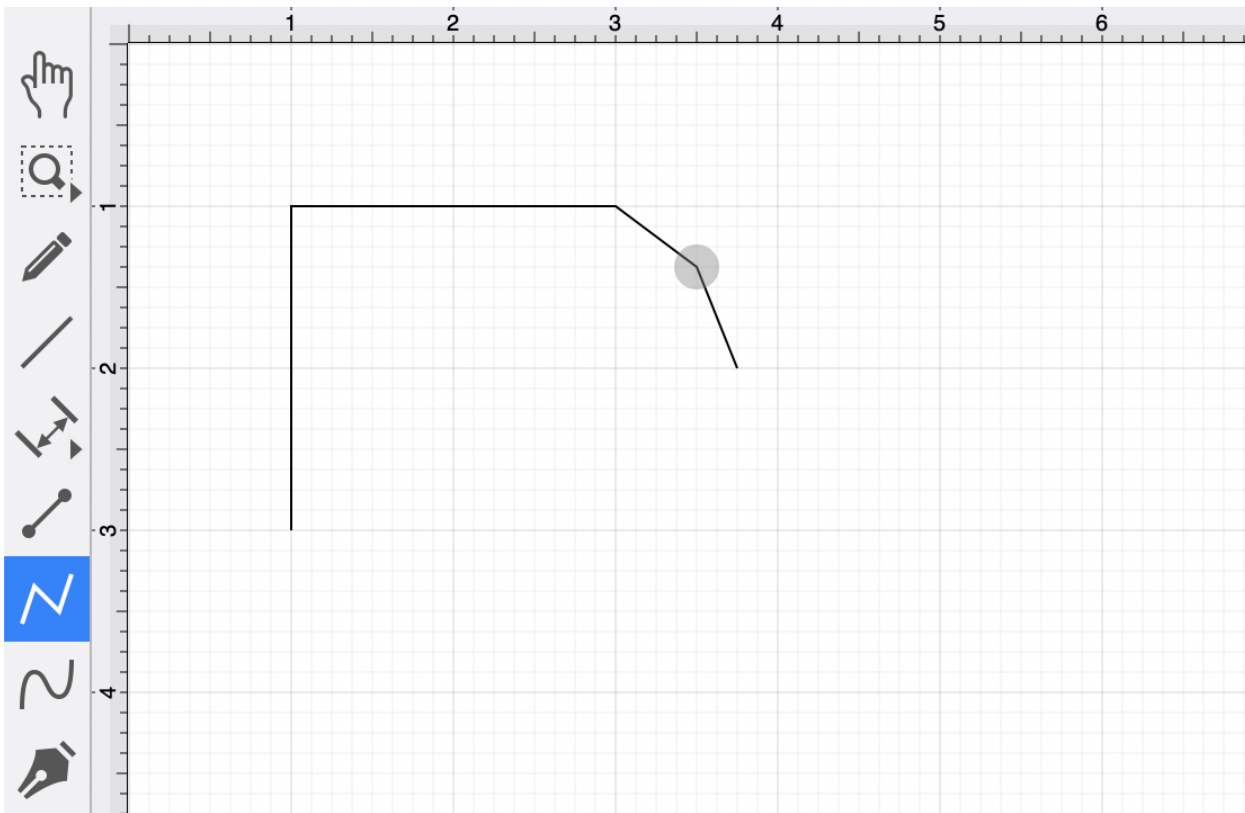
Click on the [Drawing Canvas](#) at the location where the third line end point should be for the polyline. As before, the action will cause a line to be drawn from the last point to the newest point and add a gray handle to the drawing.



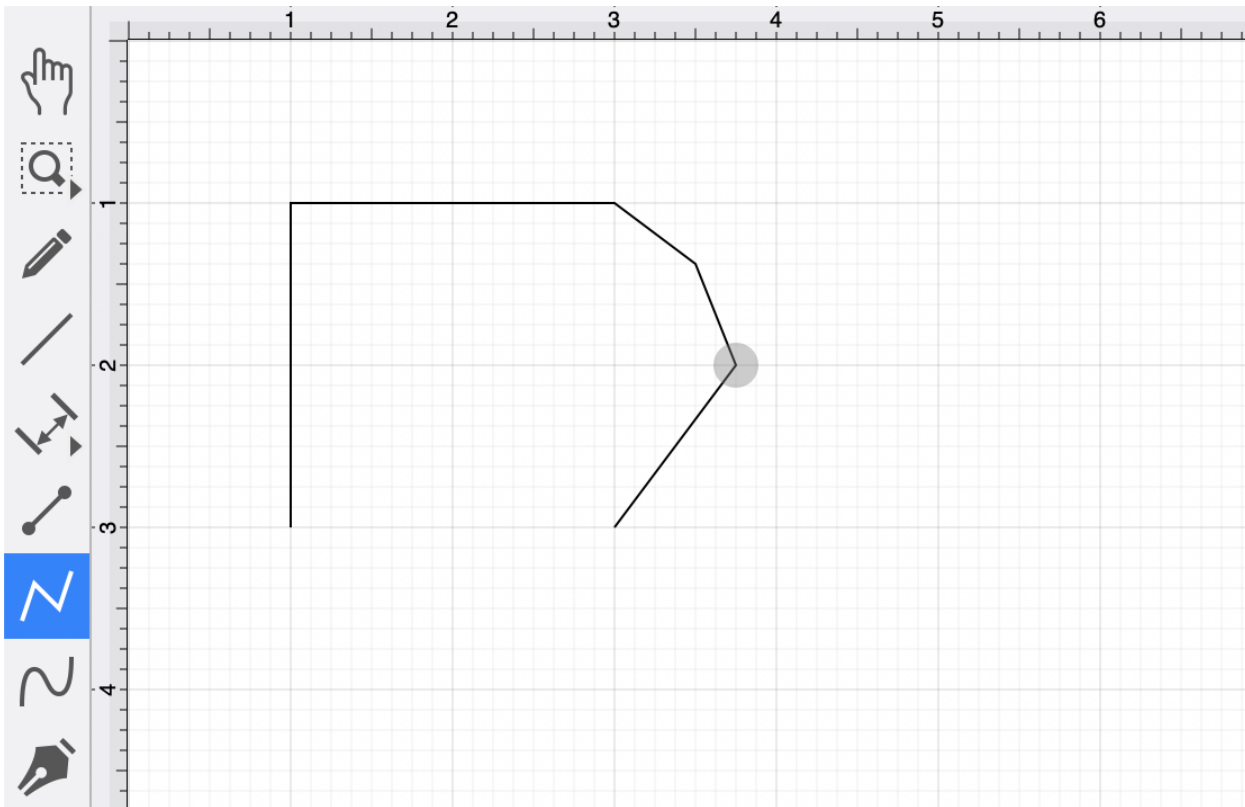
Click on the [Drawing Canvas](#) at the location where the fourth line end point should be. The same end results are provided as previously discussed for this additional line segment.



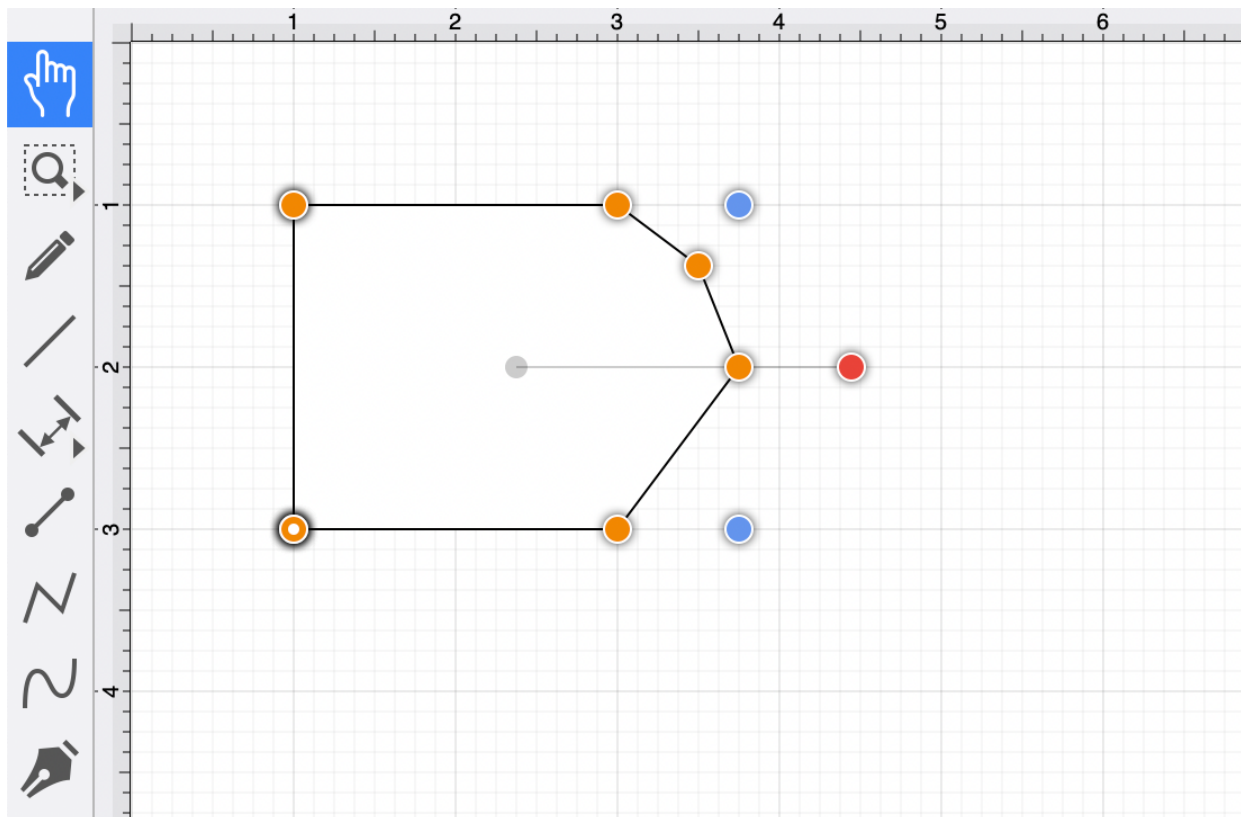
Click on the [Drawing Canvas](#) at the location where the fifth line end point should be. The same end results are provided as previously discussed for this additional line segment.



Click on the [Drawing Canvas](#) at the location where the sixth line end point should be. The same end results are provided as previously discussed for this additional line segment.

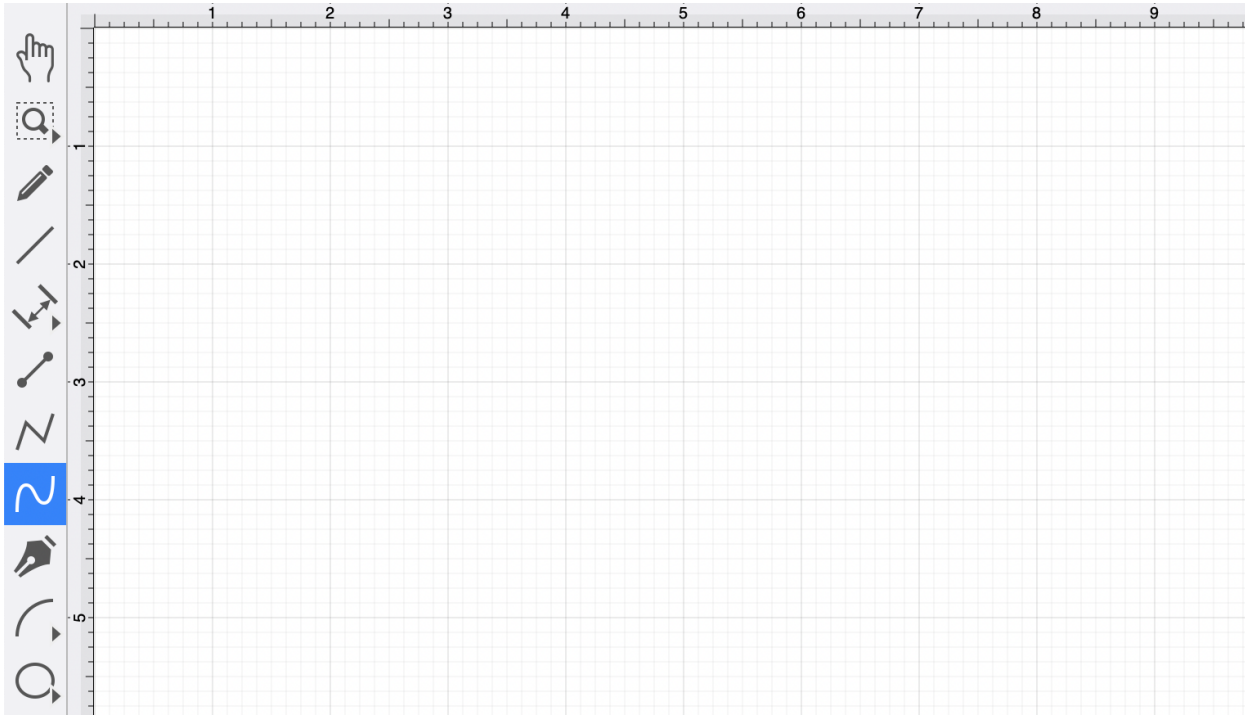


Then perform a **Double** or **Triple Tap** within the [Drawing Canvas](#) to finish the polyline. You may also tap on the [Selection Tool](#) to complete the polyline.



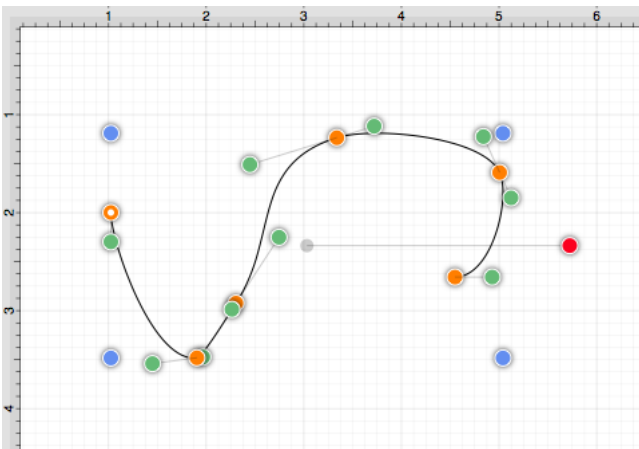
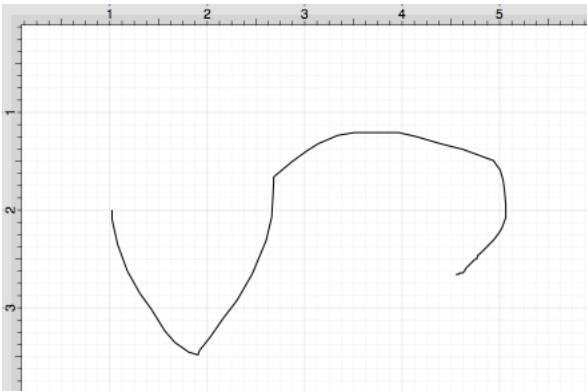
4.5.13. Pen Tool

The **Pen Tool** uses a technique called curve fitting to create a smooth curve from a freehand path that is drawn by using a **Click/Drag** combination to drag the tool to desired points on the [Drawing Canvas](#).



Select the **Pen Tool** and then draw a freehand path using a **Click/Drag** combination to maneuver the pen. The **Pen Tool** converts the drawn path into a smooth curve once the click action is released.

The following figure illustrates what a curve looks like when drawn by hand and then what it looks like after the **Pen Tool** has created the curve.



Note: The **Pen Tool** can create shapes instead of paths by using the **Shift** key in conjunction with the pen tool. Holding down the **Shift** key during shape (path) drawing creates a closed shape instead of an open path.

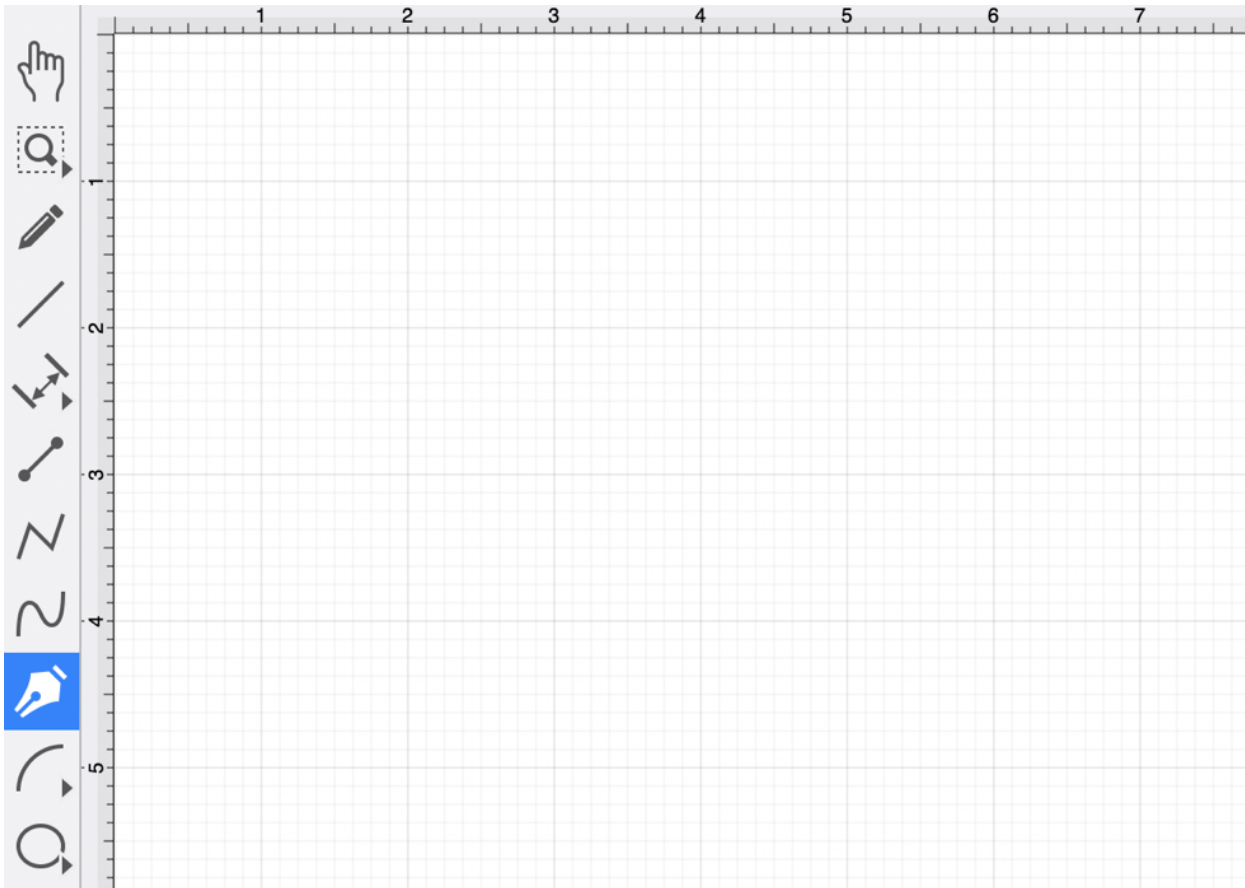
4.5.14. Path Tool

The **Path Tool** is the most powerful and complex tool available within TouchDraw 2. It can be used to create complex curves and shapes with detailed control on every aspect of the shape's appearance. Paths created with this tool are made up of many segments, and three different types of line segments are possible:

- [Straight Lines](#)
- [Quadratic Curves](#) (lines with one control point)
- [Cubic Curves](#) (lines with two control points)

It's also important to understand that, like the [Pen Tool](#), the **Path Tool** can be used to create both paths and shapes. The Path selection is different from the pen selection in that a continuous line is not drawn.

A separate **Click** action is required to create each path segment of a line or shape, and this is accomplished in one of either two ways depending on whether or not the end result should be a path or shape.



Use a **Single Click** to add each line end point or a **Click/Drag** combination to add a line end point and a corresponding control point in one action.

To **Create a Path**, **Double Click** on the [Drawing Canvas](#) or choose another drawing tool when the path is complete.

To **Create a Shape**, click on the first (start) handle (the orange handle with a white dot) to automatically draw a line from the current position to the start position to close the path.

Path Tool Actions

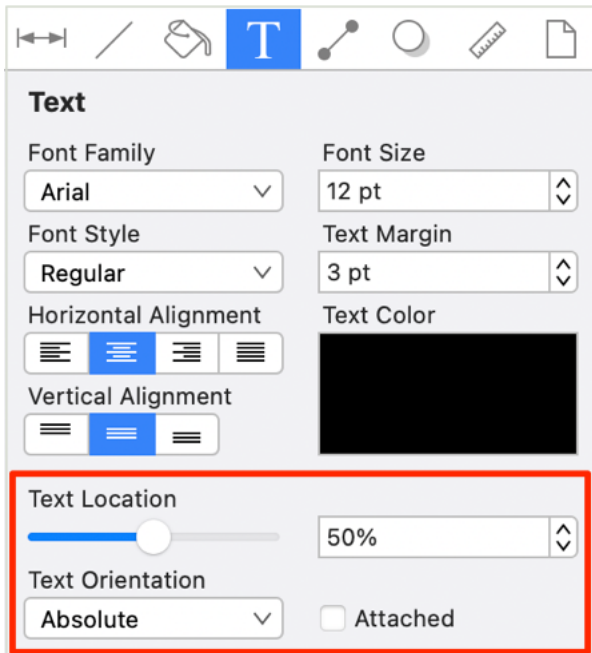
A control point is displayed in gray when it has not been used and is referred to as a "phantom" control point. This characteristic provides a hint to the TouchDraw 2 application that it should function as a control point in scenarios where the next drawn segment is a curve.

A few basic actions can be used to alter the type of created segment, curve positioning, and "phantom" control point position as a path is being created. Refer to the table below to learn more about each available action.

Action	Description
Click/Drag	A Click/Drag combination can be used to create a curve segment and allows the "phantom" control point to be dragged to any Drawing Canvas position to generate the desired curve segment.
Single Click	A Single Click adds a line or curve segment depending on the actions taken during initial path creation. For example, tapping on two points within the Drawing Canvas after selecting the path tool causes a straight line segment; however, an initial Touch/Drag combination creates a curve segment. An additional curve segment (based on the "phantom" control point position) is created when a Single Click action is performed in this scenario.
Double Click	A Double Click action anywhere on the Drawing Canvas completes the path and causes the Selection Tool to be automatically chosen as the active drawing tool.

Text Location and Orientation

Text can be added and attached to a Path Figure. The [location](#) and [orientation](#) of the attached text can be altered for Path Figures within the **Text Tab**.

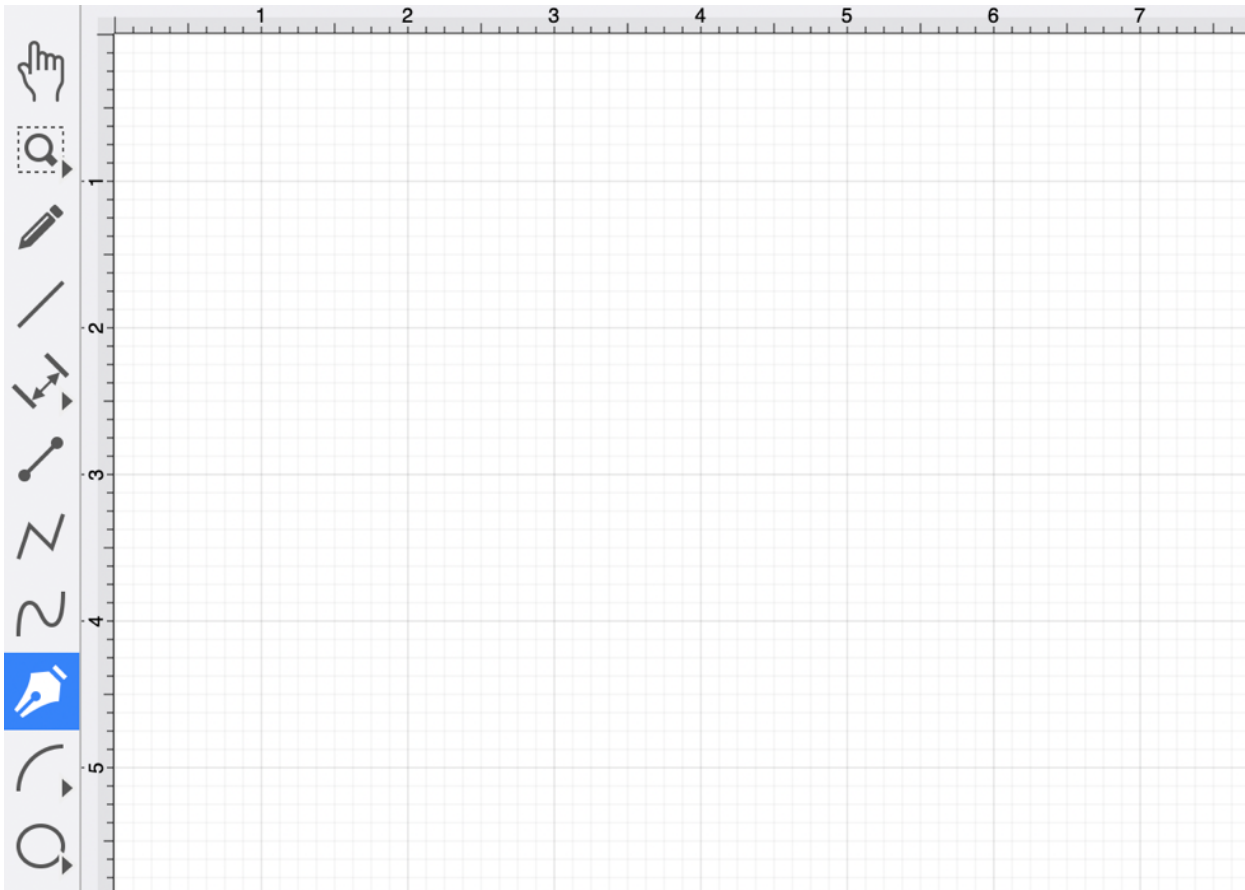


4.5.14.1. Adding Straight Line Segments

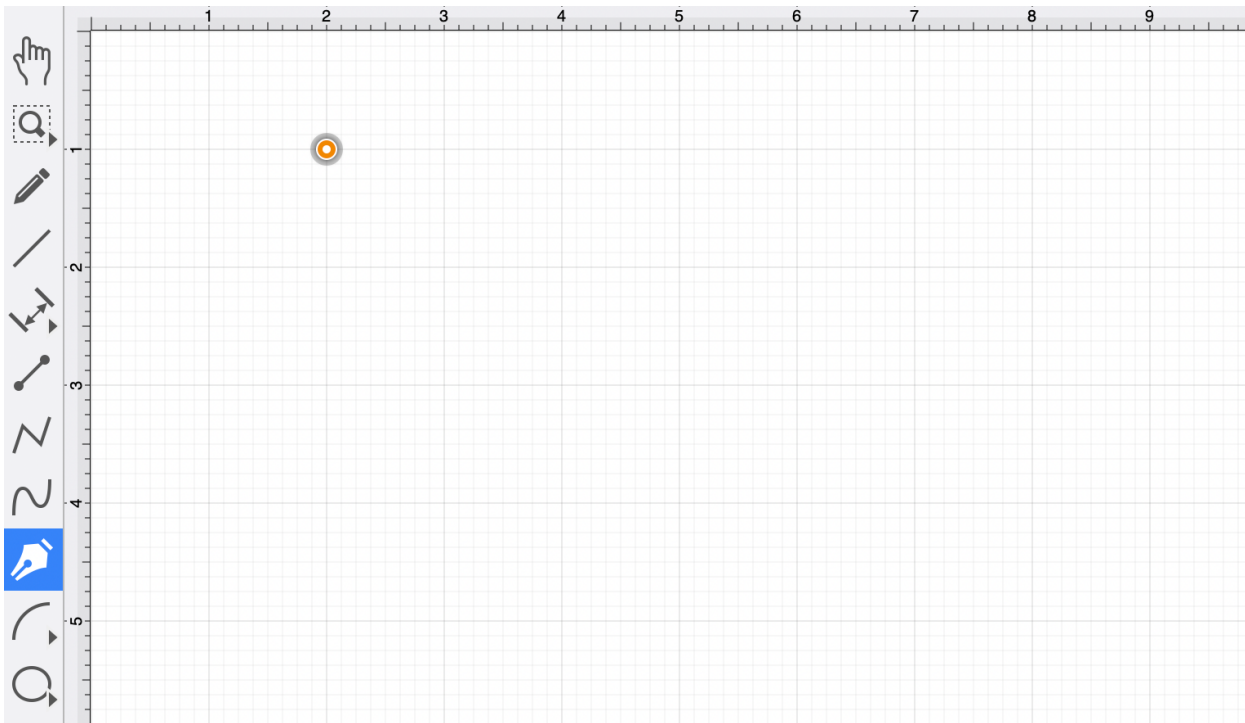
To create a **Straight Line Segment**, perform a single tap at the starting point and then again at the corresponding line end point. For example, the objective of drawing a parallelogram could be accomplished with the [Path Tool](#).

The following screenshots and description outlines the steps required for creating a parallelogram with this tool.

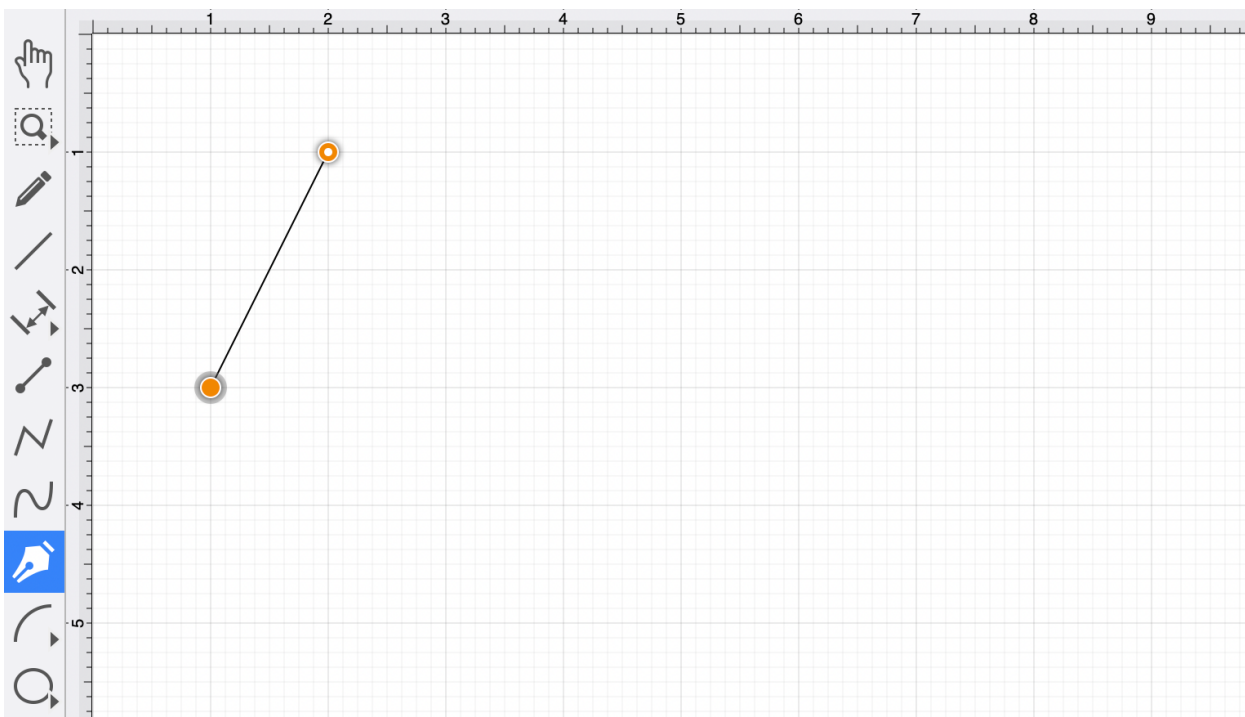
Step 1: Select the **Path Tool**.



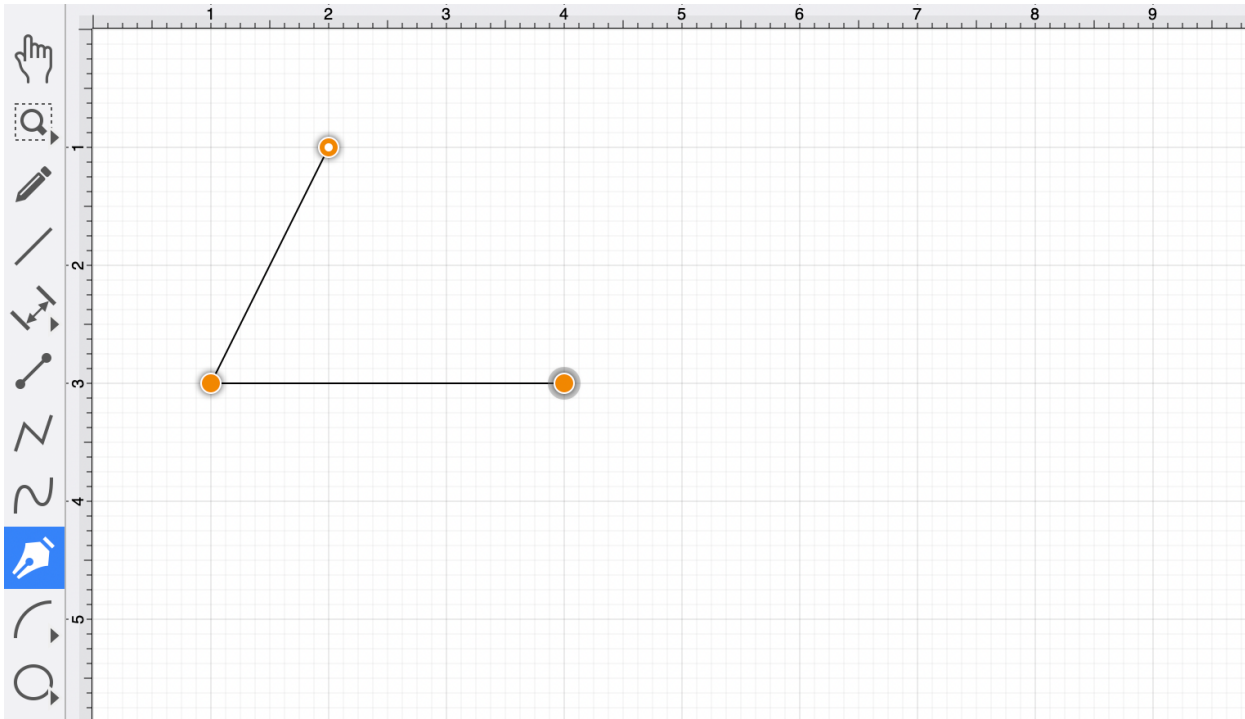
Step 2: Click on the [Drawing Canvas](#) at the location where the starting point should be established for the path. An orange handle with a white dot will appear in this specific location to signify the starting point of the path.



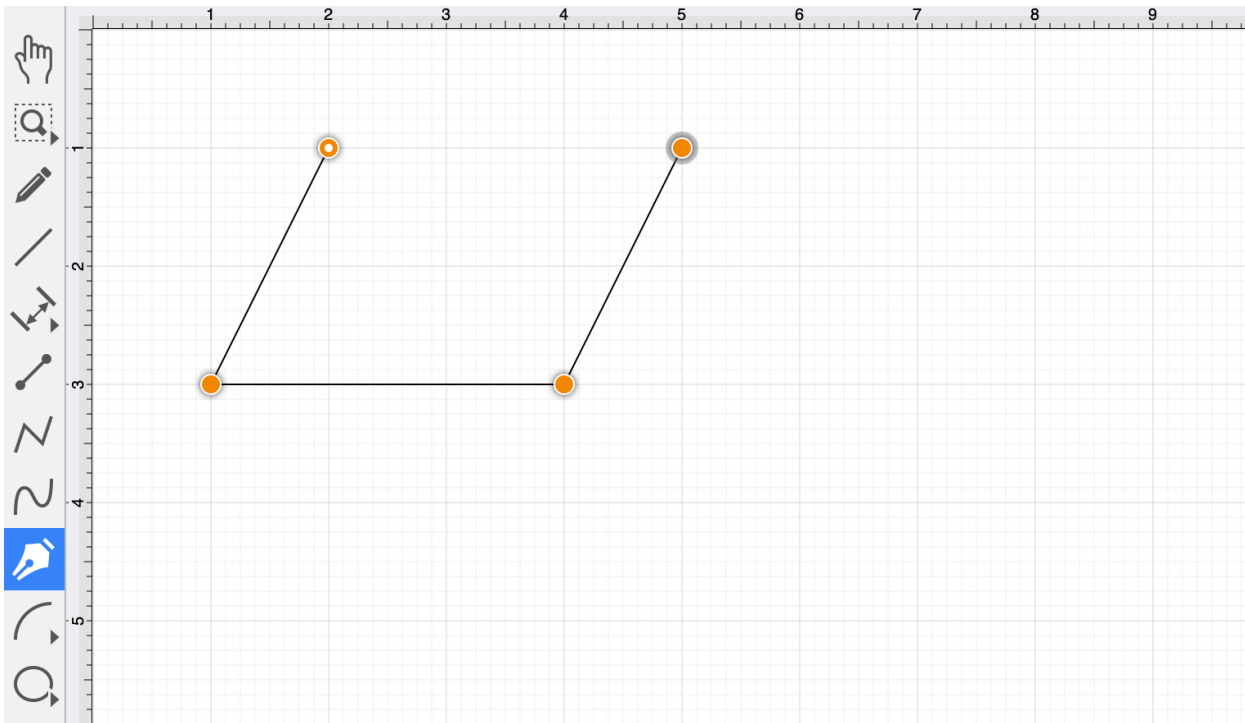
Step 3: Click on the [Drawing Canvas](#) at the location where the second corner of the parallelogram will be. This action draws a line between these two set points. It also creates a second handle (orange with no dot) at the point where the first segment ends and the second one begins.



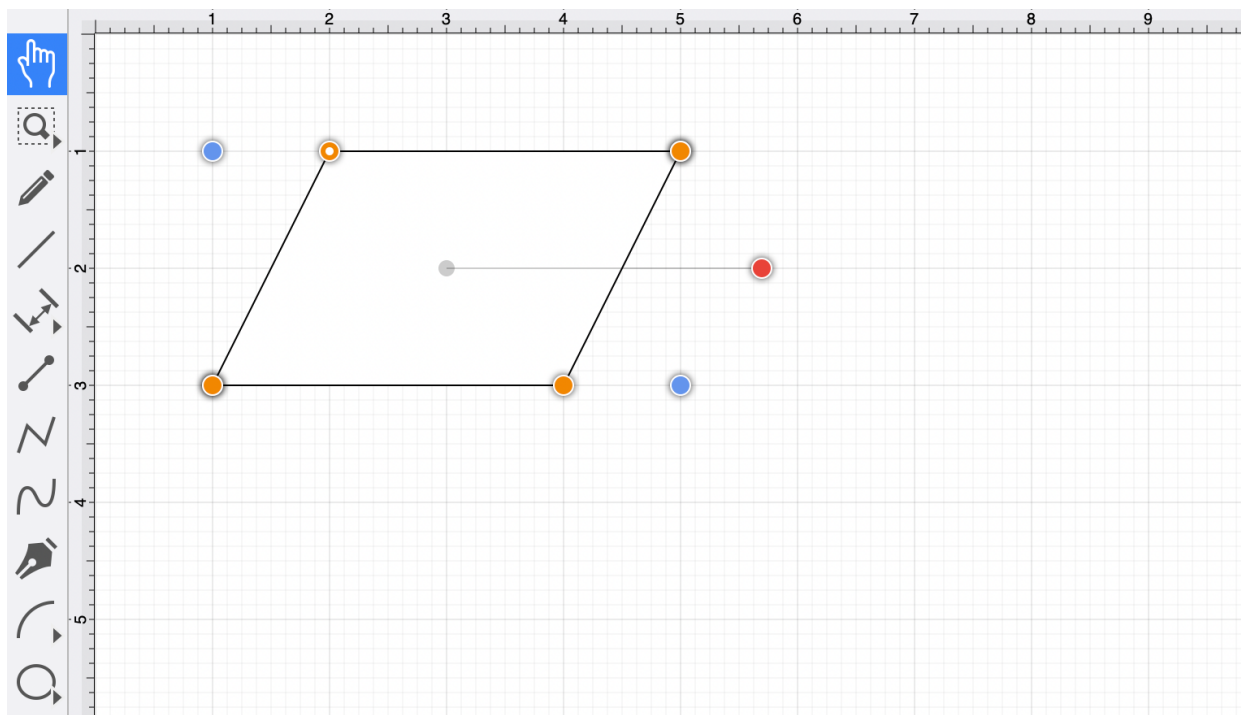
Step 4: Click on the [Drawing Canvas](#) at the location where the third corner of the parallelogram should be. As before, the action will cause a line to be drawn from the last point to the newest point and add an orange handle to the drawing.



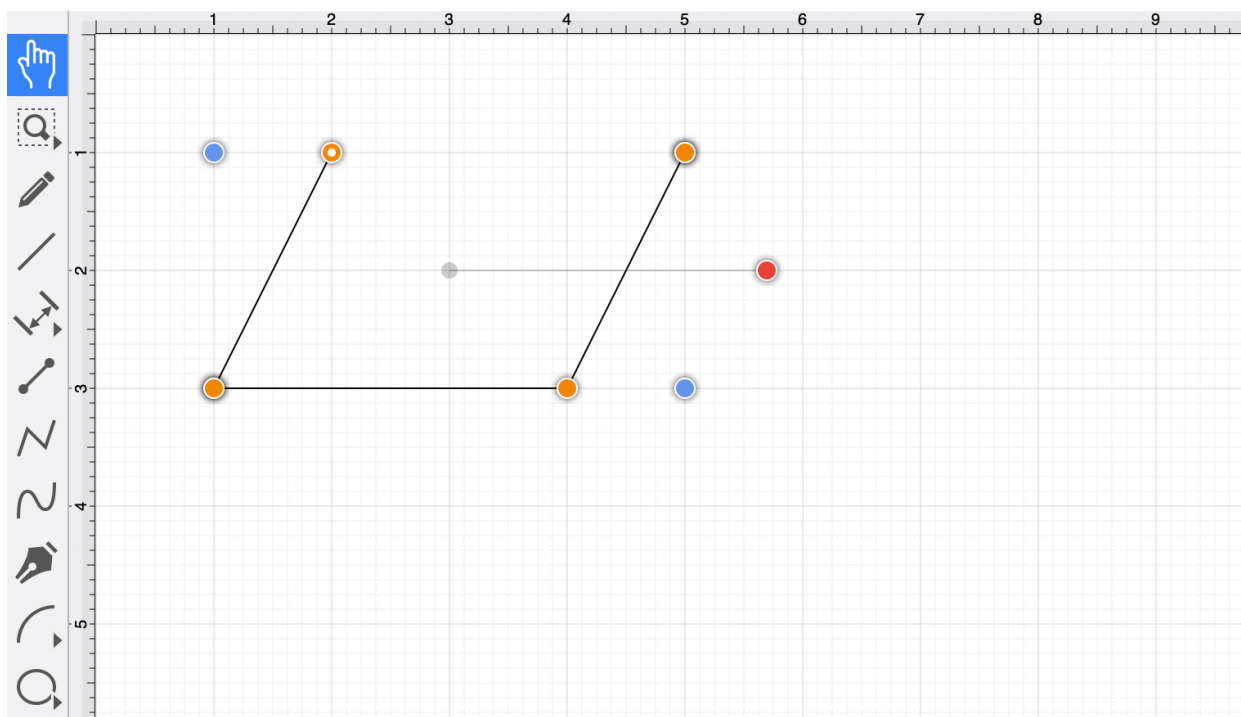
Step 5: Click on the [Drawing Canvas](#) at the location where the fourth corner should be. The same end results are provided as previously discussed for this additional line segment.



Step 6: Click on the start point (orange handle with white dot) to automatically draw the last line to connect the first point to the last (i.e., closing a path). The action closes the shape and exits the path tool when [Sticky Mode](#) is not enabled. Once a path has been created and selected, a few handles will be seen in addition to the path point handles created in the steps above. The blue handles are "bounds handles" that allow for shape resizing with a dragging action. The red handle is a "rotation" handle, which allows for shape rotation around its center point.

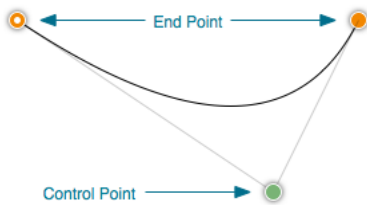


A **Double Click** in the drawing view creates a path, as illustrated in the screenshot below.



4.5.14.2. Adding Quadratic Curve Segments

A **Quadratic Curve** is a line segment with two end points and a control point that determines the exact curve to be drawn. The figure below illustrates an example of a quadratic curve.



Two core gestures are used when creating path segments. A **Single Click** adds an end point, and a **Click/Drag** combination adds an end point with a corresponding control point.

Since a **Quadratic Curve** contains two end points and one control point, the above-mentioned core gestures provide two ways to create this type of path:

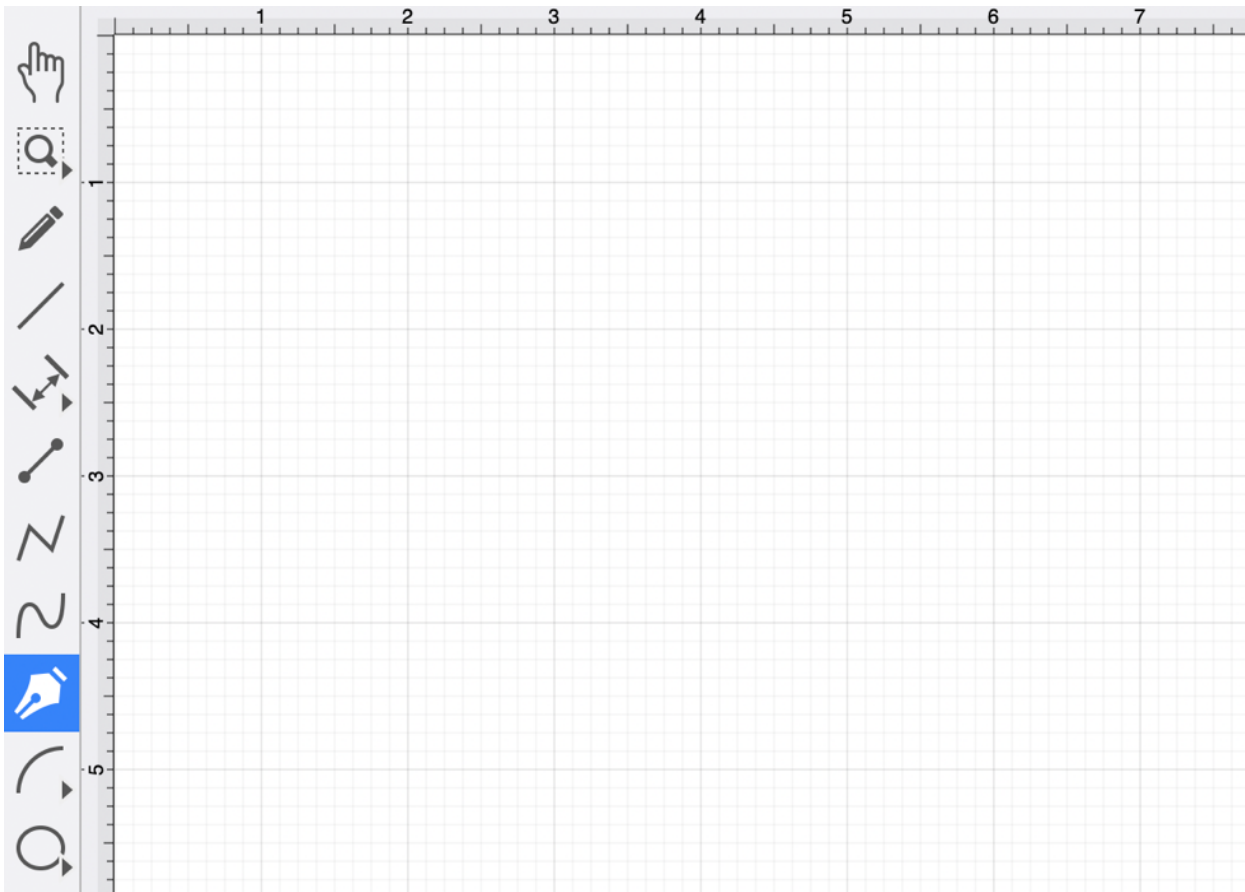
- Performing a **Single Click** and then a **Click/Drag** combination.
- Performing a **Click/Drag** combination and then a **Single Click**.

For example, the [Path Tool](#) can be used to draw a shape resembling the fireplace below by combining 3 line segments and one quadratic curve segment.

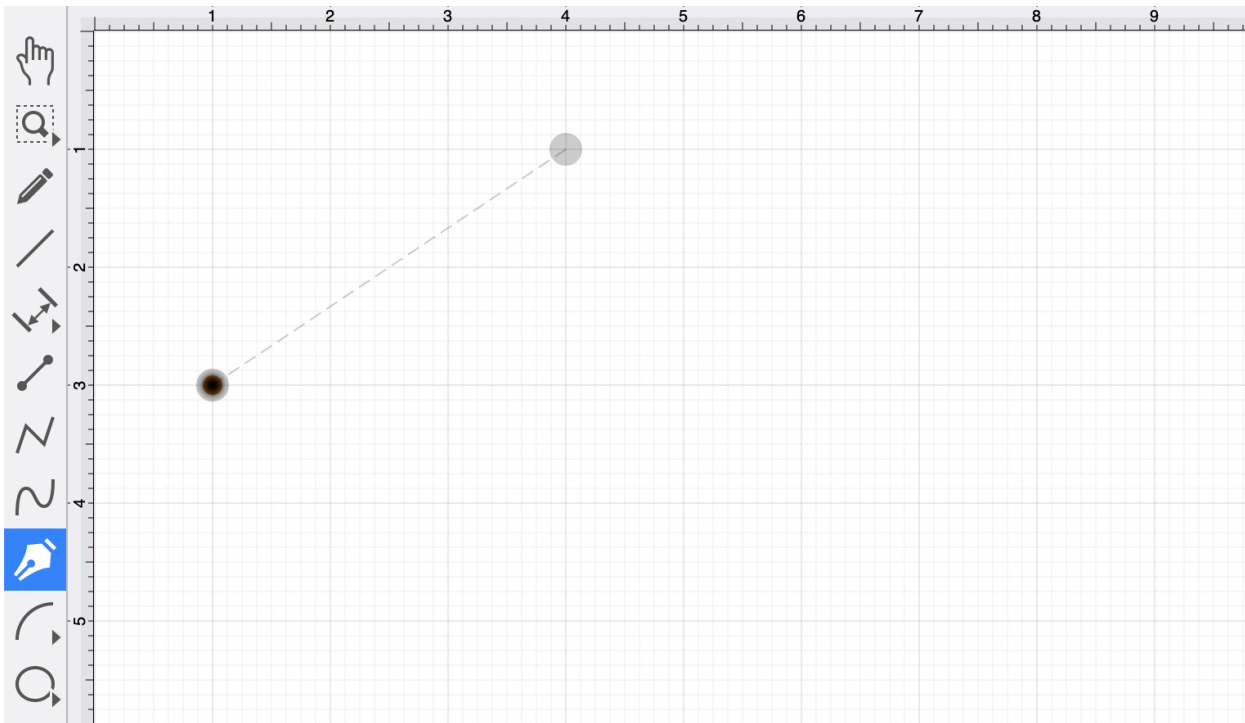


The following instructions outline the steps for accomplishing this shape.

Step 1: Select the **Path Tool**.

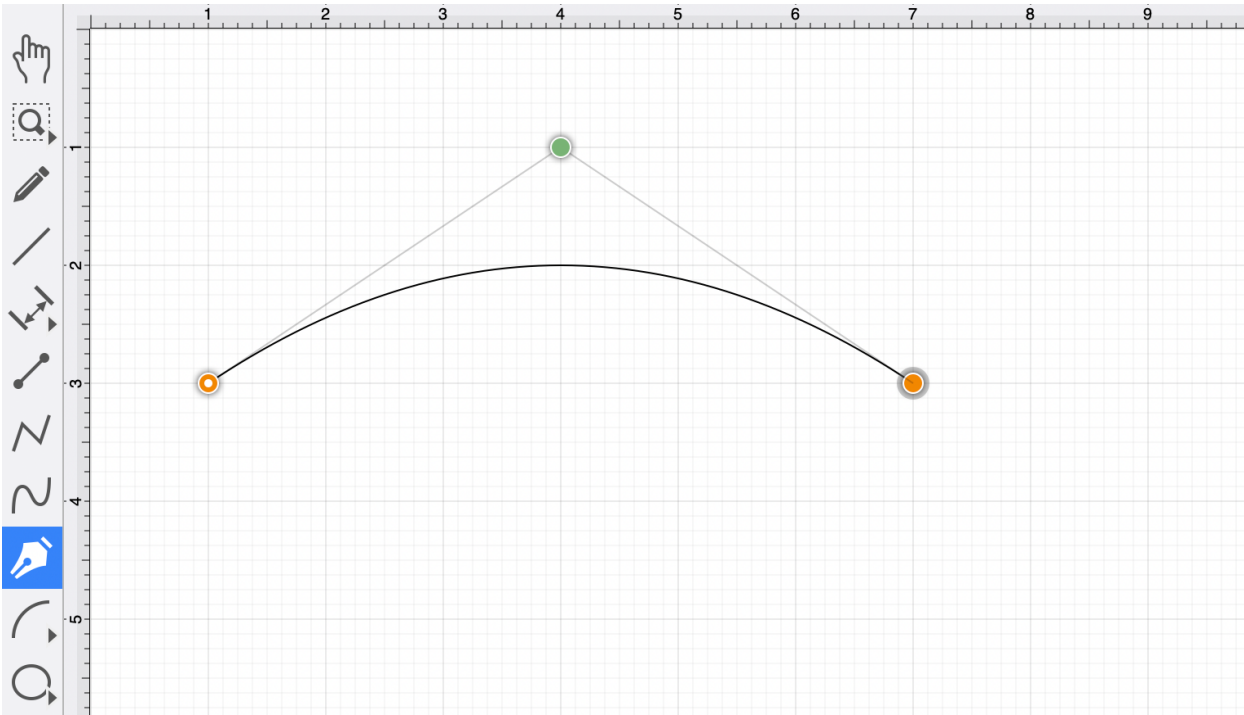


Step 2: Click (but do not release) on the [Drawing Canvas](#) at the location where the starting point for the path should be established. Any of the corner points could be a starting point for creating this shape; however, the upper left corner point is the starting location for this tutorial. Next, **drag** the segment to the established control point location without releasing the **click** action. TouchDraw 2 will draw a dashed line from the start point to the control point while the dragging action is performed and then show a slightly transparent circle in the control point location upon completion.



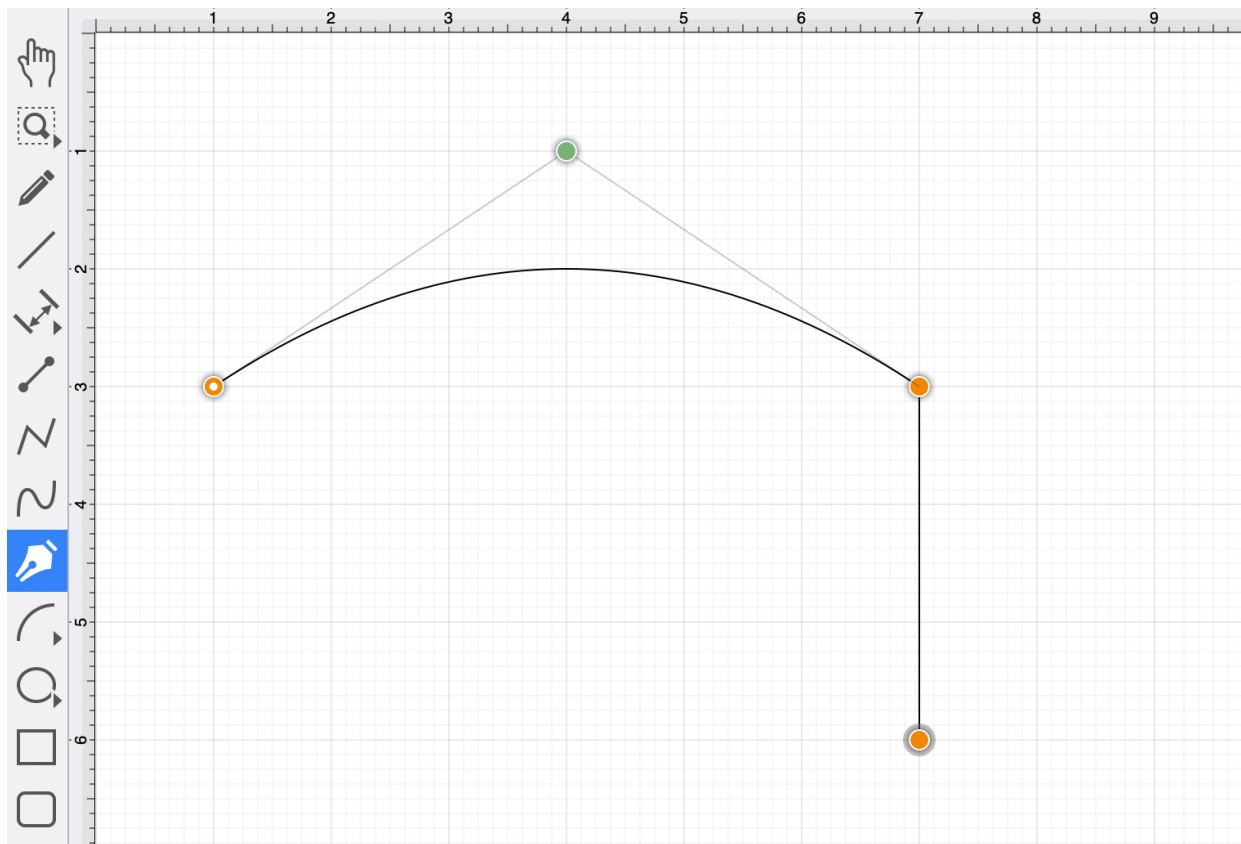
A control point is displayed in gray when it has not been used and is referred to as a "phantom" control point. This characteristic provides a hint to the TouchDraw 2 application that it should function as a control point in scenarios where the next drawn segment is a curve. The control point is ignored when a [straight line segment](#) is added.

Step 3: Next, click on the drawing canvas location where the second corner of the path should be (the upper right-hand corner). This action creates a quadratic curve between the two end points, with the added control point functioning as an indicator to TouchDraw 2 as to how to draw the curve.

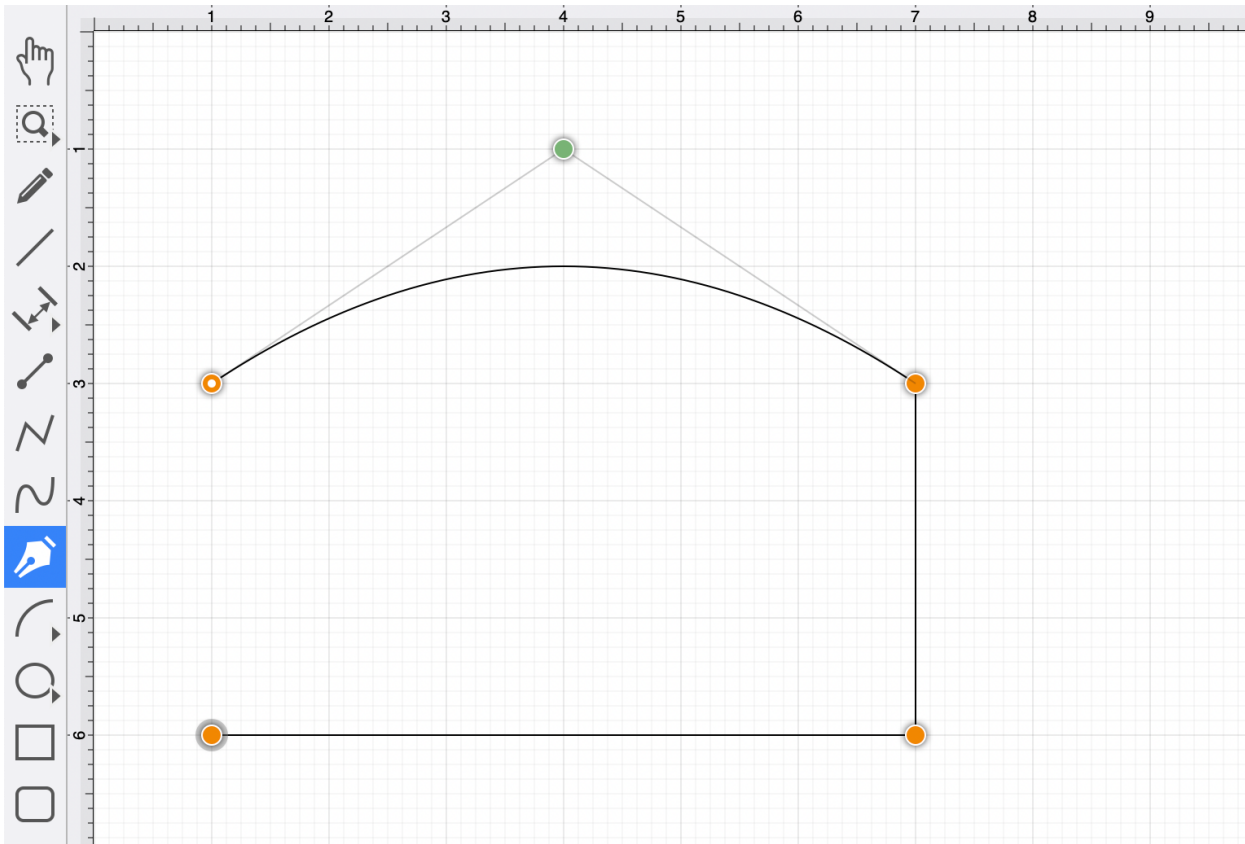


The handles for curve control points are green. The color and look of the control points are an indicator of how they relate to the selected shape. Refer to the [handles reference](#) page to learn about the types of handles.

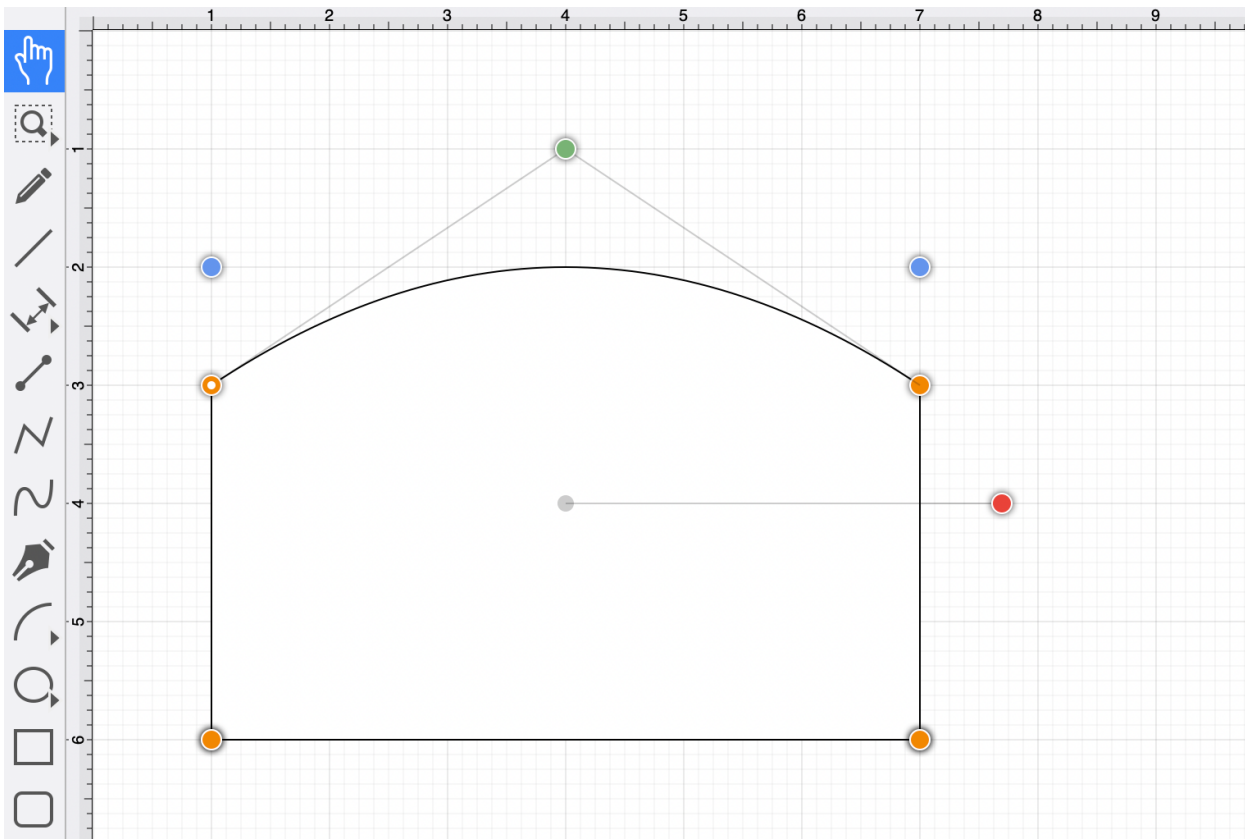
Step 4: Next, click on the drawing in the location where the third corner of the path should be. As in the previous examples, it will have drawn a line from the last created point to the new point.



Step 5: Next, click on the drawing in the location where the fourth corner should be. Again, the same results are provided as before.

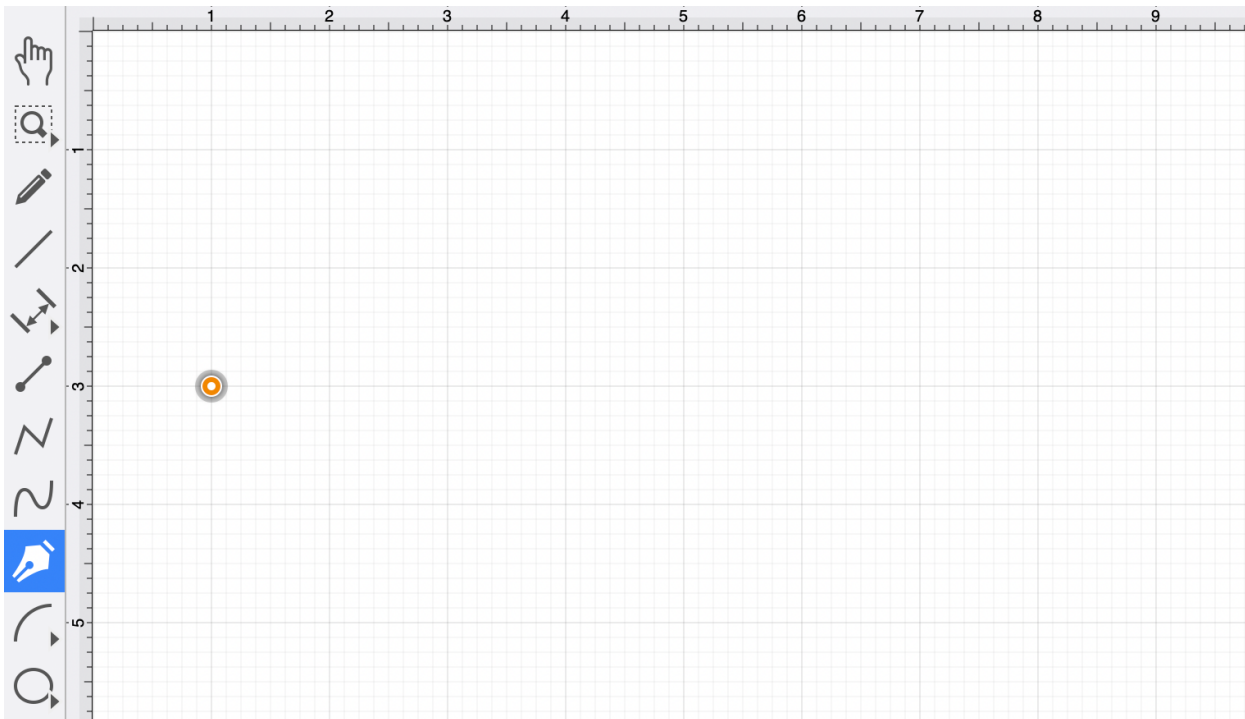


Step 6: To close the shape, **Click** on the start point (the orange handle with a white dot). This action closes the shape and exits the path tool (assuming [sticky mode](#) has not been enabled).

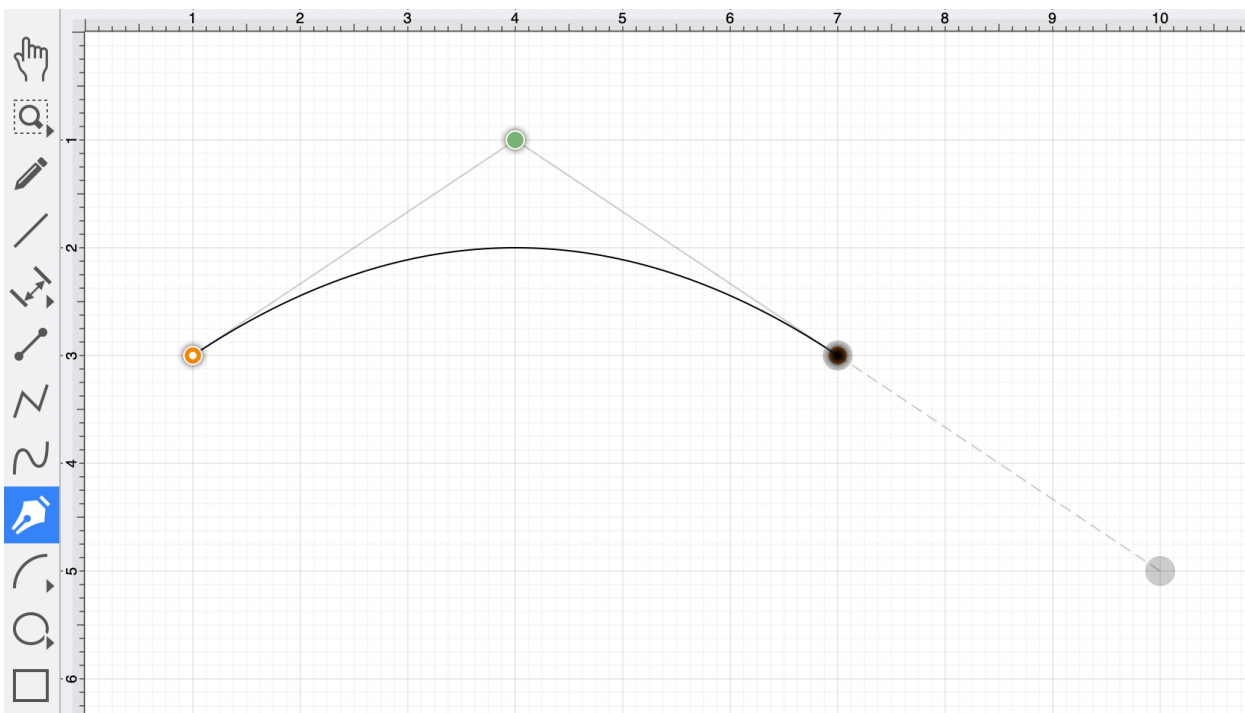


The exact figure can be drawn performing these actions in a slightly different order, as shown below:

Step 1: Click in the upper left-hand corner to create the first point of the curved portion of the fireplace.

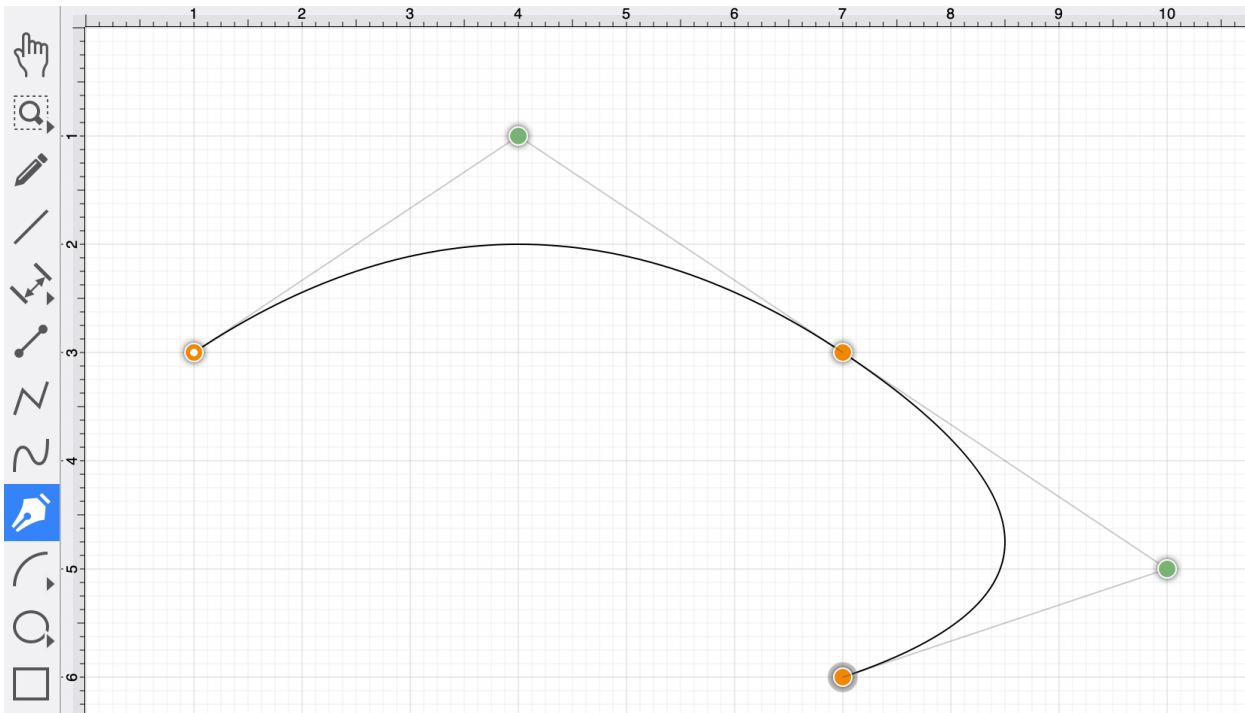


Step 2: Perform a **Click/Drag** combination at the location where the ending point of the curve segment should be. Drag the "phantom" control point outward to the right and bottom until the desired curve has been created.

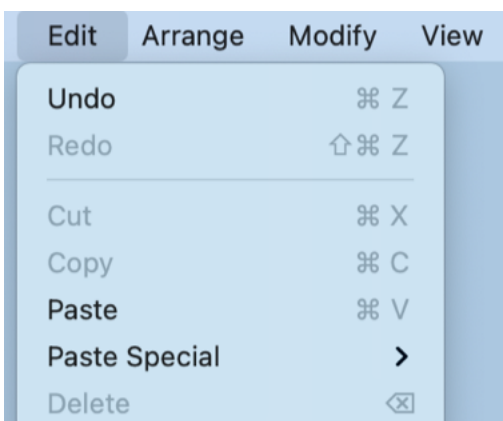


Performing an **Option/Click** combination on any location in the drawing canvas alters the position of the "phantom" control point to the selected location. Refer to the [Path Tool](#) section to learn more about this action.

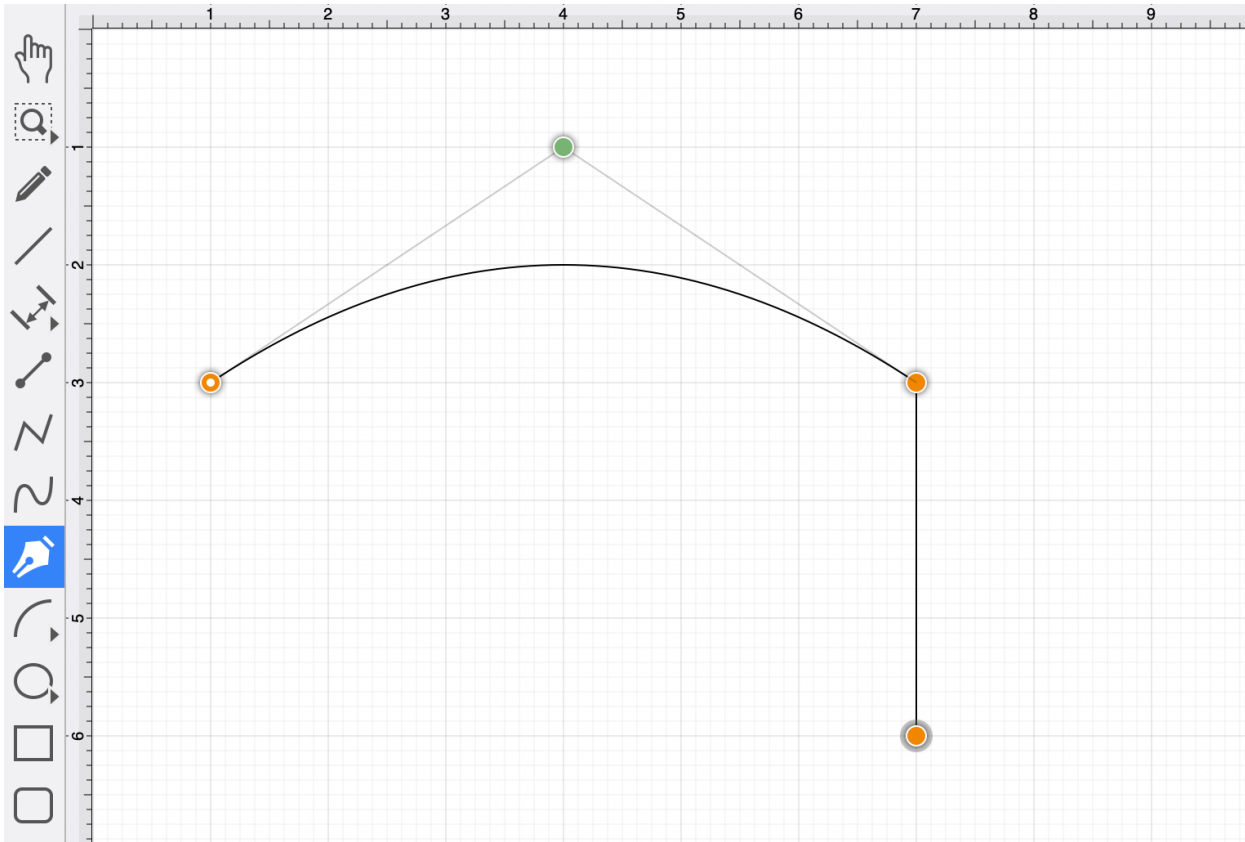
Step 3: Add a line to the next corner in the shape by clicking where the next end point should be located.



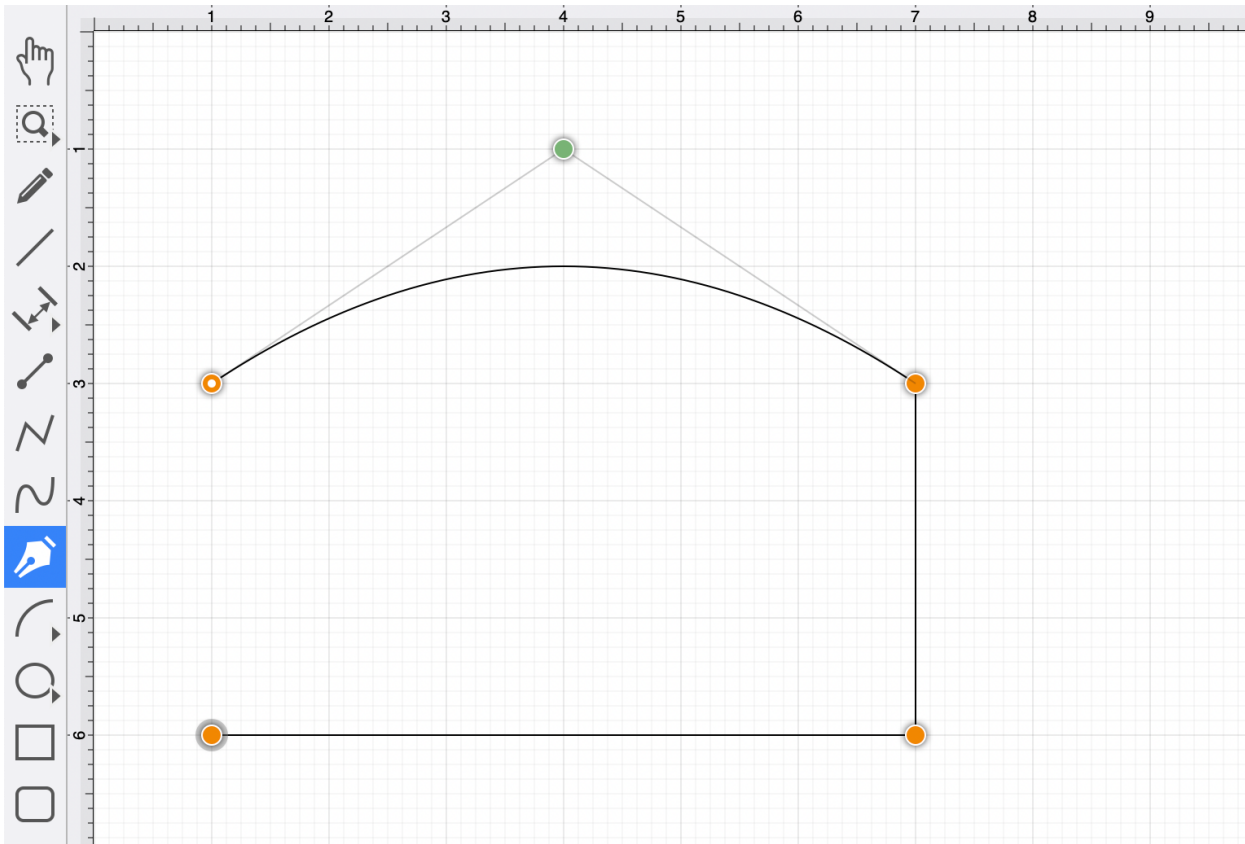
Step 4: Obviously, this is not the desired result. If a "phantom" control point exists and a **Click** is performed on the drawing, TouchDraw 2 will use this control point to create a quadratic curve segment. In this case, the "phantom" control point should be ignored and discarded. Select the [Edit Menu](#) and choose **Undo** or use the **Command-Z** keyboard shortcut to remove this last addition.



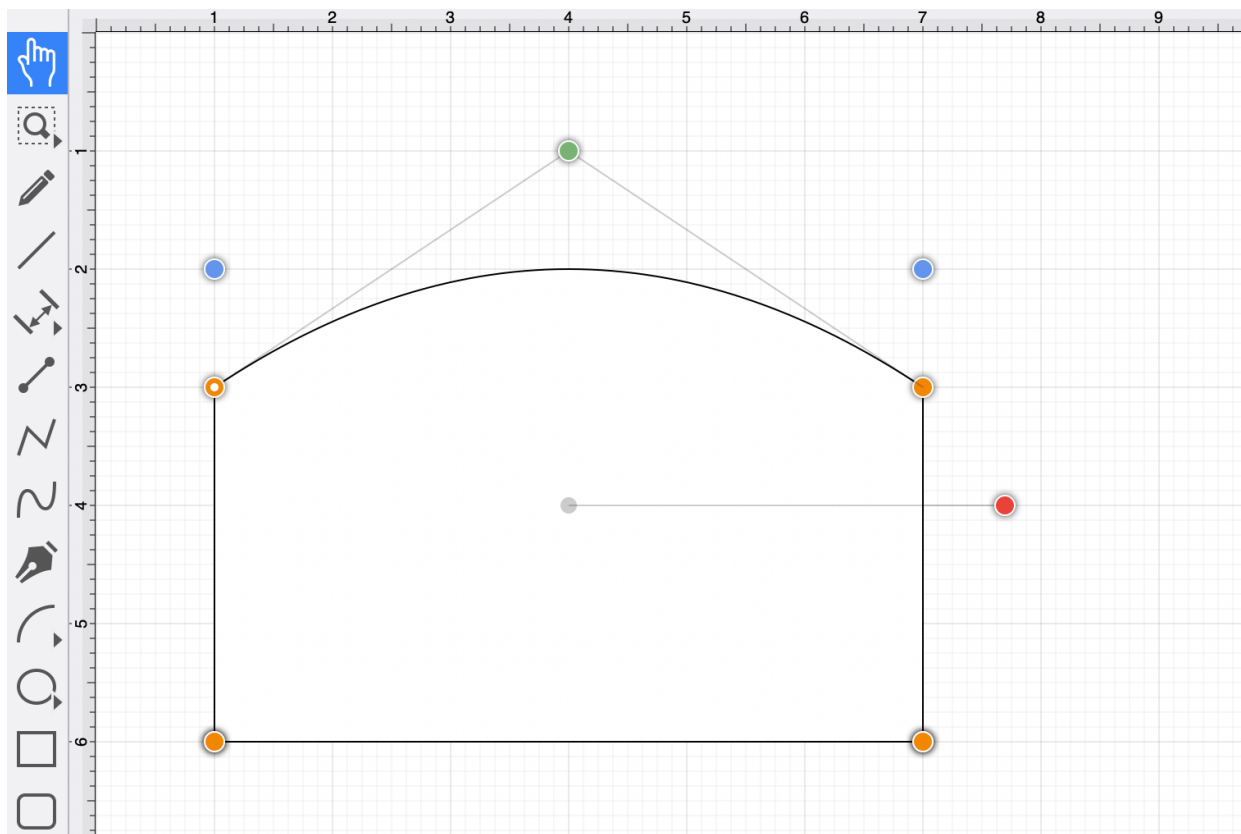
Step 5: To draw a straight line from the last end point to the new end point, use the **Shift Key** as the path end point is selected. This action instructs TouchDraw 2 to ignore the "phantom" control point and draw a straight line.



Step 6: Click on the next corner end point to create the bottom of the fireplace.

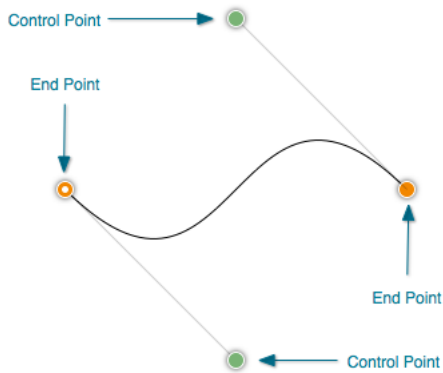


Step 7: To close the shape, **Click** on the start point (the orange handle with a white dot). This action closes the shape and exits the path tool (assuming [sticky mode](#) has not been enabled).



4.5.14.3. Adding Cubic Curve Segments

A **Cubic Curve** is a line segment with two end points and two control points that determine the exact curve to be drawn. The image below illustrates an example of a cubic curve.

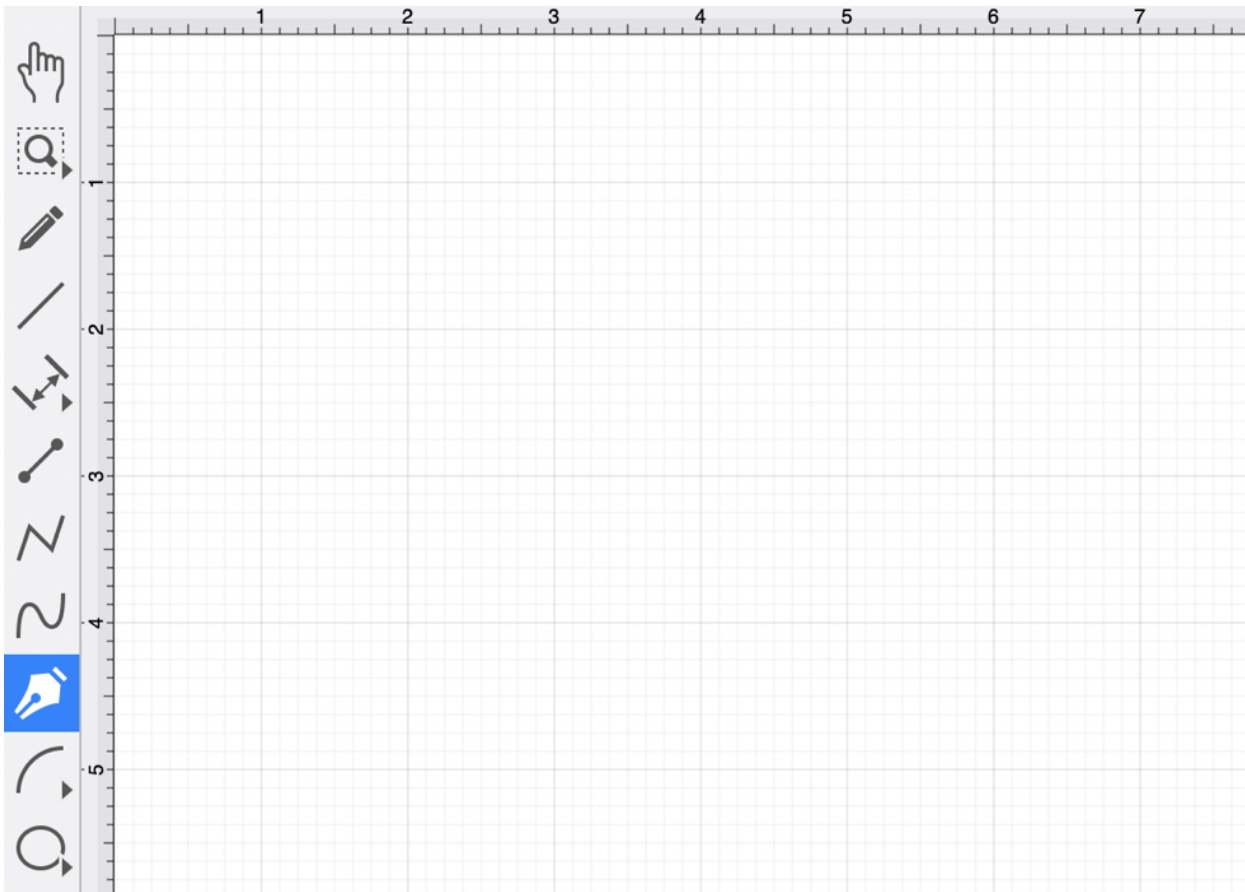


Two core gestures are available when creating path segments. A **Single Click** will add just an end point, and **Click/Drag** combination will add an end point with a corresponding control point.

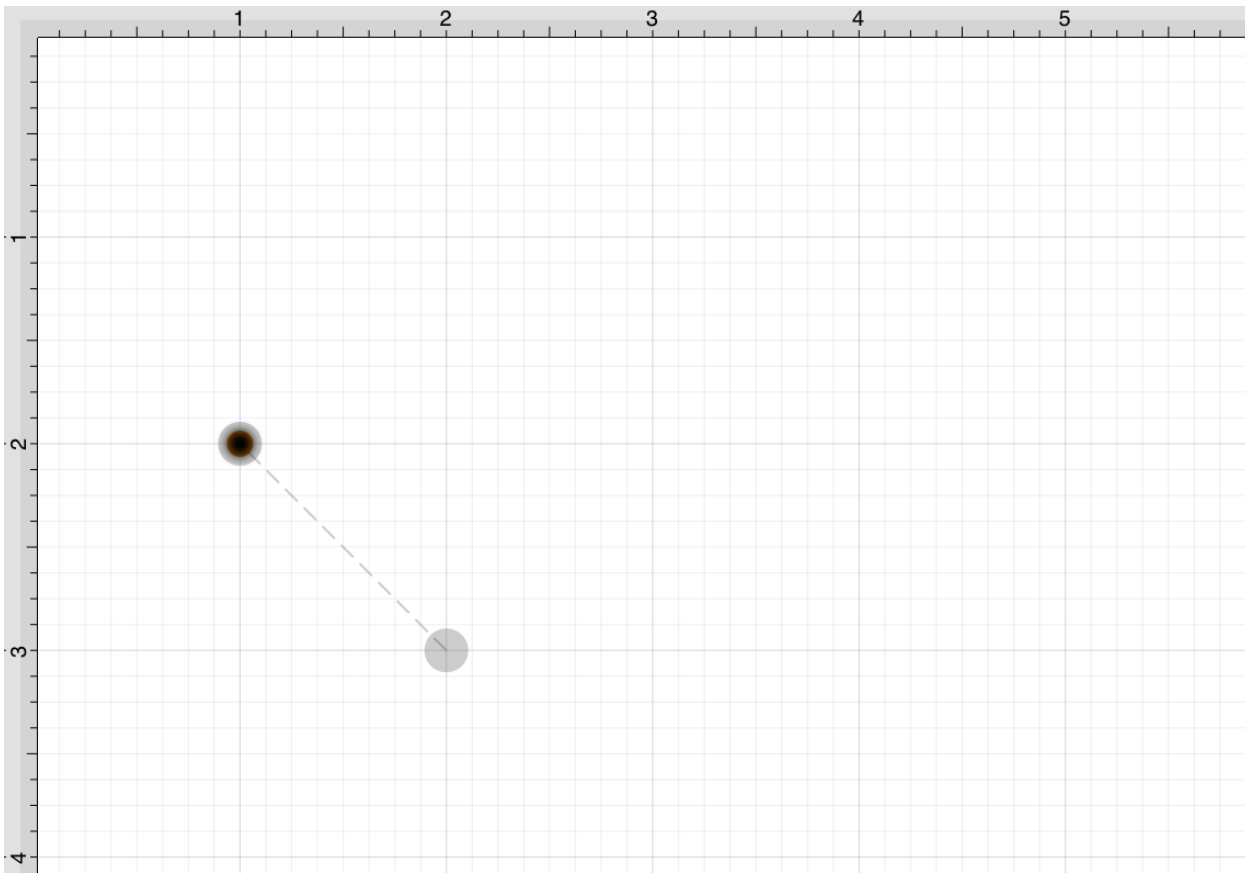
Since a cubic curve contains two end points and two control points, a cubic curve can only be added by performing a **Click/Drag** combination at one point and then by performing a **Click** or **Click/Drag** combination at another point.

For example, complete the following steps to draw a path like the one displayed in the example above:

Step 1: Select the [Path Tool](#).

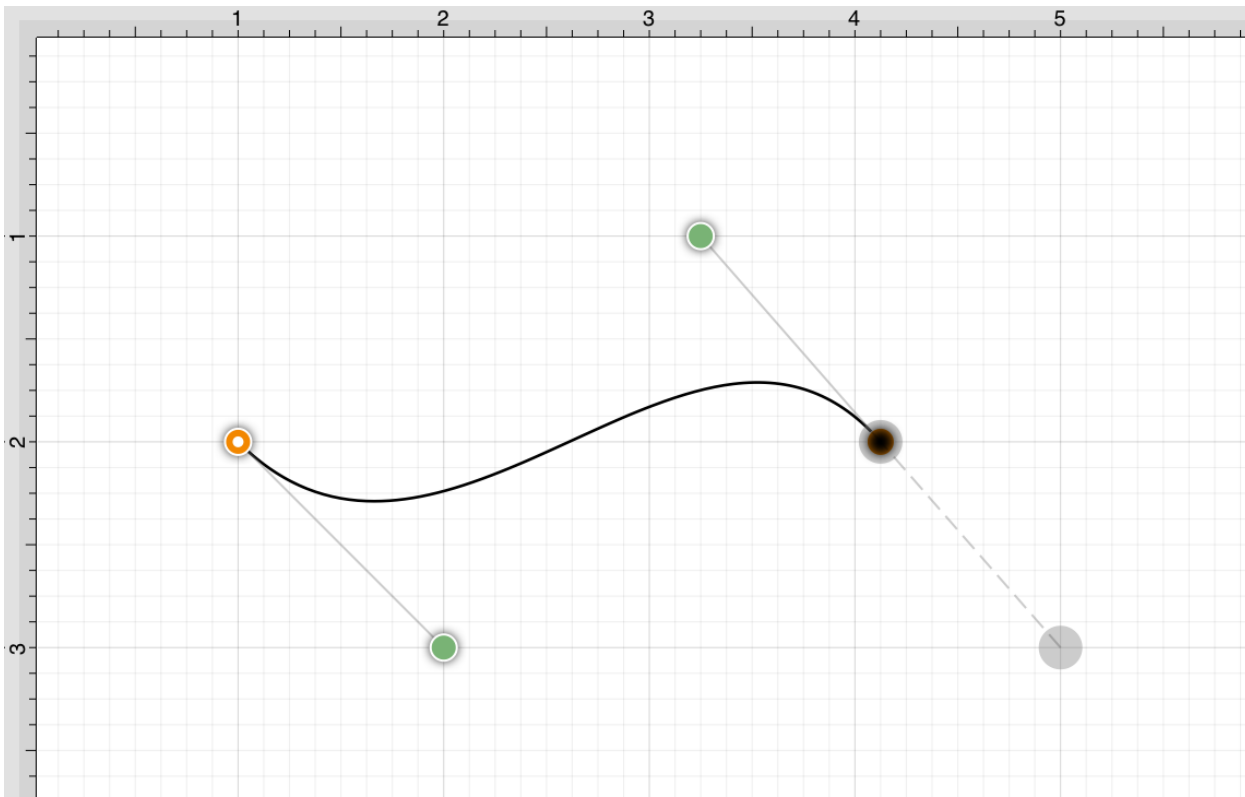


Step 2: Click on a desired starting point on the [Drawing Canvas](#) and drag to another location to establish the first control point. The orange handle with the white dot signifies the starting point of the path. The gray circle or "phantom" control point will turn into a control point when a curve segment is drawn.



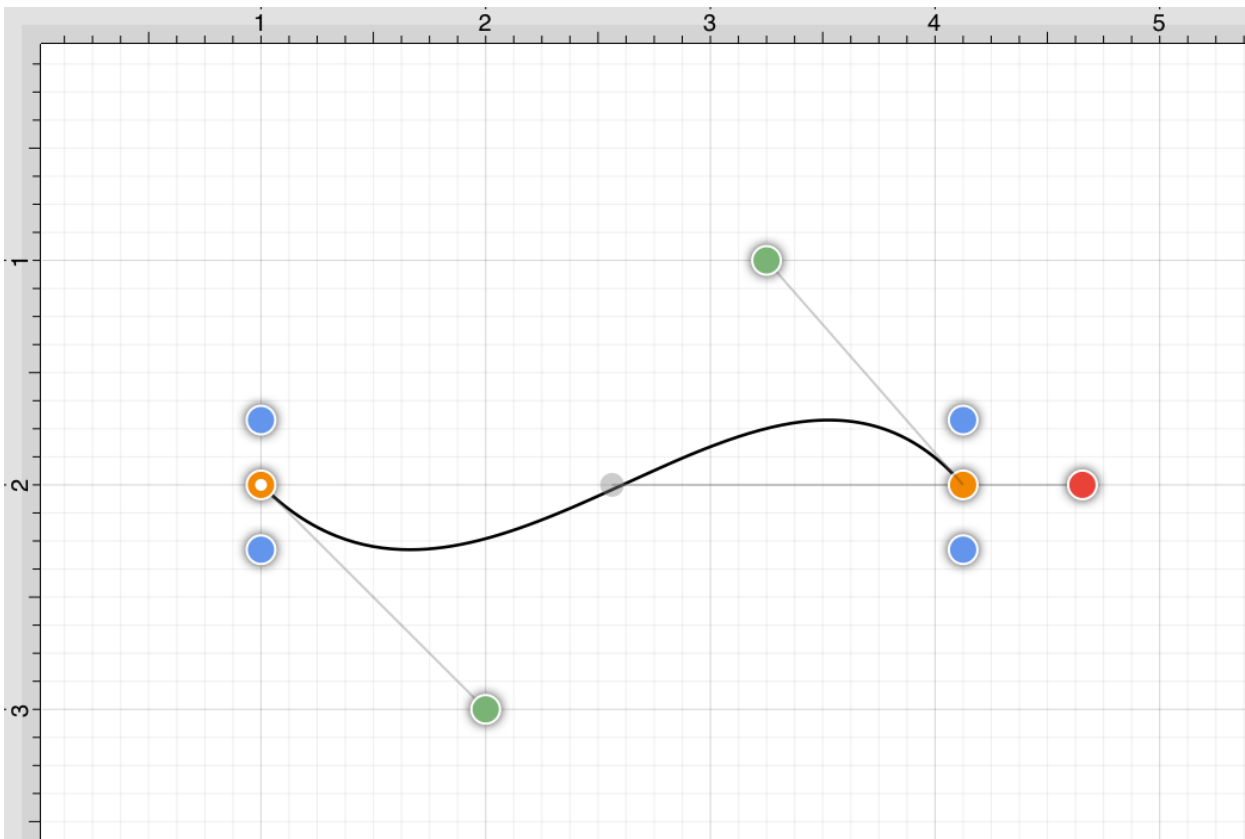
A control point is displayed in gray when it has not been used and is referred to as a "phantom" control point. This characteristic provides a hint to the TouchDraw 2 application that it should function as a control point in scenarios where the next drawn segment is a curve. The control point is ignored when a [straight line segment](#) is added.

Step 3: Next, click on the point within the [Drawing Canvas](#) where the segment end point will be, and then drag the "phantom" control point outward toward the right and bottom of the drawing canvas to create the desired curve. A real control point will be placed exactly opposite (relative to the endpoint) from the current location of the "phantom" control point.



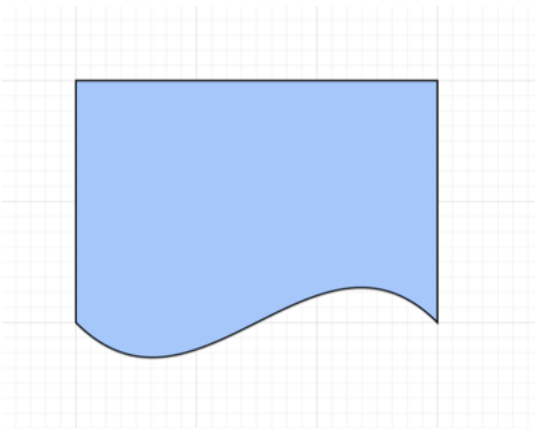
Performing an **Option/Click** combination on any location in the drawing canvas alters the position of the "phantom" control point to the selected location. Refer to the [Path Tool](#) section to learn more about this action.

Step 4: Since a path is being created rather than a shape, a **Double Click** must be performed on the drawing to inform TouchDraw 2 of the completed path.

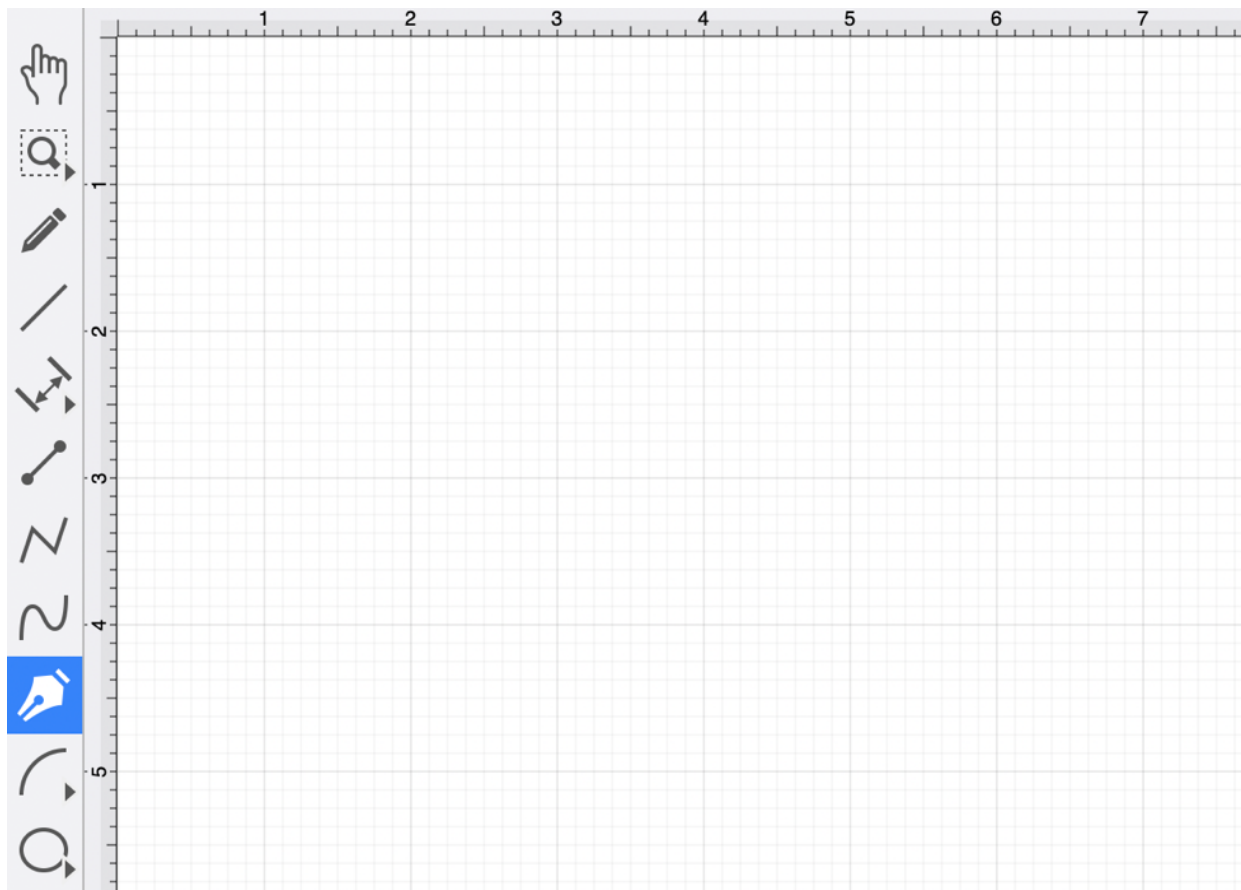


The handles for curve control points are green. The color and look of the control points are an indicator of how they relate to the selected shape. Refer to the [handles reference](#) page to learn about the types of handles.

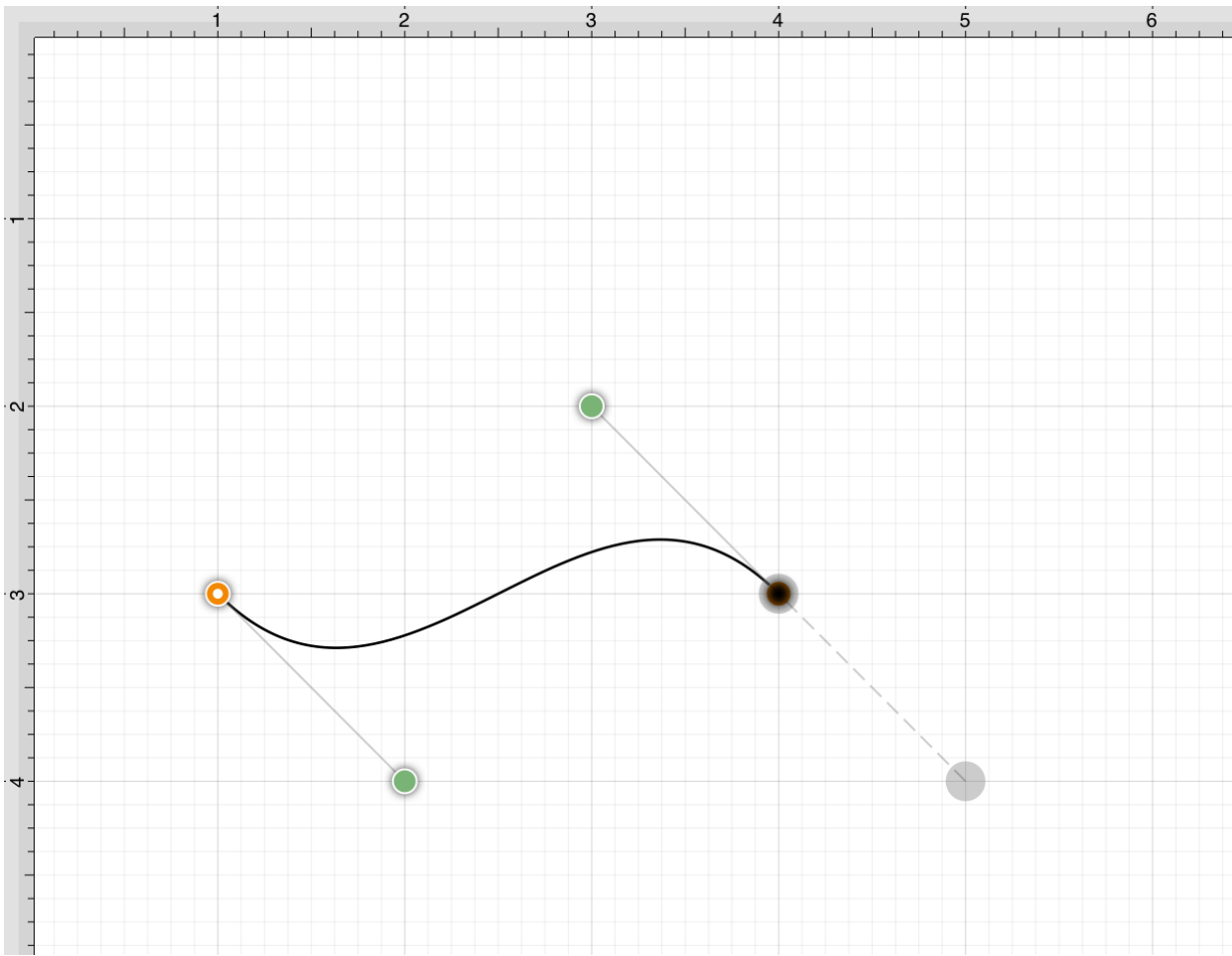
The next step is to create a shape like the one shown below.



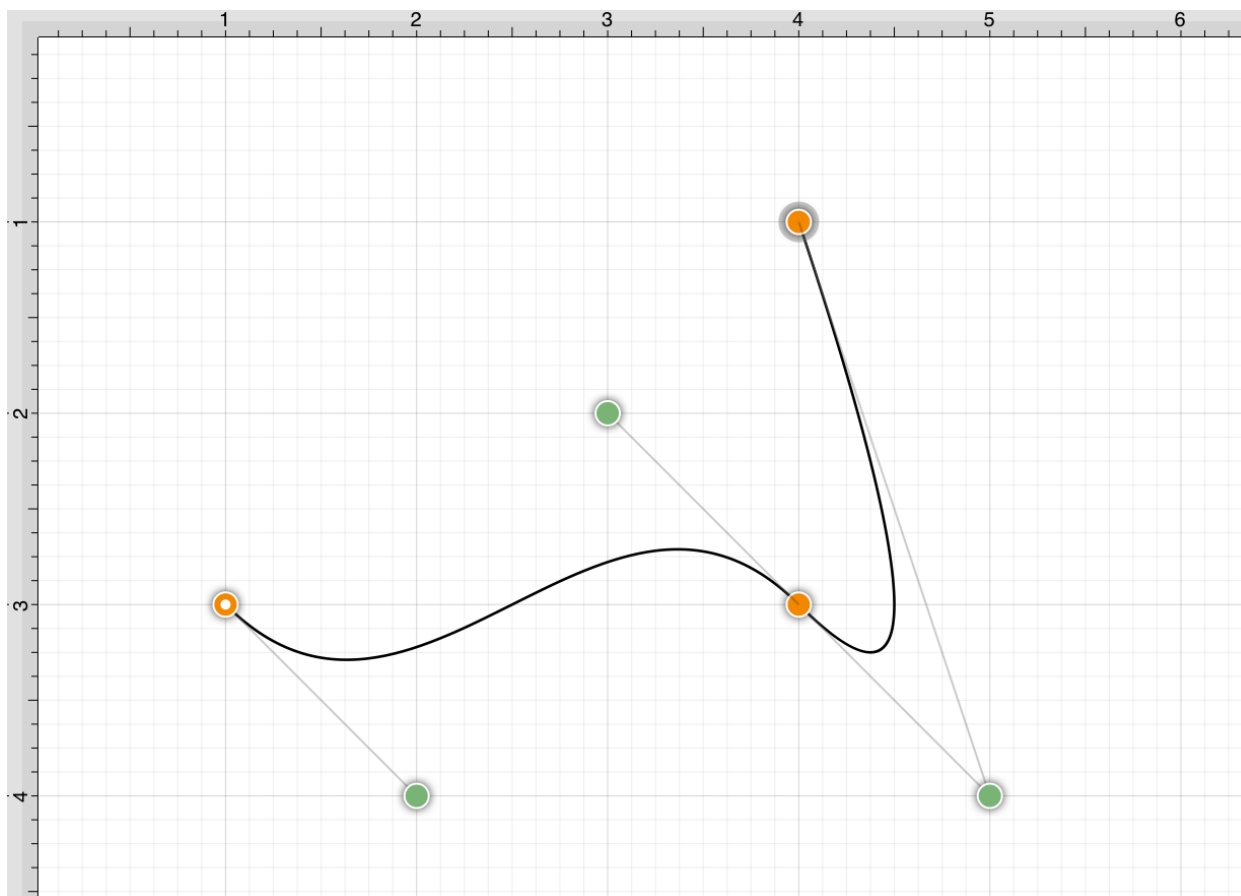
Step 1: Select the [Path Tool](#).



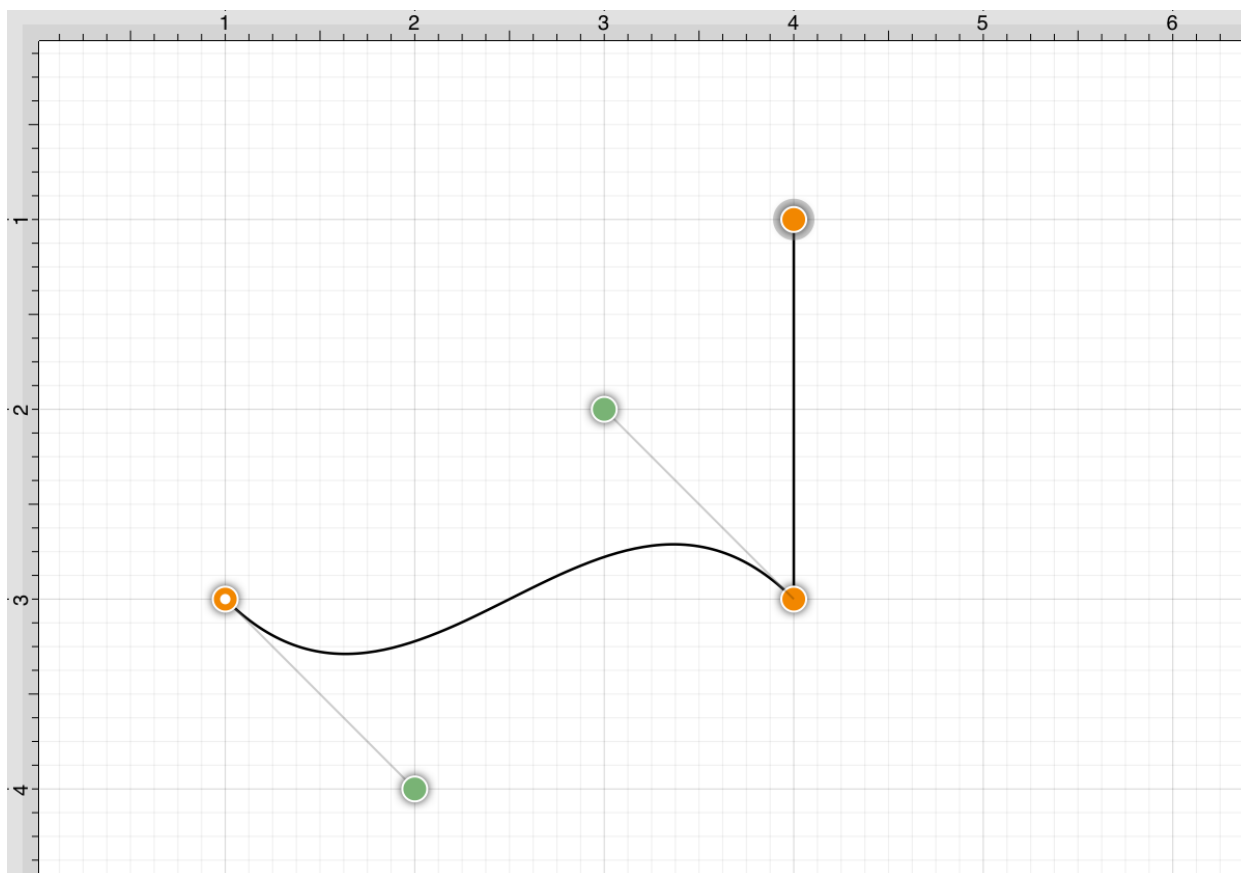
Step 2: Repeat the steps above to create a curve on the bottom of the shape, as shown below.



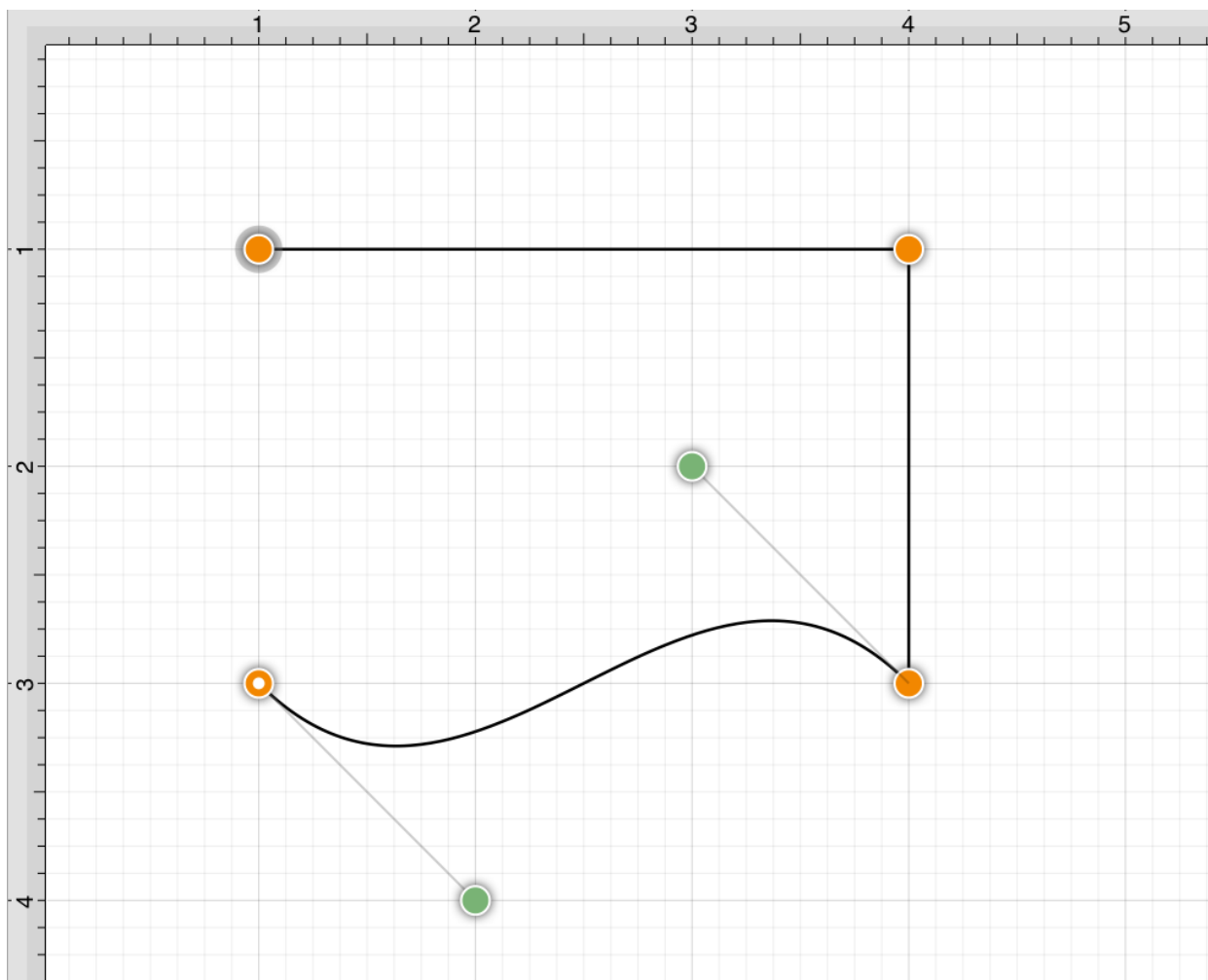
Step 3: Next, draw the edge on the right-hand side of the shape. If a control point exists and a **Click** is completed to add a single endpoint, TouchDraw 2 will use the "phantom" control point to create a curve. Hold the **Shift Key** down while performing the **Click** action on the end point location to inform TouchDraw 2 that a straight line should be added. The following screenshot illustrates what happens when the **Shift Key** is not used:



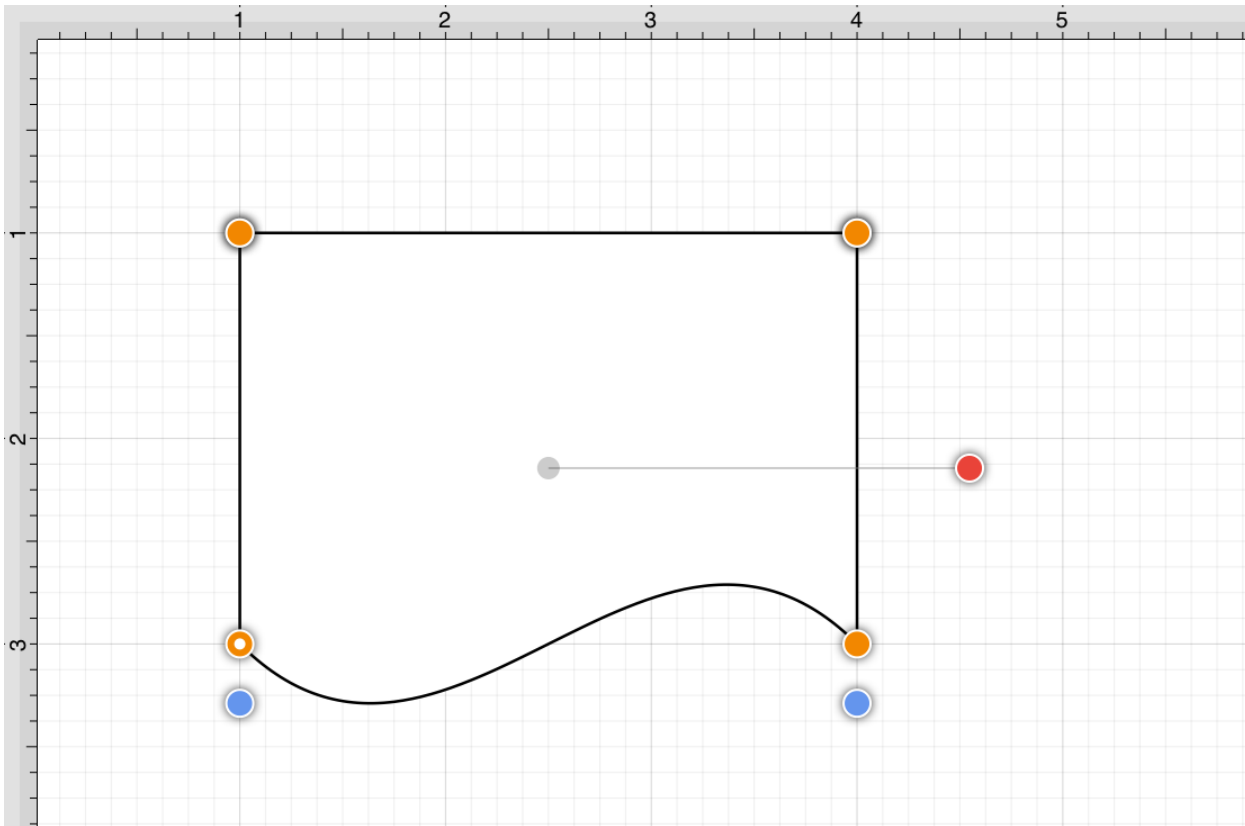
The following screenshot illustrates what happens when the **Shift Key** is held as the **Click** action is completed.



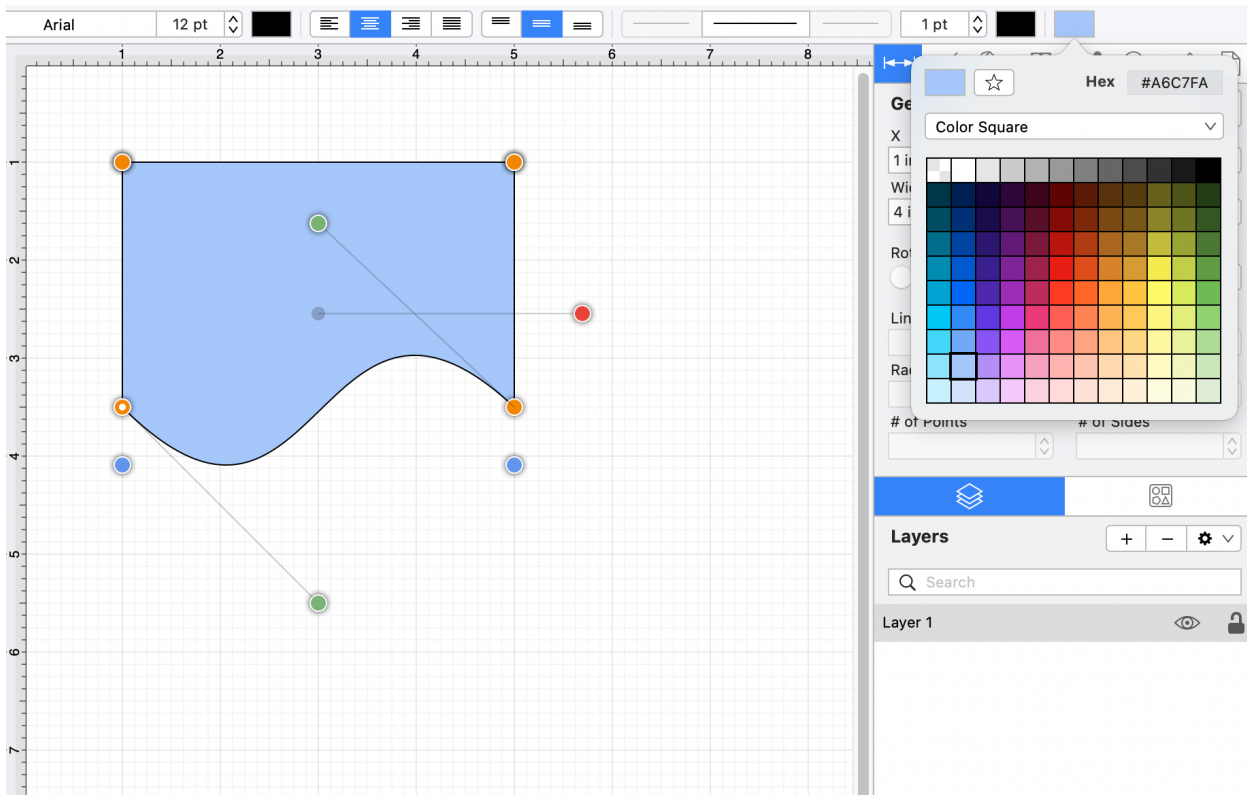
Step 4: Next, click in the upper left-hand corner where the next end point should be.



Step 5: Finally, to close the path and create a shape, **Click** on the start point (the orange handle with a white dot).



Step 6: To set the color, click on the fill button located on the main toolbar and choose light blue. Refer to the [Handling Colors](#) portion of the documentation to learn more about using colors.

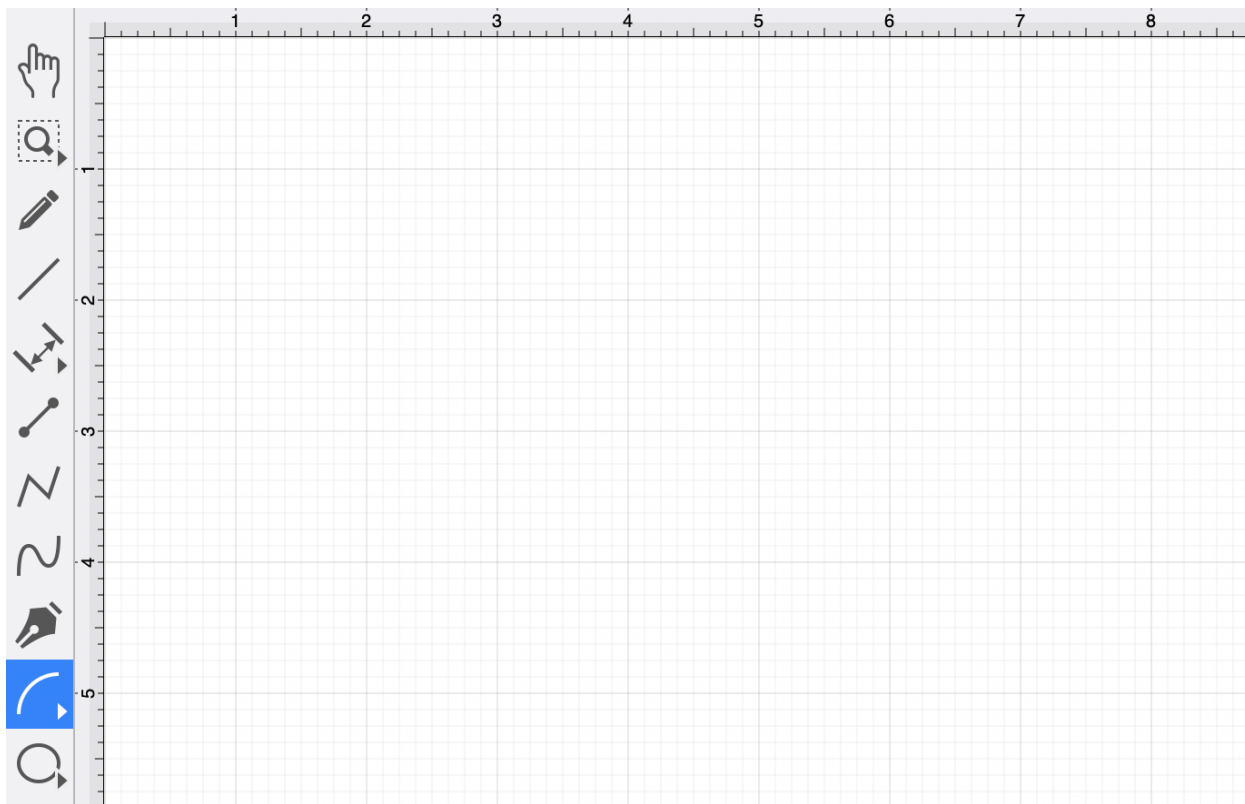


4.5.15. Elliptical Arc Tool

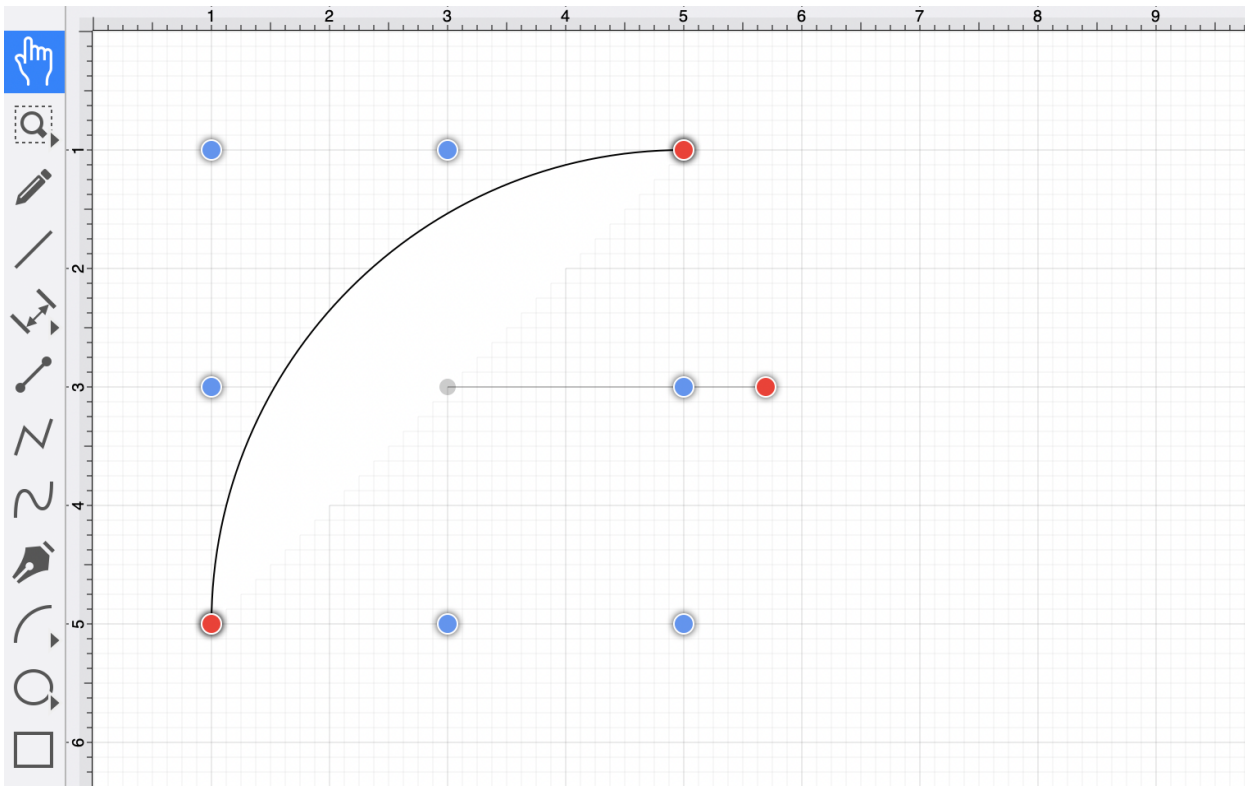
The **Elliptical Arc Tool** is used to create a shape consisting of half of an ellipse.

To use the tool, select it in the [Drawing Toolbar](#) and then perform a **Click/Drag** combination at the point in the [Drawing Canvas](#) where one of the bounding corners of the elliptical arc should be.

Then drag in any direction and release the **Click/Drag** action where the other bounding corner should be.



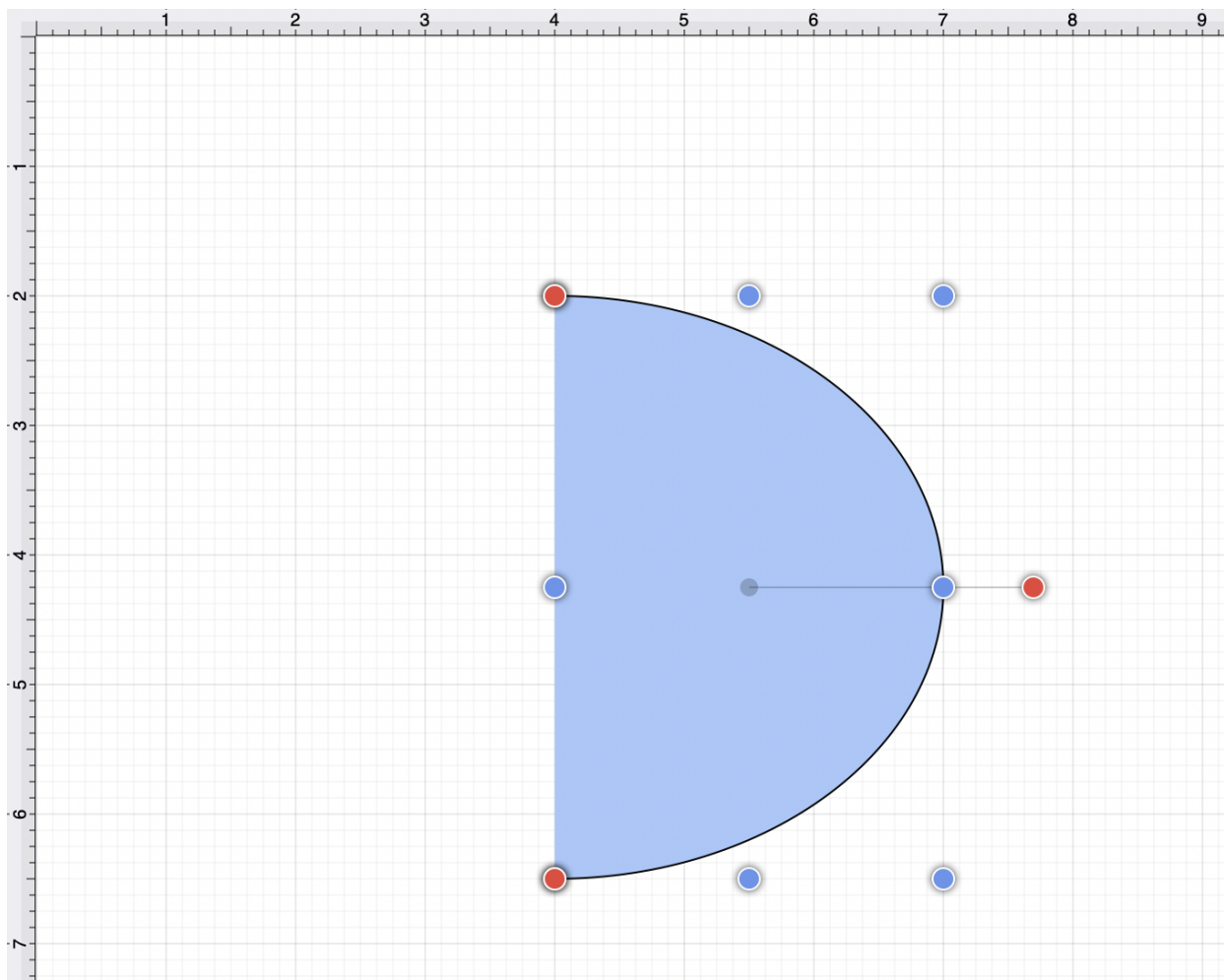
In the example above, the Touch/Drag action began at 1,5 and then dragged upward and to the right to 5,1 on the [Drawing Canvas](#).



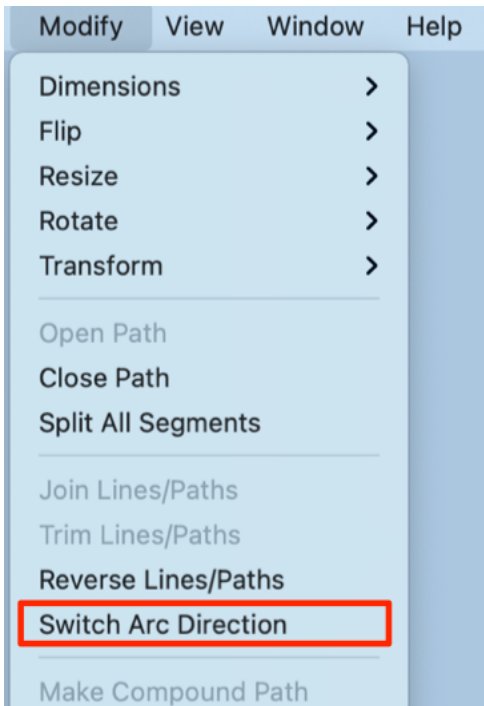
Switching the Arc Direction

The **Switch Arc Direction** option within the [Modify Menu](#) can be used to reverse the direction of an elliptical arc within the [Drawing Canvas](#).

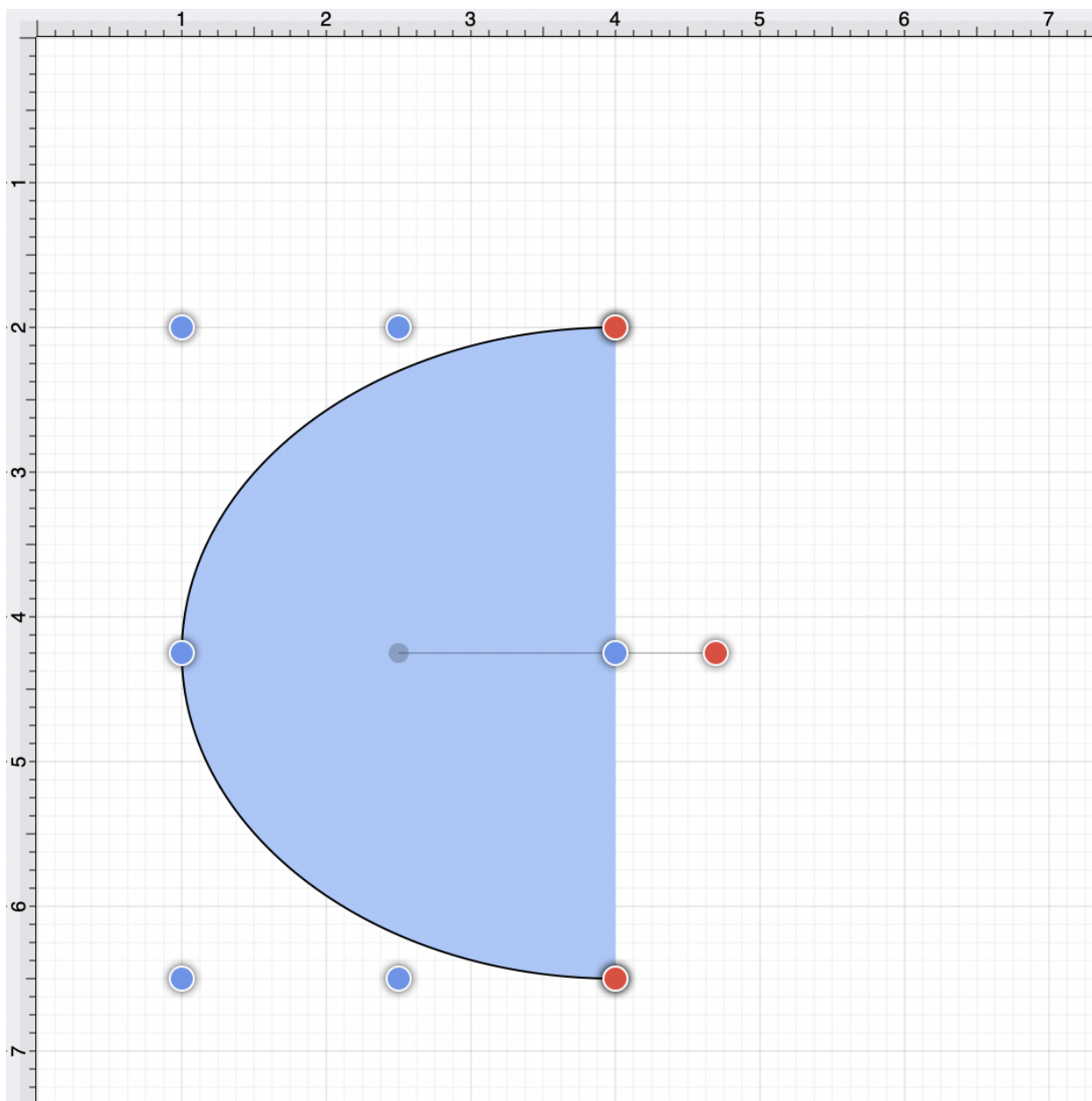
Step 1: [Select](#) the elliptical arc within the Drawing Canvas.



Step 2: Select the [Modify Menu](#) and then select the **Switch Arc Direction** option.

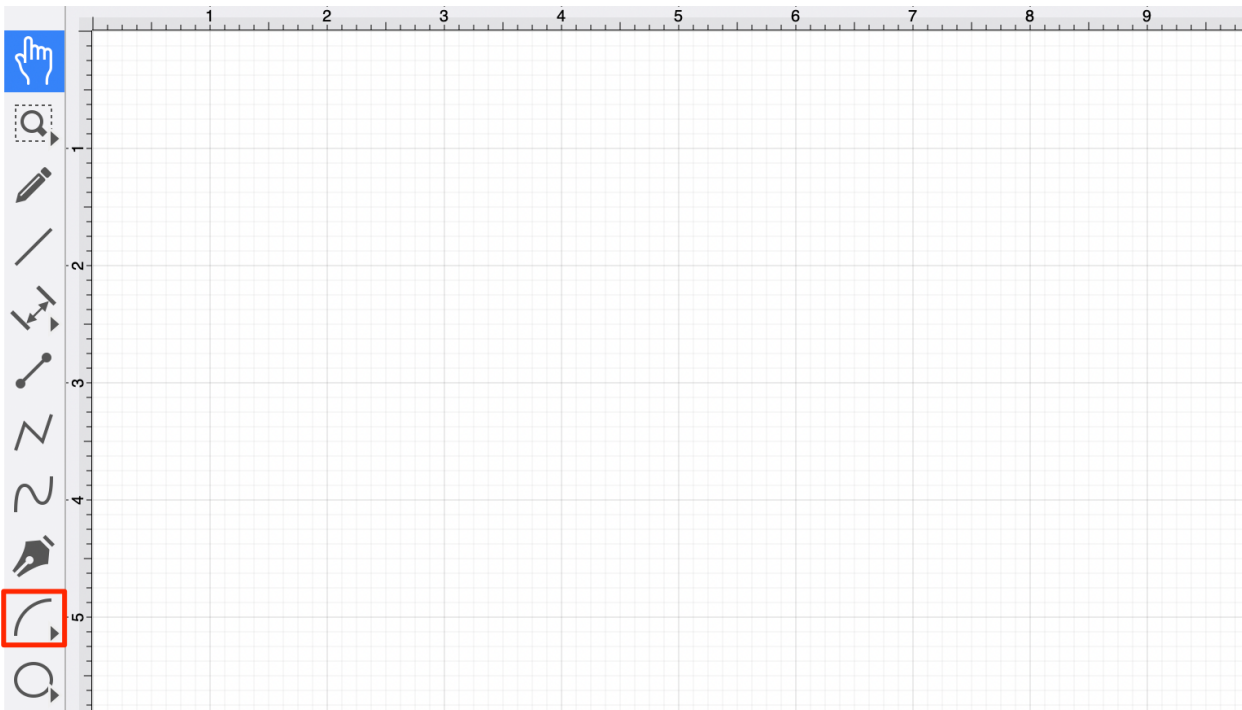


The image below shows the elliptical arc reversed:



Additional Information for Smaller Screens

When TouchDraw 2 has been opened within a smaller screen area, certain tools within the [Drawing Toolbar](#) will collapse to form selectable menus.



The **Elliptical Arc Tool** may be combined with the [Circular Arc Tool](#). The menu can be expanded by performing an **Extended Click** over the tool button.



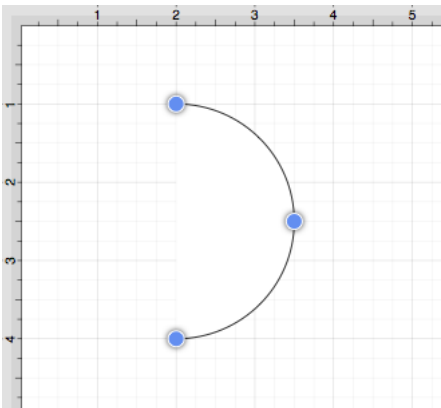
4.5.16. Circular Arc Tool

The **Circular Arc Tool** creates a perfect circular arc where the position, length, and angle increase in proportional increments as the size of the shape increases.

To use this tool, **Click** on the **Circular Arc Tool** within the [Drawing Toolbar](#).

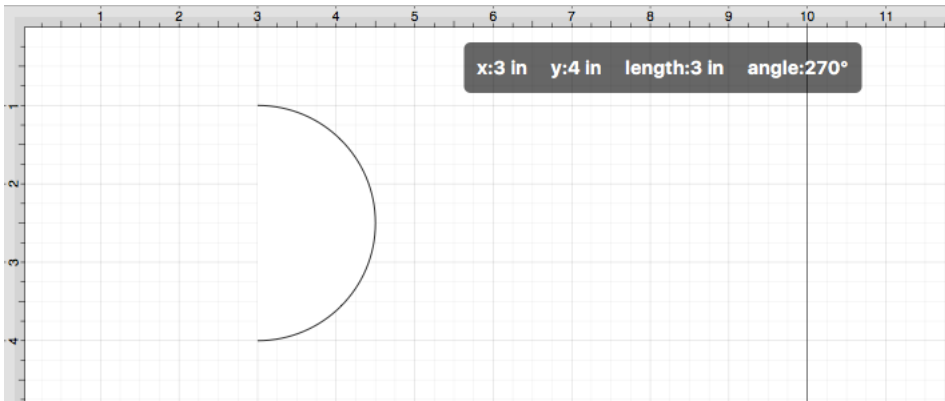
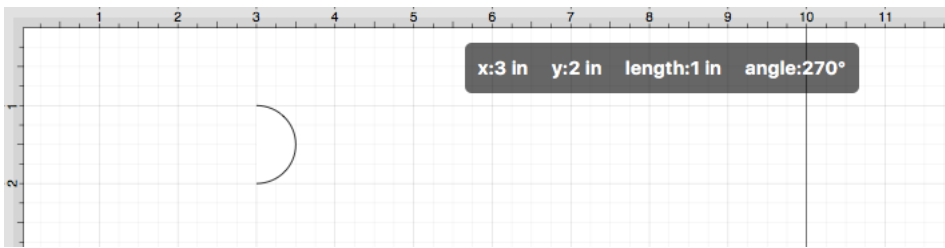


A circular arc will appear similar to what is shown below:



Click on the point in the [Drawing Canvas](#) where the arc point of the circular arc should be, and then **Drag** outward without releasing the click until the circular arc consists of the desired length, angle, and size.

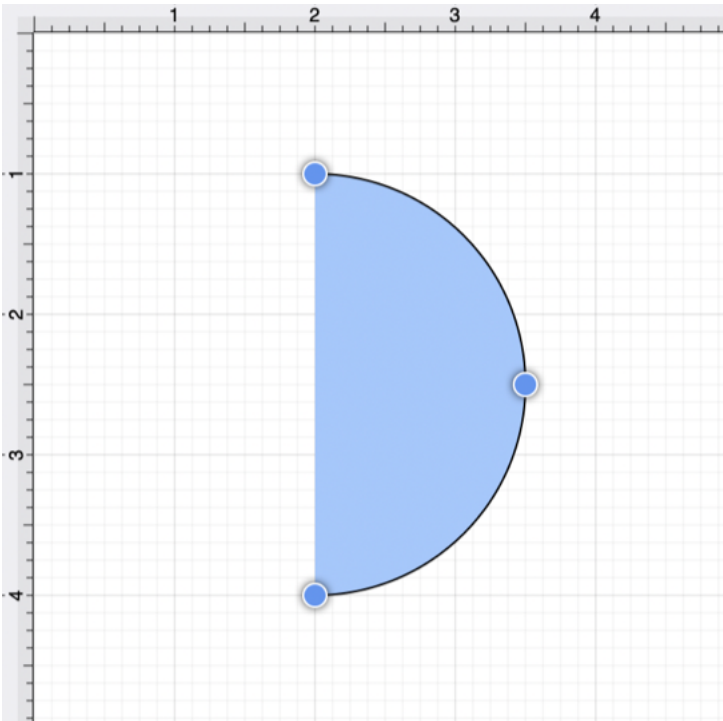
Release the **Click** action to complete the circular arc. The x, y, length, and angle values will increase as the size of the circular arc increases. Refer to the images below:



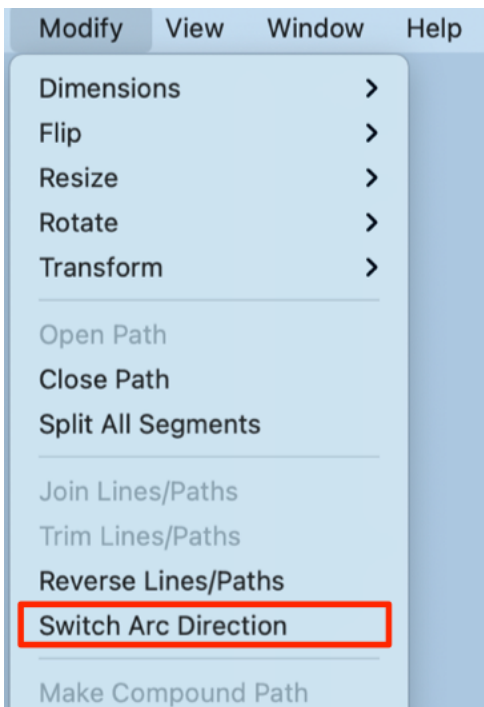
Switching the Arc Direction

The **Switch Arc Direction** option within the [Modify Menu](#) can be used to reverse the direction of a circular arc within the [Drawing Canvas](#).

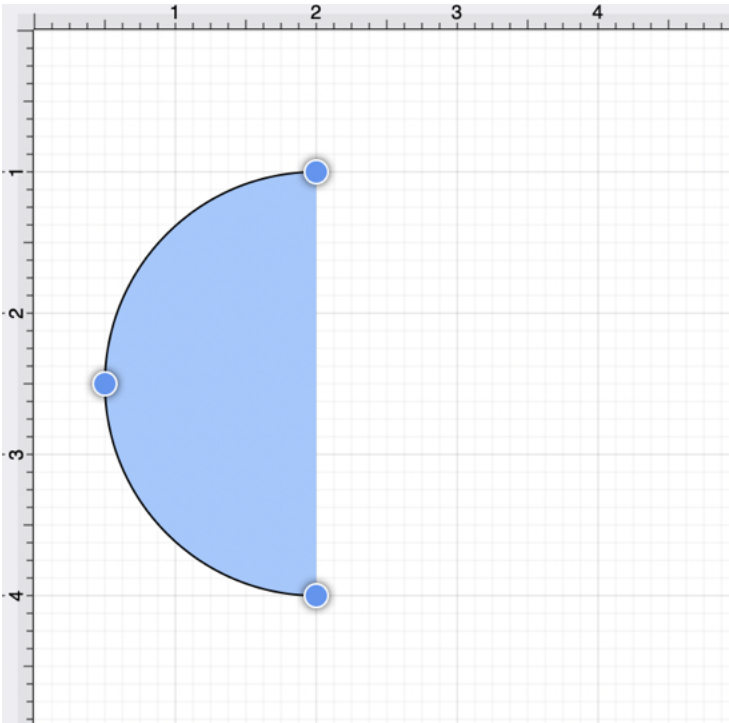
Step 1: [Select](#) the circular arc within the Drawing Canvas.



Step 2: Select the [Modify Menu](#) and then select the **Switch Arc Direction** option.

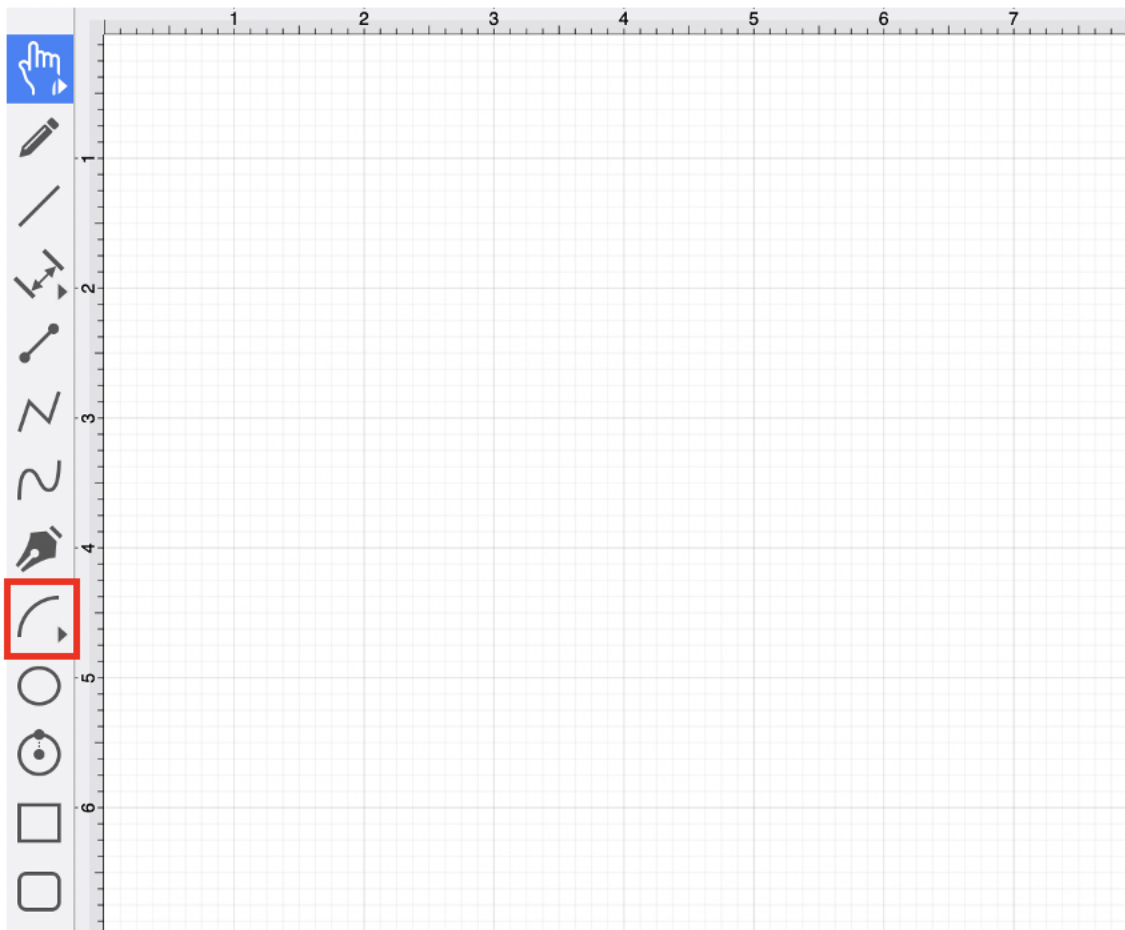


The image below shows the circular arc reversed:



Additional Information for Smaller Screens

The **Circular Arc Tool** may not appear by itself within the [Drawing Toolbar](#) on smaller Mac screens or when the application window has been made smaller. This is because the toolbar has been designed to intuitively adjust based on screen size and collapses similar tools together in these situations.



If tools have been placed in a selectable menu with the drawing toolbar, you will see a right-facing arrow in the bottom right corner of the tool button.

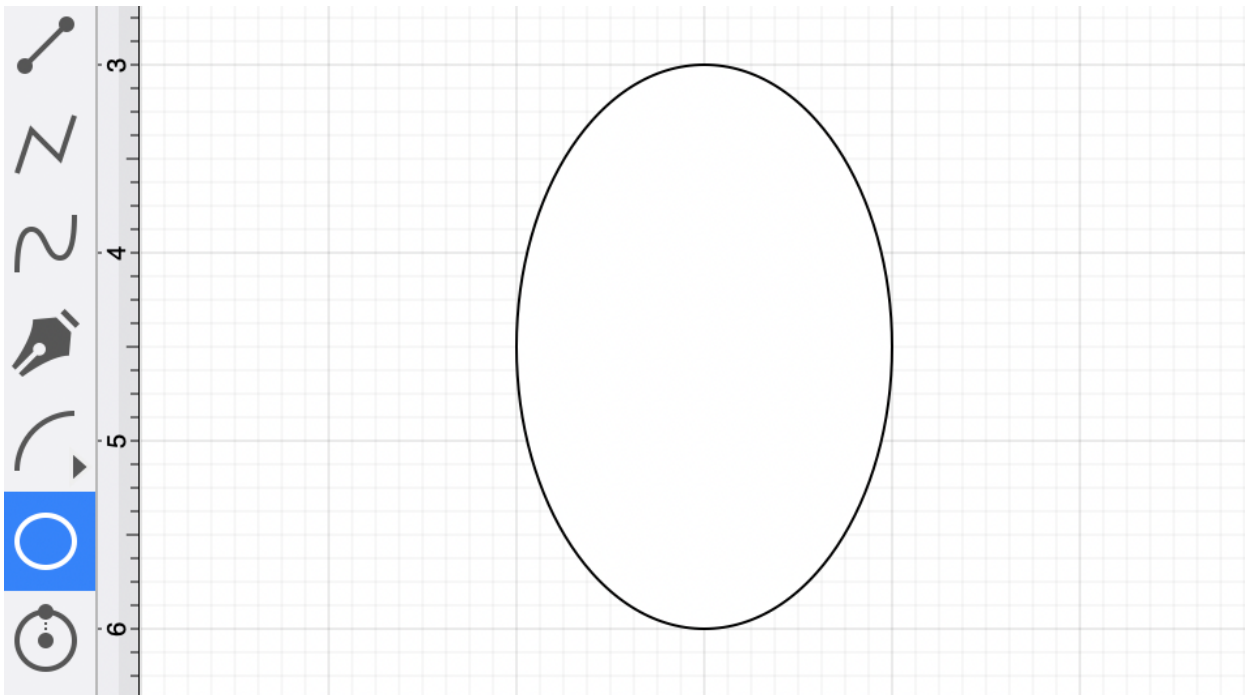
To select the tool, perform an **Extended Click** on the available button and then click on the **Circular Arc Tool**.



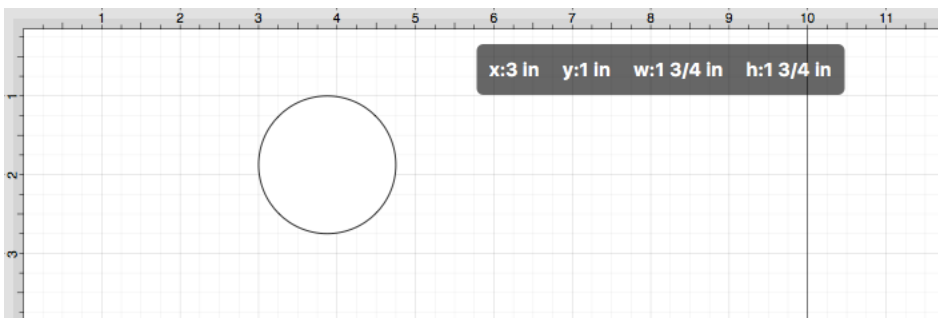
4.5.17. Oval Tool

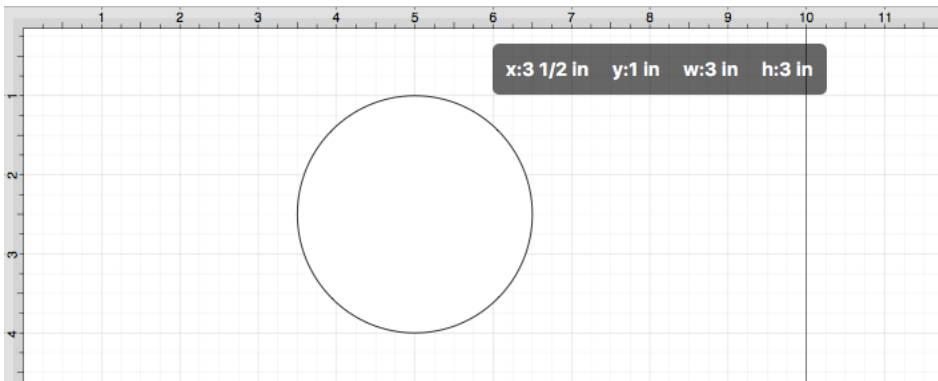
The **Oval Tool** is used to create ovals or circles within a drawing.

To use the tool, select it and then perform a **Click/Drag** combination at the point in the drawing panel where one of the bounding corners of the oval or circle should be. Drag in any direction and release the **Click** action where the other bounding corner should be.



Using the **Oval Tool** while holding down the **Shift** key allows for the creation of perfect circles by constraining the width and the height of the created object to equal values.



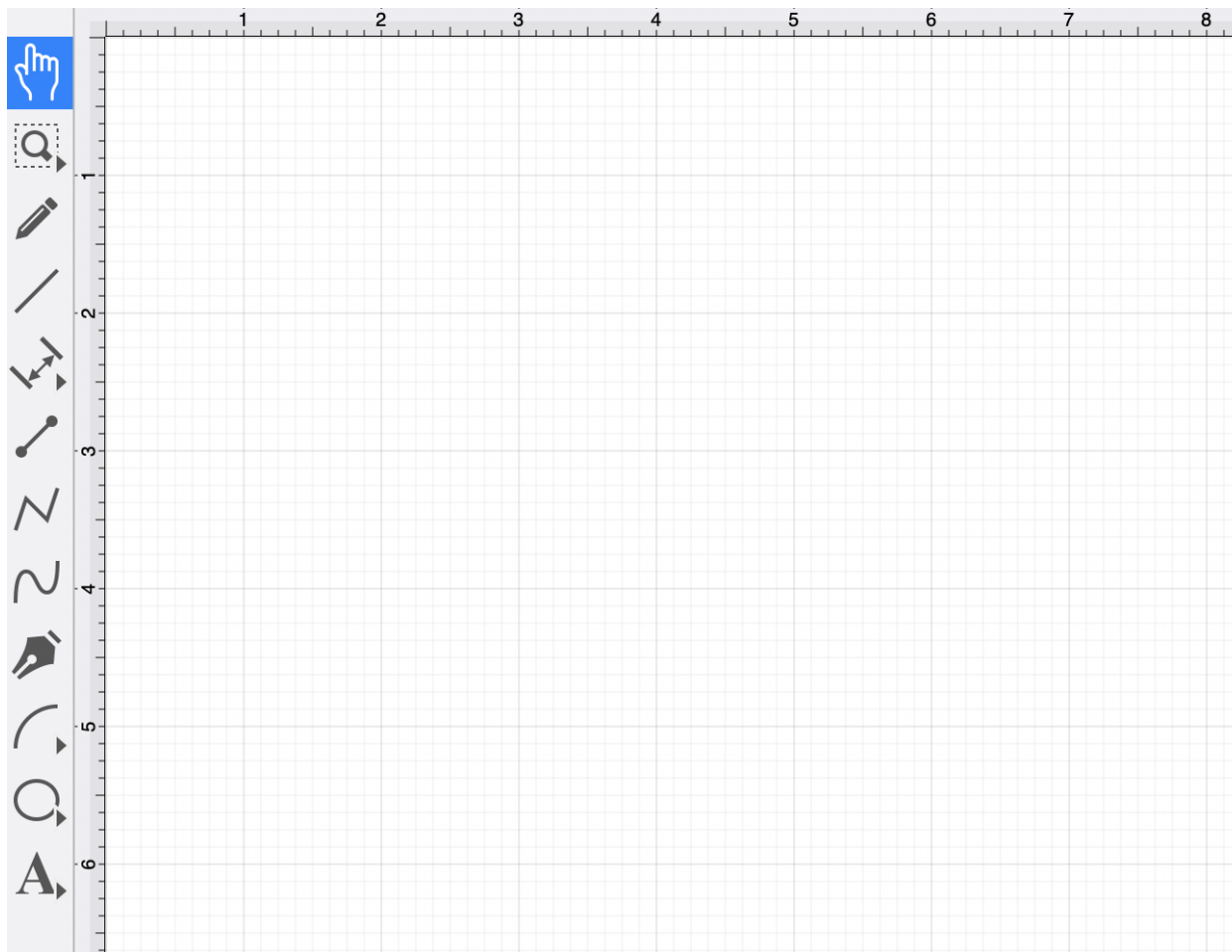


Note: An oval can also contain text. See the [Handling Text](#) section for additional details.

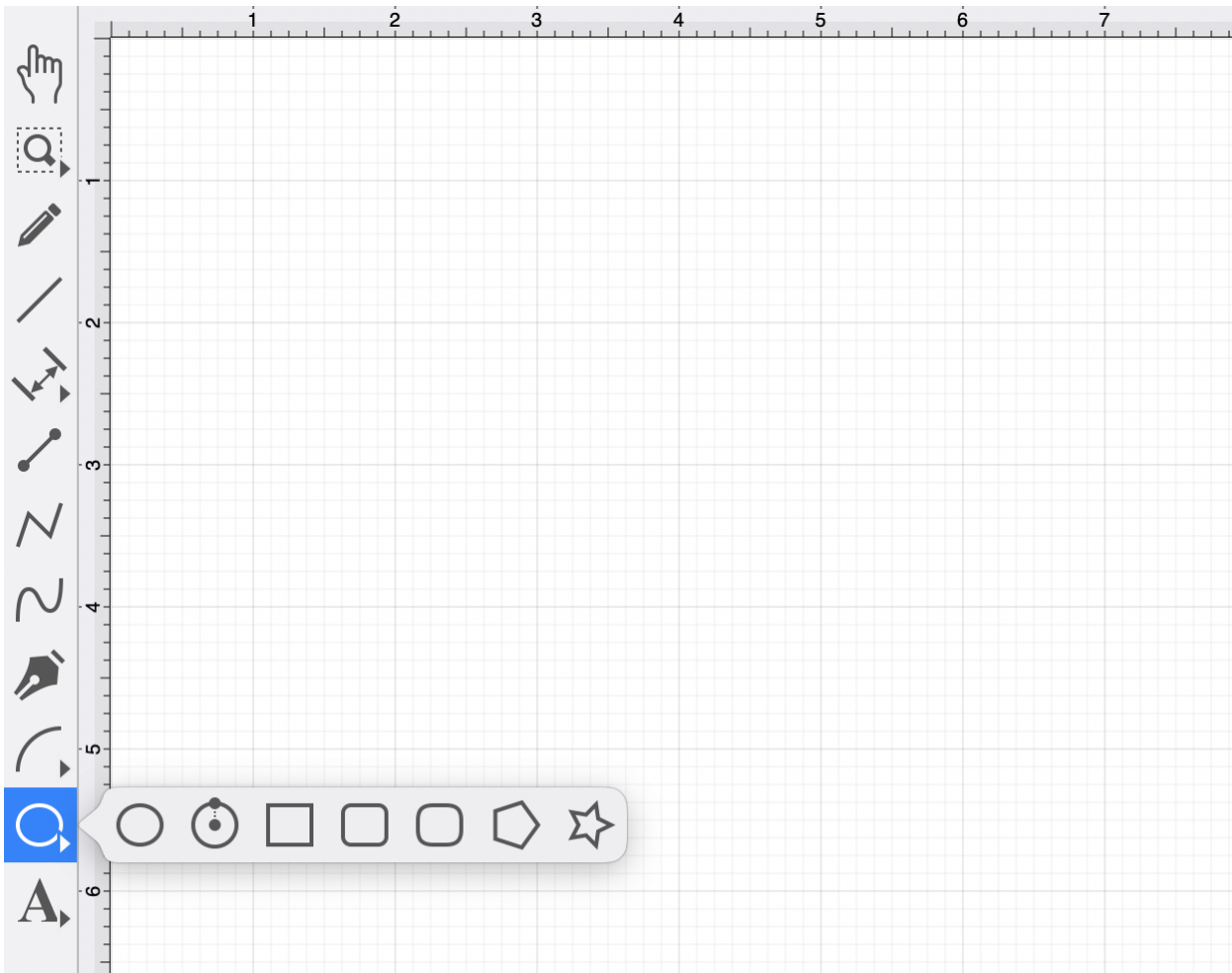
Additional Information for Smaller Screens

The [Drawing Toolbar](#) has been designed to intuitively adjust based on screen size and collapse similar tools together on smaller Mac screens.

If tools have been placed in a selectable menu with the drawing toolbar, you will see a right-facing arrow in the bottom right corner of the tool button.



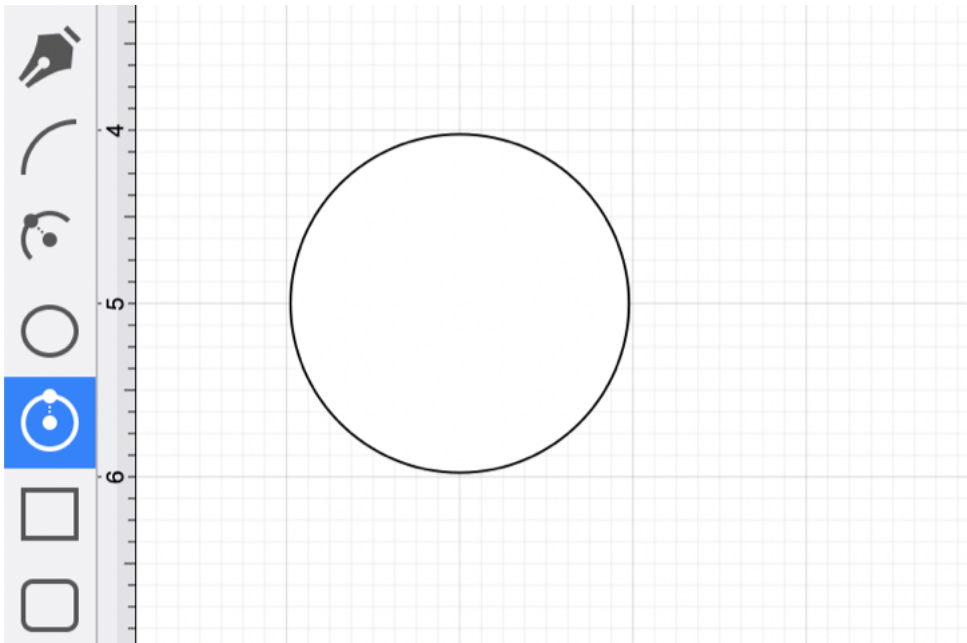
Perform an **Extended Click** to open up a pop-over menu and then **Click** on the desired tool to select it.



4.5.18. Circle Tool

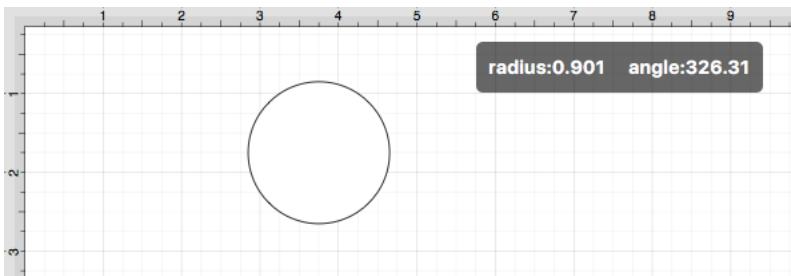
This **Circle Tool** creates a perfect circle where the radius increases in increments as the size of the shape increases.

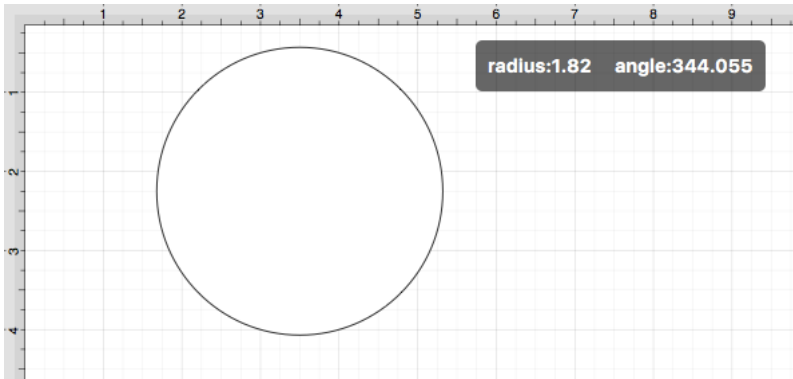
To select the Circle Tool, **Click** on the [Oval Tool](#) button in the [Drawing Toolbar](#).



Click on the point in the drawing canvas where the center of the circle should be and **Drag** outward until the circle consists of a desired radius or size. Release the **Click** action to complete the circle.

The radius and angle values will increase as the size of the circle increases. Refer to the images below:

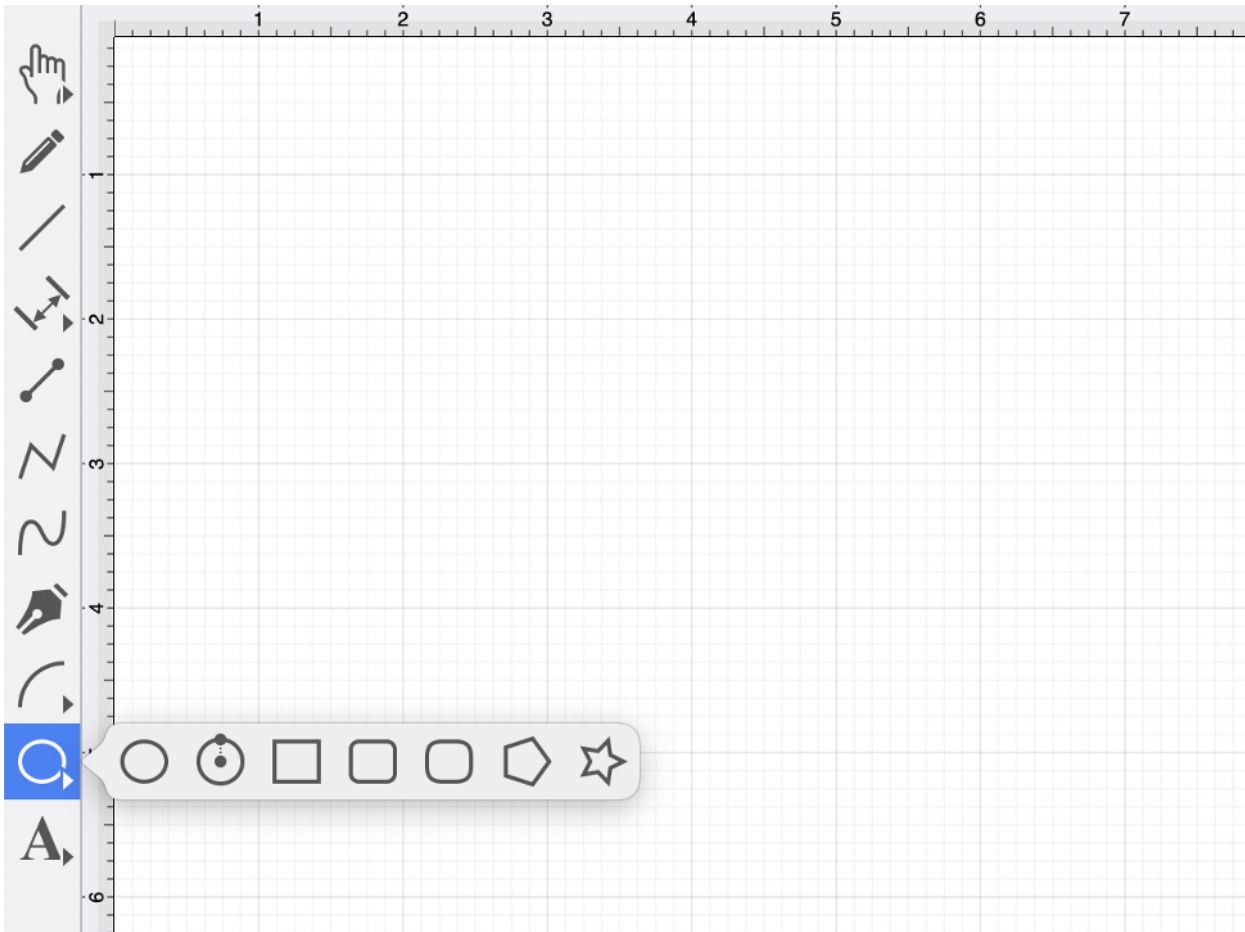




Additional Information for Smaller Screens

The Drawing Toolbar has an intuitive design that adjusts to match the screen size of your Android device. For smaller devices, some tool buttons may be combined to form a pop-over menu.

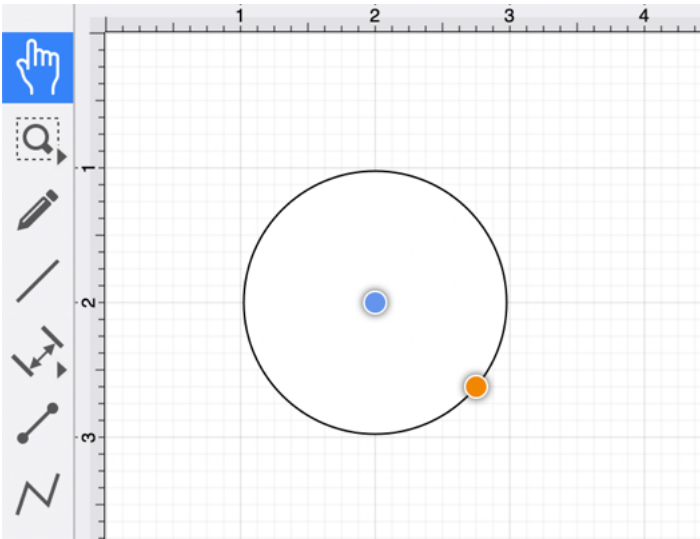
To select the Circle Tool on smaller devices, perform an **Extended Click** on the Oval Tool in the Drawing Toolbar. Then select the tool within the pop-over menu.



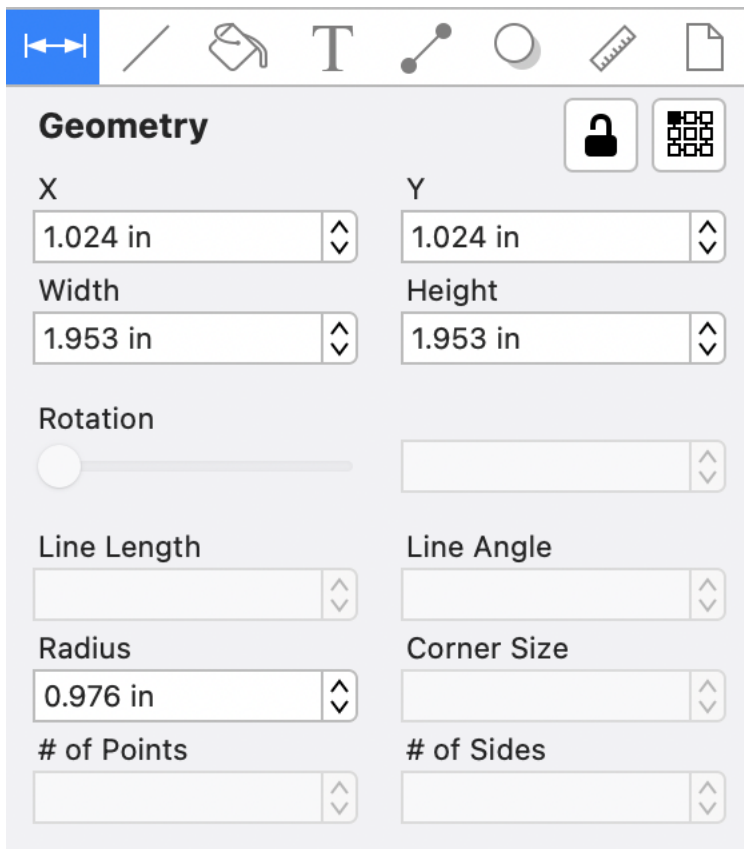
How to Change the Radius of a Circle

The radius of a circle can be altered after its creation. To set the radius:

Step 1: Choose the [Selection Tool](#) in the [Drawing Toolbar](#) and highlight the desired circle.



Step 2: Click on the **Geometry Tab** located in the "Info" section of the [Sidebar](#).



Step 3: You will find the **Radius** option in the bottom right portion of the *Shape Specific* settings section. Use the "up" or "down" arrow buttons to change the value or click on the text entry field to key in a value.

Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text" value="0.976 in"/>	<input type="text"/>
# of Points	# of Sides
<input type="text"/>	<input type="text"/>

Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text" value="2 in"/>	<input type="text"/>
# of Points	# of Sides
<input type="text"/>	<input type="text"/>

When typing in a **Radius** value, a different unit of measure (i.e., points, pixels, millimeters, centimeters, inches, feet, meters, etc.) other than the default of *Inches* can be entered for the dimensional attribute.

Enter the desired value and unit of measurement. Then use the **Enter Key** on your keyboard or click in another area of TouchDraw 2, and the entered value will automatically be converted to its equivalent value in *Inches*.

Example 1: Entering 1 cm for the Radius

If 1 centimeter (1 cm) is entered for the **Radius**, it will be converted to 0.394 inches.

Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text" value="1 cm"/>	<input type="text"/>
# of Points	# of Sides
<input type="text"/>	<input type="text"/>

Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text" value="0.394 in"/>	<input type="text"/>
# of Points	# of Sides
<input type="text"/>	<input type="text"/>

Example 2: Entering 15 mm for the Radius

If 15 millimeters (15 mm) is entered for the **Radius**, it will be converted to 0.591 inches.

Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text" value="15 mm"/>	<input type="text"/>
# of Points	# of Sides
<input type="text"/>	<input type="text"/>

Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text" value="0.591 in"/>	<input type="text"/>
# of Points	# of Sides
<input type="text"/>	<input type="text"/>

Example 3: Entering 100 px for the Radius

If 100 pixels (100 px) is entered, the value will be 1.389 inches.

Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text" value="100 px"/>	<input type="text"/>
# of Points	# of Sides
<input type="text"/>	<input type="text"/>

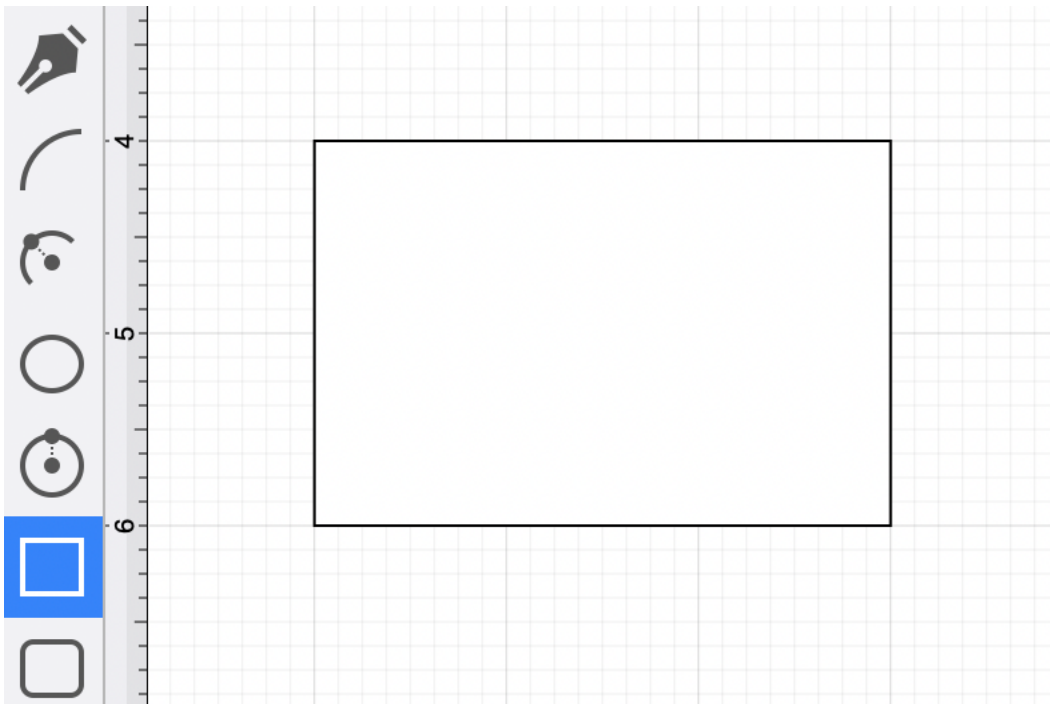
Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text" value="1.389 in"/>	<input type="text"/>
# of Points	# of Sides
<input type="text"/>	<input type="text"/>

Note: A circle can also contain text. See [Handling Text](#) for further details.

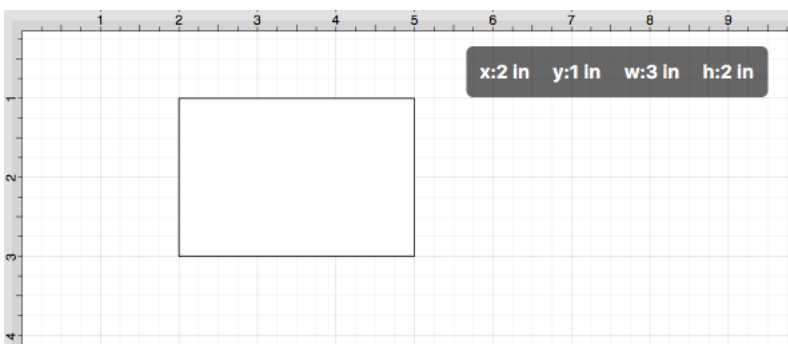
4.5.19. Rectangle Tool

The **Rectangle Tool** can be used to create rectangles or squares within a drawing.

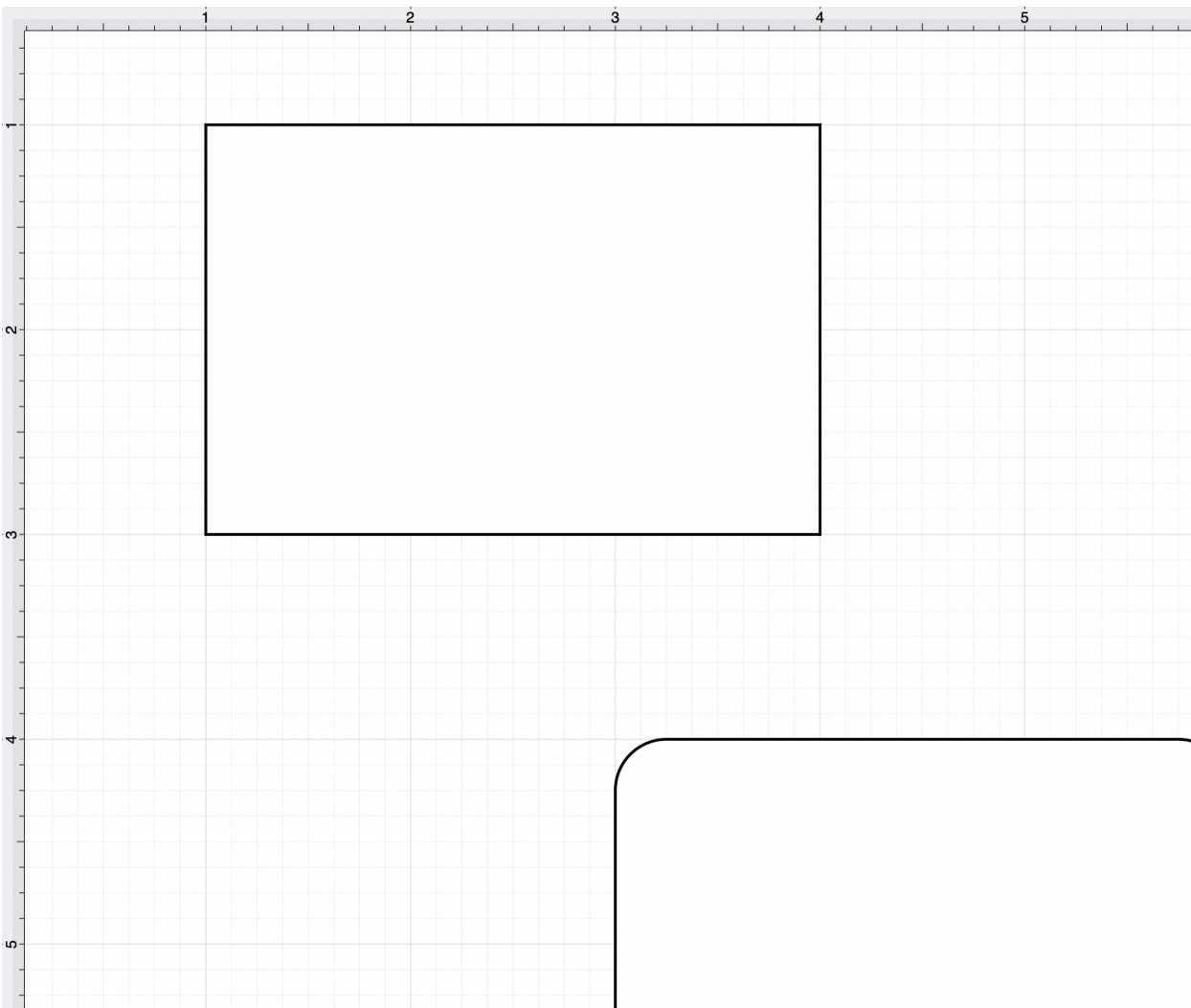
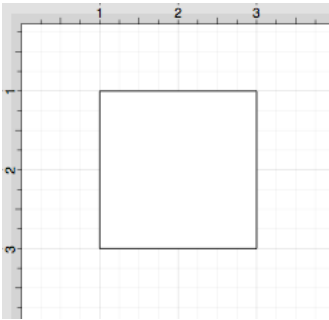
To use the tool, select it and then use a **Click/Drag** combination at the point in the drawing canvas where one of the bounding corners of the rectangle or square should be. Then drag in any direction and release the **Click** action where the other bounding corner should reside on the drawing canvas.



Using the **Rectangle Tool** while holding down the **Shift Key** allows for the creation of perfect squares by constraining the width and the height of the created object to equal values.



In the example below, a square that is 2 inches in height and width has been created:

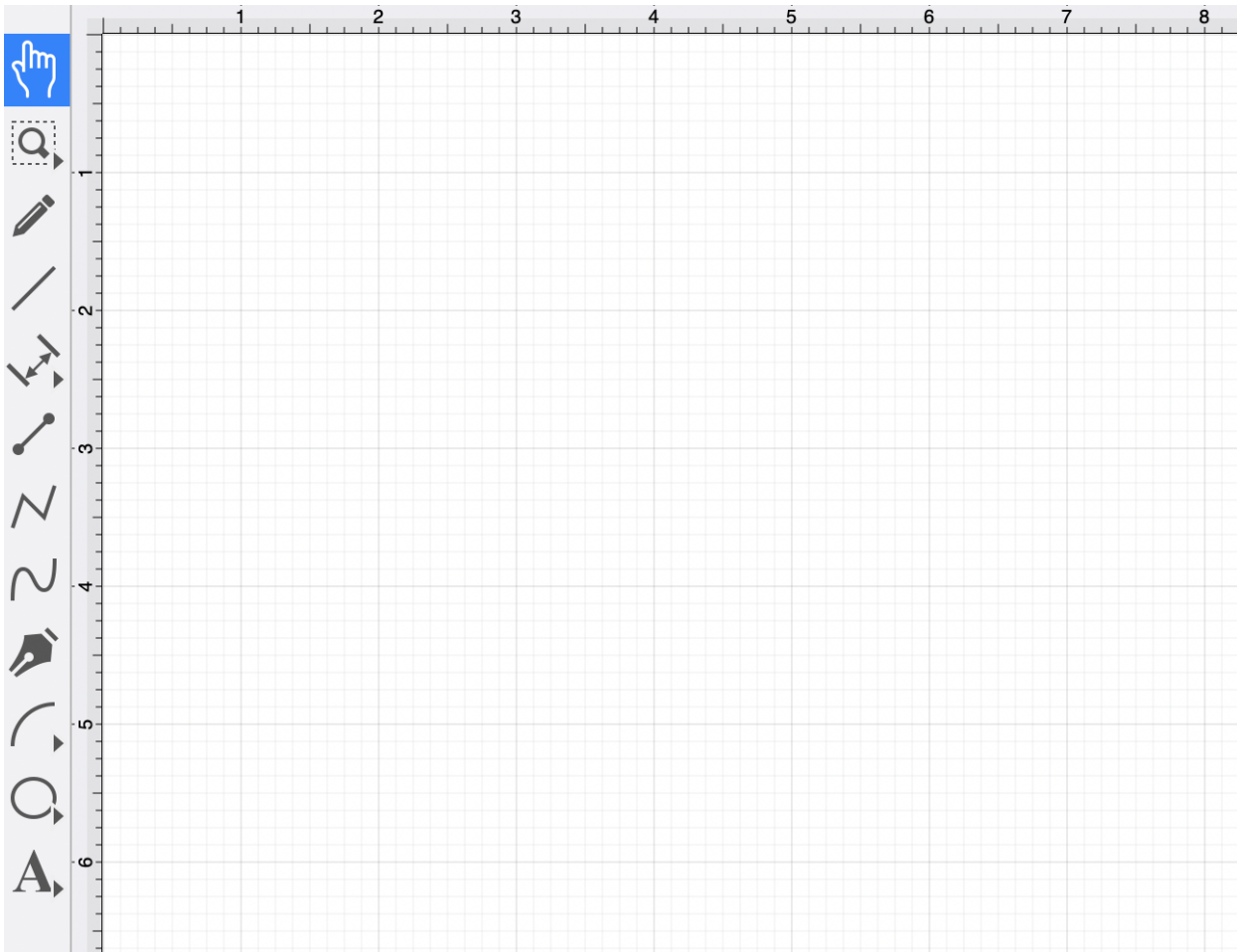


Note: A rectangle can also contain text. See the [Handling Text](#) section for additional details.

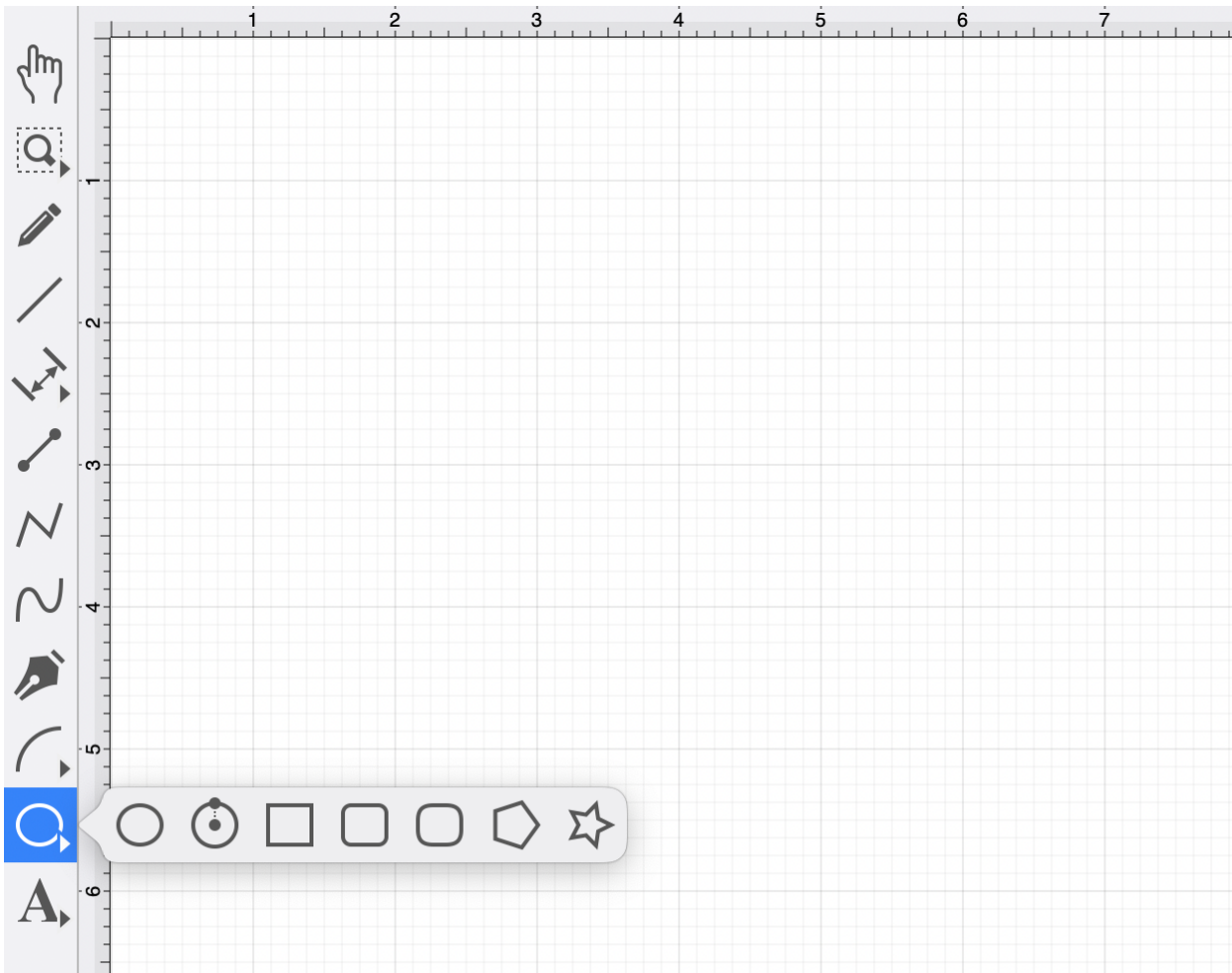
Additional Information for Smaller Screens

The [Drawing Toolbar](#) has an intuitive design that adjusts to match the current size of the application window.

For smaller screen areas, some tool buttons may be combined to form a pop-over menu.



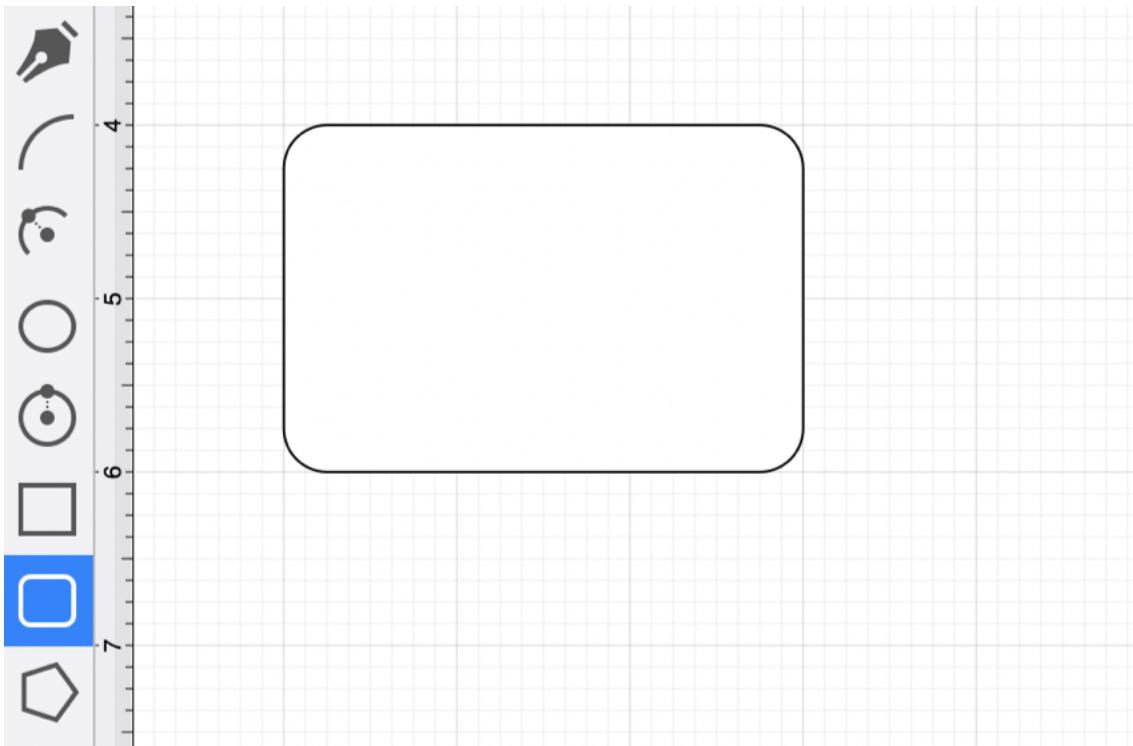
To select the **Rectangle Tool** on smaller devices, perform an **extended Click** on the [Oval Tool](#) in the [Drawing Toolbar](#) and then **Click** on the **Rectangle Tool** within the pop-over menu.



4.5.20. Rounded Rectangle Tool

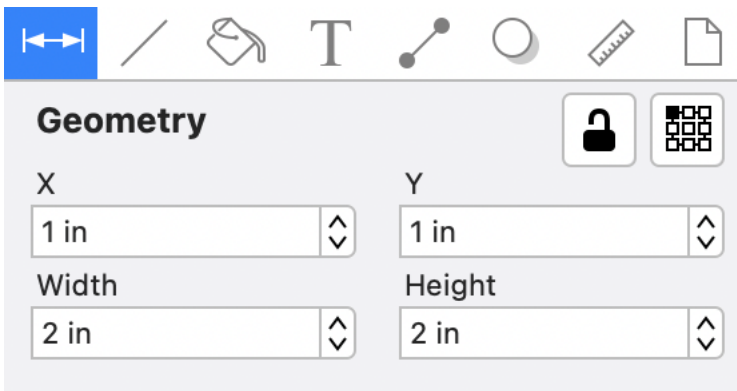
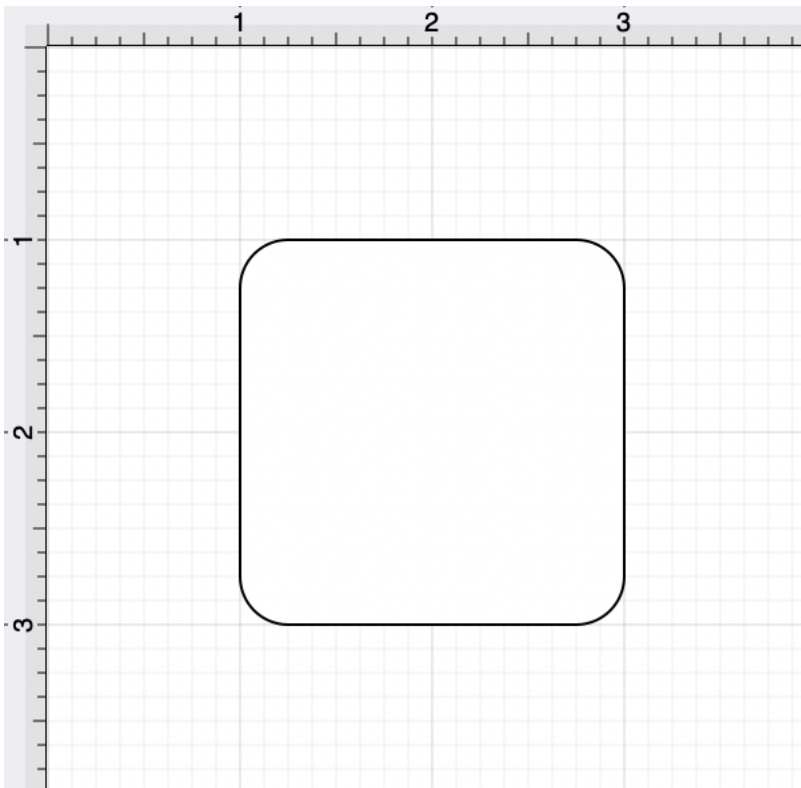
The **Rounded Rectangle Tool** can be used to create rounded rectangles or rounded squares within a drawing.

To use the tool, select it and use a **Click/Drag** combination at the point in the drawing canvas where one of the bounding corners of the rounded rectangle or square should be. Then drag in any direction and release the **Click** action where the other bounding corner should reside on the drawing canvas.



Use the **Rounded Rectangle Tool** in conjunction with the **Shift Key** to create perfectly rounded squares. Holding down the **Shift** key while creating a rounded rectangle constrains the width and the height to equal values.

In the example below, a rounded square that is 2 inches in height and width has been created:

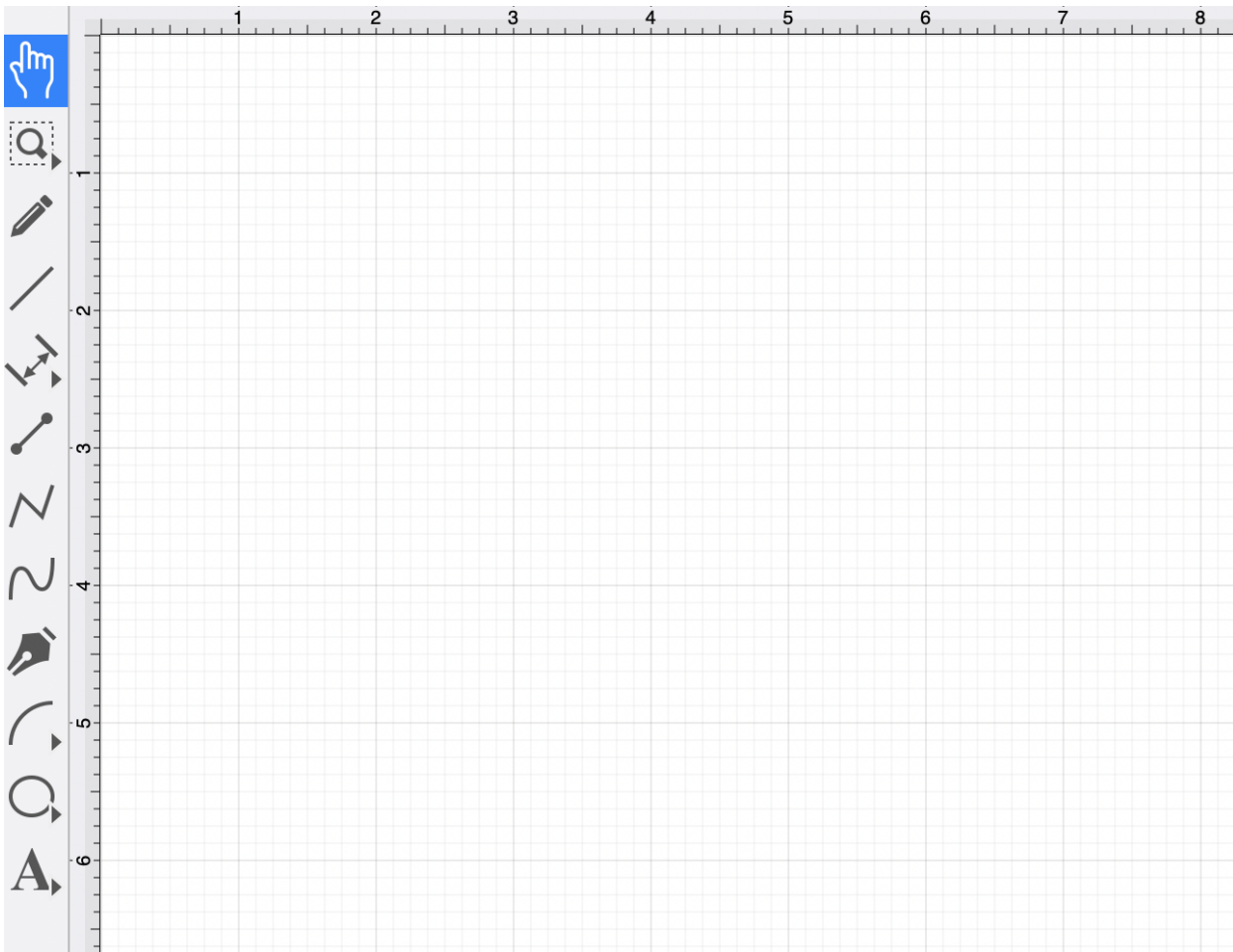


Note: A rounded rectangle can also contain text. See [Handling Text](#) for additional details.

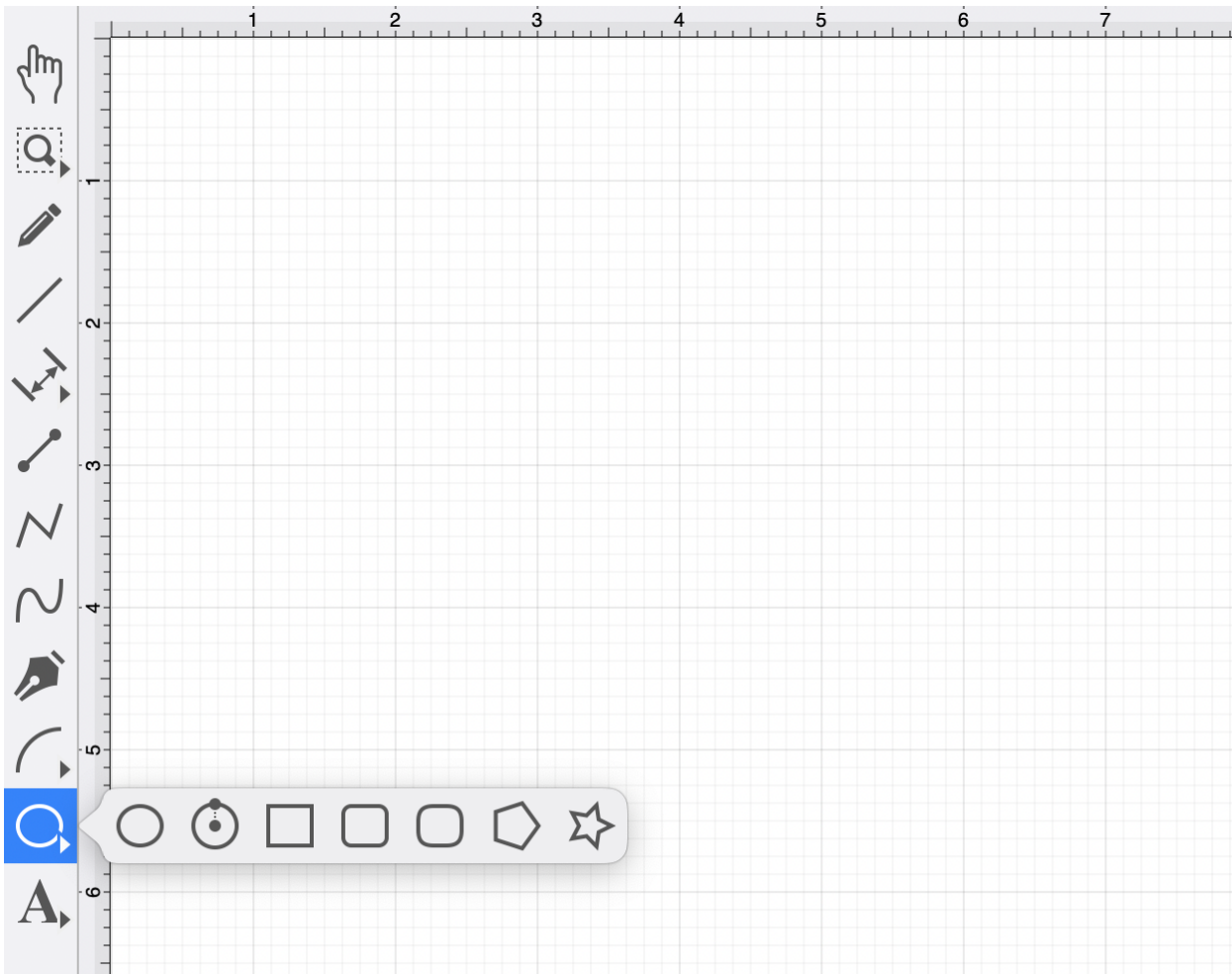
Additional Information for Smaller Screens

The [Drawing Toolbar](#) has an intuitive design that adjusts to match the screen size of your Mac computer or the application window.

For smaller screens or application windows, some tool buttons may be combined to form a pop-over menu.



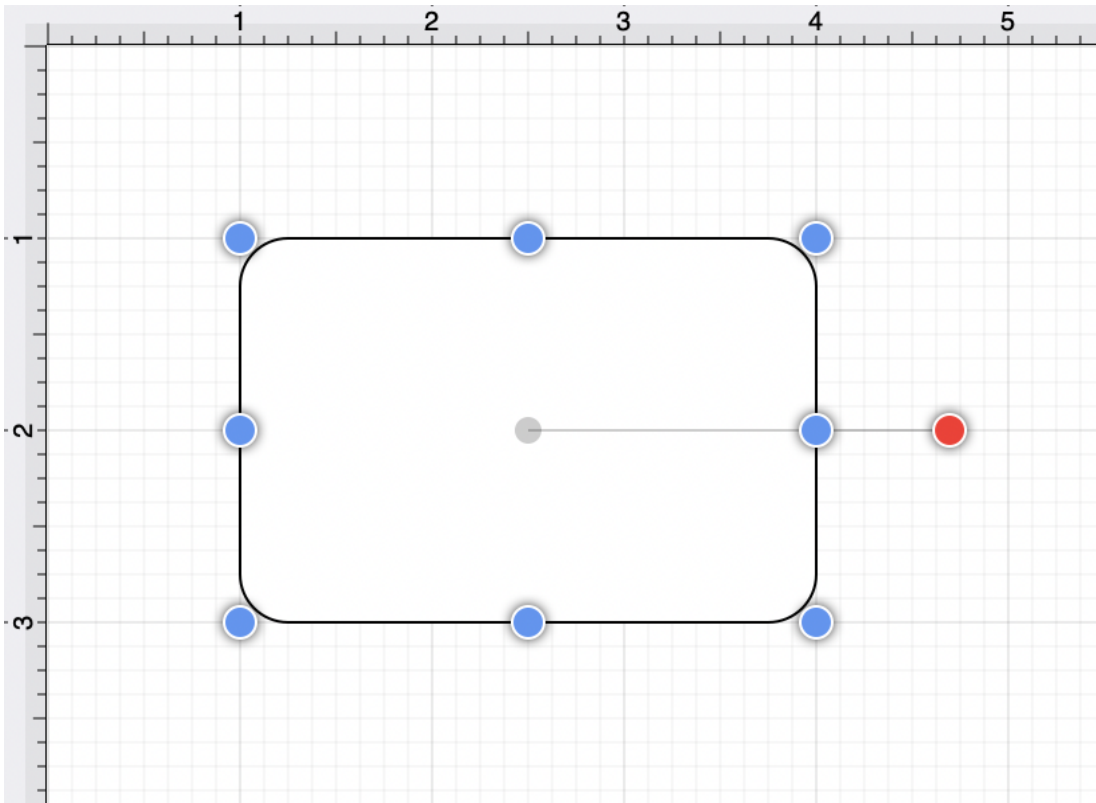
To select the **Rounded Rectangle Tool** on smaller devices, perform an **extended Click** on the [Oval Tool](#) in the [Drawing Toolbar](#) and **Click** on the **Rounded Rectangle Tool** within the pop-over menu.



How to Change the Rounded Corner Size

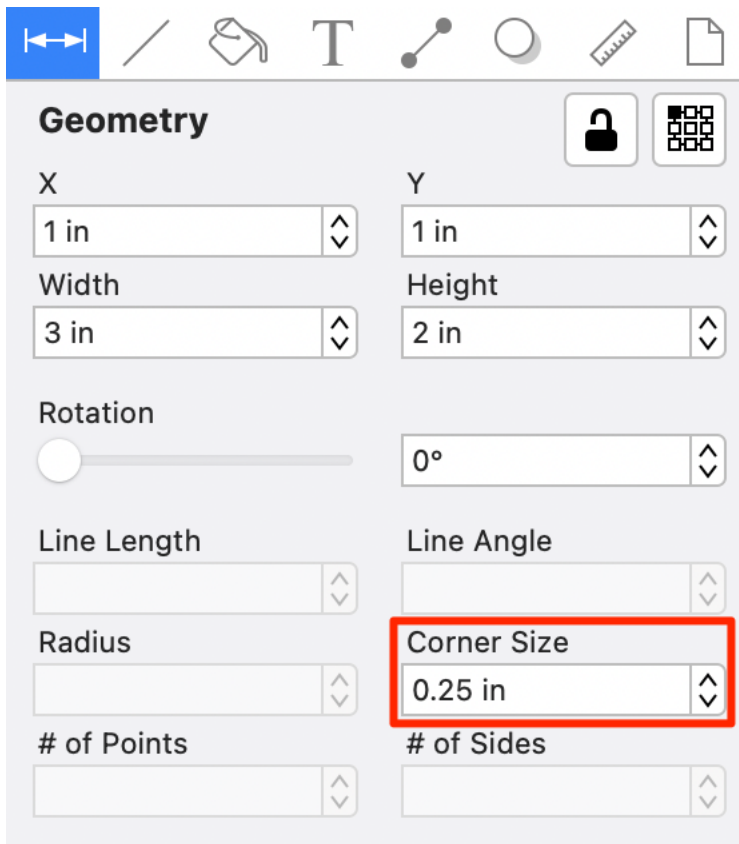
The size of rounded corners can be specified before drawing the shape or altered any time after it has been created. To set the corner size after creating a shape:

Step 1: Choose the **Selection Tool** in the [Drawing Toolbar](#) and highlight the desired rounded rectangle or square.

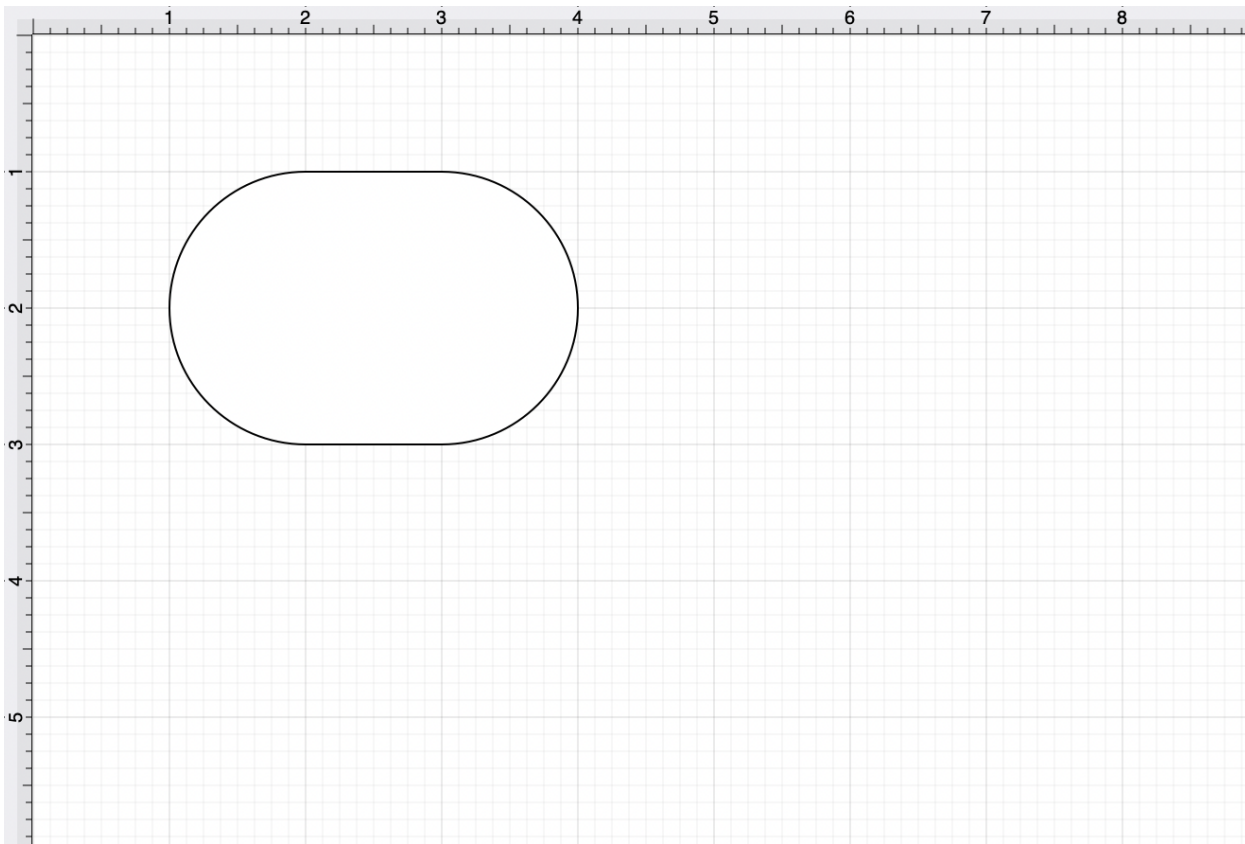


Step 2: Click on the [Geometry Tab](#) within the "Info" section of the [Sidebar](#). You will find the **Corner Size** option in the bottom right portion of the **Shape Specific** settings section.

Use the "up" or "down" arrow buttons to change the value or click on the text entry field to key in a value.



Step 3: The corner size has been changed to 1 inch in the example below.



Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text"/>	1 in
# of Points	# of Sides
5	5

When keying in a **Corner Size** value, another unit of measurement (i.e., pixels, points, millimeters, centimeters, inches, feet, etc.) can be entered and will be converted into its equivalent measurement in **Inches**. Enter the number value and the abbreviation for the desired unit of measurement. The number value will be converted to *Inches* after hitting enter on the keyboard or selecting another item in TouchDraw 2.

Example 1: Entering 100 cm for the Corner Size

A value of 100 centimeters (100 cm) is entered for the corner size and converted to 39.37 inches.

Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text"/>	<input type="text" value="100 cm"/>
# of Points	# of Sides
<input type="text" value="5"/>	<input type="text" value="5"/>

Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text"/>	<input type="text" value="39.37 in"/>
# of Points	# of Sides
<input type="text" value="5"/>	<input type="text" value="5"/>

Example 2: Entering 10 mm for the Corner Size

A value of 10 millimeters (10 mm) is entered for the corner size and converted to 0.394 inches.

Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text"/>	<input type="text" value="10 mm"/>
# of Points	# of Sides
<input type="text" value="5"/>	<input type="text" value="5"/>

Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text"/>	<input type="text" value="0.394 in"/>
# of Points	# of Sides
<input type="text" value="5"/>	<input type="text" value="5"/>

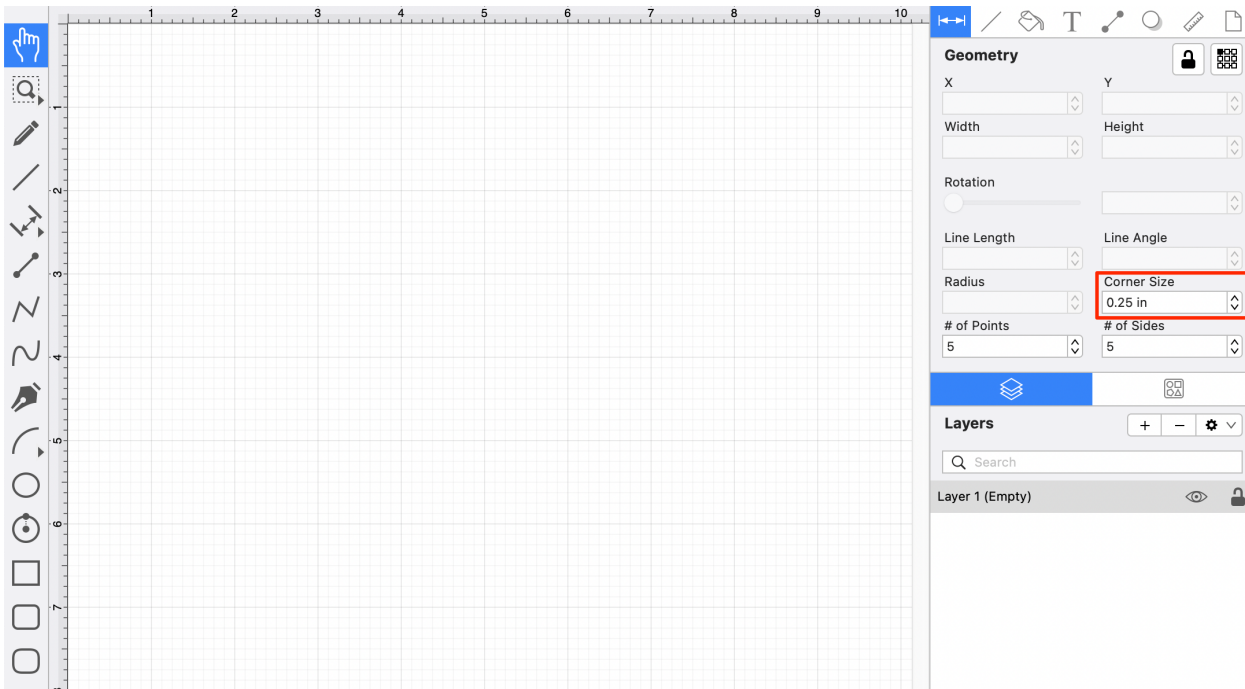
Example 3: Entering 25 px for the Corner Size

A value of 25 pixels (25 px) is entered for the corner size and converted to 0.347 inches.

Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text"/>	25 px
# of Points	# of Sides
5	5

Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text"/>	0.347 in
# of Points	# of Sides
5	5

This measurement can also be altered before creating a shape by choosing the [Selection Tool](#) and changing the **Corner Size** setting located in the **Shape Specific** settings on the Adjustment Tab in the Info section of the Sidebar.

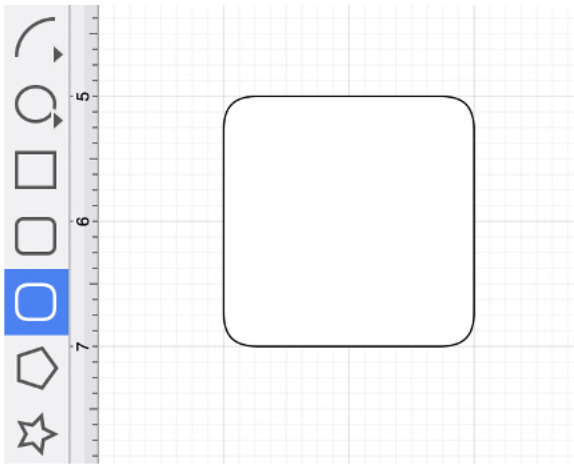


Note: The unit of measure for the corner size is the unit of measure for the drawing; thus, if your unit of measure is inches, and the corner size is set to 0.25, that means the corner size is 1/4 of an inch.

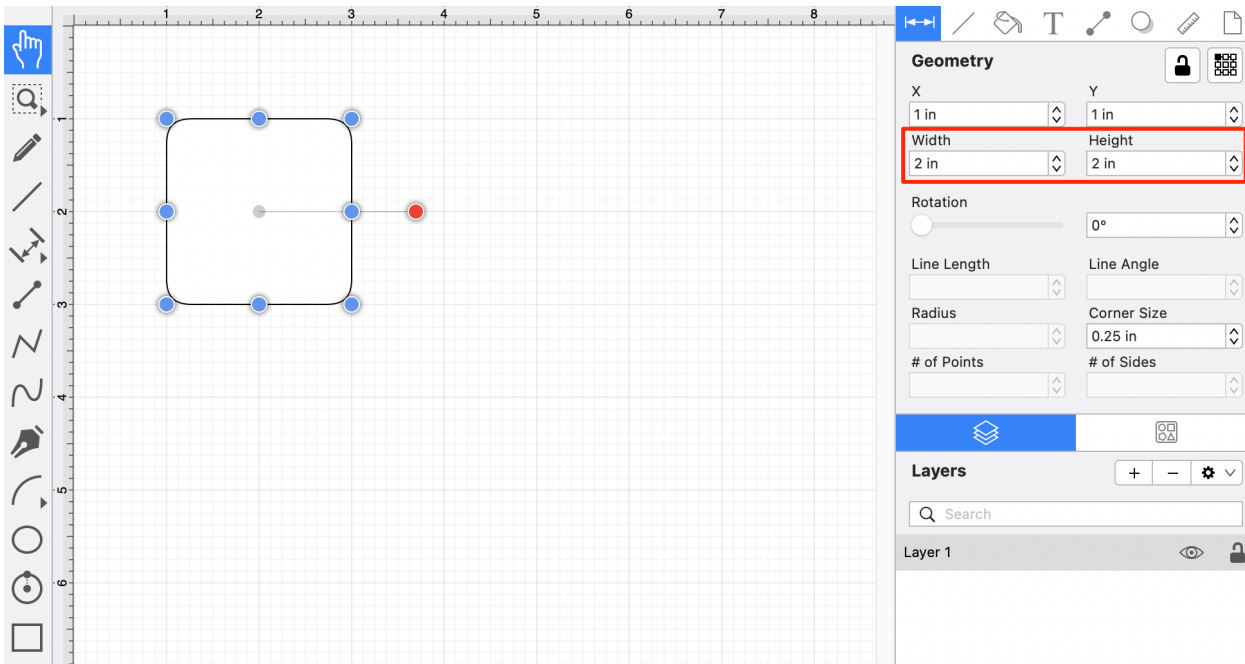
4.5.21. Squircle Tool

The **Squircle Tool** can be used to create a squiracle figure within a drawing.

Select the tool and then use a **Click/Drag** action at the point in the [Drawing Canvas](#) where one of the bounding corners of the squiracle should be. Then drag in any direction and release the **Click** action where the other bounding corner should reside on the Drawing Canvas.



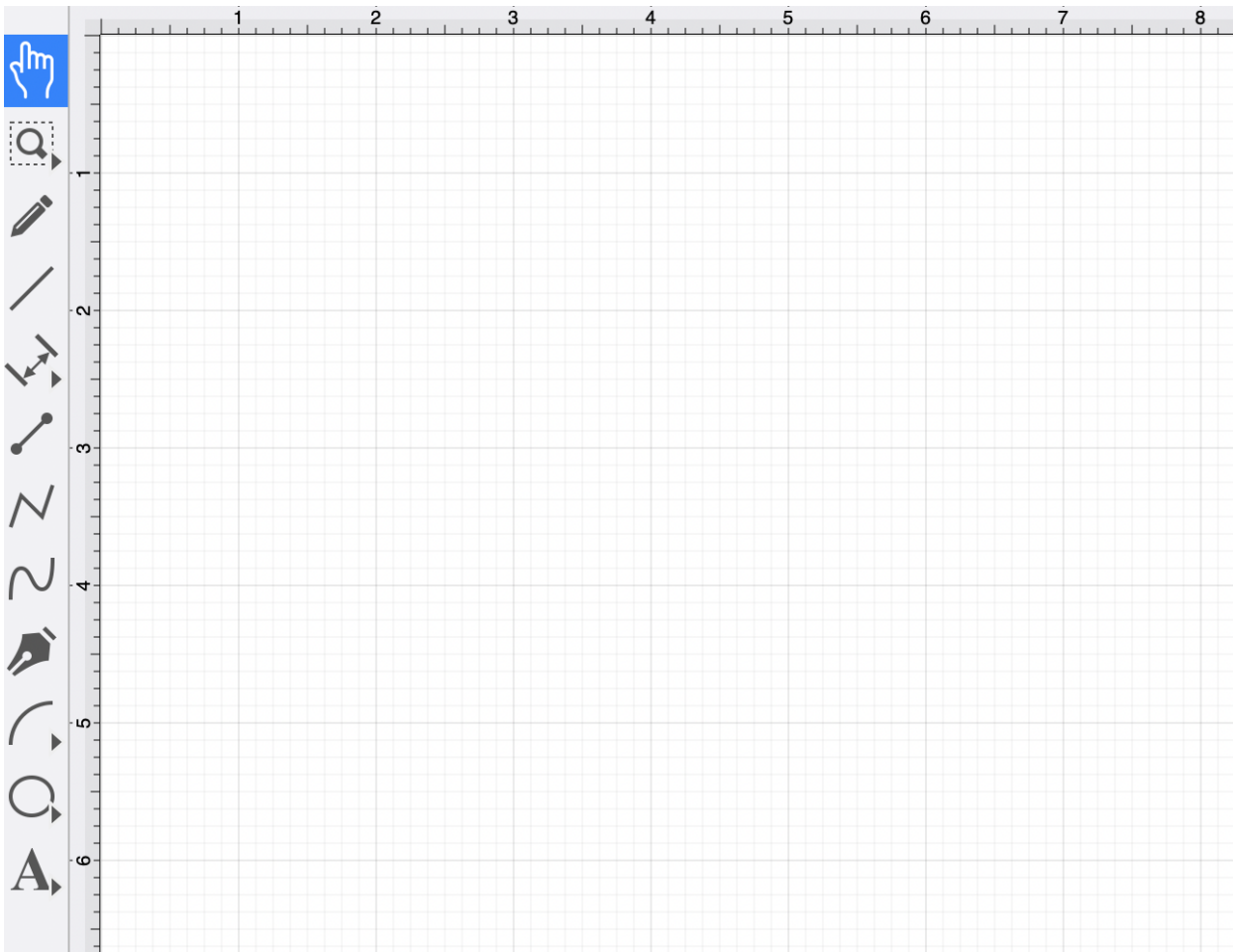
Use a **Shift/Click** action while creating the squiracle to constrain the width and the height to equal values. In the example below, a squiracle that is 2 inches in height and width has been created:



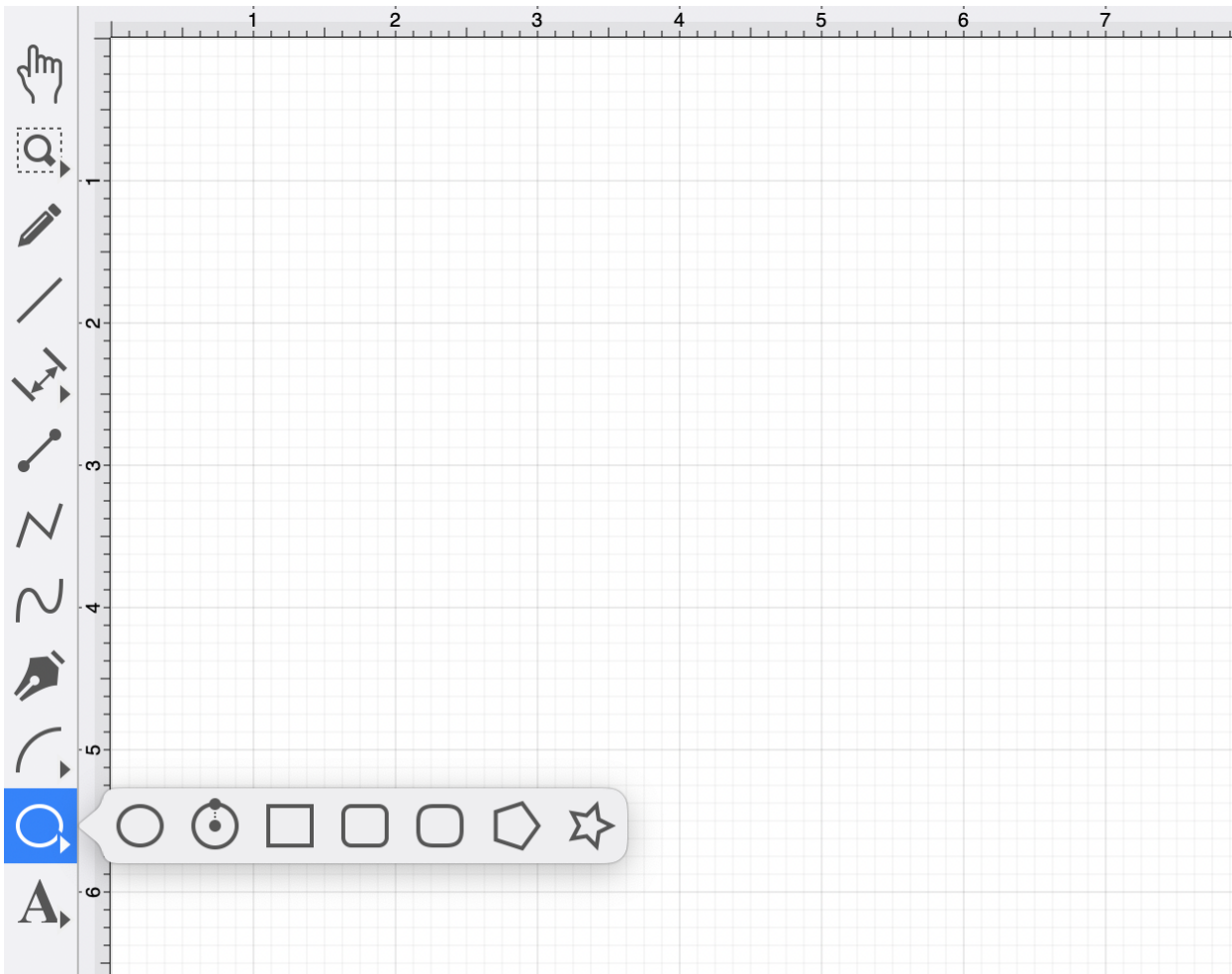
Additional Information for Smaller Screens

The [Drawing Toolbar](#) has an intuitive design that adjusts to match the current size of the application window.

For smaller screen areas, some tool buttons may be combined to form a pop-over menu.



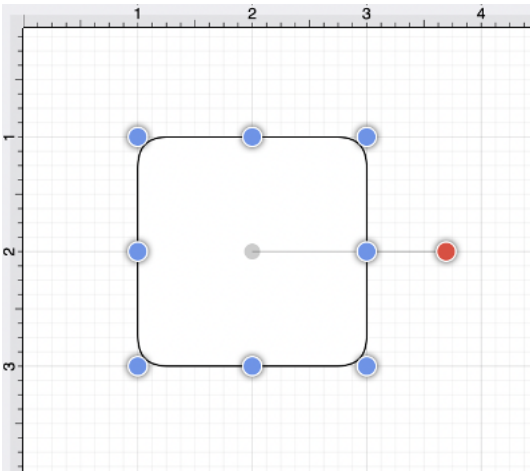
To select the **Squircle Tool** on smaller devices, perform an **extended Click** on the [Oval Tool](#) in the [Drawing Toolbar](#) and then **Click** on the **Squircle Tool** within the pop-over menu.



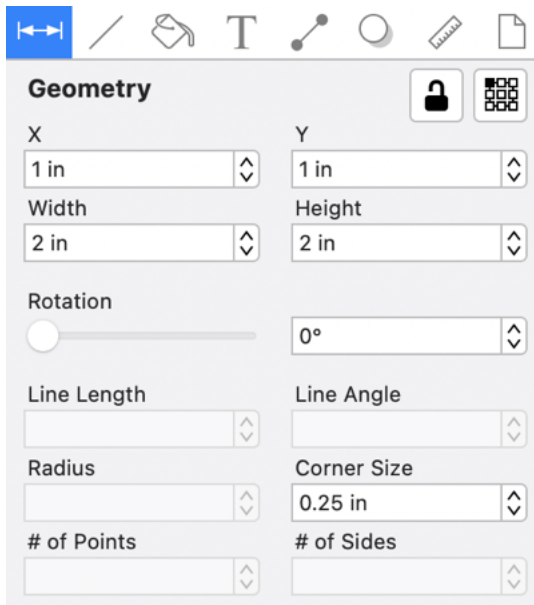
How to Change the Squircle Corner Size

The corner size can be specified before drawing the shape or altered after it has been created. To set the corner size after creating a shape, complete the following steps:

Step 1: Select a squiracle within the drawing.



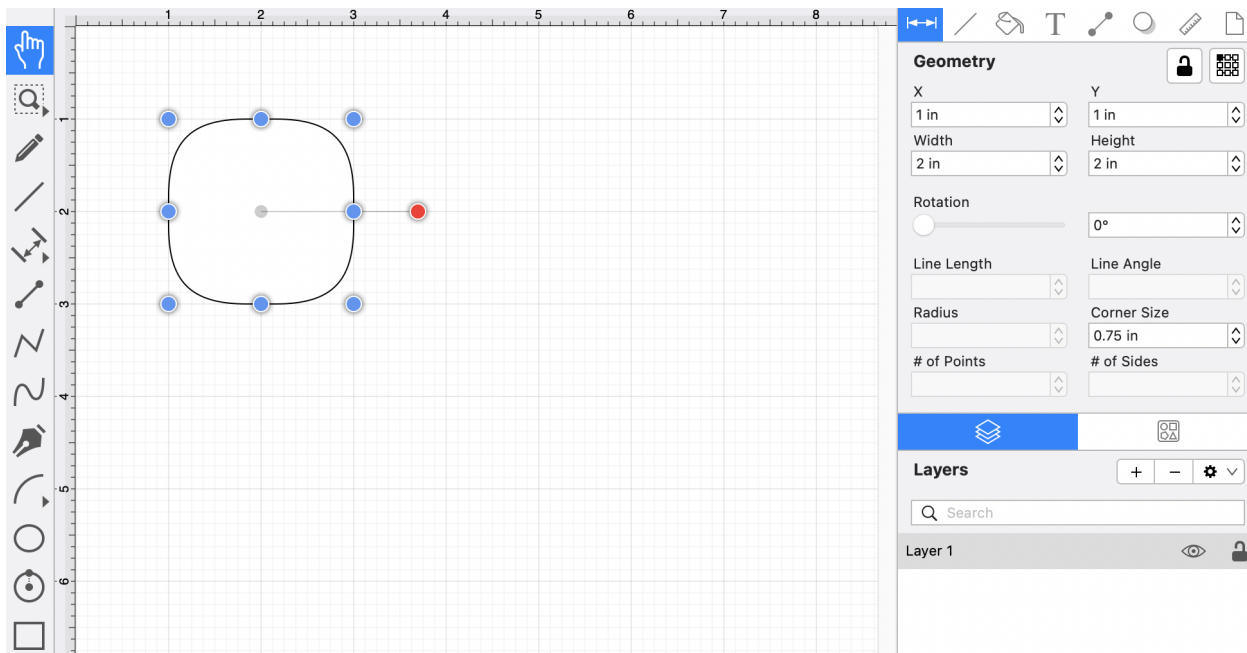
Step 2: Select the **Geometry Tab** within the "Info" section of the [Sidebar](#).



Step 3: Use the **Corner Size** attribute to set the size. Click on the “up” or “down” buttons to change the value or tap on the text entry field to bring up a keyboard for entering the value by hand.

Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text"/>	0.25 in
# of Points	# of Sides
<input type="text"/>	<input type="text"/>

Step 4: In the example below, the corner size has been changed to 0.75 inches:

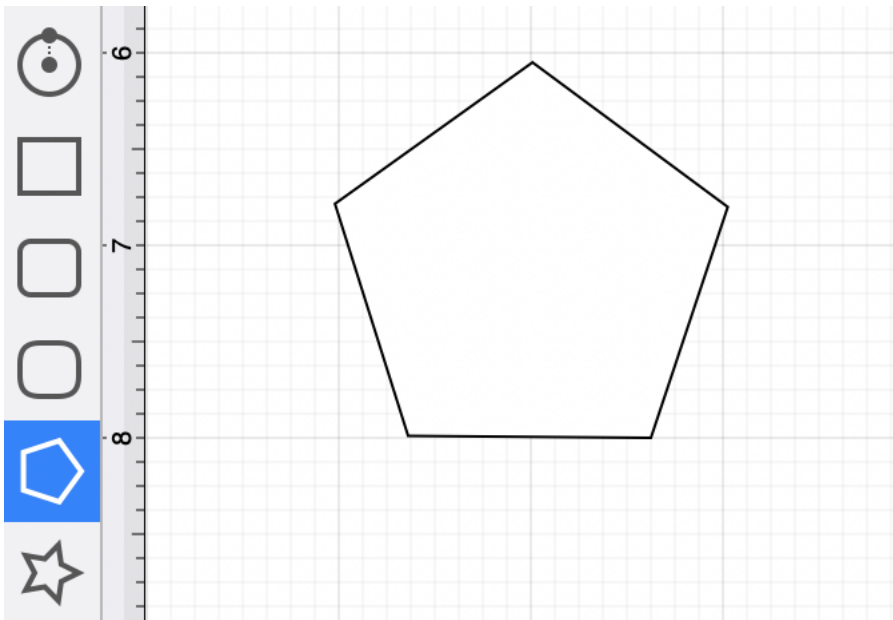


Note: A squircle can also contain text. See the [Handling Text](#) section for additional details.

4.5.22. Polygon Tool

The **Polygon Tool** can be used to create regular polygons within a drawing.

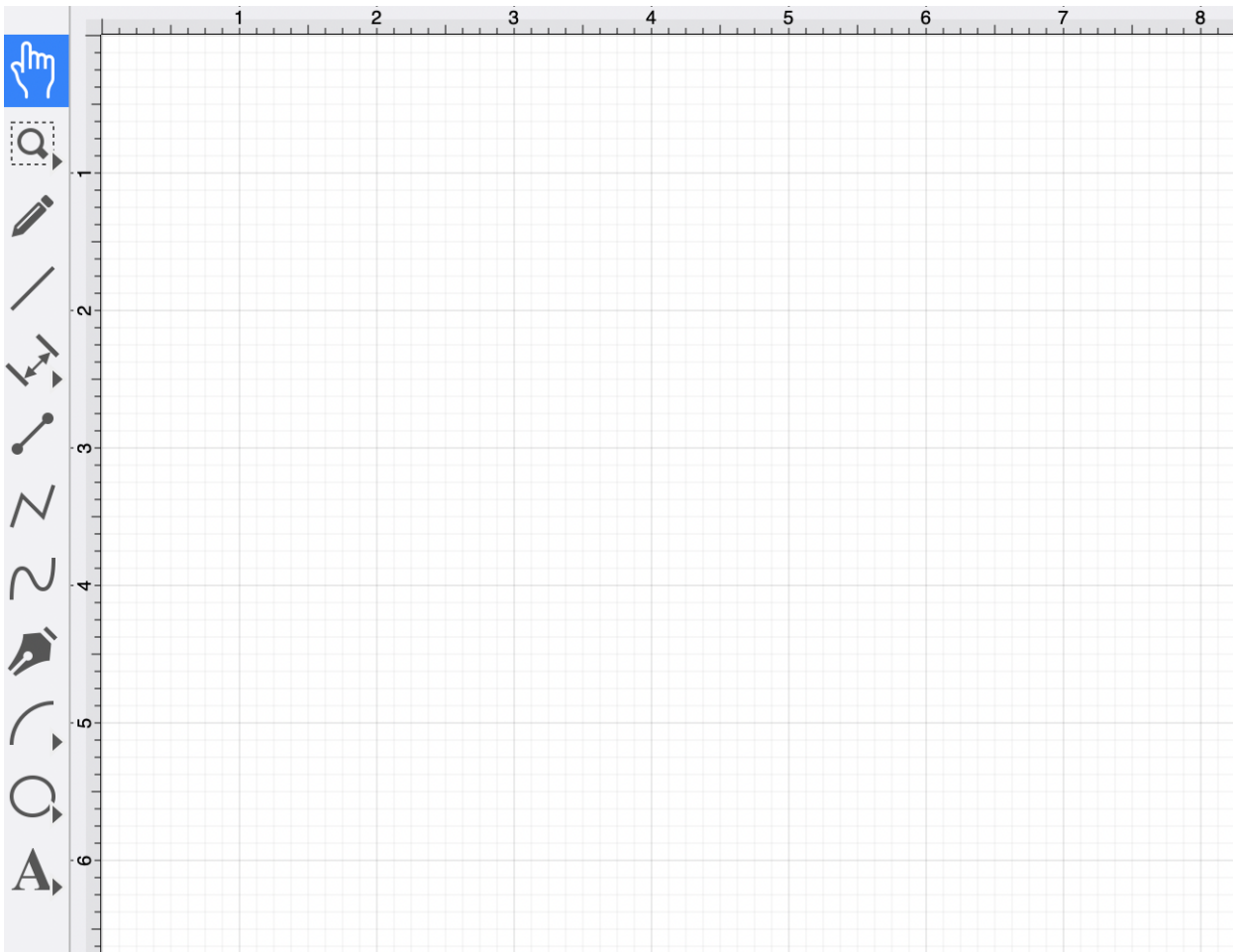
To use the tool, select it and then use a **Click/Drag** combination at the point in the Drawing Canvas where the *center* of the polygon will be. Then drag in any direction and release the **Click** action where one of the outer points of the polygon should reside on the Drawing Canvas.



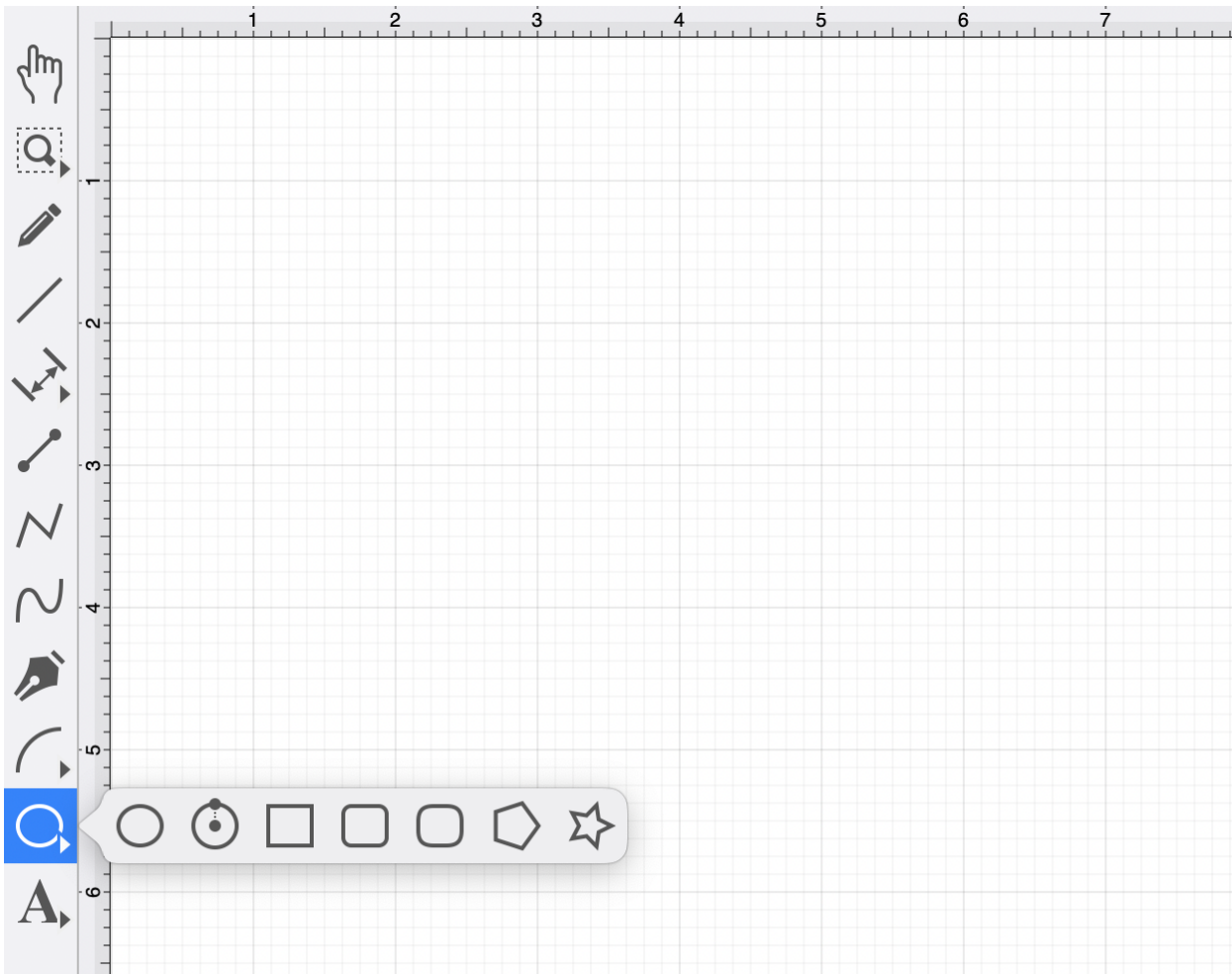
Additional Information for Smaller Screens

The [Drawing Toolbar](#) has an intuitive design that adjusts to match the screen size or application window size on a Mac.

For smaller devices, some tool buttons may be combined to form a pop-over menu.



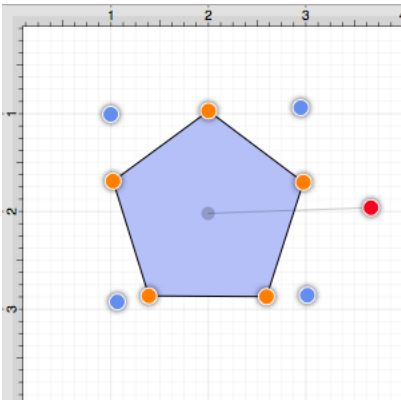
To select the **Polygon Tool** for smaller screen sizes or a smaller application window, perform an **extended Click** on the **Oval Tool** in the [Drawing Toolbar](#) and then **Click** on the **Polygon Tool** within the pop-over menu.



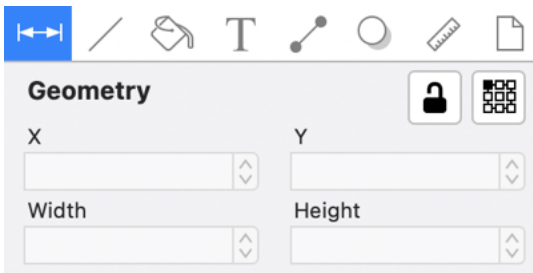
How to Change the Number of Sides

The number of polygon sides can be specified before drawing the shape or altered after it has been created. To set the number of sides after creating a shape:

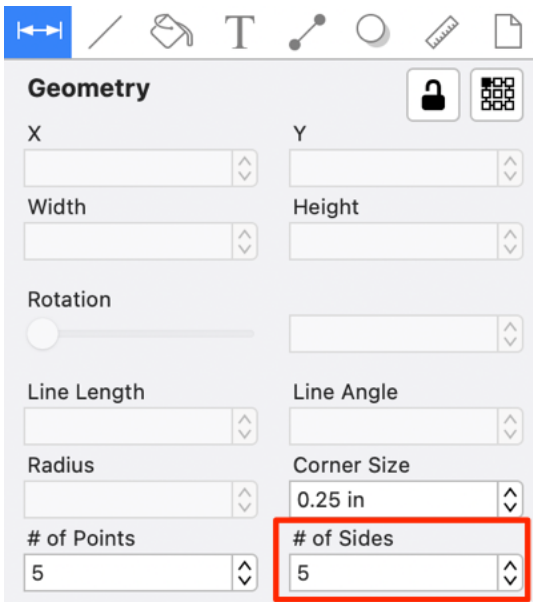
Step 1: Choose the **Selection Tool** in the [Drawing Toolbar](#) and highlight the desired polygon.



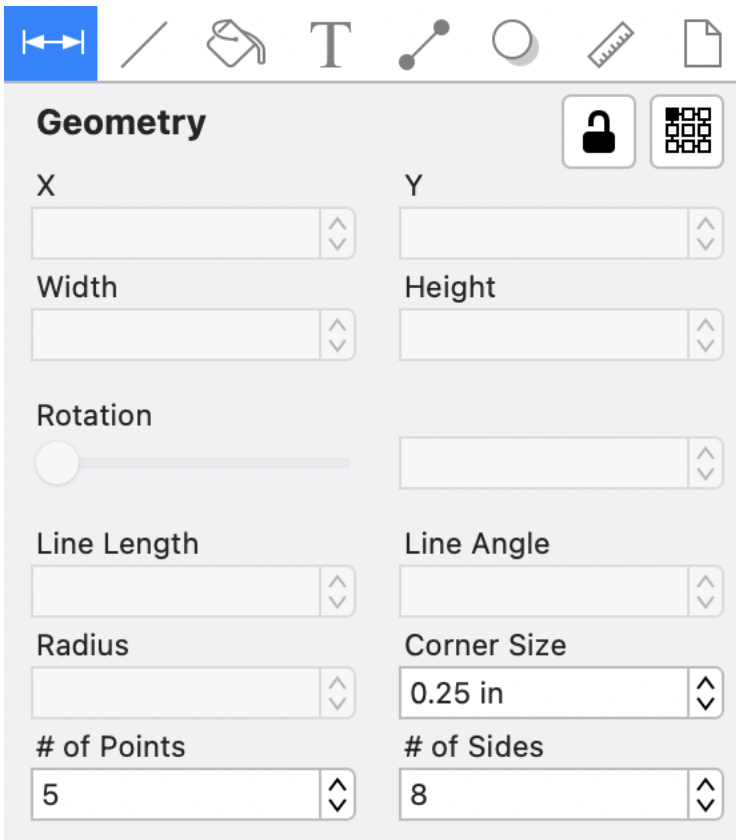
Step 2: Click on the [Geometry Tab](#) within "Info" section of the [Sidebar](#).



Step 3: The **# of Sides** option can be used to set the number of sides. Use the "up" or "down" buttons to change the value or click on the text entry field to key in a value.

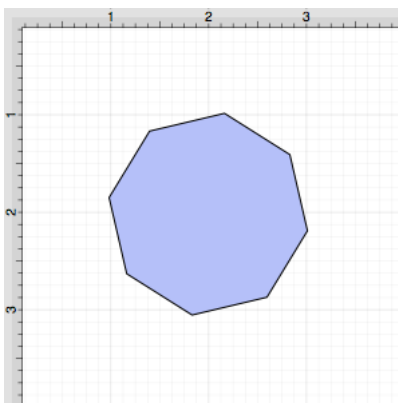


Step 4: In the example below, the value has been changed to 8.

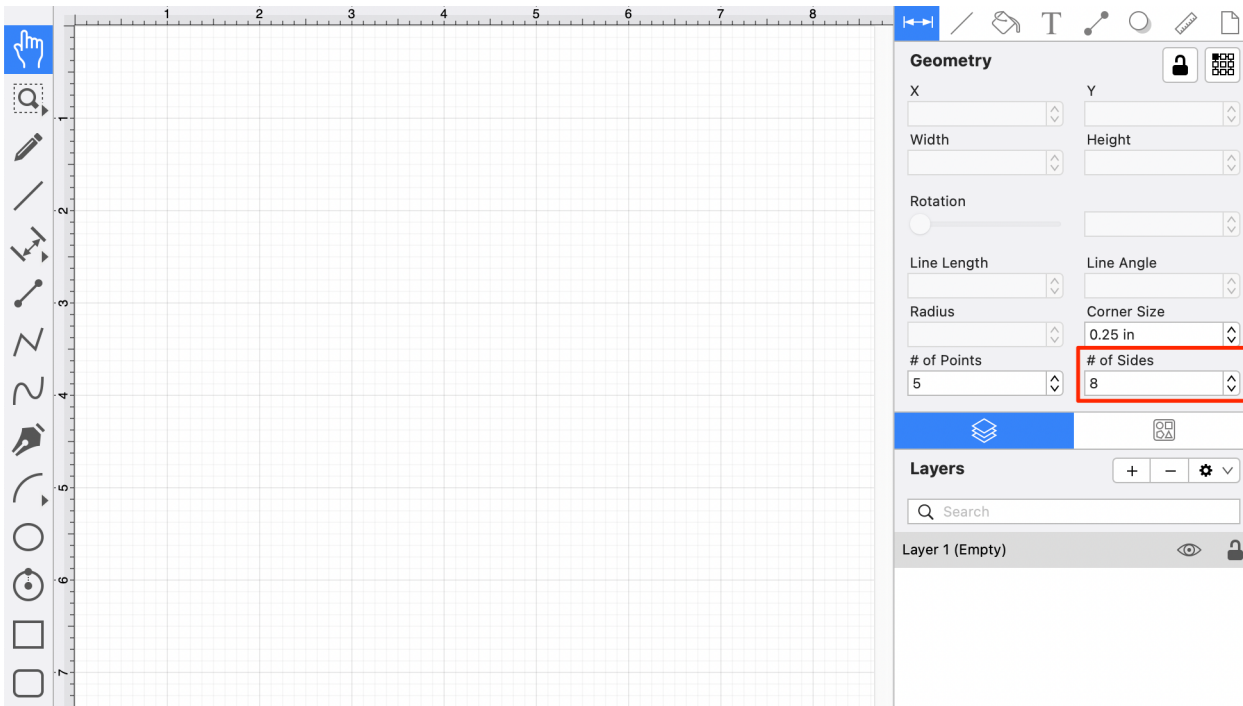


The image shows the 'Geometry' panel in TouchDraw 2. At the top is a toolbar with icons for selection, line, curve, text, point, circle, rectangle, and file. The 'Geometry' panel has a title bar with a lock icon and a grid icon. Below the title bar are two columns of settings. The left column includes: X (text input), Width (text input), Rotation (slider), Line Length (text input), Radius (text input), and # of Points (text input with value 5). The right column includes: Y (text input), Height (text input), a text input for rotation angle, Line Angle (text input), Corner Size (text input with value 0.25 in), and # of Sides (text input with value 8). Each text input has up and down arrow buttons.

Property	Value
X	
Width	
Y	
Height	
Rotation	
Line Length	
Line Angle	
Radius	
Corner Size	0.25 in
# of Points	5
# of Sides	8



This measurement can also be altered before creating a shape by choosing the **Selection Tool** and changing the **# of Sides** setting within the [Geometry Tab](#).

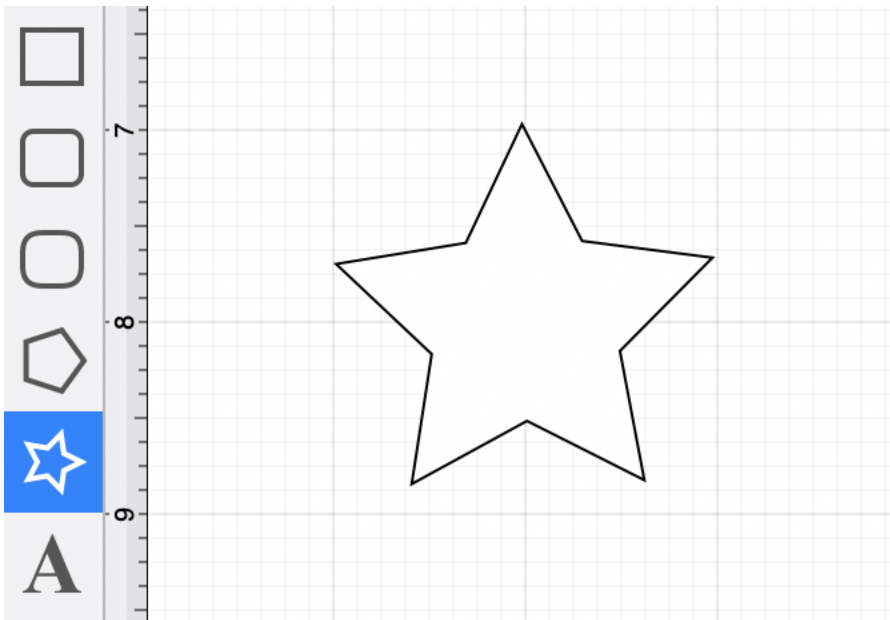


Note: A polygon can also contain text. See the [Handling Text](#) section for additional details.

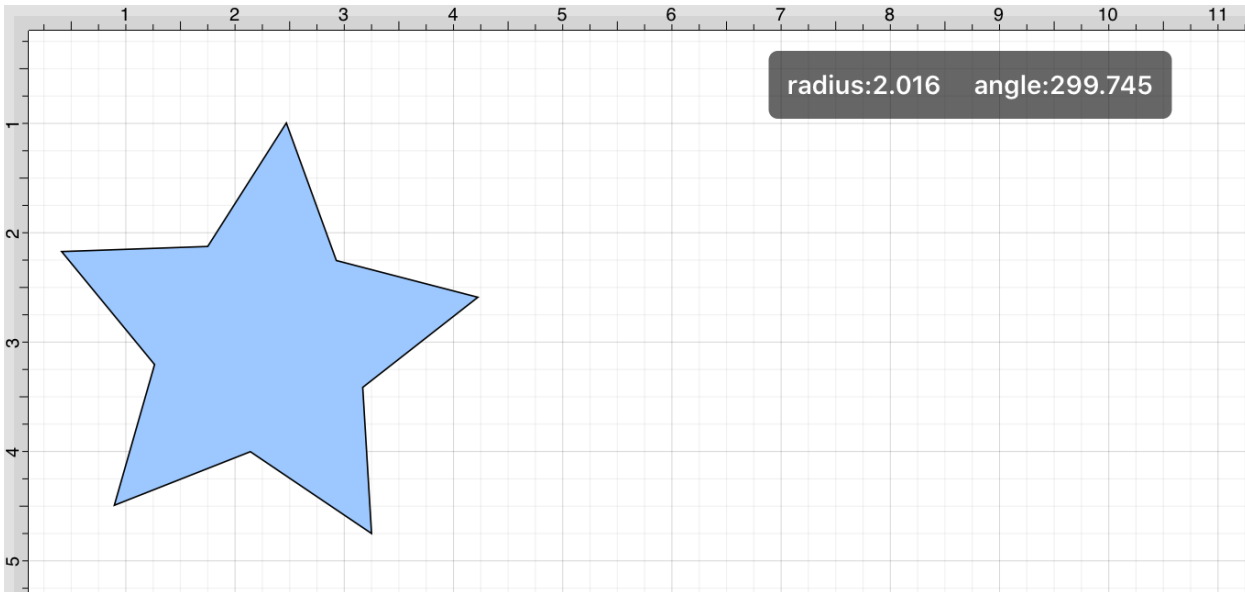
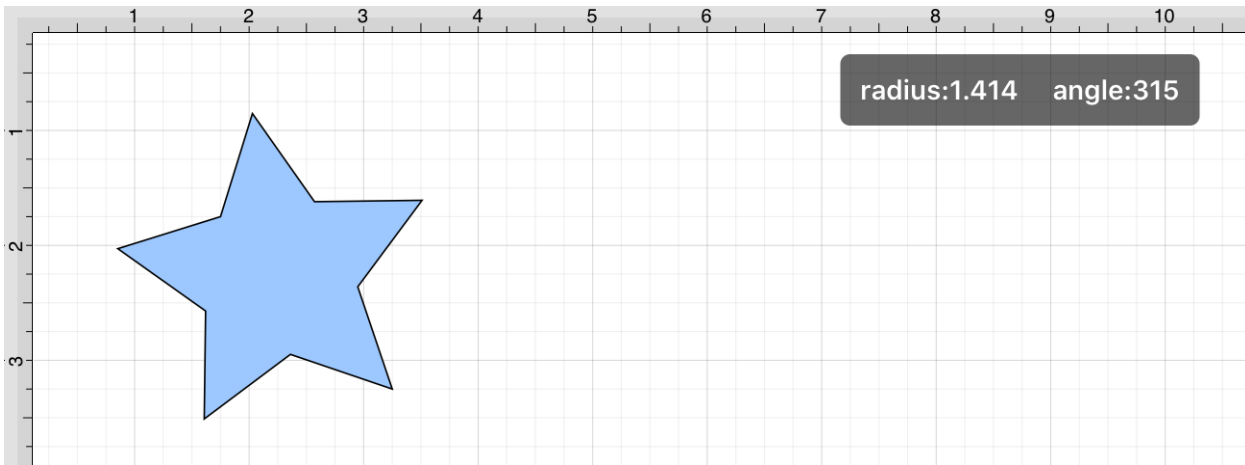
4.5.23. Star Tool

The **Star Tool** can be used to create stars within a drawing.

To select the Star Tool, perform an extended **Click** on the [Polygon Tool](#) in the [Drawing Toolbar](#) to bring up the menu and then select the **Star Tool** in the provided selection menu.

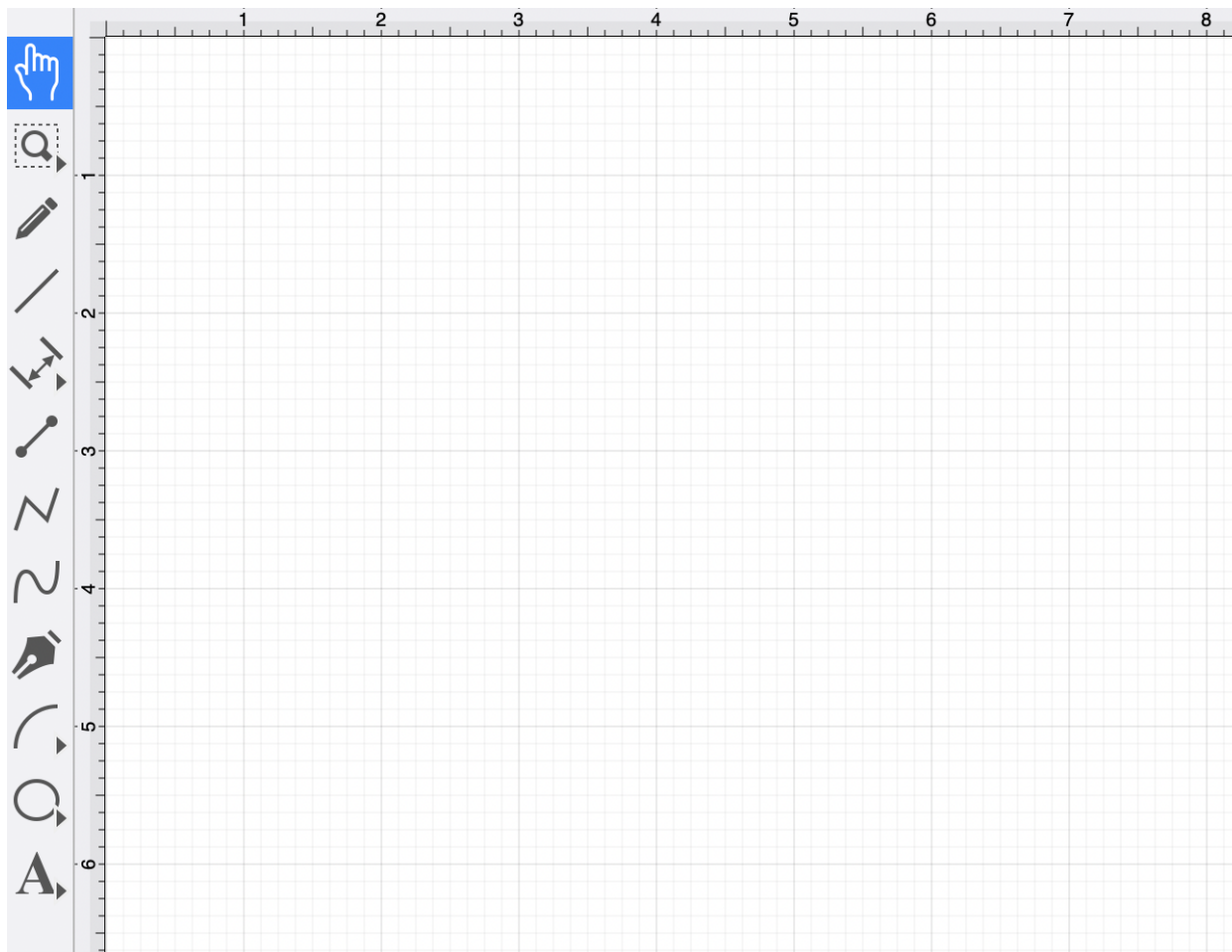


Click on the point in the drawing canvas where the center of the star should be and **Drag** outward. Do not release the **Click** action until the star consists of a desired radius, angle, and size. The radius and angle values will increase as the size of the star increases, as shown in the images below.

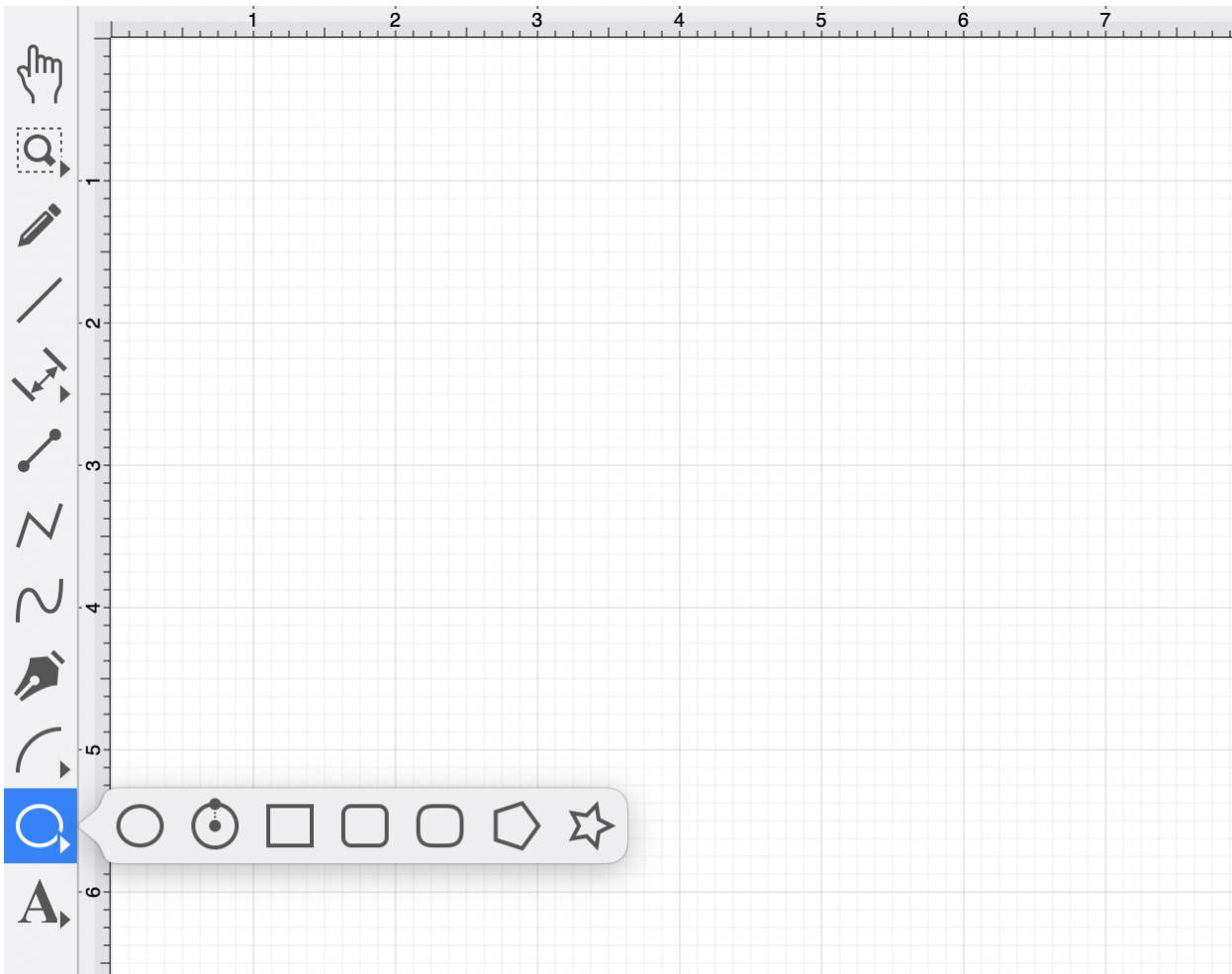


Additional Information for Smaller Screens

The [Drawing Toolbar](#) has an intuitive design that adjusts to match the screen size and application window size of your Mac. For smaller devices, some tool buttons may be combined to form a pop-over menu.



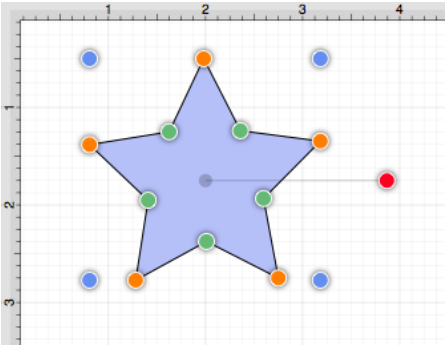
To select the **Star Tool** on smaller devices, perform an **extended Click** on the **Oval Tool** in the **Drawing Toolbar** and then **Click** on the **Star Tool** within the pop-over menu.



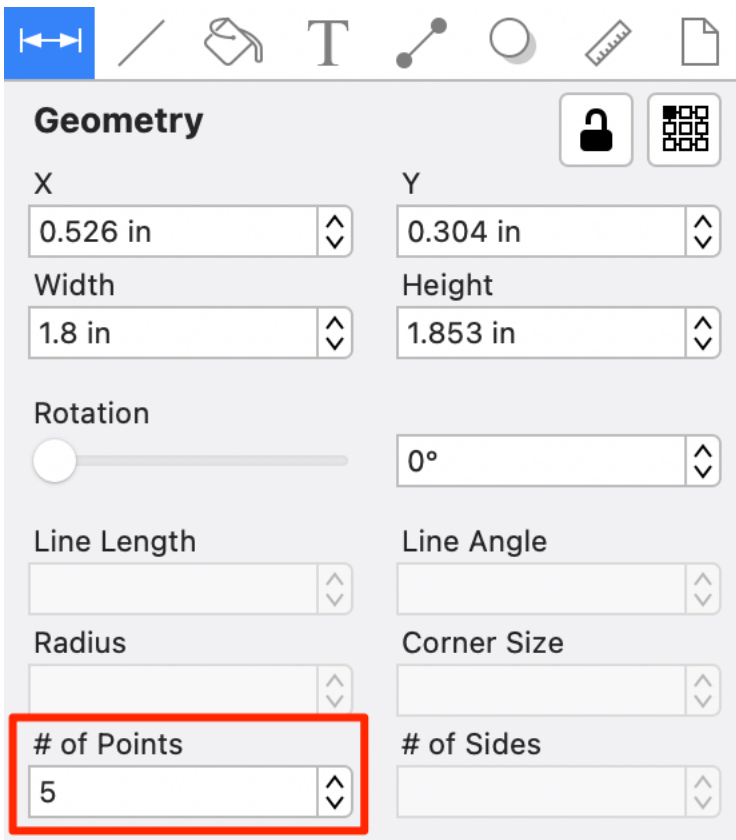
How to Change the Number of Points

The number of star points can be specified before drawing the shape or altered after it has been created. To set the number of points:

Step 1: Choose the **Selection Tool** in the [Drawing Toolbar](#) and highlight the desired star.

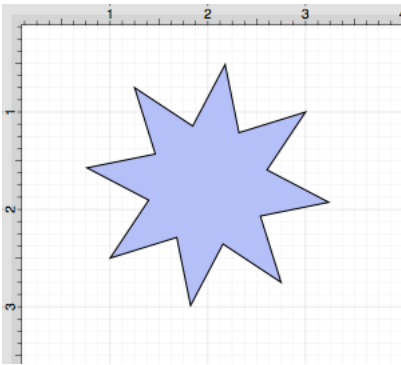


Step 2: Click on the **Geometry Tab** within the "Info" section of the [Sidebar](#). You will find the **# of Points** option in the bottom left portion of the Shape Specific settings section. Use the "up" or "down" arrow buttons to change the value or click on the text entry field to key in a value.

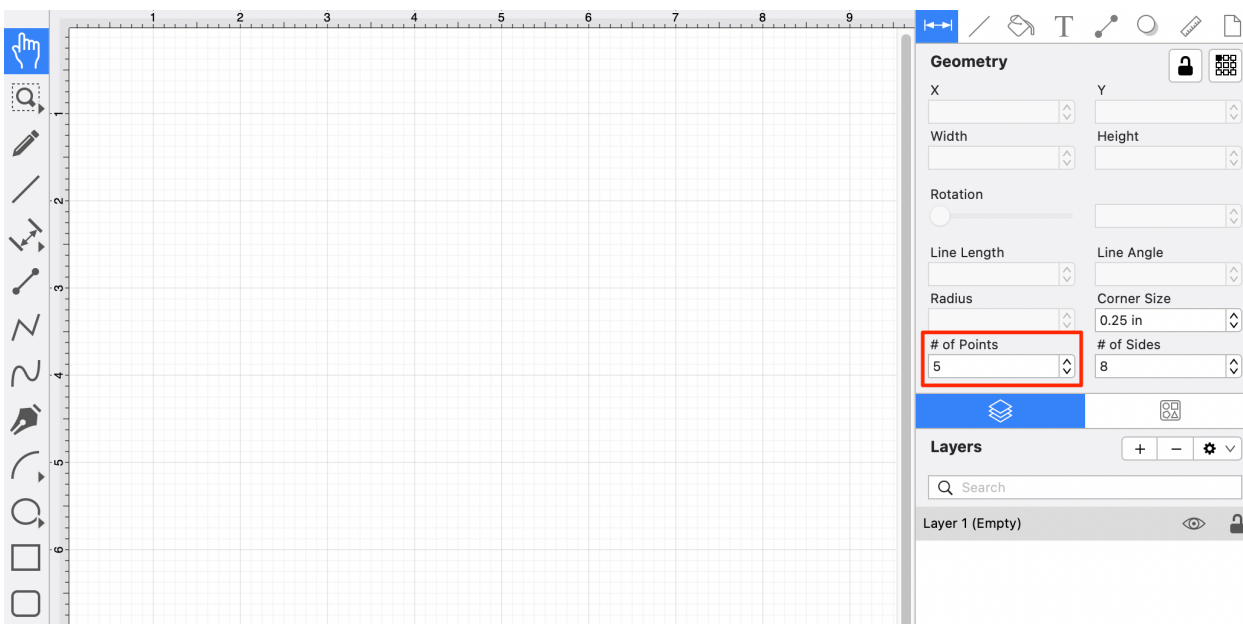


Step 3: In the example below, the value has been changed to 8.

Line Length	Line Angle
<input type="text"/>	<input type="text"/>
Radius	Corner Size
<input type="text"/>	<input type="text"/>
# of Points	# of Sides
<input type="text" value="8"/>	<input type="text"/>



This measurement can also be altered before creating a shape by choosing the **Selection Tool** and changing the **# of Points** setting within the **Geometry Tab** in the [Sidebar](#).

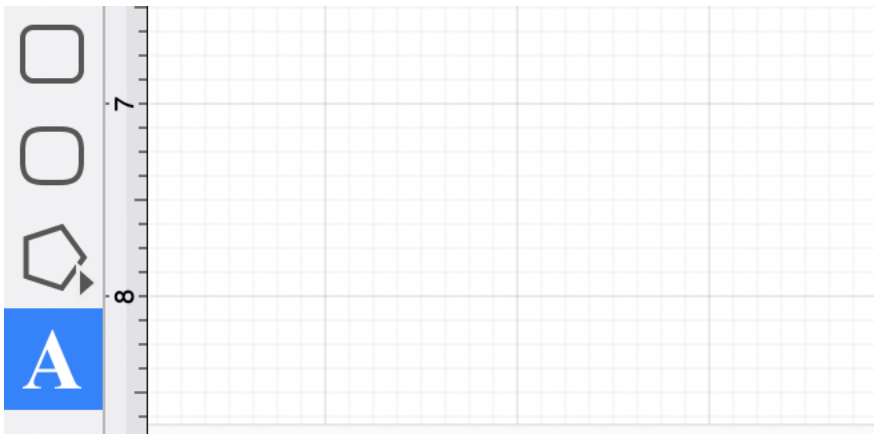


Note: A star can also contain text. See [Handling Text](#) for further details.

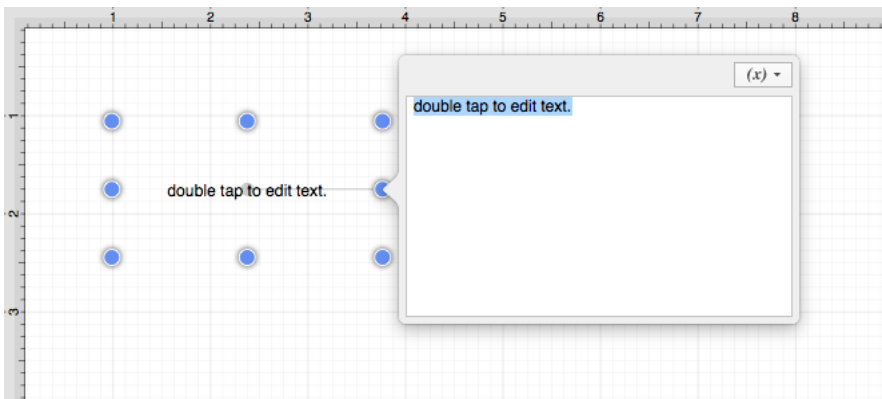
4.5.24. Text Tool

The **Text Tool** can be used to create a text area within a drawing.

To use this tool, select it and perform a **Click/Drag** combination at the point in the drawing canvas where one of the bounding corners of the text area should be. Then drag in any direction and release the **Click** action where the other bounding corner should be located.

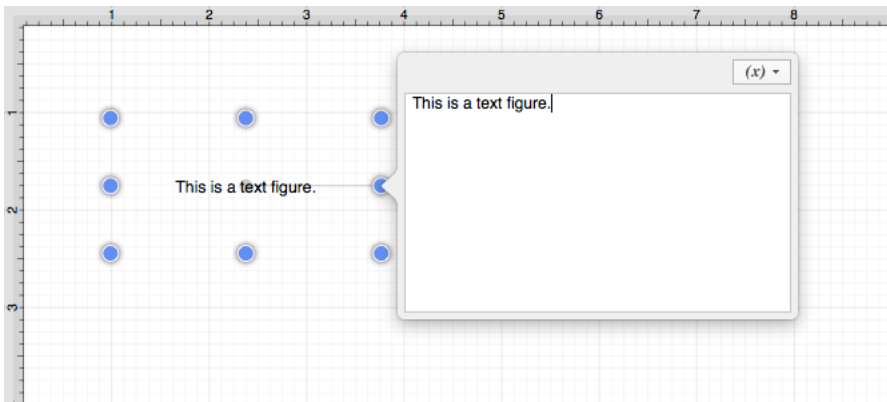


After a text area has been added, the image shown below containing the default text "Double tap to edit text" will appear.

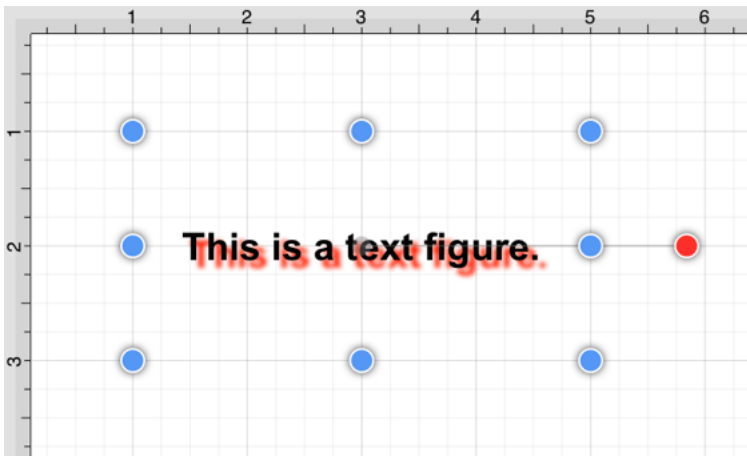


Note: Double Clicking on a figure also causes the text editor to appear for entry.

Entered text is reflected in the drawing view to provide instant feedback on how the completed text will look, wrap, etc.



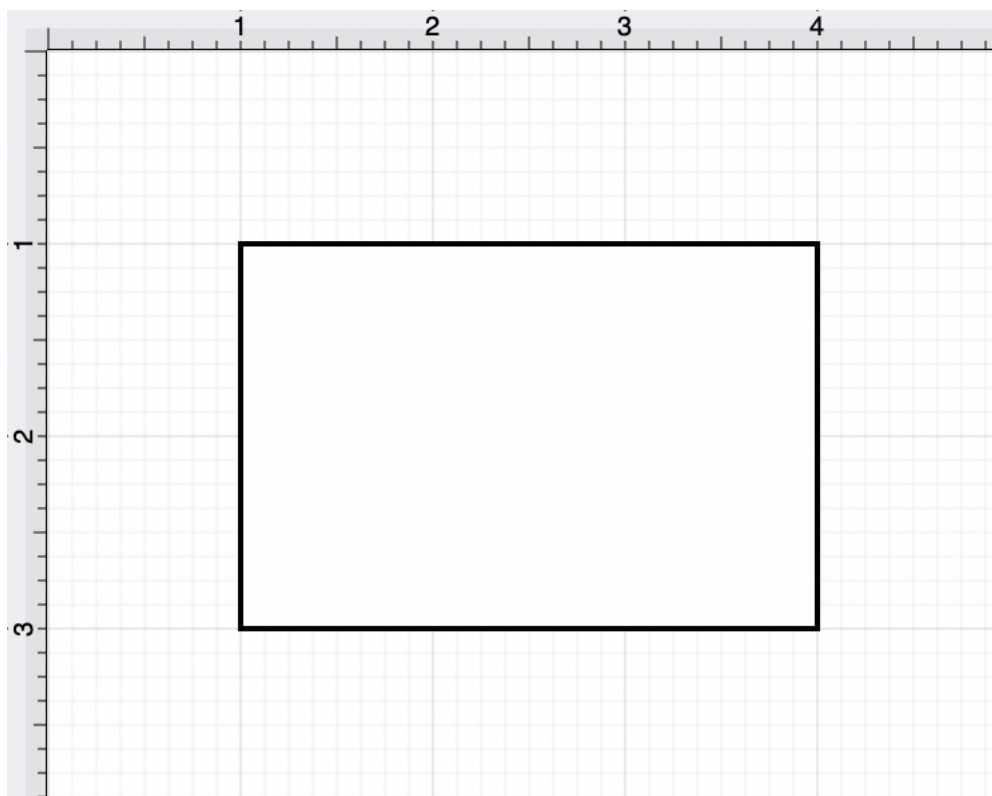
The text figure is different from all other figures because it only shows text. It cannot have a border (stroke) or be filled; however, displayed text can include a shadow.



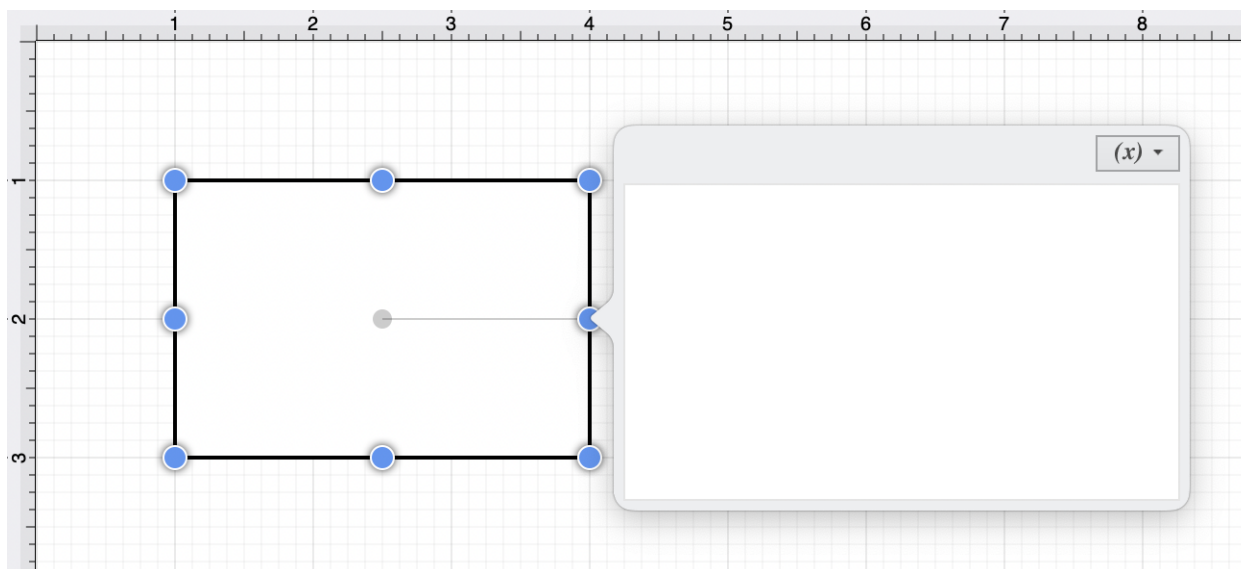
Adding Text to a Figure

To add text to the inside of a rectangle with a border, a circle, or a rounded rectangle:

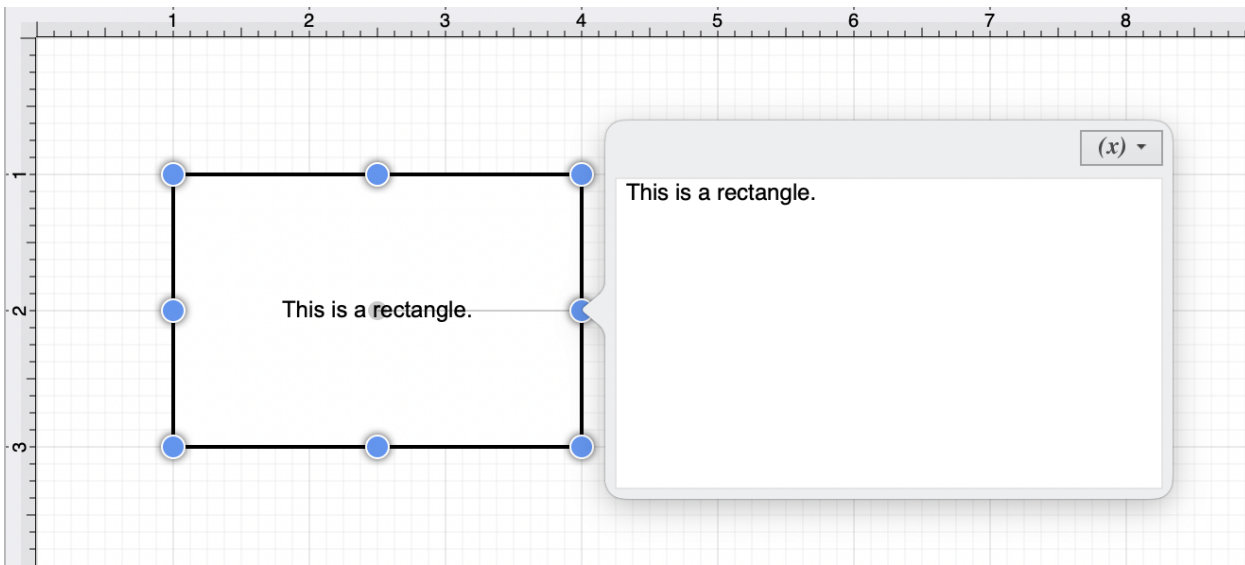
Step 1: Use one of the [drawing tools](#) to create a figure.



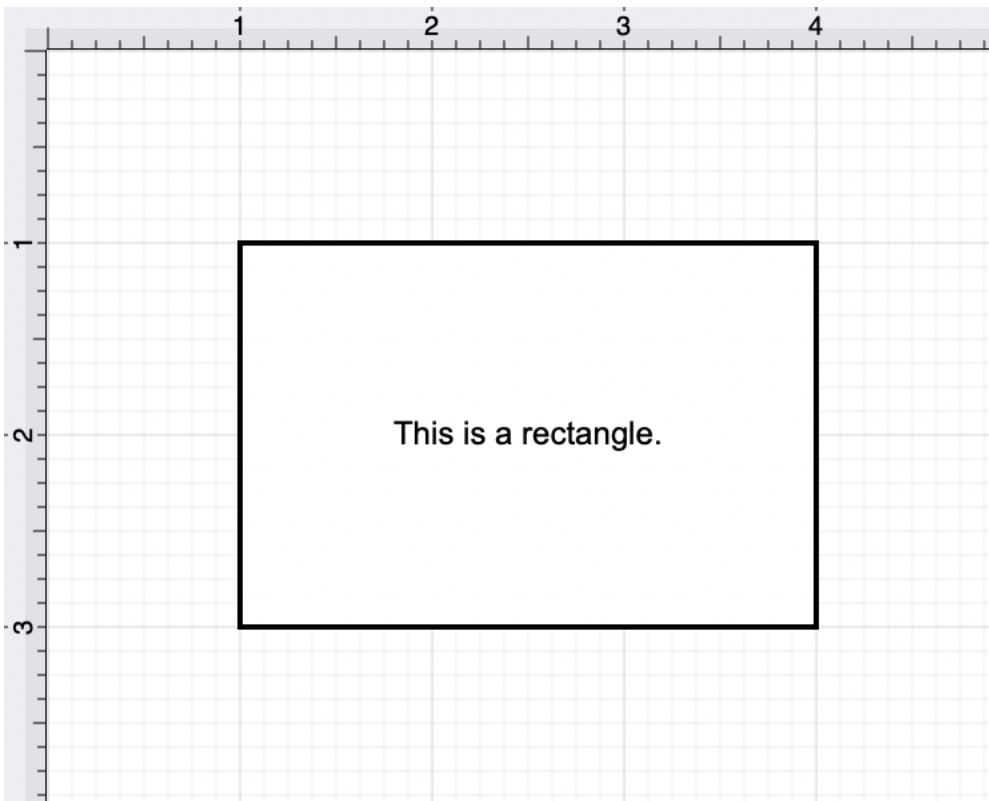
Step 2: Double Click on the desired figure, and the editor shown above will open.



Step 3: Enter text and click on the figure area to close the editor.



The text will appear as shown below once the editor has been closed.



Note: For more information on how to change the font, text size, text color, and alignment see the [Handling Text](#) section.

Note: The text tool also supports adding a text area by simply clicking (without dragging) in the drawing area.

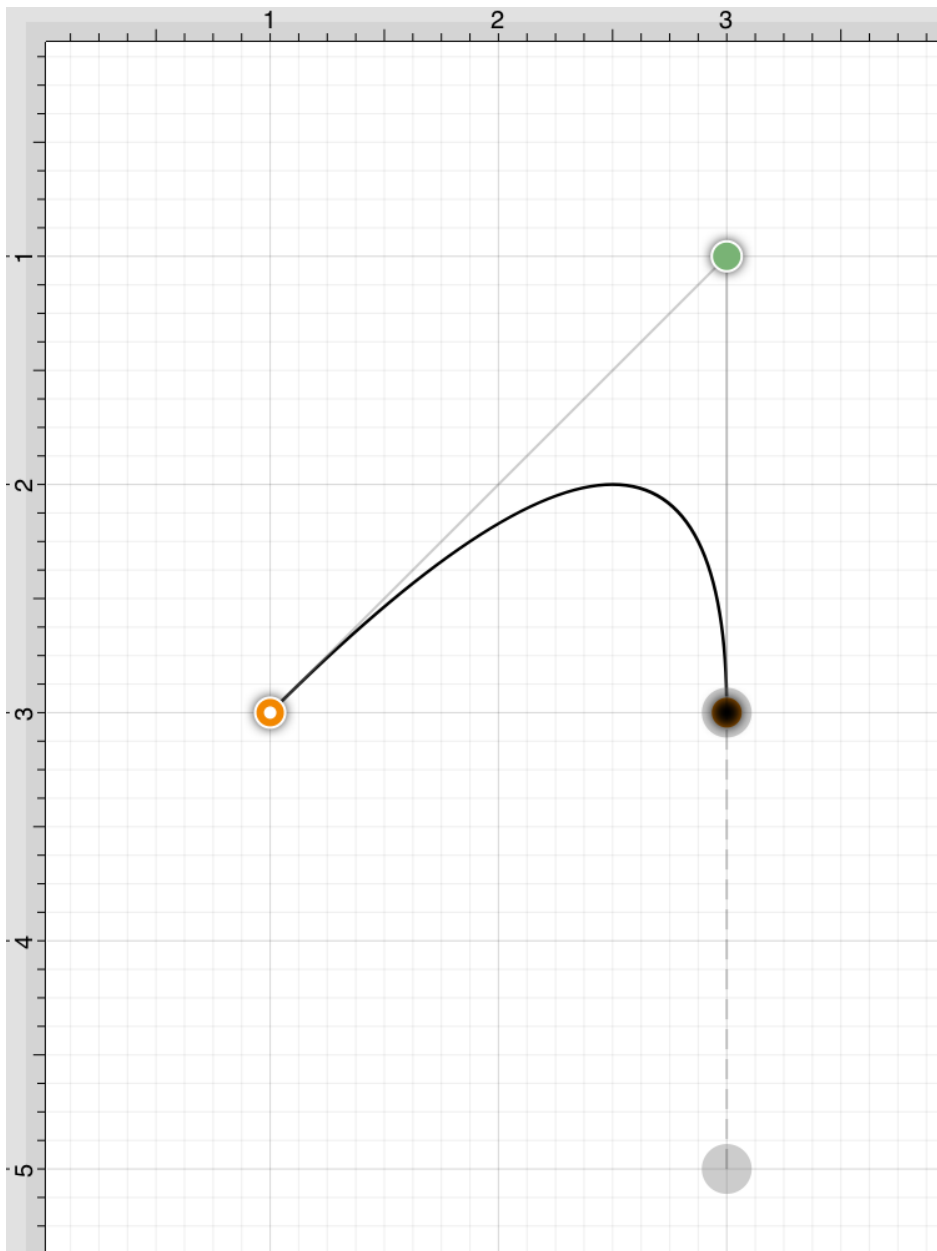
4.5.25. Option Key

When the **Option Key** is used, it acts as an indicator to the tools that they should behave in a different manner than they normally would.

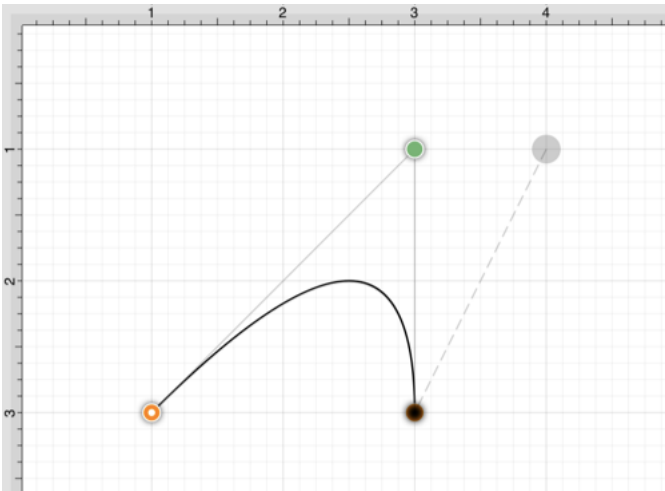
For example, the **Option Key** can be used to alter the “phantom” control point position within the [Drawing Canvas](#) for a Path or to change a corner point back to a smooth curve after a curve segment has been created with the [Path Tool](#).

Option/Click

An **Option/Click** combination allows the “phantom” control point position to be set to a desired location on the Drawing Canvas after a **Click/Drag** combination has been performed to create a curve segment. The following image shows the “phantom control point at the 3,3.5 position:



An **Option/Click** combination is completed at the 4,1 position causing the “phantom” control point to be moved to this location on the Drawing Canvas. Refer to the image below:

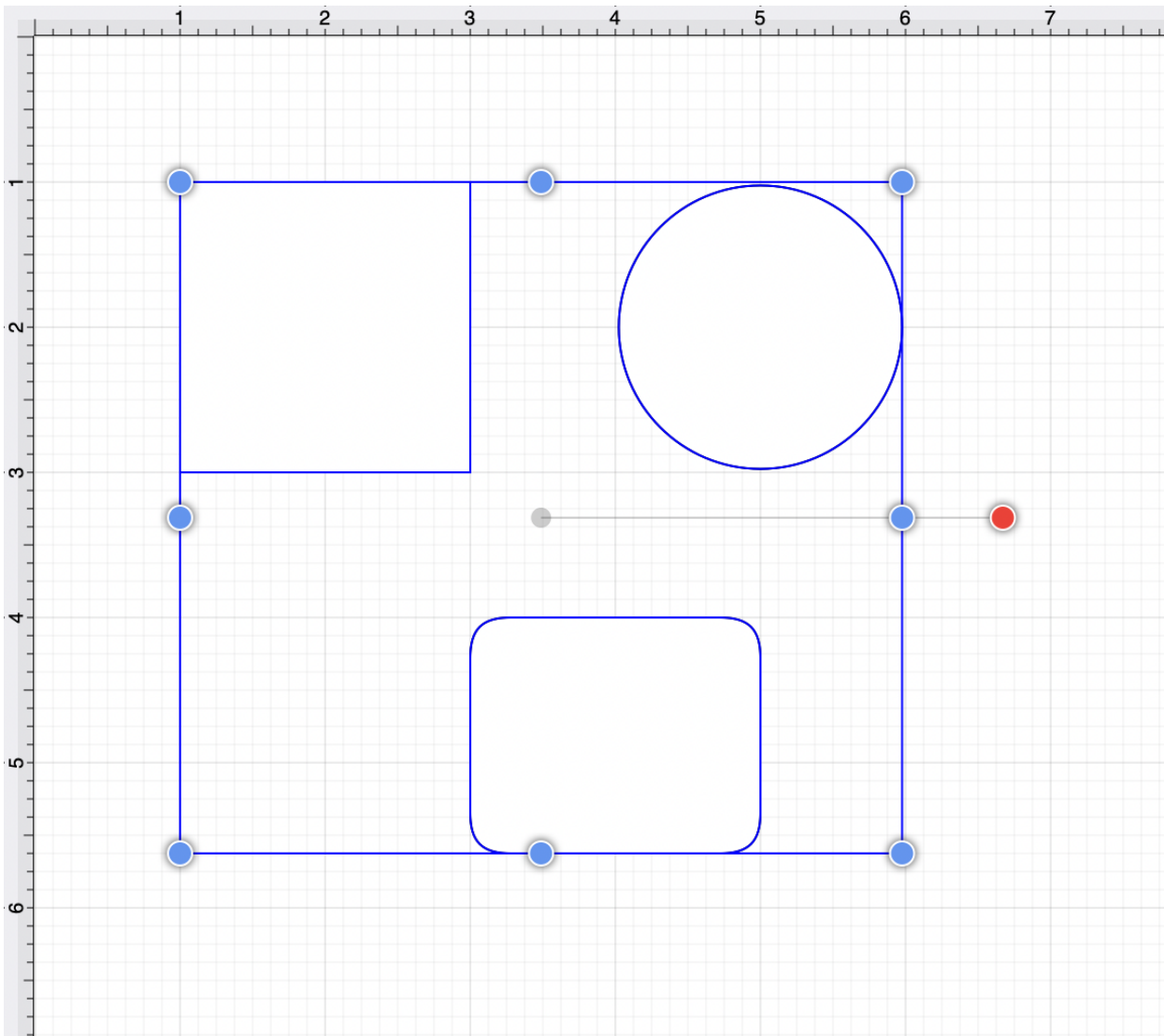


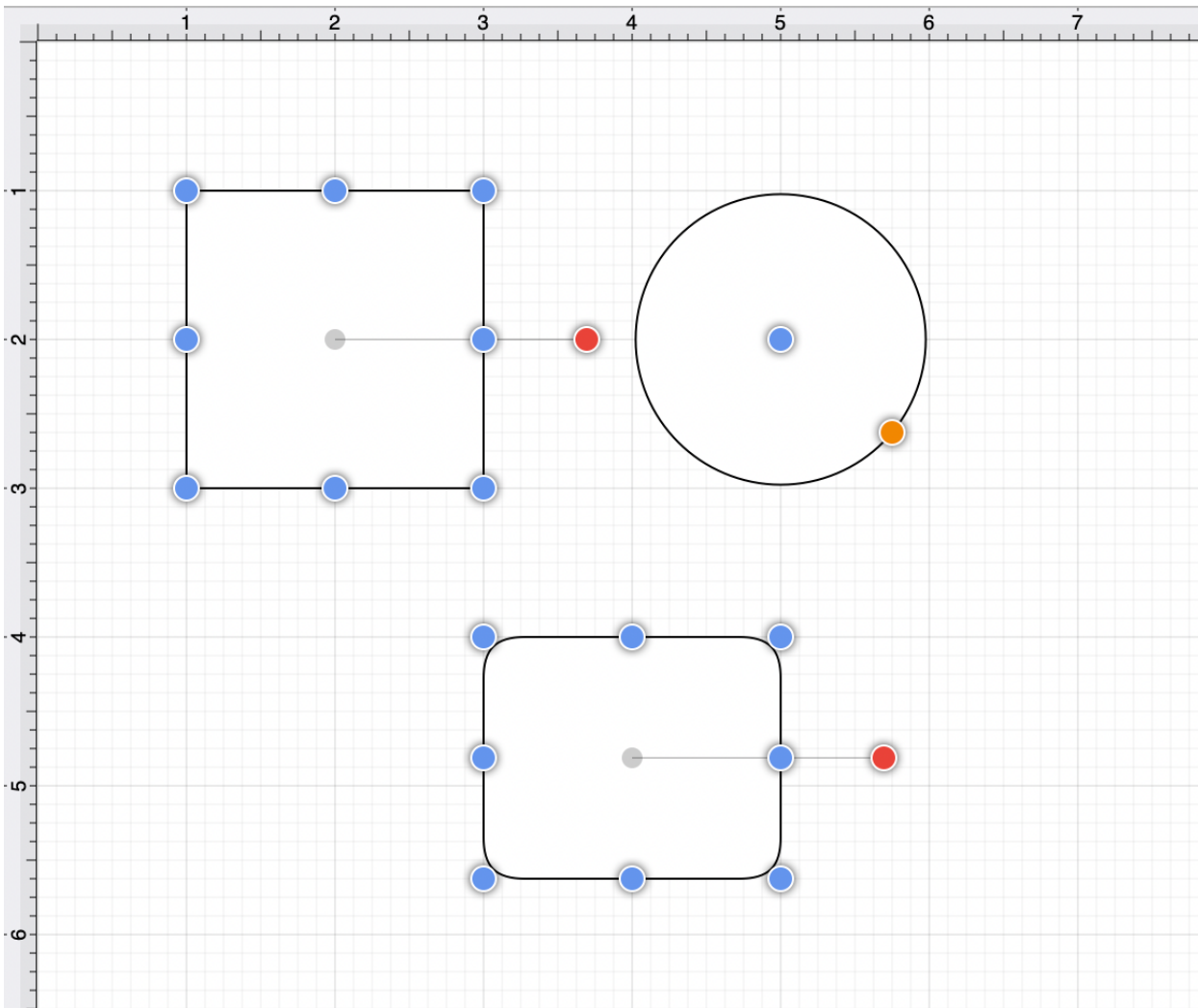
Option/Click/Drag

An **Option/Click/Drag** combination allows the “phantom” control point to be dragged to any point on the Drawing Canvas and changes a corner point back to a smooth curve after the initial **Click/Drag** combination has been completed for creating the curve segment.

4.5.26. Easy Drag Mode

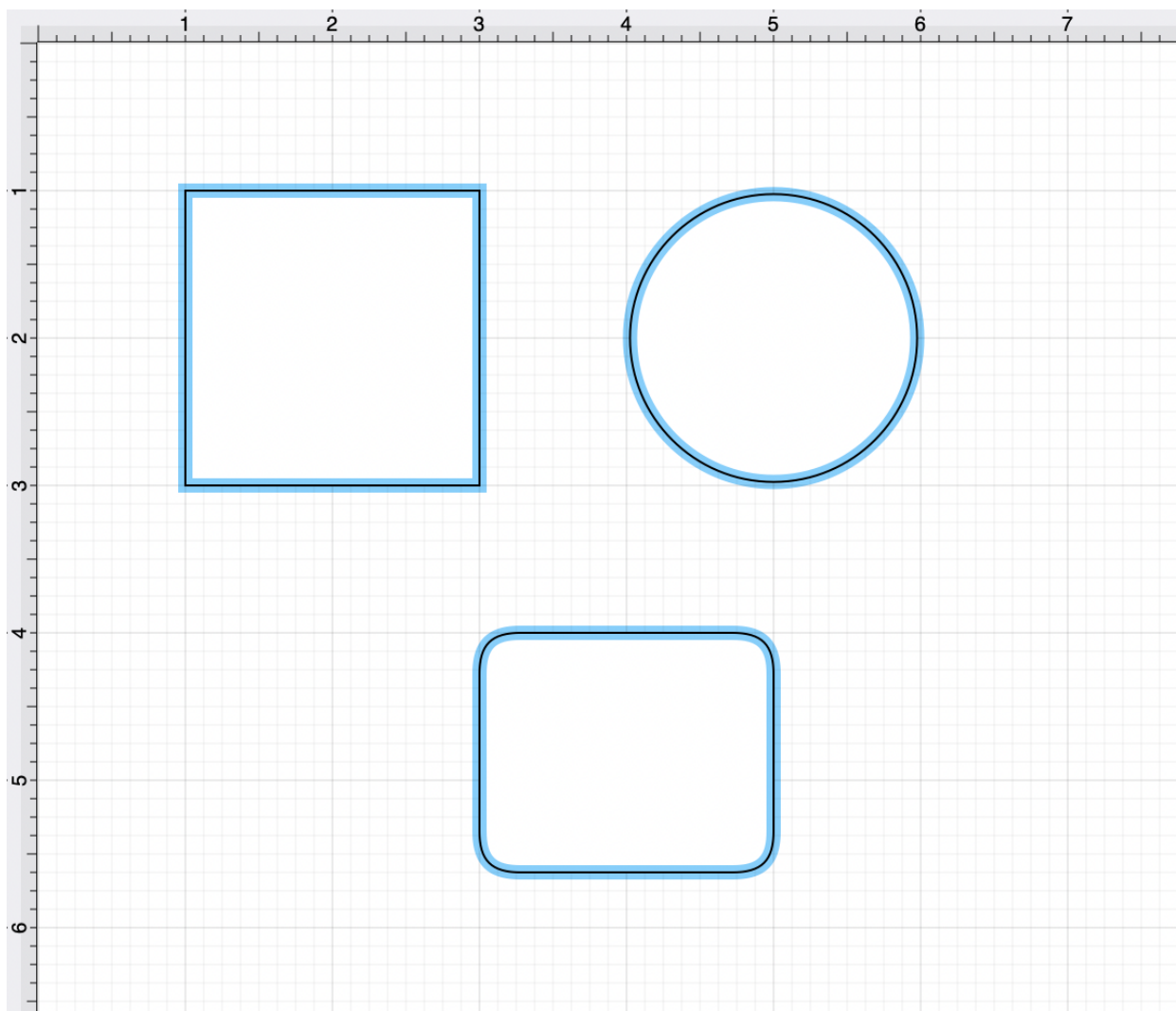
By default, TouchDraw 2 selects multiple shapes as a group. Figures selected as a group can be dragged together when performing a Click/Drag combination on one of the figures. The classic selection mode allows each figure to be selected individually and to have their own handles available when selected. Each are shown below:





TouchDraw 2 includes an **Easy Drag Mode** that makes it simpler to move and select figures without having to worry about touching one of the handles (which could lead to an unwanted resize). This is also particularly useful when trying to move a small object, without having to zoom way in.

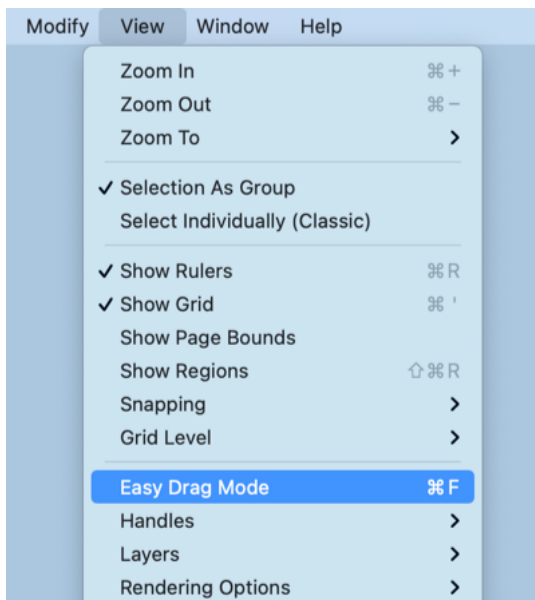
The following figure shows how a group of selected figures will look when **Easy Drag Mode** is enabled:



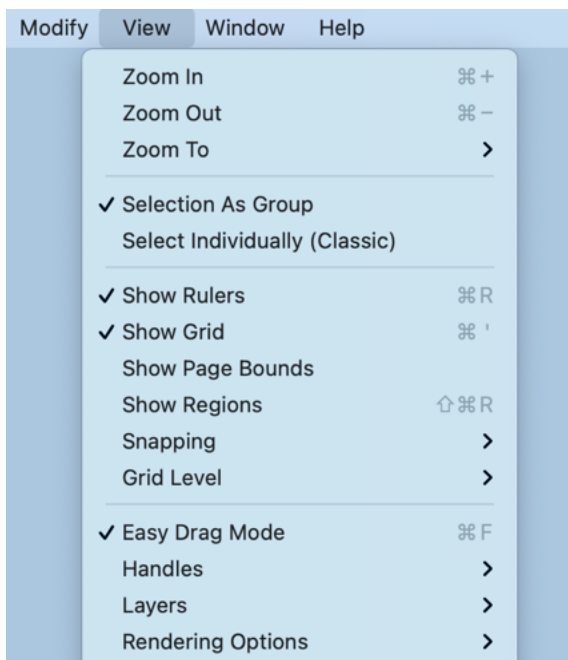
How to Enable Easy Drag Mode

This option can be enabled by performing the following steps:

Step 1: Click on the [View Menu](#) in the Top Toolbar.

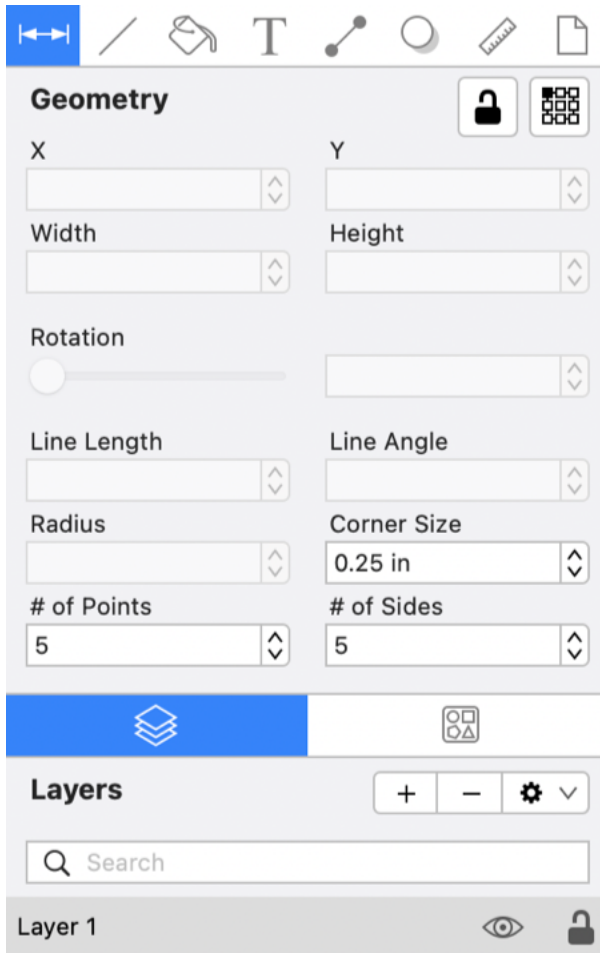


Step 2: Then click on the **Easy Drag Mode** option. A checkmark will appear to the left of the option within the [View Menu](#) when enabled.



4.6. Sidebar



The **Sidebar** can be found on the right hand side of the main application window. It is used to make attribute changes for objects (shapes, lines, paths, and text), to manage drawing layers, and for inserting stencils into a drawing.



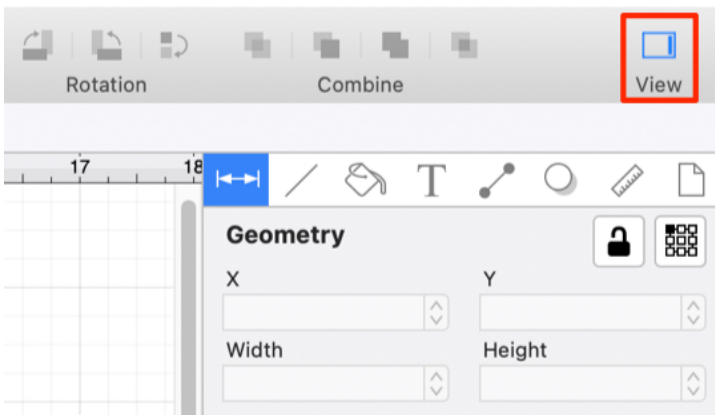
Click on the name of the Sidebar Section to find out more details about what actions are possible when it is selected.

Icon	Section Name	Description
	Info	The Info section contains options for altering shape, line, path, and text attribute settings.

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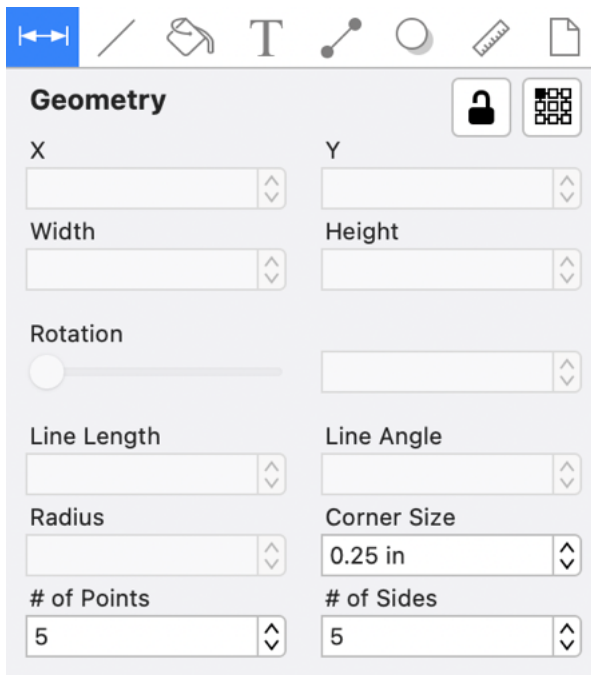
Icon	Section Name	Description
	Layers	The Layers Tab provides the capability to incorporate more than one level of objects into a drawing. Each added layer builds on top of the previous added layer to create a multi-dimensional drawing.
	Stencils	The Stencils Tab provides the capability to add, remove, and manage stencils for use in drawings. A stencil is a pre-defined object that can be saved, named accordingly, and dragged/dropped into drawings as needed. Touchdraw 2 provides a vast array of choices and you can create/store your own objects as well.

Note: The **Sidebar** can be hidden if desired by performing a **Click** on the "View" button. This button is located in the upper right corner of the main application window.



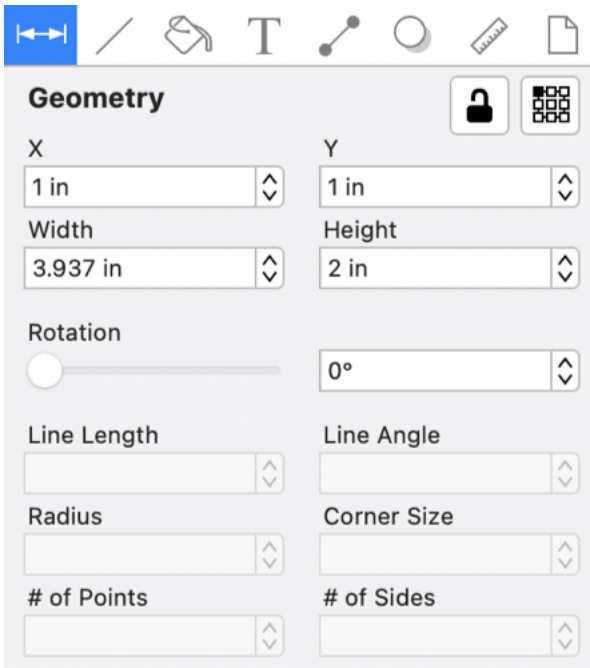
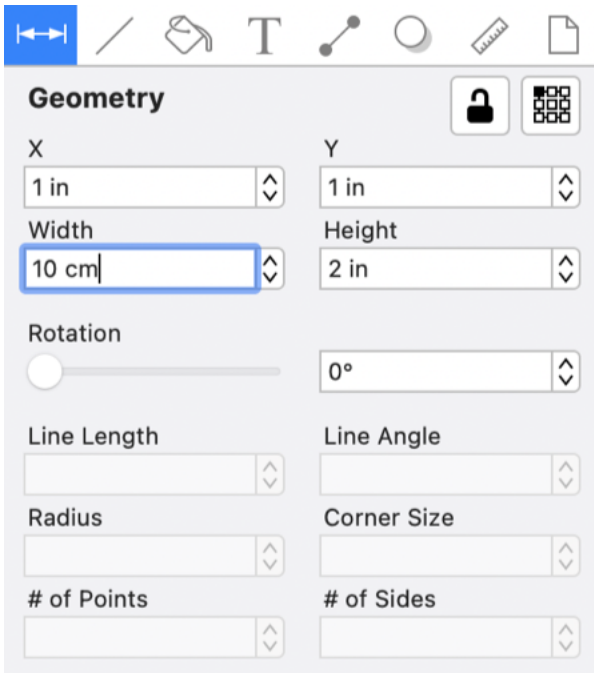
4.6.1. Info

The **Info** portion of the [Sidebar](#) contains attribute options for shapes, lines, paths, and text. Each tab corresponds to a set of attributes and is explained in further detail below.

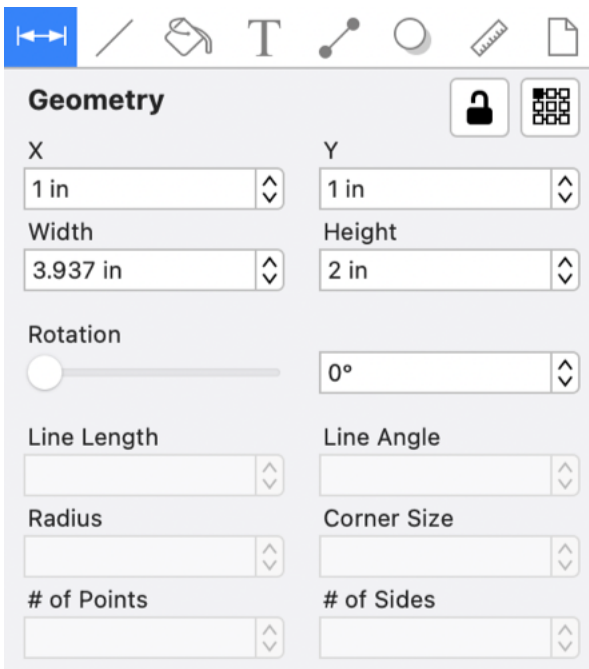
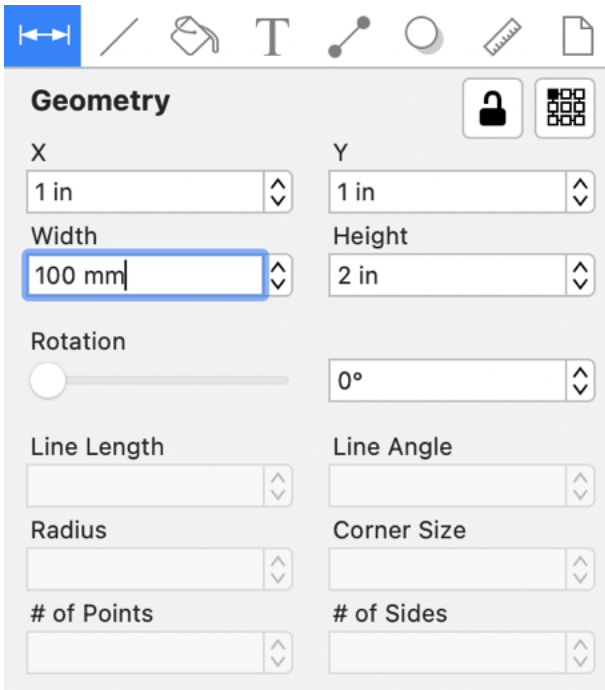


Values displayed in the **Info** portion of the [Sidebar](#) default to **Inches** or **Degrees**. However, alternative units of measurement (i.e. centimeters, meters, feet, yards, etc.) or radians can be entered into these fields. The entered values will be automatically converted to their equivalent in *Inches* or *Degrees*.

For example, let's say that 10 centimeters (10 cm) has been entered for the **Width** of a selected figure. This value will be automatically converted to **Inches** after pressing on the **Enter Key** on your keyboard or selecting another item within the application.



If you enter 100 millimeters (mm) for the **Width** of a selected figure, then it will be automatically converted to 3.937 inches, as shown below:



Click on the name of a specific **Attribute Tab** to learn more about available setting changes.

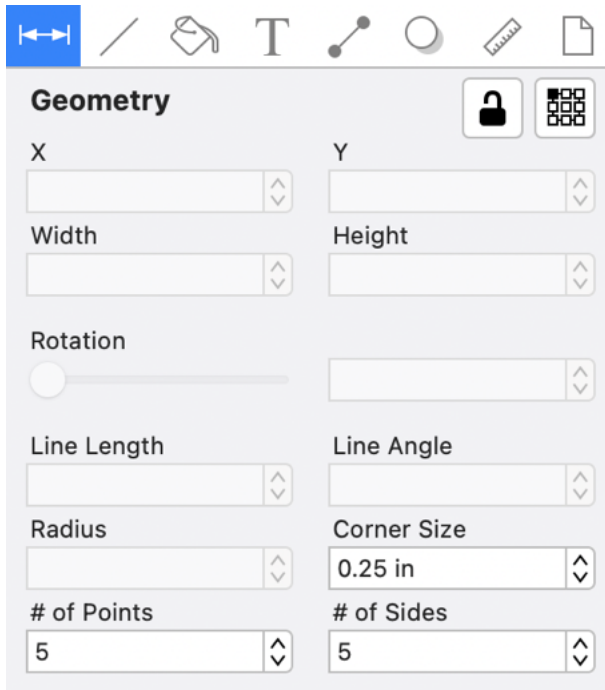
Icon	Tab Name	Description
	Geometry	The Geometry Tab contains options for altering attributes on a

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Icon	Tab Name	Description
		selected figure or to make path related changes to a figure.
	Stroke	The Stroke Tab contains options for altering the attributes of a line (stroke).
	Fill	The Fill Tab contains options for altering the fill attributes of a shape or pen object.
	Text	The Text Tab contains options for altering text attributes (size, style, margins, color, and alignment).
	Connections Tab	The Connections Tab contains options for altering the type of connector used for the Connection Tool .
	Shadow and Opacity	The Shadow and Opacity Tab contains options for altering shadowing, opacity, and blending attributes of a figure(s).
	Units and Rulers	The Units and Rulers Tab contains options for altering the unit of measure, the background and other drawing canvas related settings. These options can be used to control the layout and divisions of the ruler. Unit settings are additionally used when drawings are exported in alternative formats such as PNG images and PDF files.
	Page Setup	The Page Setup Tab contains options for altering printing units, page width, page height, and print margin attributes.

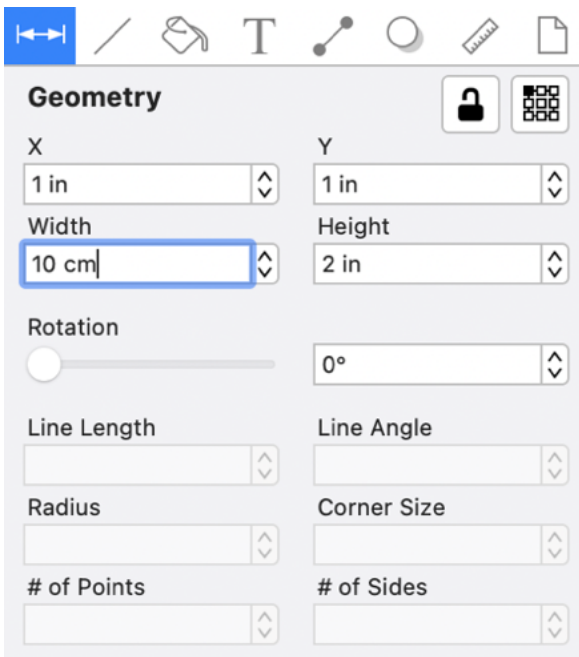
4.6.1.1. Geometry Tab

The **Geometry Tab** contains options for gaining enhanced control of a [selected](#) figure or to make path related changes to a figure. The tab will appear as shown below when selected in the [Sidebar](#).



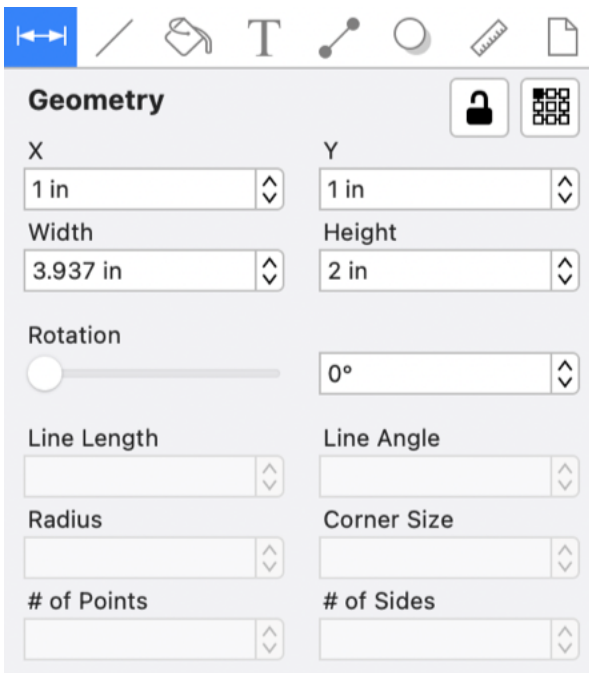
Values displayed in the **Geometry Tab** default to **Inches** or **Degrees**. However, you can enter alternative units of measurement (i.e. centimeters, meters, feet, yards, etc.) or radians. These values will be automatically converted to their equivalent in *Inches* or *Degrees*.

Let's say for example that 10 centimeters (10 cm) has been entered for the **Width** of a selected figure. This value will be converted to **Inches** after pressing on your keyboard's **Enter Key** or selecting another item within the application.



The image shows the Geometry panel in TouchDraw 2 for Mac. The panel has a title bar with icons for selection, line, rectangle, text, link, circle, ruler, and file. Below the title bar is the 'Geometry' section, which includes a lock icon and a grid icon. The panel is divided into two columns: X and Y. The X column contains fields for X (1 in), Width (10 cm), Rotation (a slider), Line Length, Radius, and # of Points. The Y column contains fields for Y (1 in), Height (2 in), Line Angle, Corner Size, and # of Sides. The 'Width' field is highlighted with a blue border.

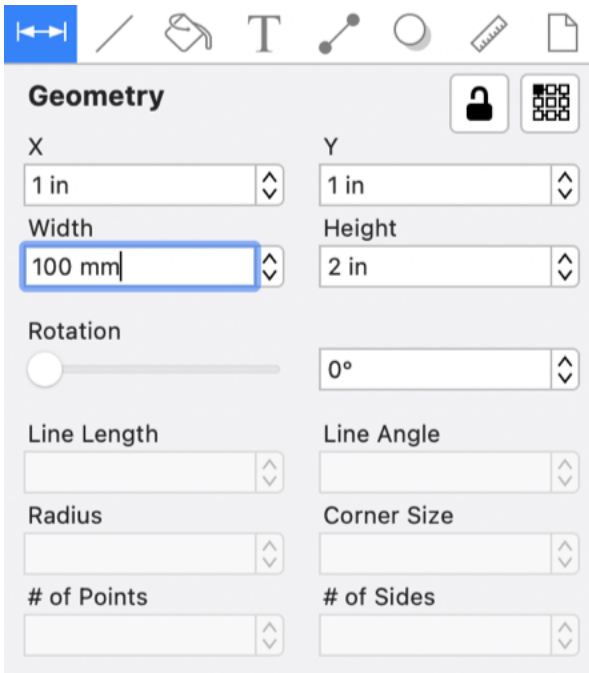
X	Y
1 in	1 in
Width 10 cm	Height 2 in
Rotation 0°	Line Angle 0°
Line Length	Corner Size
Radius	# of Sides



The image shows the Geometry panel in TouchDraw 2 for Mac, identical to the one above, but with the 'Width' field set to 3.937 in. This demonstrates the conversion of 100 millimeters (mm) to inches.

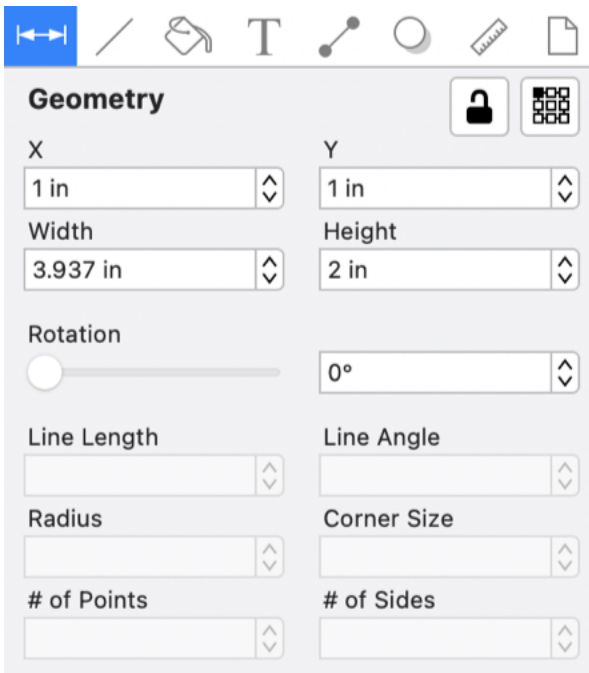
X	Y
1 in	1 in
Width 3.937 in	Height 2 in
Rotation 0°	Line Angle 0°
Line Length	Corner Size
Radius	# of Sides

If 100 millimeters (mm) is entered as the **Width** of a selected figure, then it will be converted to 3.937 inches.



The Geometry panel in TouchDraw 2 for Mac shows various settings for a selected object. The 'Width' field is highlighted with a blue border and contains the text '100 mm'. Other fields include X (1 in), Y (1 in), Height (2 in), Rotation (0°), Line Length, Line Angle, Radius, Corner Size, # of Points, and # of Sides. A toolbar at the top contains icons for selection, line, rectangle, text, curve, circle, eraser, and file operations.

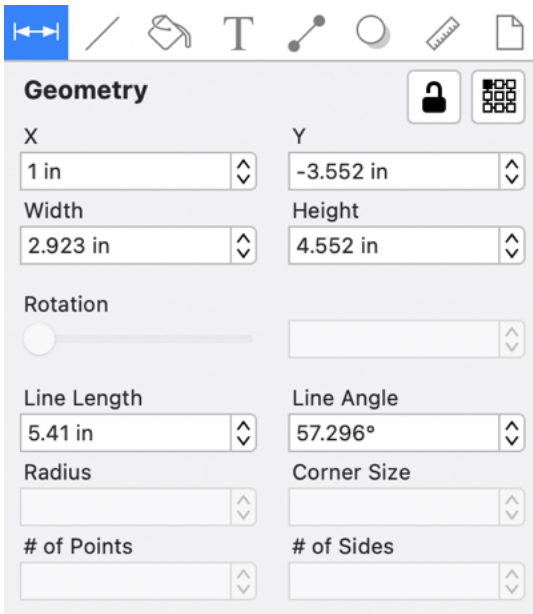
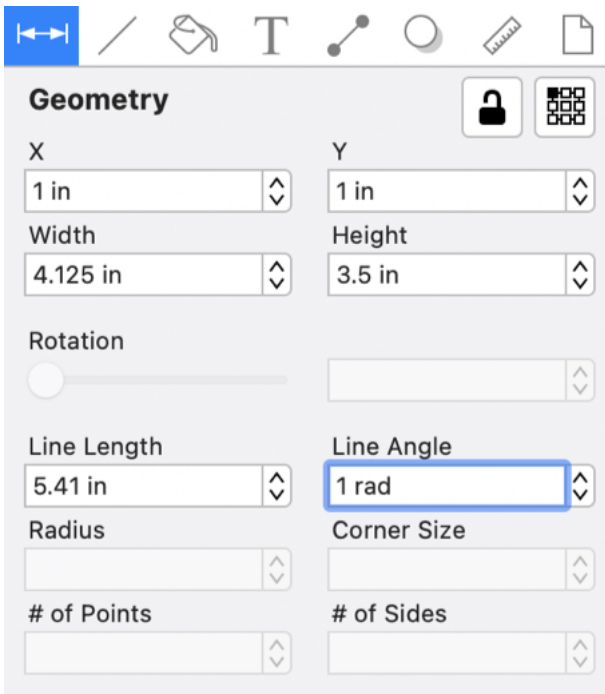
Property	Value
X	1 in
Y	1 in
Width	100 mm
Height	2 in
Rotation	0°
Line Length	
Line Angle	
Radius	
Corner Size	
# of Points	
# of Sides	




The Geometry panel in TouchDraw 2 for Mac shows the same settings as the previous image, but the 'Width' field now contains the text '3.937 in'. All other fields and the toolbar remain unchanged.

Property	Value
X	1 in
Y	1 in
Width	3.937 in
Height	2 in
Rotation	0°
Line Length	
Line Angle	
Radius	
Corner Size	
# of Points	
# of Sides	


Conversion can also be used for angle measurements, which use **Degrees** (°) as the unit of measurement. For example, if you enter 1 radian (rad) as the **Line Angle**, it will be converted to 57.296°.



Click on the corresponding **Geometry Attribute** name to learn more about what the option does.

Attribute Name	Description
	The Lock button, when enabled or locked, constrains the proportions of the shape as the width or height is changed.

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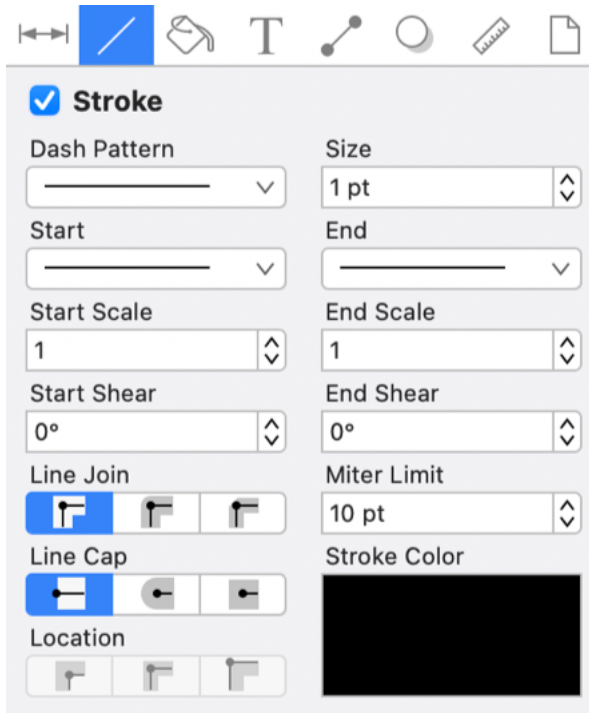
Attribute Name	Description
	The Reference Point Selection Button can be used to set/specify the reference point for the current selection (or future selections) in the Drawing Canvas. The selection defaults to the Top Left, but may be changed to Top Center, Top Right, Center Left, Center, Center Right, Bottom Left, Bottom Center or Bottom Right. When used, the X and Y coordinates will change based on the selection to reflect the reference point change.
X	The X attribute can be used to set the X position of the currently selected figure to the entered value. It functions as a nudge tool when multiple figures are selected by moving all figures in a manner relative to the entered change.
Y	The Y attribute can be used to set the Y position of the currently selected figure to the entered value. It functions as a nudge tool when multiple figures are selected by moving all figures in a manner relative to the entered change.
Width	The Width attribute can be used to set the width of all currently selected figures to the entered value. The width of all figures is set to this value when multiple items are selected. To scale the width based on the relative size within the selected figures, group all of the figures and then resize.
Height	The Height attribute can be used to set the height of the currently selected figure to the entered value. The height of all figures is set to this value when multiple items are selected. To scale the width based on the relative size within the selected figures, group all of the figures and then resize.
Rotation	The Rotation attribute can be used to set the angle of the currently selected figure to the chosen slider or keyboard entered value. This option will set the angle of all selected figures to the entered value and rotate them relative to their own centers when multiple figures have been selected. It is best to group all desired figures and then rotate them as a group when wanting to make this change relative to the center of the selection.
Line Length	The Line Length attribute can be used to set the length of a selected line(s). A line must be selected for this option to be enabled.
Line Angle	The Line Angle attribute can be used to set the rotation angle of a selected line(s). A line must be selected for this option to be enabled.

Attribute Name	Description
Radius	The Radius attribute can be used to set the radius of the currently select circle to the entered value. In the instance of multiple figure selection, this option will set the radius of all selected figures to the entered value.
Corner Size	The Corner Size attribute can be used to set the size of the corner for a rounded rectangle. The units for the corner size are the units of measure of the drawing. For example, if the units of measure for the drawing were inches and the size of the corner is set to ".25", the corner size is 1/4 of an inch.
# of Points	The # of Points attribute can be used to set the number of points for a star. In the instance of multiple figure selection, this option will set the number of points of all selected figures to the entered value.
# of Sides	The # of Sides attribute can be used to set the number of sides for a polygon. In the instance of a multiple figure selection, this option will set the number of sides of all selected figures to the entered value.

Note: The value displayed in the text field of each attribute setting represents the value of the first selected figure.

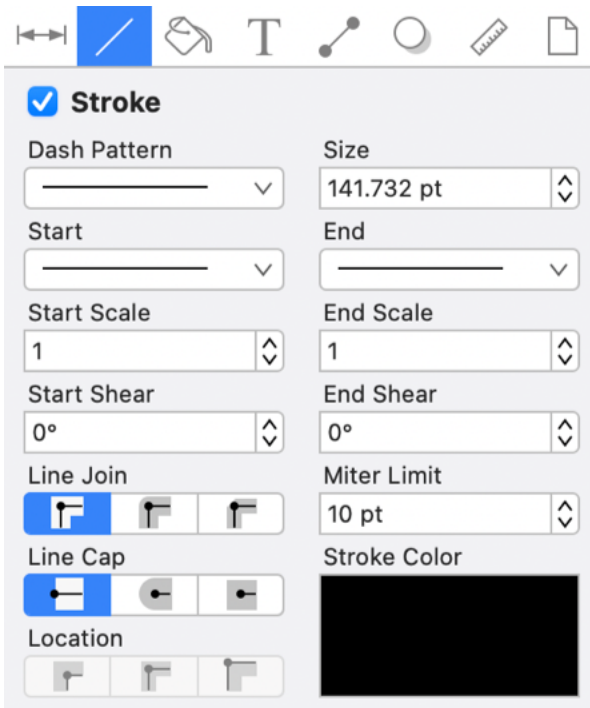
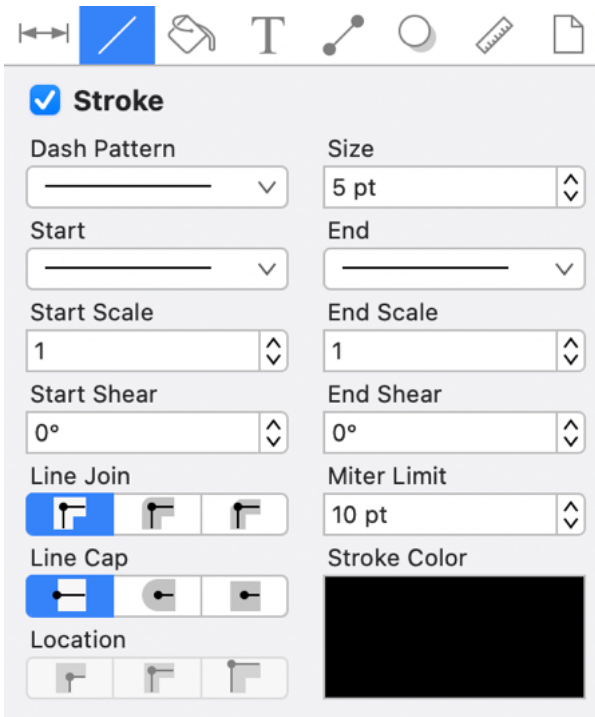
4.6.1.2. Stroke Tab

The **Stroke Tab** contains options for setting the attributes of a line (stroke). The tab will appear as shown below when selected in the [Sidebar](#).

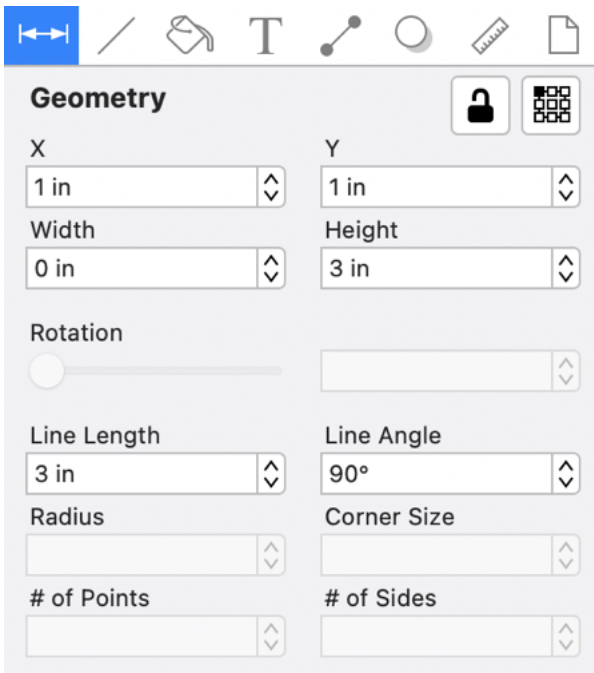


Values displayed in the **Stroke Tab** default to **Points**; however, alternative units of measurement may be typed in: Pixels, Centimeters, Millimeters, Inches, etc. These values will be automatically converted to their equivalent in *Points*.

For example, if 5 pixels (5 px) is entered for the **Stroke Size**, then it will be automatically converted to **Points** after pressing on your keyboard's **Enter Key** or selecting another item in TouchDraw 2.

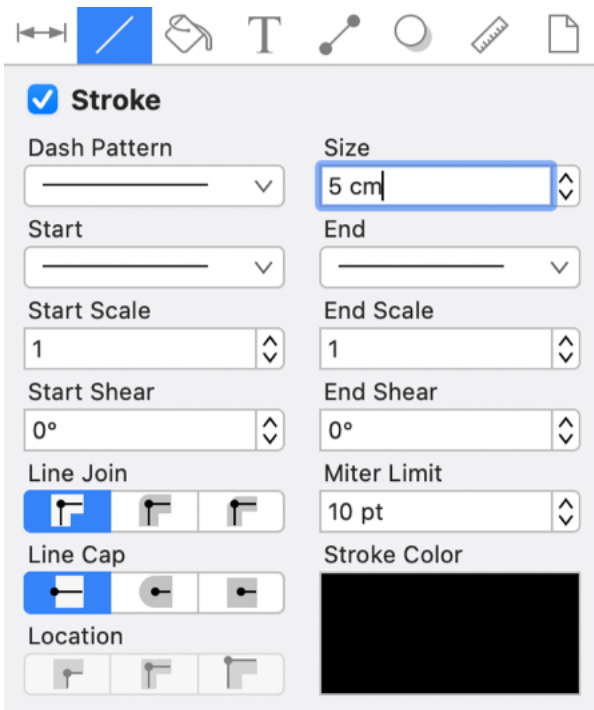


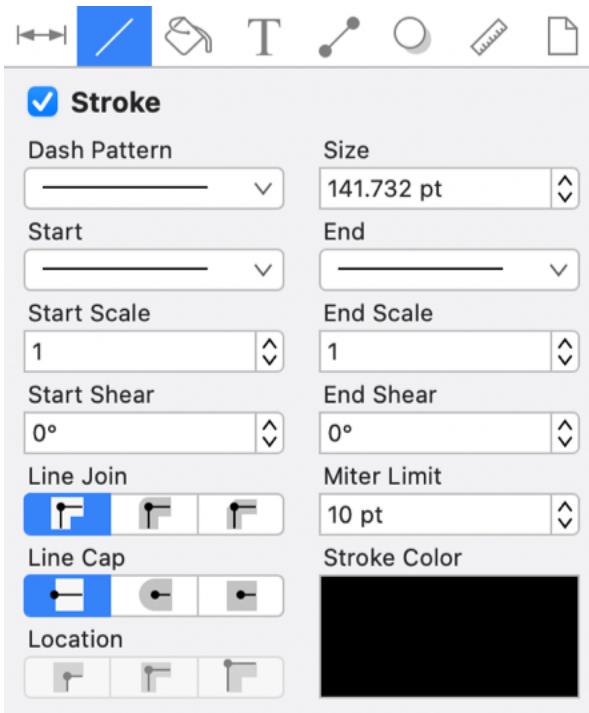
Note: Pixels and points will have the same number value after conversion when the default measurement is points; however, you can enter points or pixels for conversion to inches in other parts of the [Sidebar](#), such as the Geometry Tab.



Example 1: Entering 5 cm for Stroke Size

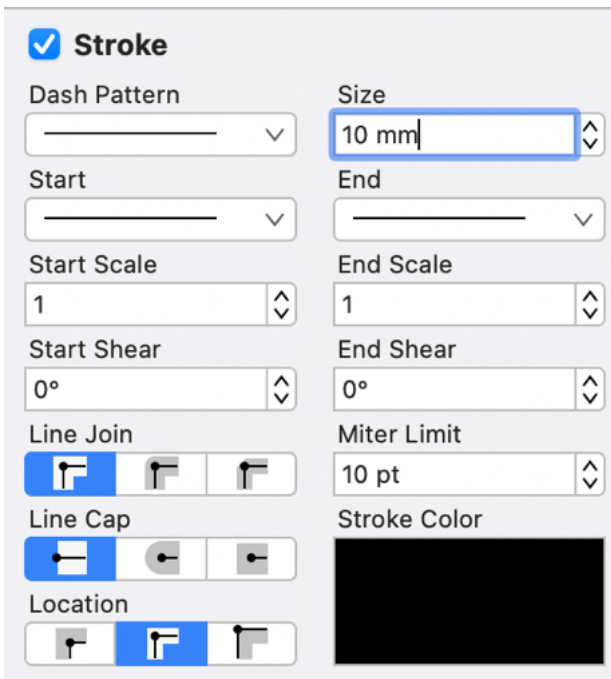
If 5 centimeters (cm) is entered as the **Stroke Size**, then it will be converted to 141.732 points.

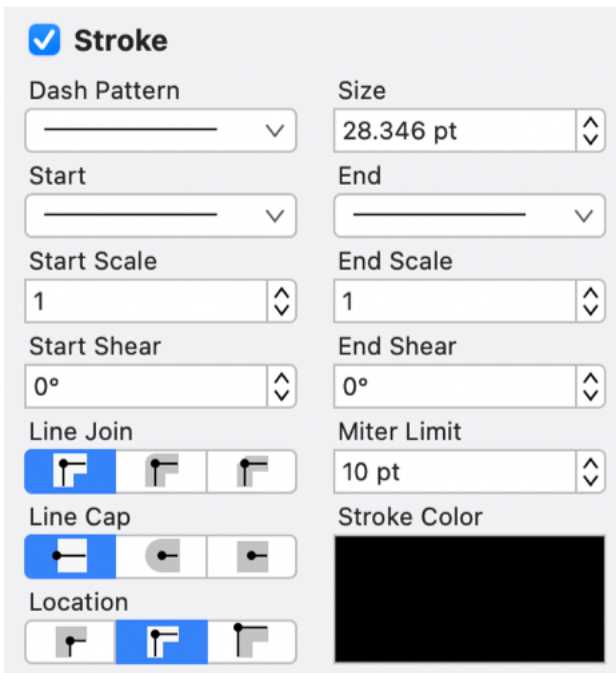




Example 2: Entering 10 mm for Stroke Size

If 10 millimeters (mm) is entered as the **Stroke Size**, then it will be converted to 28.346 points.





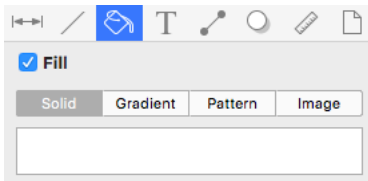
Click on the corresponding **Stroke Attribute** name to learn more about what the option does.

Attribute Name	Description
Stroke	The Stroke attribute is an "On/Off" toggle button for setting the visibility of strokes or lines of a figure(s). The border or line of a figure is not drawn when this option is disabled.
Line	The Line attribute can be used to set the style of the line being created.
Start	The Start attribute can be used to set the style of the beginning portion of a created line.
End	The End attribute can be used to set the style of the ending portion of a created line.
Size	The Size attribute can be used to set the width of a stroke <i>in pixels</i> .
Start Scale	The Start Scale attribute can be used to scale the start of a line independently from the stroke size.
End Scale	The End Scale attribute can be used to scale the end of a line independently from the stroke size.
Start Shear	The Start Shear attribute can be used to Shear (or skew) the start arrowhead on lines.

Attribute Name	Description
	The value is defaults to degrees.
End Shear	The End Shear attribute can be used to enter the Shear value for the end arrowhead on lines. The value defaults to degrees.
Line Join	The Line Join attribute can be used to set the join of a line to Mitered, Rounded, or Beveled.
Line Cap	The Line Cap attribute can be used to set the cap of a line to Butt, Rounded, or Square.
Location	The Location attribute can be used to set the location where the line will join with another object.
Miter Limit	The Miter Limit attribute can be used to set the angle of connected line segments where they join. The join will be more jagged or sharp depending on the entered or selected value. Miter limits are relative to stroke size and become increasingly noticeable for line segments with increased thickness.
Stroke Color	The Color attribute can be used to specify the color of a stroke. Refer to the Handling Colors section to learn more about color attribute changes.

4.6.1.3. Fill Tab

The **Fill Tab** contains options for configuring the fill attributes of all objects with the exception of the Line and Connection tools. The tab will appear as shown below when selected in the [Sidebar](#).

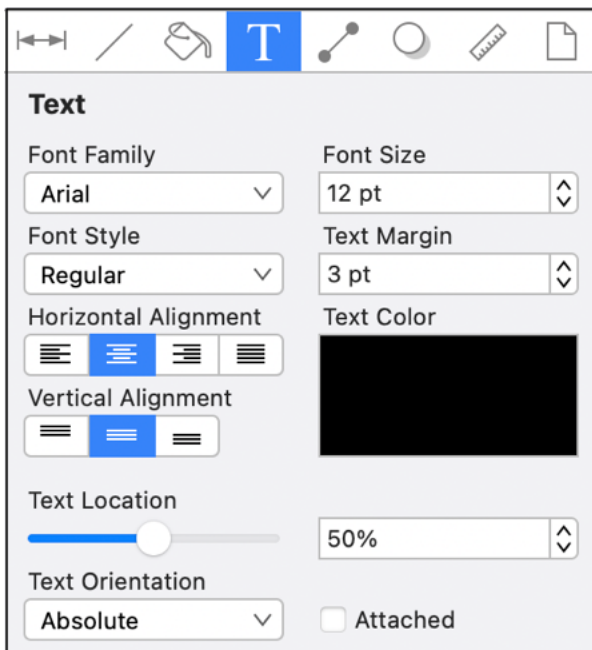


Click on the corresponding **Fill Attribute** name to learn more about what the option does.

Attribute Name	Description
Fill	The Fill attribute is an "On/Off" button for toggling the visibility of the fill of a figure(s). Shapes have no fill when this option is disabled.
Fill Style	The Fill Style attributes options are located underneath the Fill attribute. This option sets the type of fill pattern used for a figure(s).
	Solid - Fills a figure with solid color.
	Linear Gradient - Transitions from the specified start color to the specified end color at a designated angle.
	Radial Gradient - A radial gradient transitions from the specified start color to the specified end color by starting from the center of the figure and then moving outward in a circular manner.
Color	The Color attribute is used to choose the fill color for a figure(s). See the Handling Colors section for additional details.

4.6.1.4. Text Tab

The **Text Tab** contains options for setting the text attributes of a figure(s). The tab will appear as shown below when selected in the [Sidebar](#).



Values displayed in the **Text Tab** default to **Points**; however, alternative units of measurement may be typed in (i.e. pixels, millimeters, centimeters, inches, feet, etc.).

These values will be automatically converted to their equivalent in *Points* after pressing the **Enter Key** on your keyboard or clicking in another area of TouchDraw 2.

If you enter 5 pixels (px) as the **Font Size**, then it will be converted to 5 points (pt).

Text

Font Family: Arial ▼

Font Size: 5 px ▲▼

Font Style: Regular ▼

Text Margin: 3 pt ▲▼

Horizontal Alignment: ☰ ☷ ☰ ☷

Vertical Alignment: ☷ ☷ ☷

Text Color: ■

Text Location: 50% ▲▼

Text Orientation: Absolute ▼ ☐ Attached

Text

Font Family: Arial ▼

Font Size: 5 pt ▲▼

Font Style: Regular ▼

Text Margin: 3 pt ▲▼

Horizontal Alignment: ☰ ☷ ☰ ☷

Vertical Alignment: ☷ ☷ ☷

Text Color: ■

Text Location: 50% ▲▼

Text Orientation: Absolute ▼ ☐ Attached

Pixels and points will have the same number value after conversion when the default measurement is points; however, you can enter points or pixels for conversion to inches in other parts of the [Sidebar](#) such as the [Geometry Tab](#).

For example, if 1 centimeter (1 cm) is entered for the **Font Size**, then it will be automatically converted to *Points* after pressing the **Enter Key** on your keyboard or selecting another item in TouchDraw 2.

Text

Font Family

Arial

Font Style

Regular

Horizontal Alignment

Vertical Alignment

Text Location

Text Orientation

Absolute

Font Size

28.346 pt

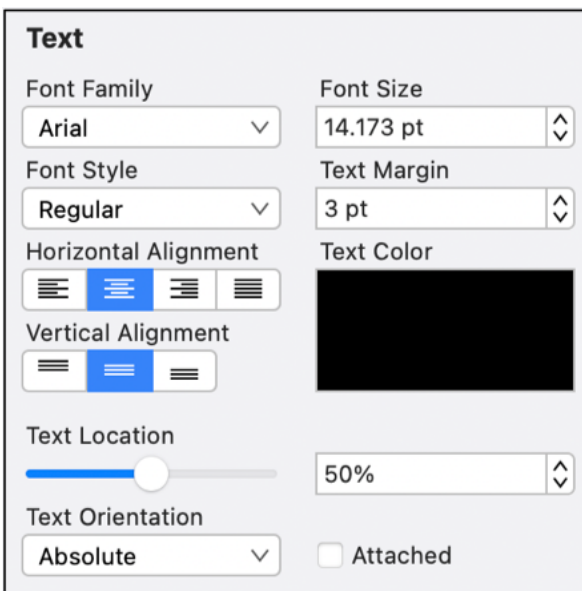
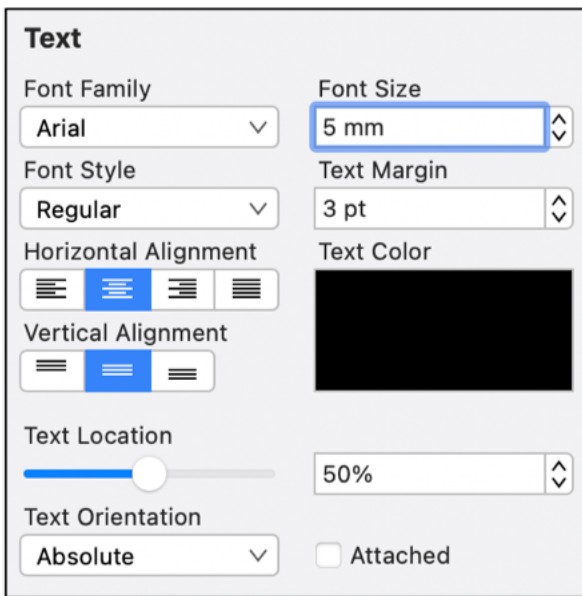
Text Margin

3 pt

Text Color

☐ Attached

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Click on the corresponding **Text Attribute** name to learn more about what the option does.

| Attribute Name | Description || :--- | :--- || [Font Family](#) | The **Font Family** attribute is used to choose a set of fonts with the same typeface, but varying qualities such as size and weight. || [Font Style](#) | The **Font Style** attribute sets the style or angle of text within a figure(s). || [Font Size](#) | The **Font Size** attribute sets the height of characters in a selected font family. || [Text Margin](#) | The **Text Margin** attribute set the margins for text within a figure(s). The measurement spans from the text box edge to the actual text. || [Alignment](#) | The **Alignment** attribute set the vertical and horizontal text alignment modes for text within a figure(s). || [Text Color](#) | The **Text**

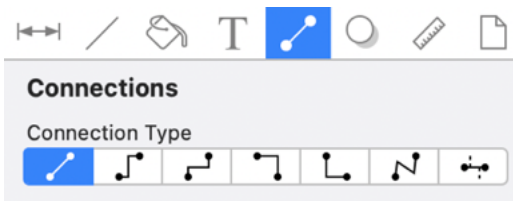
Color attribute sets the color of text appearing in a figure(s). || Attached | The **Attached** option is disabled by default. When enabled, the location and orientation of attached text can be altered for a line or path. || [Text Location](#) | The **Text Location** option can be used to change the location of text that is attached to a line or path. || [Text Orientation](#) | The **Text Orientation** option can be used to change the orientation of text that is attached to a line or path. Text orientation can be Absolute or Relative. |

Note: Refer to the [Handling Text](#) section of this documentation to learn more about attribute changes or editing text for figures.

4.6.1.5. Connection Type Tab

The **Connection Type Tab** can be used to change the type of connection line used in conjunction with the [Connection Tool](#).



These options are accessible through the [Sidebar](#) by clicking on the **Connection Type Tab**.



Click on the name of an available **Connection Type Tab** choice to find out more details about what action occurs when it is selected.

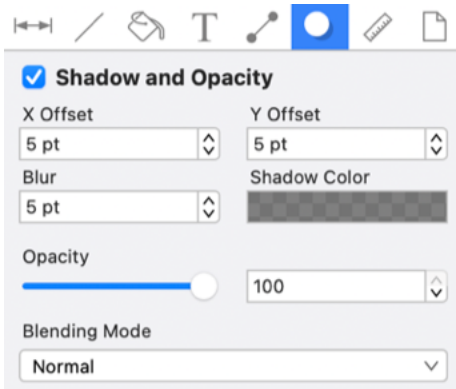
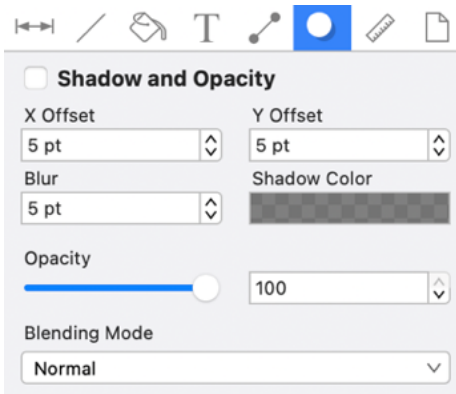
Icon	Name	Description
	Line Connection Tool	The Line Connection Tool draws a line connection that connects two shapes in the shortest path.
	East-West Connection Tool	The East-West Connection Tool draws a connection line that originates from the side (either west/left or east/right) of the source figure and connects to the side (either west/left or east/right) of the target figure.
	North-South Connection Tool	The North-South Connection Tool draws a connection line that originates from the side (either north/top or south/bottom) of the source figure and connects to the side (either north/top or south/bottom) of the target figure.
	Horizontal-Vertical Connection Tool	The Horizontal-Vertical Connection Tool draws a connection line that originates horizontally from the right or left side of the source figure and connects vertically to the side (top) of the target figure.
	Vertical-Horizontal Connection Tool	The Vertical-Horizontal Connection Tool draws a connection line that originates vertically from the side (either top or

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Icon	Name	Description
		bottom) of the source figure and connects to the side (either left or right) of the target figure.
	Path Connection Tool	The Path Connection Tool creates a path connection that connects two shapes. As with paths created with the Path Tool , path connections can be manipulated to add additional line or curve segments.
	Hub Connection Tool	The Hub Connection Tool creates a connection line that is able to receive connections. This is typically used for creating network diagrams.

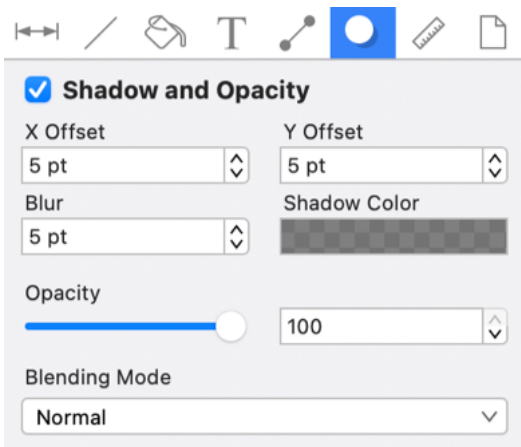
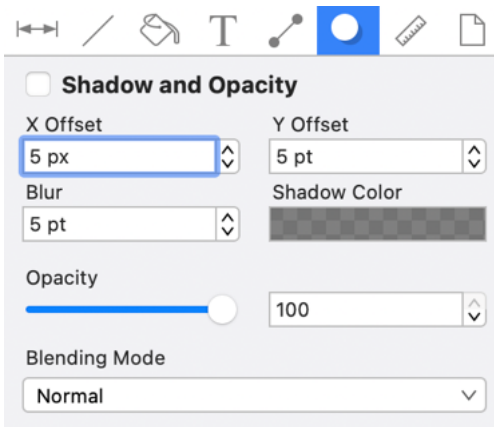
4.6.1.6. Shadow and Opacity Tab

The **Shadow and Opacity Tab** contains options for altering shadowing, opacity, and blending attributes of a figure(s). The tab will appear as shown below when selected in the [Sidebar](#).



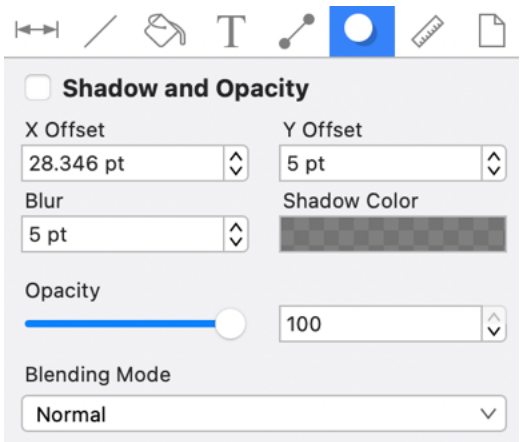
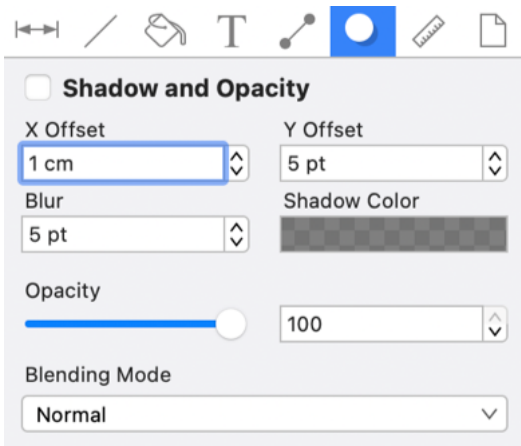
Values displayed in the **Shadow and Opacity Tab** default to **Points**; however, alternative units of measurement may be typed in (i.e. pixels, millimeters, centimeters, inches, feet, etc.). These values will be automatically converted to their equivalent in *Points* after pressing the **Enter Key** on your keyboard or clicking on another item within TouchDraw 2.

For example, if you enter 5 pixels (px) as the **X Offset**, then it will be converted to 5 points (pt).

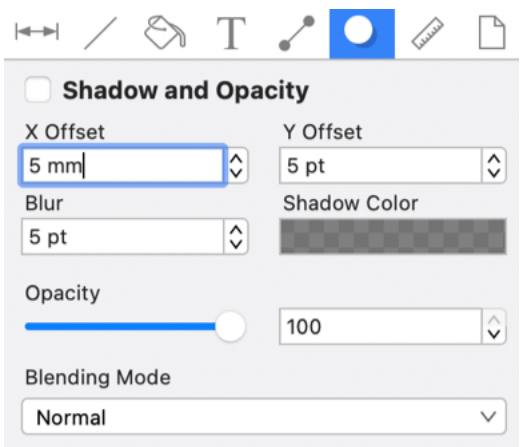


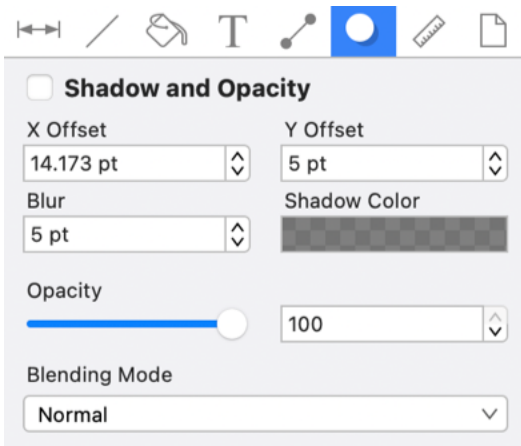
Note: Pixels and points have the same number value after conversion when the default measurement is points; however, you can enter points or pixels for conversion to inches in other parts of the [Sidebar](#) such as the [Geometry Tab](#)

If 1 centimeter (1 cm) is entered for the **X Offset**, then it will be automatically converted to *Points* after pressing on the **Enter Key** or selecting another item in TouchDraw 2.



If 5 millimeters (5 mm) is entered as the **X Offset**, then the value will be converted to 14.173 points.





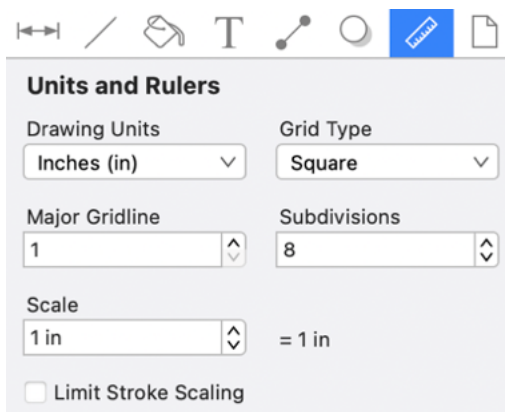
Click on the corresponding **Shadow Attribute** name to learn more about what the option does.

Attribute Name	Description
Shadow and Opacity	The Shadow and Opacity attribute is used to toggle the shadow visibility of a figure(s). A shadow is not drawn if this option is disabled.
X Offset	The X Offset attribute sets the offset of the shadow in the X axis.
Y Offset	The Y Offset attribute sets the offset of the shadow in the Y axis.
Blur	The Blur attribute sets the amount of blur applied to the shadow.
Shadow Color	The Shadow Color attribute sets the shadow color for a figure(s). Refer to the Handling Colors section of this documentation to learn more about color attribute alterations.
Opacity	The Opacity attribute can be used to alter the opaqueness (opposite of transparency) of a selected color.
Blending Mode	The Blending Mode attribute sets the style of blend applied to a figure(s).

4.6.1.7. Units and Rulers Tab

The **Units and Rulers Tab** contains options for altering the unit of measure, background, and additional drawing canvas related settings.

These options are used to control the layout and divisions of the ruler. Unit settings are additionally used when drawings are exported in alternative formats such as a PDF file. The tab will appear as shown below when selected in the [Sidebar](#).



Click on the corresponding **Units and Rulers Attribute** name to learn more about what the option does.

Attribute Name	Description
Drawing Units	The Drawing Units attribute sets the form of unit measurement on the drawing canvas (inches, pixels, etc.).
Grid Type	The Grid Type attribute configures what type of grid will be used for your drawing (i.e. square or isometric).
Major Gridline	The Major Gridline attribute sets the interval (in the current unit of measure) that a major gridline will be drawn. For example, if the unit of measure is centimeters and the major gridline is set to 2, it will draw the major gridline every two centimeters.
Subdivisions	The Subdivisions attribute sets the number of subdivisions (minor gridlines) that are drawn between the Major Gridlines. For example, if the unit of measure is centimeters and the major gridline is set to 2, and the subdivisions is set to 4, it will draw a minor gridline every 1/2 cm (5mm)

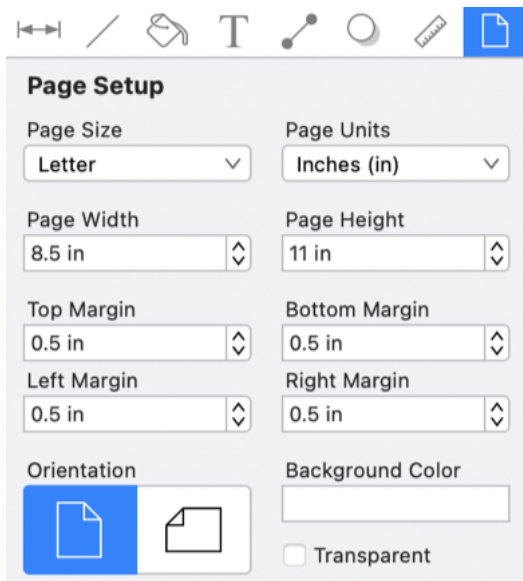
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Attribute Name	Description
Scale	The Scale attribute can be used to change the scale of the drawing to the size of the printed drawing.
Limit Stroke Scaling	The Limit Stroke Scaling attribute is used to configure TouchDraw 2 so that lines having a thickness smaller than 1 (based on the current zoom level) are drawn at 1 pixel. This setting makes certain these lines are always visible.

Note: A change from one unit of measurement to another does not numerically change the size of figures. For example, changing from inches to centimeters where the objects were previously 1 inch wide causes the objects to become 1 centimeter wide. You can use the "[Scale By...](#)" option to scale the drawing after the conversion.

4.6.1.8. Page Setup Tab

The **Page Setup Tab** contains options for altering the print margins of a drawing. The tab will appear as shown below when selected in the [Sidebar](#). Values displayed in the **Page Setup Tab** default to **Inches**.



Click or Tap on the corresponding **Page Setup Attribute** name to learn more about what the option does.

Attribute Name	Description
Page Size	The Page Size attribute sets the size of the entire page (i.e. letter, legal, A4, etc.). By default the page size is set to letter.
Page Units	The Page Units attribute sets the unit of measurement used to define the attributes on this page.
Page Width	The Page Width attribute sets the width of the page in printing units.
Page Height	The Page Height attribute sets the height of the page in printing units.
Top Margin, Bottom Margin, Left Margin, and Right Margin	The Top Margin , Bottom Margin , Left Margin and Right Margin attributes can be used to set the page margins in user specified printing units.
Orientation	The Orientation attribute sets the Drawing Canvas to portrait or landscape mode.

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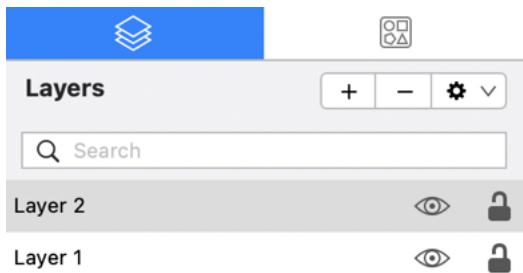
Attribute Name	Description
	By default the canvas is set to portrait.
Background Color	The Background Color attribute sets the background color of the drawing. Refer to the Handling Colors section in this documentation to learn more about color selection.
Transparent	The Transparent attribute toggles whether or not the background of the drawing is transparent. For example, if you want to export your drawing as a transparent PNG, then you'd want this option selected.

Note: Refer to [Printing a Drawing](#) to learn more about setting the print options for drawings.

4.6.2. Layers

Layers provide the capability to incorporate more than one level of objects into a drawing. Each added layer builds on top of the previous created layer to create a multidimensional drawing.

They are managed and controlled through the **Layers Portion** of the [Sidebar](#) located on the right hand side of the main application window. This section appears as shown below.



Note: Click on the corresponding **Layer Function** name to learn more about what the option does.

Icon	Function Name	Description
+	Add	The Add function adds a layer to the bottom of the layer list.
-	Delete	The Delete function removes the top layer from the layer list.
⚙	Layer Settings Menu	The Layers Settings Menu contains options for adding, deleting, re-ordering, and merging layers.
👁	Visibility	The Visibility option is an "On/Off" toggle button for setting the visibility of each created layer. It appears to the right of each layer name in the list as an "eye" icon and indicates the visibility of the layer. To hide (or show) a layer, simply Click on the eye icon of the layer to be toggled. An eye icon with a line through it indicates that a particular layer is not visible, whereas an eye with no line indicates a layer is visible.
🔒	Lock	The Lock option is an "On/Off" toggle button for locking or unlocking a layer. It is located to the right of the visibility icon and indicates whether or not a layer is locked. To lock (or

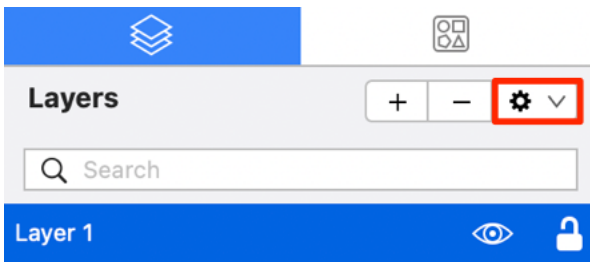
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Icon	Function Name	Description
		unlock) a layer, simply Click on the lock icon of the layer to be toggled. A closed lock icon indicates that a layer is locked and an open lock icon indicates a layer is unlocked.

Note: Layers located at the top of the **Layers Sidebar List** are drawn above the layers below it.

4.6.2.1. Layers Settings Menu

The **Layers Settings** drop-down menu is used to perform specific actions on a created layer or set of layers. It resides in the upper right hand corner of the **Layers** section of the **Sidebar** as shown in the image below.



Perform a **Single Click** on this menu to access additional options.



Click on the corresponding **Layers Setting Menu** name to learn more about what the option does.

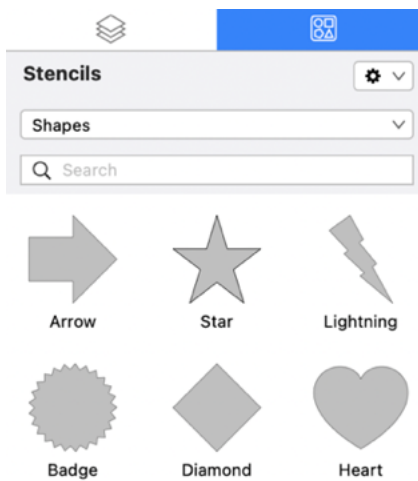
Option Name	Description
Add Layer	The Add Layer option adds a layer above existing layers. A new layer appears at the top of the sidebar list.
Duplicate Layer	The Duplicate Layer option creates an exact copy of a selected layer and adds it to the top of the sidebar list.
Move Layer Up	The Move Layer Up option moves a selected layer up one level in the sidebar list.
Move Layer Down	The Move Layer Down option moves a selected layer down one level in the sidebar list.
Merge Layer Up	The Merge Layer Up option merges the selected layer with the one residing above it in the sidebar list.
Merge Layer Down	The Merge Layer Down option merges the selected layer with the one residing below it in the sidebar list.
Merge All Layers	The Merge All Layers option merges all existing layers into a single layer.
Delete Layer	The Delete Layer option permanently removes a selected layer from the sidebar list.
Show All Layers	The Show All Layers option makes all layers within the currently open drawing visible.
Hide All Layers	The Hide All Layers option hides all layers within the currently open drawing.
Lock All Layers	The Lock All Layers option locks all layers within the currently open drawing.
Unlock All Layers	The Unlock All Layers option unlocks all layers within the currently open drawing.
Sort Layers (Ascending)	The Sort Layers (Ascending) option sorts all layers within a drawing in ascending order alphabetically by name.
Sort Layers (Descending)	The Sort Layers (Descending) option sorts all layers within a drawing in descending order alphabetically by name.

Note: The **Move** and **Merge** options are enabled when two or more layers exist in the sidebar list. Corresponding up and down options for these categories require a layer to be available above or below the selected layer to appear as a menu selection.

4.6.3. Stencils

Stencils are pre-defined or custom objects you can insert into a drawing as needed. **Libraries** are used to add and manage **Stencils** stored within the application and for adding these objects to a drawing.

Both **Stencils** and **Libraries** are managed through the **Stencils Tab**, which can be accessed within the [Sidebar](#).

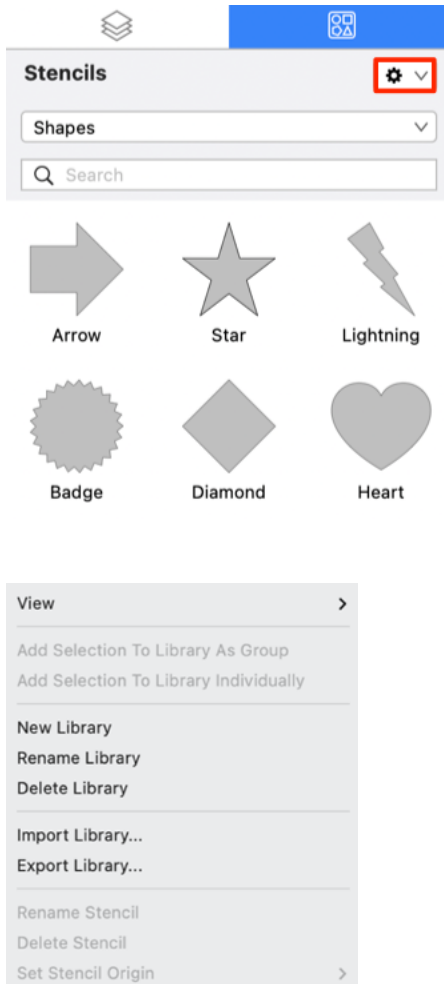


Click or Tap on the corresponding Stencils Tab item name to learn more about what the option does.

Icon	Option Name	Description
	Libraries Settings Menu	The Libraries Settings Menu contains options for adding , removing , and renaming libraries as well as options for managing stencils within each library.
	Library Selection Menu	The Library Selection Menu can be used to choose a specific library stored within the application.
	Search	The Search Feature can be used to find a specific stencil within the selected library.
	Stencil Selection Area	The Stencil Selection Area shows all stencils within a selected library and can be used to make drawing additions.

4.6.3.1. Libraries Settings Menu

The **Libraries Settings** drop-down menu is used to create, alter, or delete libraries. It is located in the upper right hand corner of the Libraries section in the [Sidebar](#) as shown in the image below. Perform a **single click** on this menu to access additional options.



Click on the corresponding **Libraries Settings Menu** name to learn more about what the option does.

| Option Name | Description || :--- | :--- || View Submenu| The **View Submenu** can be used to change the stencil size from small, medium, large, or size to fit. || [Add Selection To Library As Group](#) | The **Add Selection To Library As Group** option inserts a group of stencils into the selected library. || [Add Selection To Library Individually](#) | The **Add Selection To Library Individually** option inserts a new stencil into the selected library. || [New Library](#) | The **New Library** option creates a new library in TouchDraw. || [Rename Library...](#) |

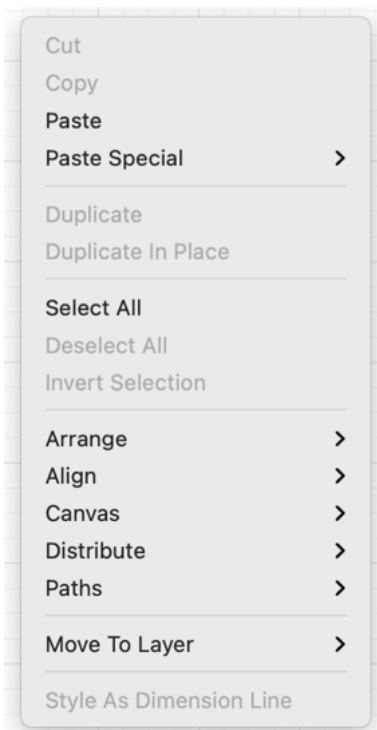
The **Rename Library...** option assigns a new name to a selected library. || [Delete Library](#) | The **Delete Library** option removes a library from TouchDraw. || [Import Library](#) | The **Import Library...** option imports a library into TouchDraw from another location. || [Export Library](#) | The **Export Library...** option exports a library from TouchDraw to a chosen directory. || [Rename Stencil](#) | The **Rename Stencil** option assigns a new name to a selected stencil. || [Delete Stencil](#) | The **Delete Stencil** option removes a stencil from the selected library. || Set Stencil Origin| The **Set Stencil Origin** option can be used to set the anchor (origin) point used to insert the shape. The stencil origin can be changed to the following: Top Left, Top Center, Top Right, Center Left, Center, Center Right, Bottom Left, Bottom, or Bottom Right. Example: By default, the stencil origin is the center of the shape meaning that if the stencil is dropped at a specific position in the Drawing Canvas(5,5 for example) , then the center point of the shape would be at 5,5. If the stencil origin is changed to top left and the stencil is dropped into the drawing at 5,5, then the top left of the shape would be at 5,5 rather than the center. || Reinstall Default Libraries| The **Reinstall Default Libraries** option can be used to reinstall default libraries within TouchDraw 2. |

Note: For more information about managing libraries and stencils, please see the [Handling Libraries](#) section of the user guide.

4.7. Contextual Menu

The **Contextual Menu** provides quick access to various editing functions made available through the TouchDraw 2 application.

Hold the **Shift Key** and **Click** (right click) anywhere on the [Drawing Canvas](#) or on a selected figure(s) to bring up this menu.



Note: Choices may or may not be enabled depending on the selected figure where right clicking occurs.

Click on the name of the menu item to find out more details about what action occurs when it is selected.

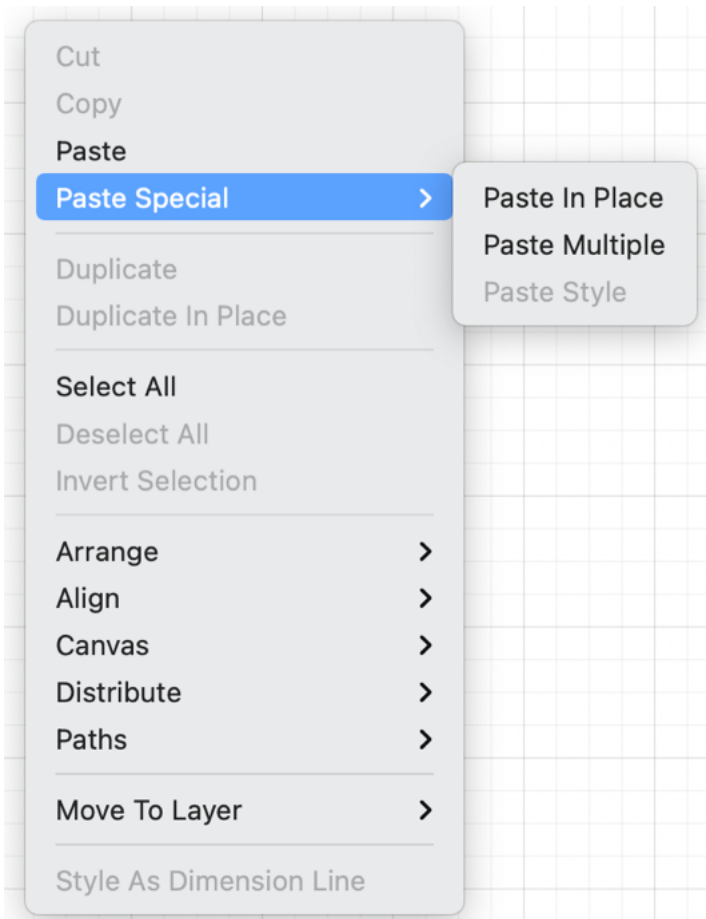
Option Name	Description
Cut	The Cut menu item removes the currently selected item from the active drawing and places it in the clipboard.
Copy	The Copy menu item places a copy of the currently selected item into the clipboard.

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Option Name	Description
Paste	The Paste menu item adds the most current item residing in the clipboard to the active drawing.
Paste Special Submenu	The Paste Special submenu contains special options related to pasting the contents of the clipboard into the active drawing.
Duplicate	The Duplicate menu item creates a copy of a selected item in the active drawing.
Duplicate in Place	The Duplicate in Place menu item creates a copy of a selected item and places it in the same location as the original.
Select All	The Select All menu item selects all items residing in the currently active drawing.
Deselect All	The Deselect All menu item deselects all items residing in the currently active drawing.
Invert Selection	The invert Selection menu item inverts the current selection or the Deselect All Selection option to deselect all currently selected figures within the Drawing Canvas .
Arrange Submenu	The Arrange Submenu contains options for grouping, locking, and ordering figures within a drawing.
Align Submenu	The Align Submenu contains options for aligning selected figures within a drawing.
Canvas Submenu	The Canvas Submenu contains an option for resetting the point of origin within a drawing.
Distribute Submenu	The Distribute Submenu contains options for distributing the selected figures within a drawing.
Paths Submenu	The Paths Submenu contains options for altering handles and segments of a path.
Move to Layer Submenu	The Move To Layer Submenu contains options for moving selected figure(s) to a new or existing layer.
Style as Dimension Line	The Style as Dimension Line option adds arrowheads and a {Length} variable to a selected line(s). At least one line must be selected in the drawing canvas for this option to appear.

4.7.1. Paste Special Submenu

Use the **Paste Special Submenu** to access special actions related to pasting the contents of the clipboard into the active drawing. It is accessed by right clicking anywhere in the Drawing Canvas.



Click on the name of the menu item to find out more details about what action occurs when it is selected.

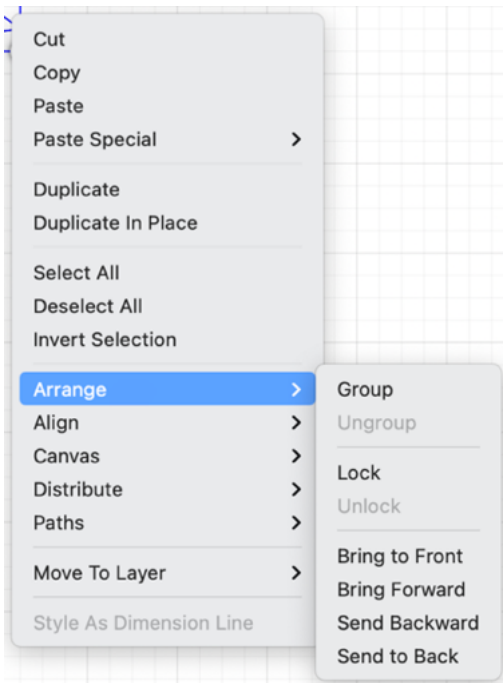
Menu Item	Description
Paste in Place	The Paste in Place menu item copies the current clipboard item into the exact location of the original.
Paste Multiple...	The Paste Multiple... menu item can be used to paste multiple copies of a clipboard item at specific offsets.
Paste Style	The Paste Style menu item applies the formatting properties of one object to the

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Menu Item	Description
	currently selected object.

4.7.2. Arrange Submenu

Use the **Arrange Submenu** to access actions for grouping, locking, and ordering selected figures within a drawing. When this submenu is selected, the options shown below will appear.



Click on the name of the menu item to find out more details about what action occurs when it is selected.

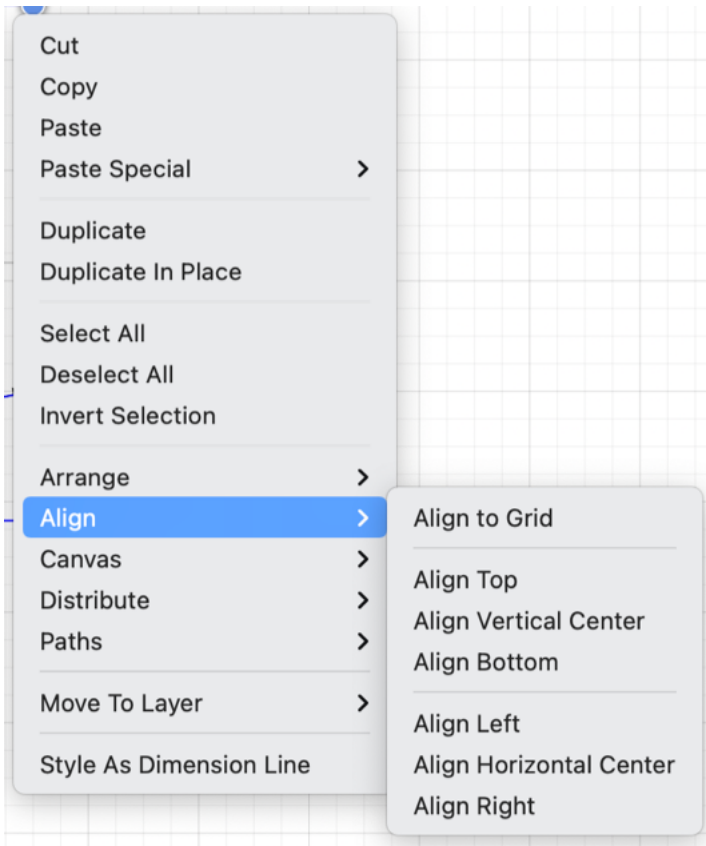
Menu Item	Description
Group	The Group menu item allows currently selected shapes on the drawing canvas to be manipulated and treated as a single figure. This menu item is enabled when two or more groupable figures are selected in the drawing canvas. Shapes residing on the drawing canvas can be manipulated.
Ungroup	The Ungroup menu item removes the grouping attribute for selected shapes to allow for individual manipulation. This menu item is enabled when one or more grouped figures are selected in the drawing canvas.
Lock	The Lock menu item prevents a selected figure(s) or group of figures from being moved or resized. This menu item is enabled when one or more unlocked (and lockable) figures are selected in the drawing canvas.

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Menu Item	Description
Unlock	The Unlock menu item removes a previously instated lock on a figure(s) or group of figures to allow for moving and resizing. This menu item is enabled when one or more locked figures are selected in the drawing canvas.
Bring to Front	The Bring to Front menu item moves a currently selected figure(s) to the front of all figures residing in the same layer. This menu item is enabled when one ore more figures are selected in the drawing canvas.
Bring Forward	The Bring Forward menu item moves a currently selected figure(s) one step closer to the top of the stack within the layer they reside in. This menu item is enabled when one ore more figures are selected in the drawing canvas.
Send Backward	The Send Backward menu item moves a currently selected figure(s) one step closer to the bottom of a stack within their residing layer. This menu item is enabled when one ore more figures are selected in the drawing canvas.
Send to Back	The Send to Back menu item moves a currently selected figure(s) behind all other figures residing within the same layer. This menu item is enabled when one ore more figures are selected in the drawing canvas.

4.7.3. Align Submenu

Use the **Align Submenu** to access actions for aligning selected figures within a drawing. When this submenu is selected within the [Arrange menu](#), the options shown below will appear.



Click on the name of the menu item to find out more details about what action occurs when it is selected.

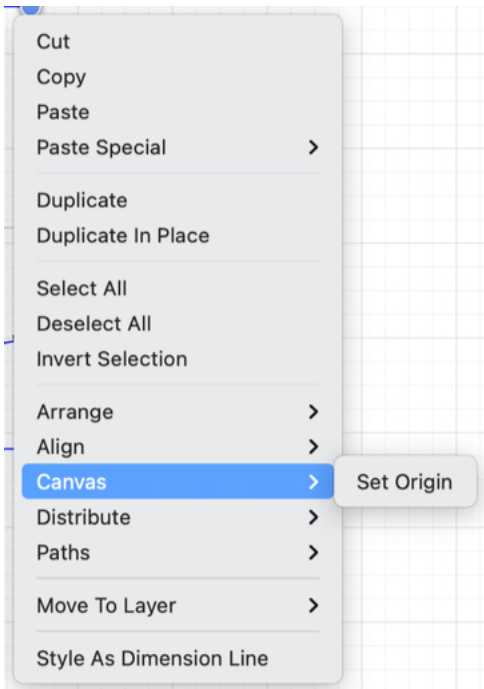
Menu Item	Description
Align to Grid	The Align to Grid menu item aligns figures with the grid. This menu item is enabled when two or more unlocked figures are selected in the drawing canvas.
Align Top	The Align Top menu item moves all currently selected figures to match the top (Y position) of the first selected figure. This menu item is enabled when two or more unlocked figures are selected in the drawing canvas.
Align Vertical	The Align Vertical Center menu item moves all currently selected figures to match

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Menu Item	Description
Center	the vertical center (Y position + 1/2 of the height of all figures) of the first selected figure. This menu item is enabled when two or more unlocked figures are selected in the drawing canvas.
Align Bottom	The Align Bottom menu item moves all currently selected figures to match the the bottom (Y position + Height) of the first selected figure. This menu item is enabled when two or more unlocked figures are selected in the drawing canvas.
Align Left	The Align Left menu item moves all currently selected figures to match the left (X position) of the first selected figure. This menu item is enabled when two or more unlocked figures are selected in the drawing canvas.
Align Horizontal Center	The Align Horizontal Center menu item moves all currently selected figures to match the horizontal center (X position + 1/2 of the width) of the first selected figure. This menu item is enabled when two or more unlocked figures are selected in the drawing canvas.
Align Right	The Align Right menu item moves all currently selected figures to match the right (X position + Width) of the first selected figure. This menu item is enabled when two or more unlocked figures are selected in the drawing canvas.

4.7.4. Canvas Submenu

Use the **Canvas Submenu** to reset the point of origin within a drawing. When this submenu is selected, the submenu will appear as shown below.

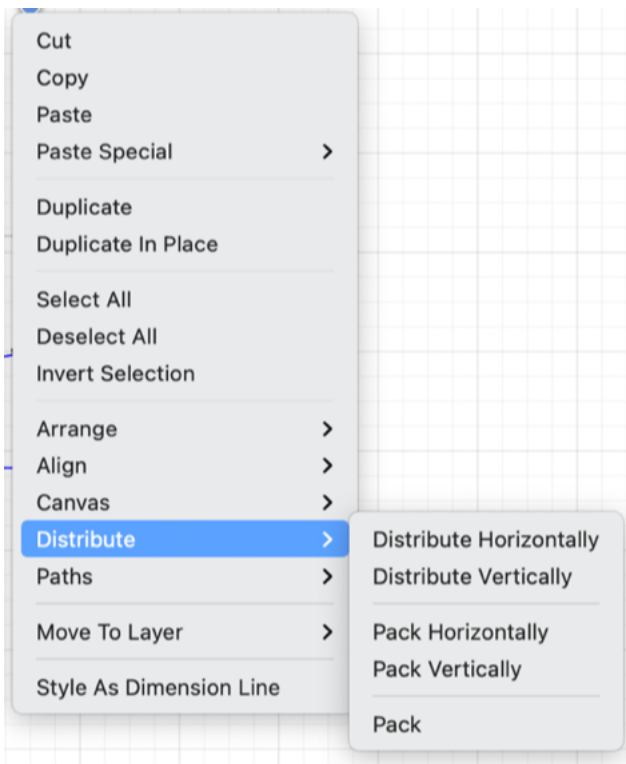


Click on the name of the menu item to find out more details about what action occurs when it is selected.

Menu Item	Description
Set Origin	The Set Origin menu item resets (moves) the top left of the drawing (0,0) to the specified point on the Drawing Canvas. This will be the point where the extended press has been performed to bring up the Contextual Menu.

4.7.5. Distribute Submenu

Use the **Distribute Submenu** within the Contextual Menu contains options for distributing the selected figures within a drawing. It is accessed by right clicking anywhere in the Drawing Canvas.



Click on the name of the menu item to find out more details about what action occurs when it is selected.

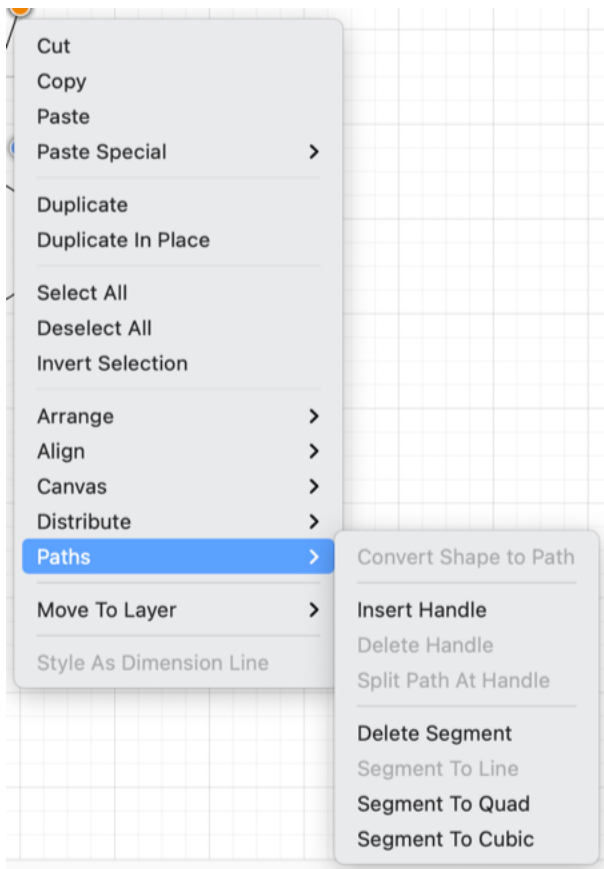
Menu Item	Description
Distribute Horizontally	The Distribute Horizontally menu item adjusts the positioning of selected figures to create an even amount of horizontal space between each figure. This menu item is enabled when three or more unlocked figures are selected in the drawing canvas.
Distribute Vertically	The Distribute Vertically menu item adjusts the positioning of selected figures to create an even amount of vertical space between each figure. This menu item is enabled when three or more unlocked figures are selected in the drawing canvas.
Pack Horizontally	The Pack Horizontally menu item takes a set of selected shapes and “packs” them into the smallest space possible horizontally.

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Menu Item	Description
Pack Vertically	The Pack Vertically menu item takes a set of selected shapes and “packs” them into the smallest space possible vertically.
Pack	The Pack menu item takes a set of selected shapes and "packs" them into as small of a rectangular space as possible. Be aware that the arrangement of selected figures might be altered in order to pack them into the smallest space.

4.7.6. Paths Submenu

Use the **Paths Submenu** to alter selected handles and segments within a path figure on the drawing canvas. When this menu is selected, the options shown below will appear.



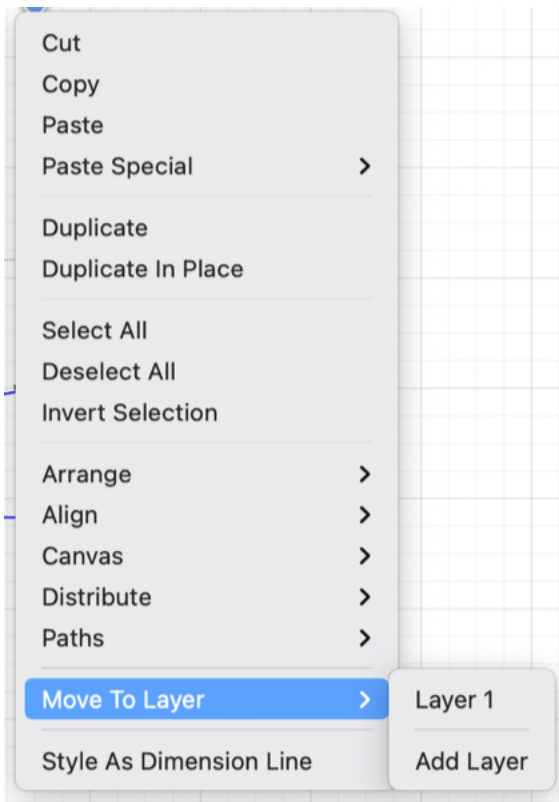
Click on the name of the menu item to find out more details about what action occurs when it is selected.

Menu Item	Description
Convert Shape to Path	The Convert Shape to Path menu item converts a selected shape(s) on the Drawing Canvas into a path figure.
Insert Handle	The Insert Handle menu item inserts a handle into the currently selected path segment.
Delete Handle	The Delete Handle menu item deletes the currently selected handle from a path segment.

Menu Item	Description
Split Path at Handle	The Split Path at Handle menu item divides a path into two separate sections at the chosen handle and allows each section to be altered as an individual figure.
Delete Segment	The Delete Segment menu item deletes the currently selected segment from a path.
Segment to Line	The Segment To Line menu item can be used to convert a quadratic or cubic path segment into a line segment.
Segment to Quad	The Segment To Quad menu item can be used to convert a line or cubic path segment into a quadratic segment.
Segment to Cubic	The Segment To Cubic menu item can be used to convert a line or quadratic path segment into a cubic segment.

4.7.7. Move to Layer Submenu

The **Move To Layer Submenu** contains options for moving selected figure(s) to a new or existing layer. It is accessed by right clicking anywhere in the Drawing Canvas.



Click on the corresponding Move to Layer Submenu item name to learn more about what the option does.

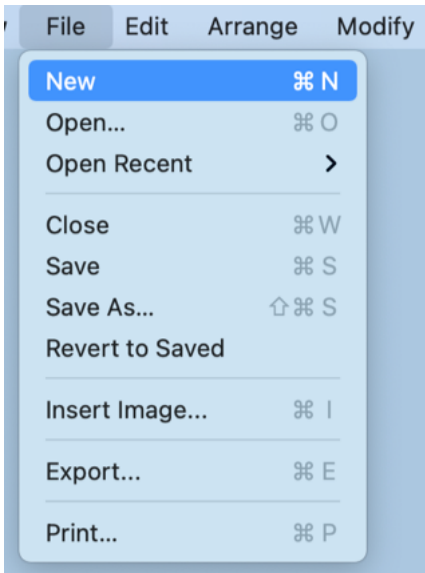
Option Name	Description
Existing Layers	Existing Layers within the drawing are shown in the top portion of the submenu. Choose a layer from this menu to move a selected figure(s) to a specified layer within the active drawing.
Add Layer	The Add Layer option creates a new layer and places the selected figure(s) in that layer.

5. File Management

TouchDraw 2 provides numerous **File Management** options to make working with new, saved, or imported drawings easier. The following pages explain how to perform basic file operations.

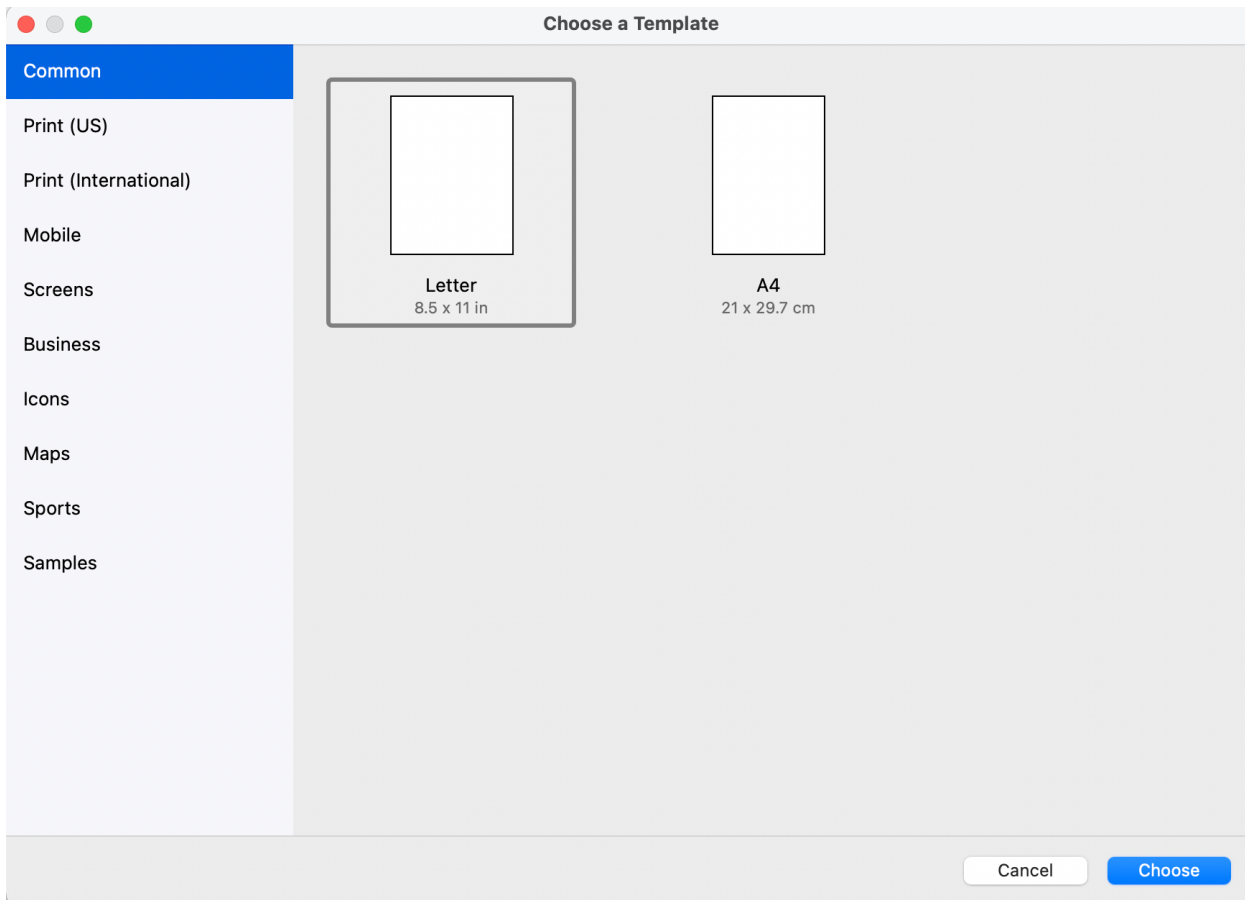
5.1. Creating a New Drawing

Click on the [File Menu](#) and select **New** to create a new drawing from the main application window.

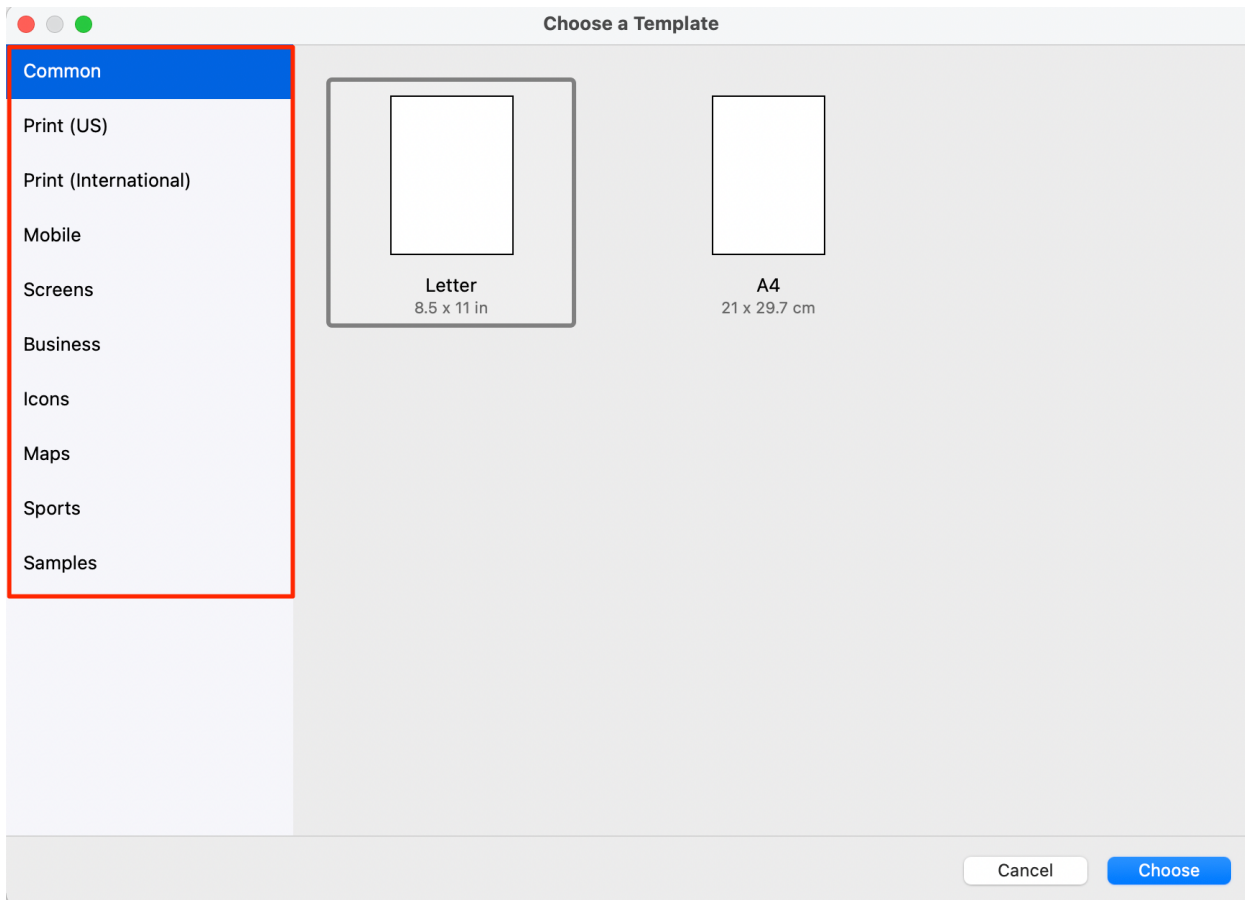


Next, choose a template to use for the new drawing by clicking on the desired selection. The currently selected template will have a black box around it.

Click on **Choose** in the bottom right corner to create the new drawing or press on **Cancel** to exit this window without making a selection.

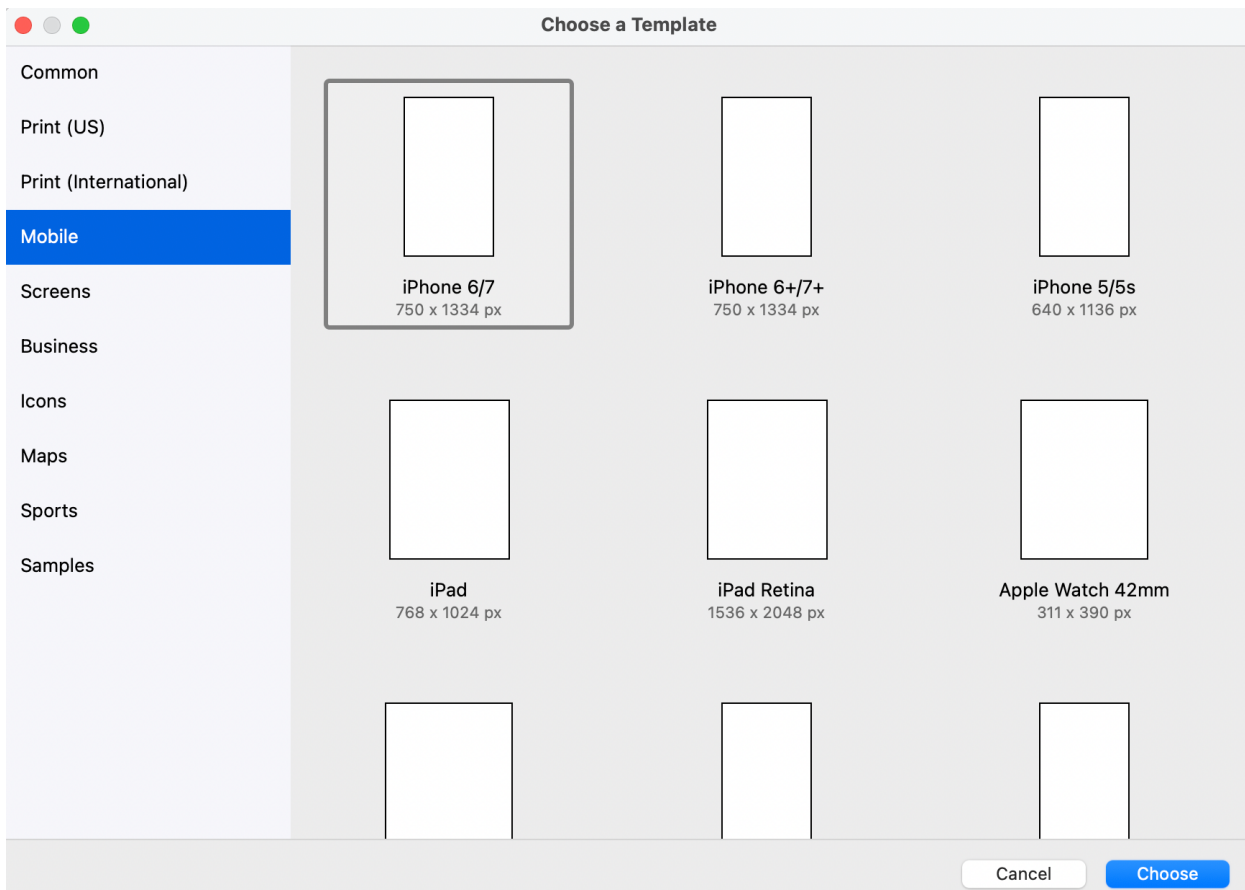


The display selection defaults to **Common**; however, you can click on the **Template Type Option (Print, Mobile, Screens, etc.)** in the left selection panel to view additional options.



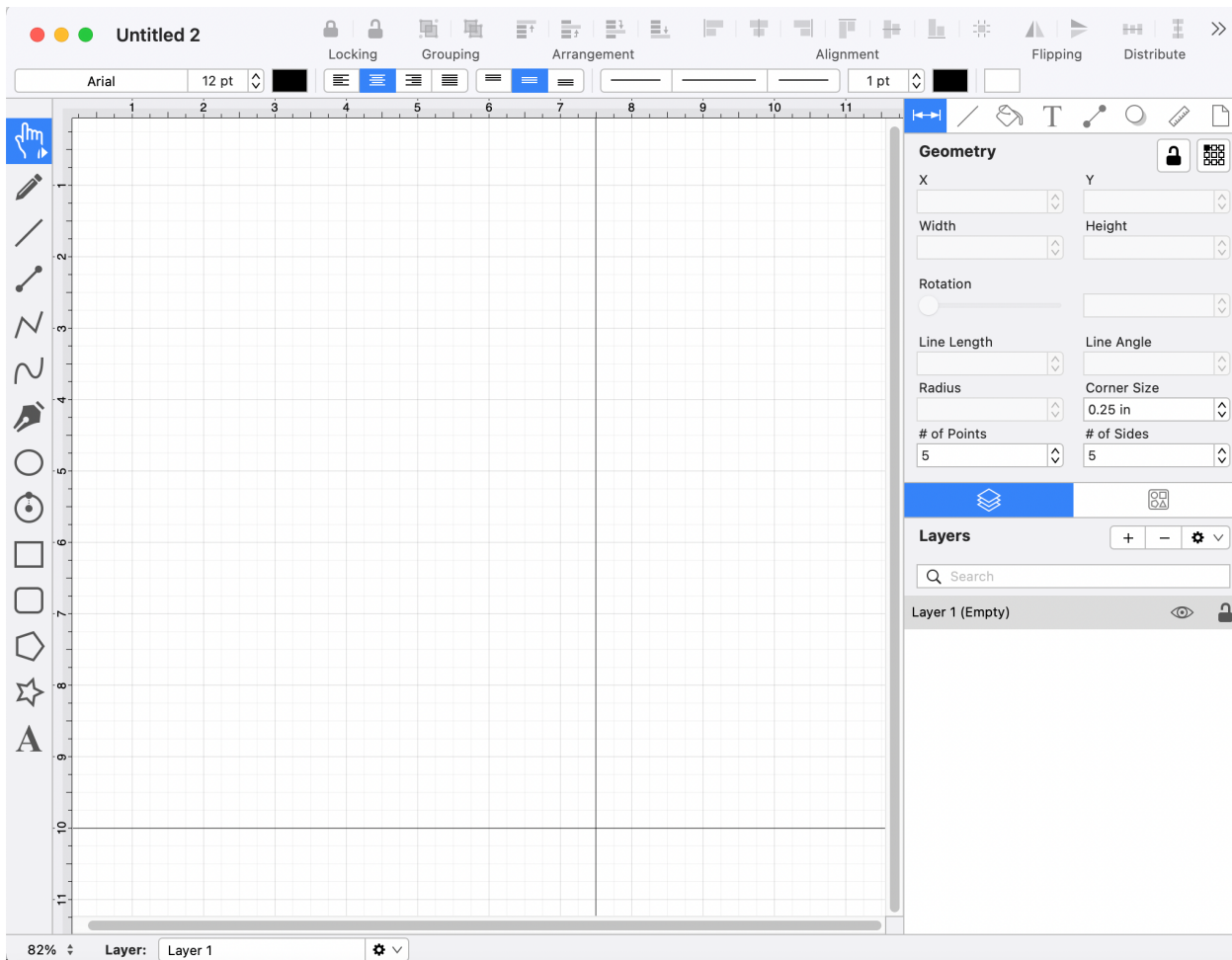
Click on an item within the menu to make a selection and all available templates for that selection will be displayed. In this example, **Mobile** has been chosen:

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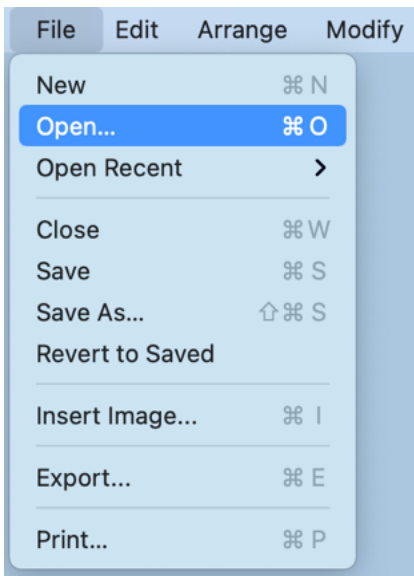
After a template has been chosen, a blank [Drawing Canvas](#) will appear. In the example below, Letter (8 1/2 by 11) has been chosen.

TouchDraw 2 for Mac

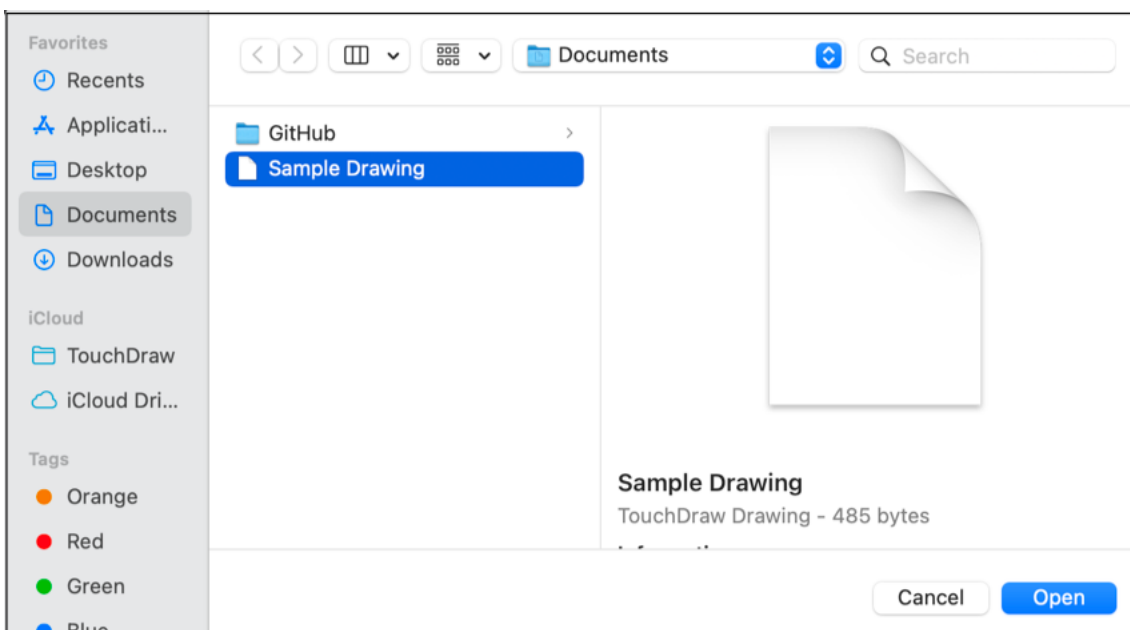


5.2. Opening a Drawing

Click on the [File Menu](#) and select **Open** to open an existing drawing in the main application window for editing.

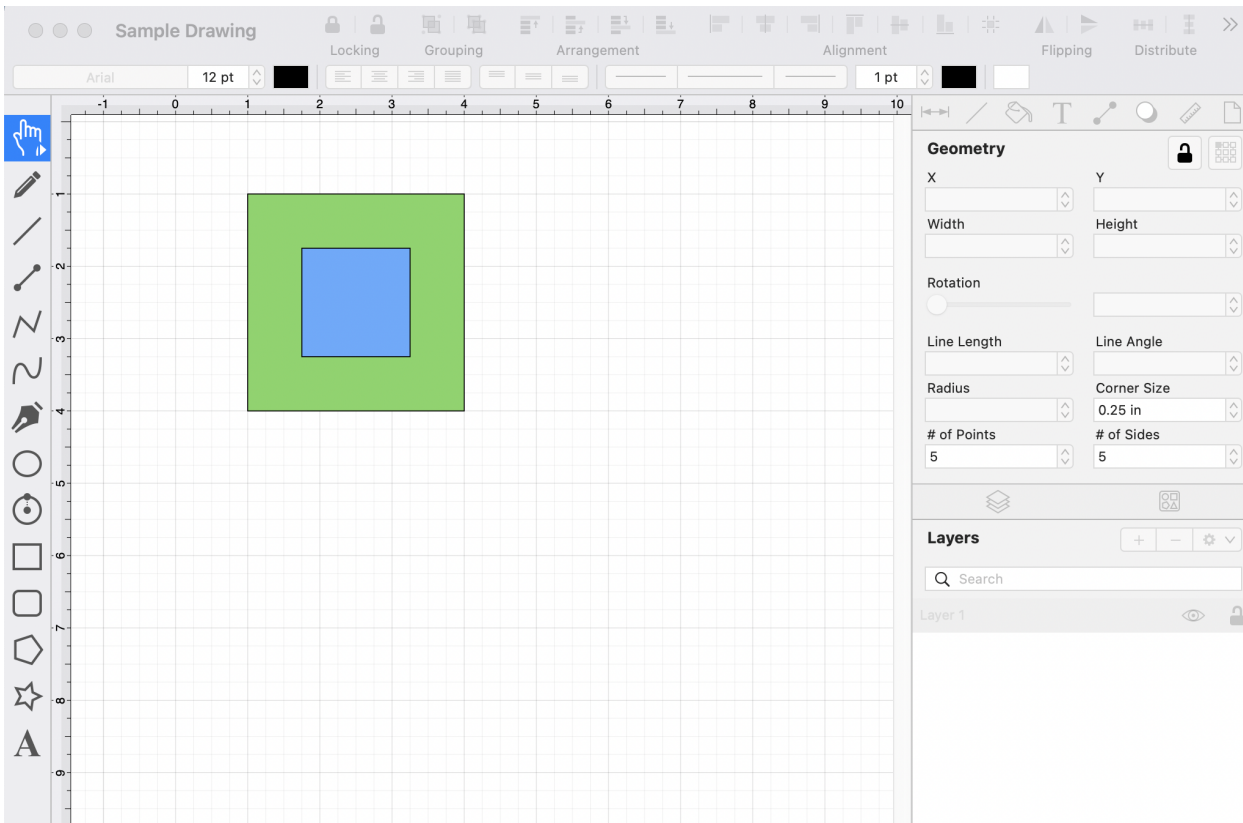


Select the file location in the **Open Window** and then click on **Open** located in the bottom right corner of the screen.

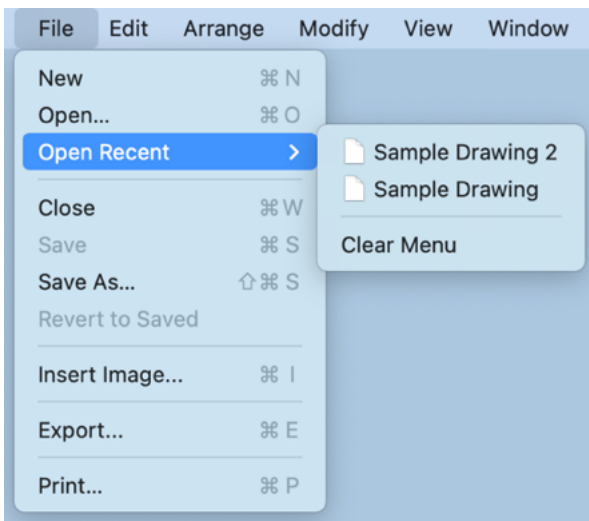


TouchDraw 2 for Mac

The selected file will appear in the main application window as part of the [Drawing Canvas](#).



Note: A recently created or edited file can be opened by clicking the [File Menu](#) and choosing **Open Recent**. To clear the current list of recent drawings, click on **Clear Menu** at the bottom of the menu.



5.3. Importing a Drawing

TouchDraw 2 supports the ability to open alternative file types besides native documents. The list of supported file types are:

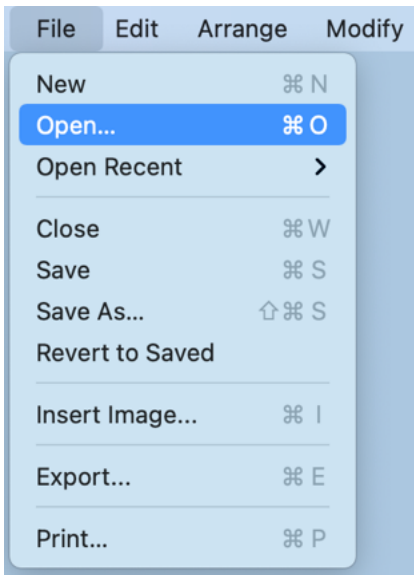
- TouchDraw Native (.t2d)
- Scalable Vector Graphics (.svg)
- Visio XML Drawing (*.vdx)
- Portable Network Graphic (.png)
- JPEG (.jpg, .jpeg)
- BMP (.bmp)
- TIFF (.tif, .tiff)
- Enhanced Metafile (.emf)
- Windows Metafile (.wmf)

Note: When a drawing document is opened that is not in the native TouchDraw format, it will automatically be converted and a TouchDraw drawing document will be created from it.

Importing Non-Native File Formats

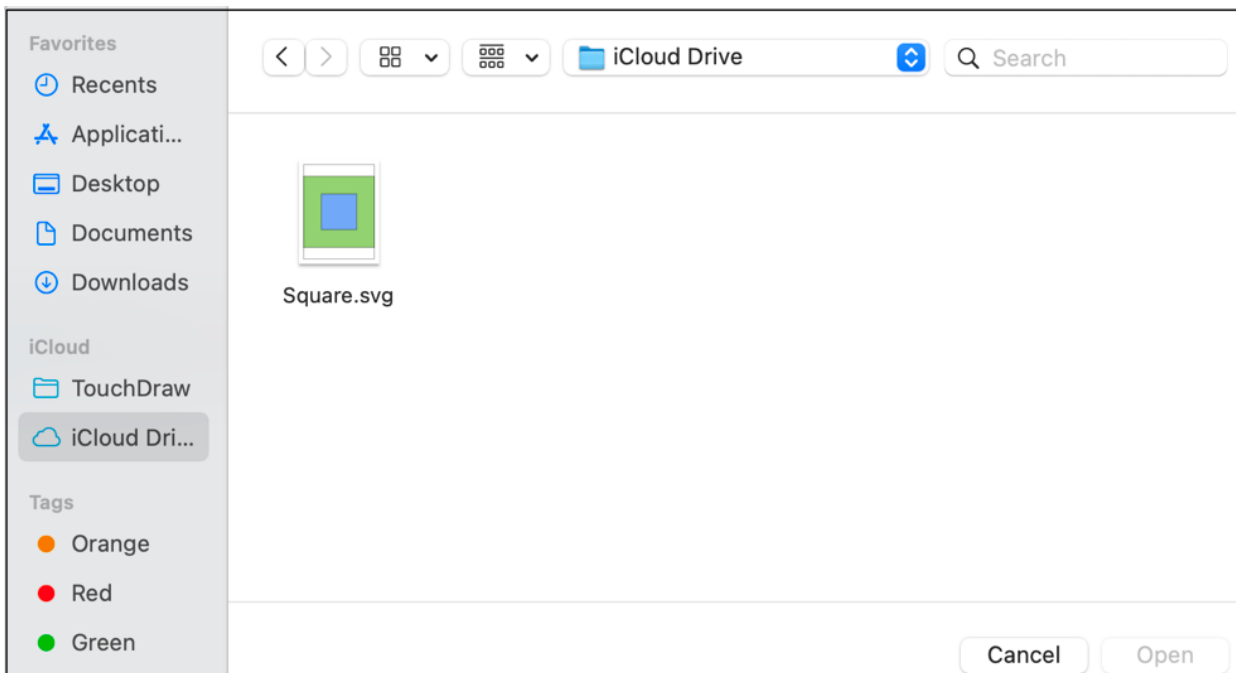
Follow the steps below to complete a file import:

Step 1: Click on the [File Menu](#) and select **Open**.

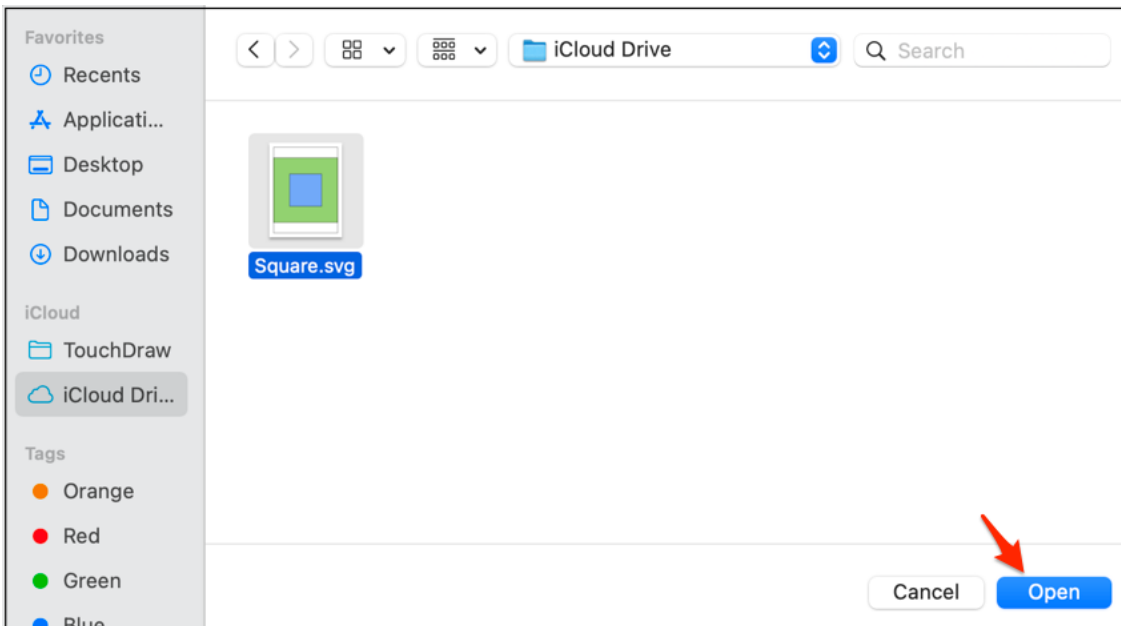


Step 2: Navigate to the directory containing the file to be imported.

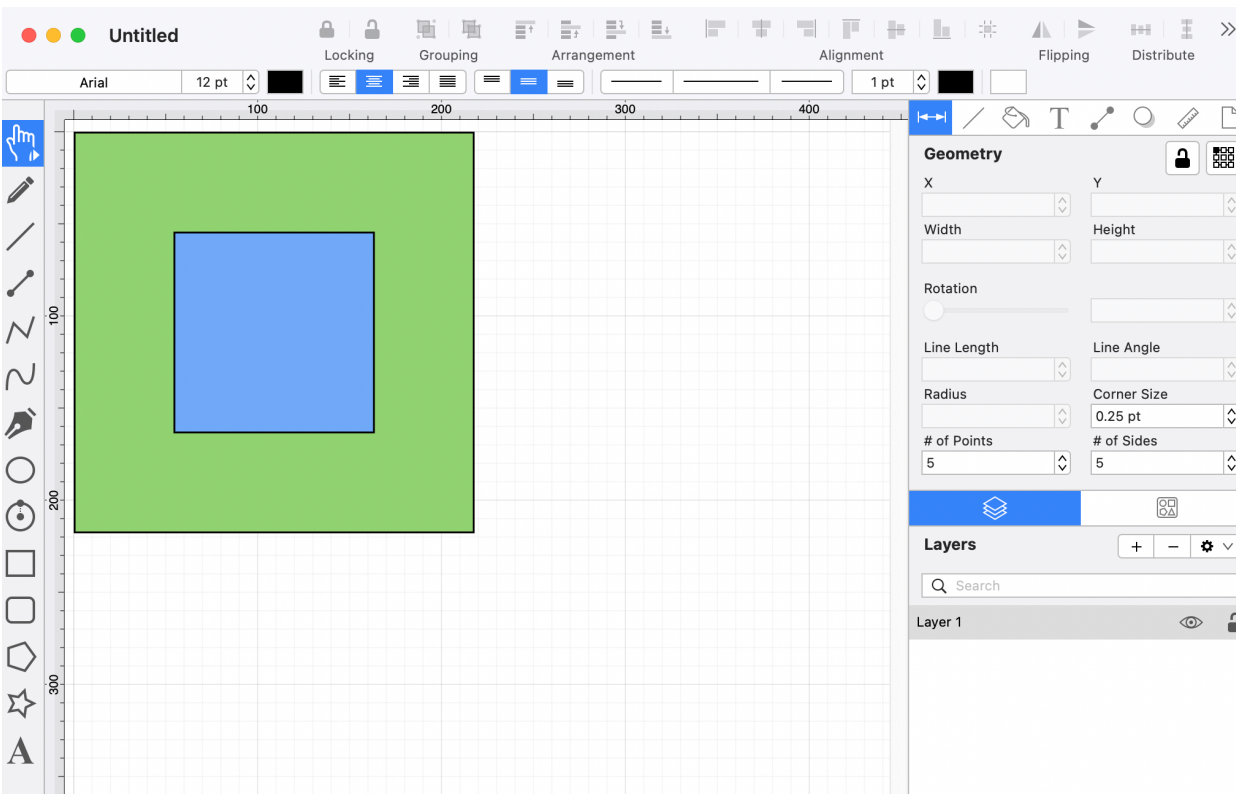
Step 3 Click on the appropriate file name. In this example, Square.svg in iCloud Drive will be selected.



Step 4 Click on the **Open Button**.



Step 5 The selected file will automatically be opened in TouchDraw 2 as a new drawing. In this example, the Square.svg file has been imported.

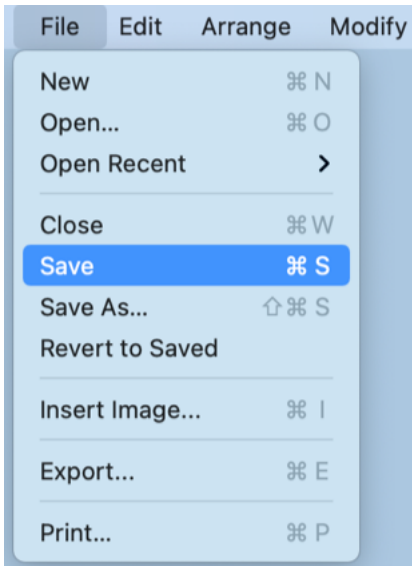


Note: Only files with the appropriate extension will be presented as a selectable item in the shown directory list.

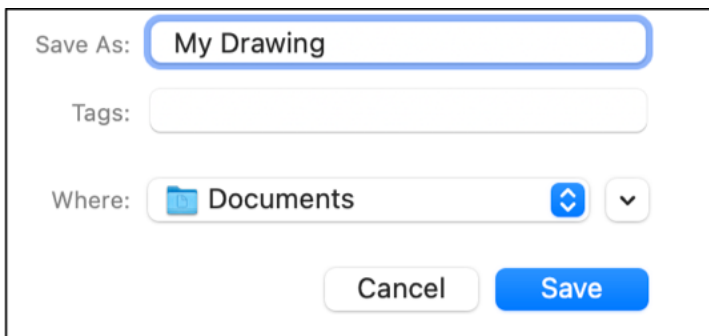
5.4. Saving a Drawing

TouchDraw 2 offers two methods for **Saving a Drawing** (Save and Save As...). Follow the steps below if saving a drawing for the first time.

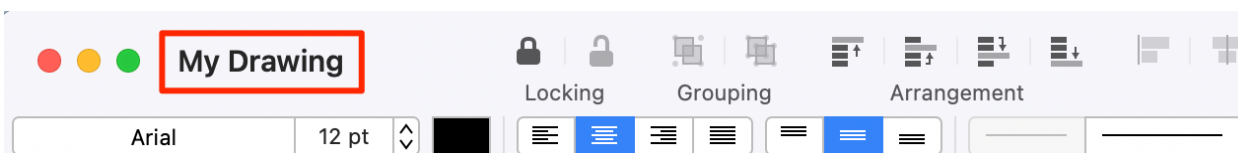
1. Click on the [File Menu](#) and choose **Save**.



2. Enter a file name, choose a save location, and click **Save**.

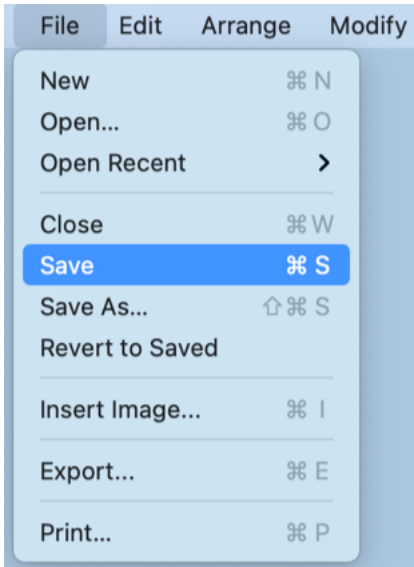


3. The file name will appear above the Format Bar and next to the Application Toolbar, as shown below:



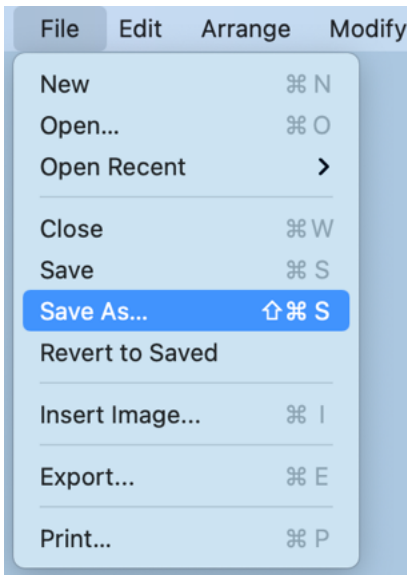
Save

An existing file can be saved at any time by selecting the **Save** option under the [File Menu](#). The drawing will automatically be saved if it has been previously saved regardless of any made changes.

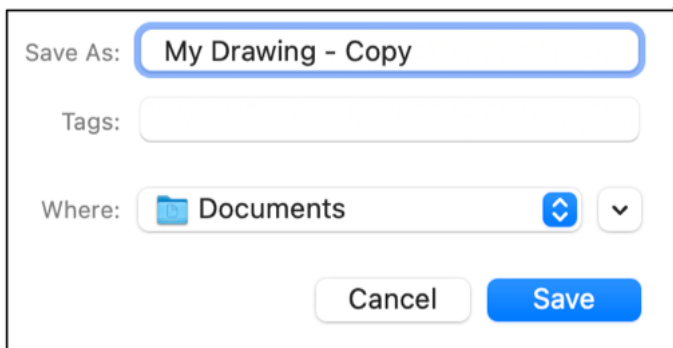


Save As

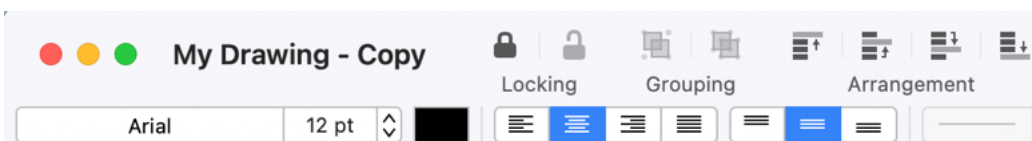
An existing file can be saved under another name by using the **Save As...** option under the [File Menu](#).



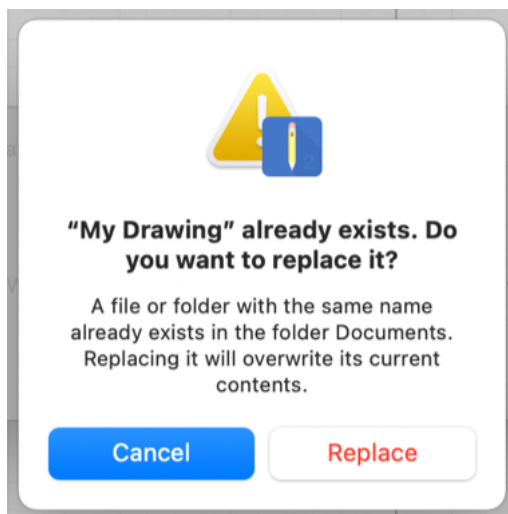
Enter a new file name in the **Save As** window, select the save location, and then click on **Save**.



The new name will appear above the application toolbar, as shown below:



If a file with the same name already exists, TouchDraw 2 shows a warning message asking if the current file should be replaced. Click **Replace** to overwrite the existing file or **Cancel** to exit the operation.



5.5. Exporting a Drawing

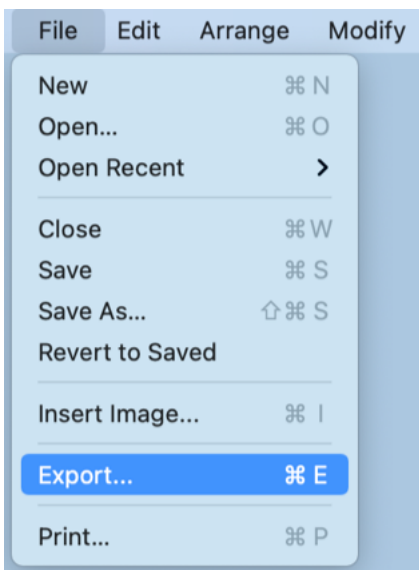
Note: TouchDraw 2 running Mac OS 10.10 (Yosemite) or newer does not support exporting to EPS.

TouchDraw 2 currently support 5 different exporters to **Export a Drawing**:

- Bitmap Image (PNG, JPEG, TIFF, BMP)
- PDF (Portable Document Format)
- SVG (Scalable Vector Graphics)
- Microsoft Visio (VDX Format)
- TouchDraw 1

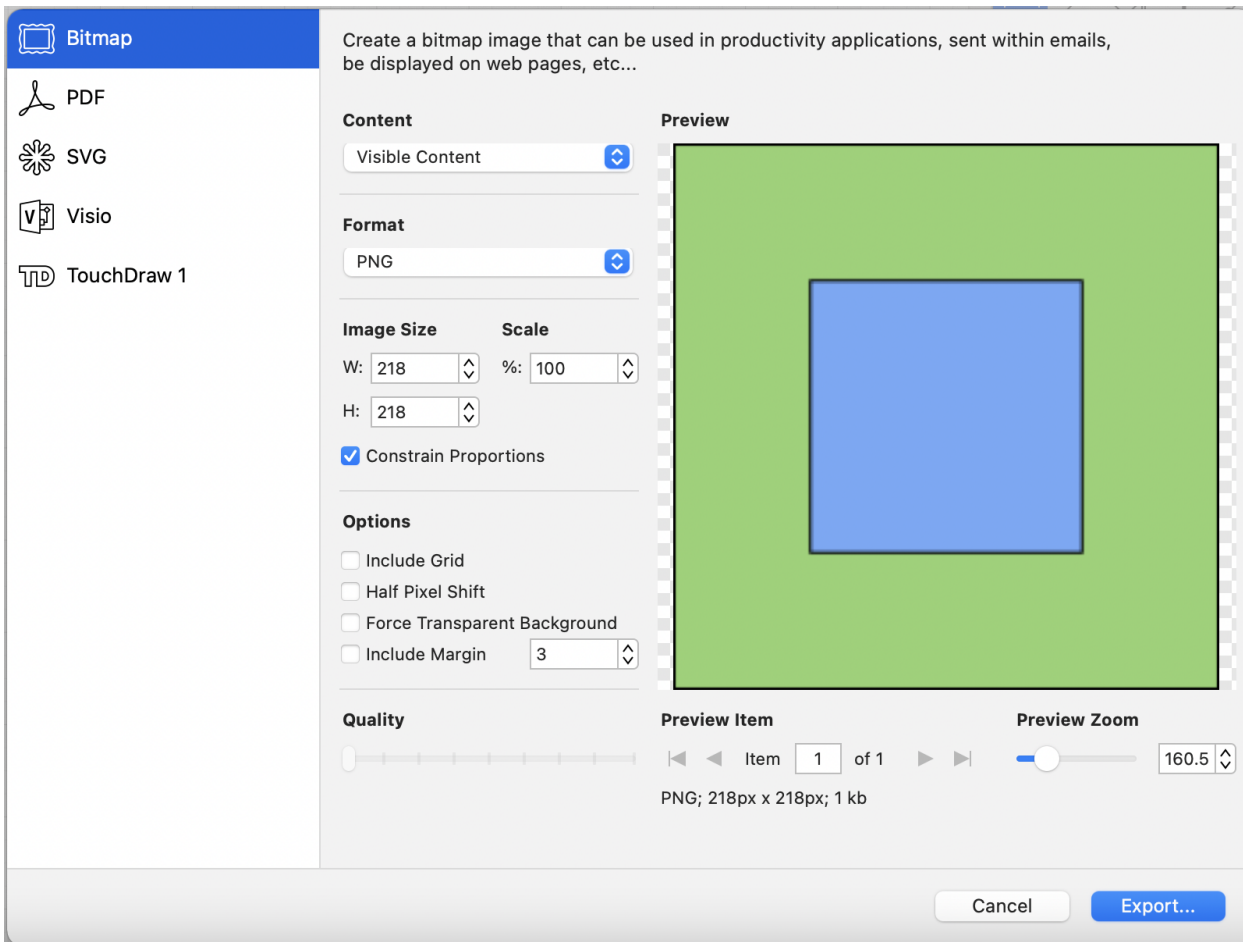
Follow the steps below to export a drawing:

Step 1: Select the [File Menu](#) and choose **Export...** to open the file export popover or use the **Command-E** Keyboard Shortcut to open this window.

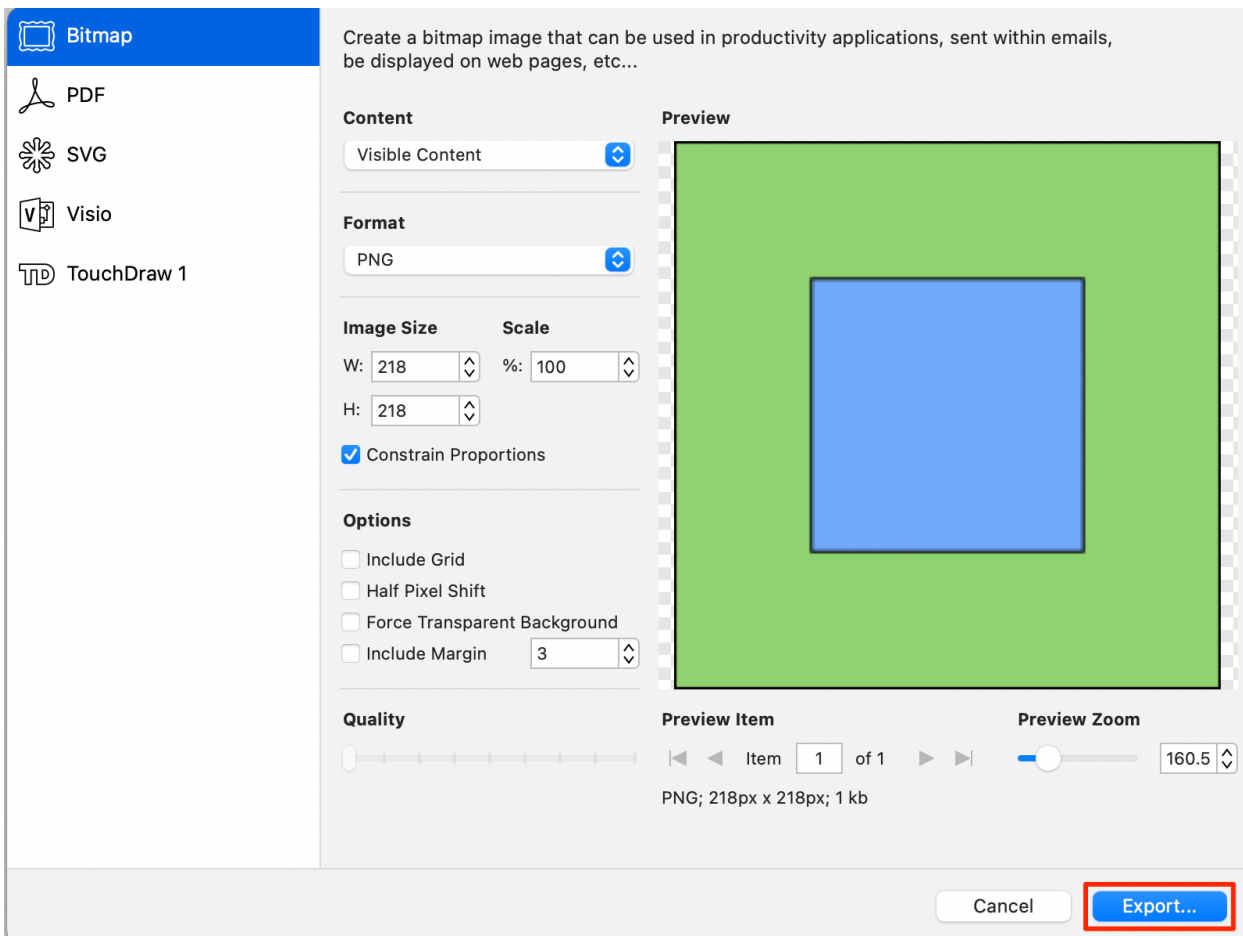


Step 2: Choose which file format the drawing will be exported as. The popover will reconfigure itself to show all valid options for the selected format.

The screenshot example shown below represents available options for exporting as an image and includes the capability of configuring maximum image size among additional options.



Step:3 Click on the **Export Button** once the appropriate file format and all corresponding options have been set.



When you export a drawing as an Image, PDF, SVG, or TouchDraw 1 format, the popover window will show a drawing preview. A preview is not given when exporting a drawing in Visio format.

Note: For detailed information on all of the options, limitations and known issues for the supported file formats, please refer to the Exporting sub section of the [File Format Support](#) section.

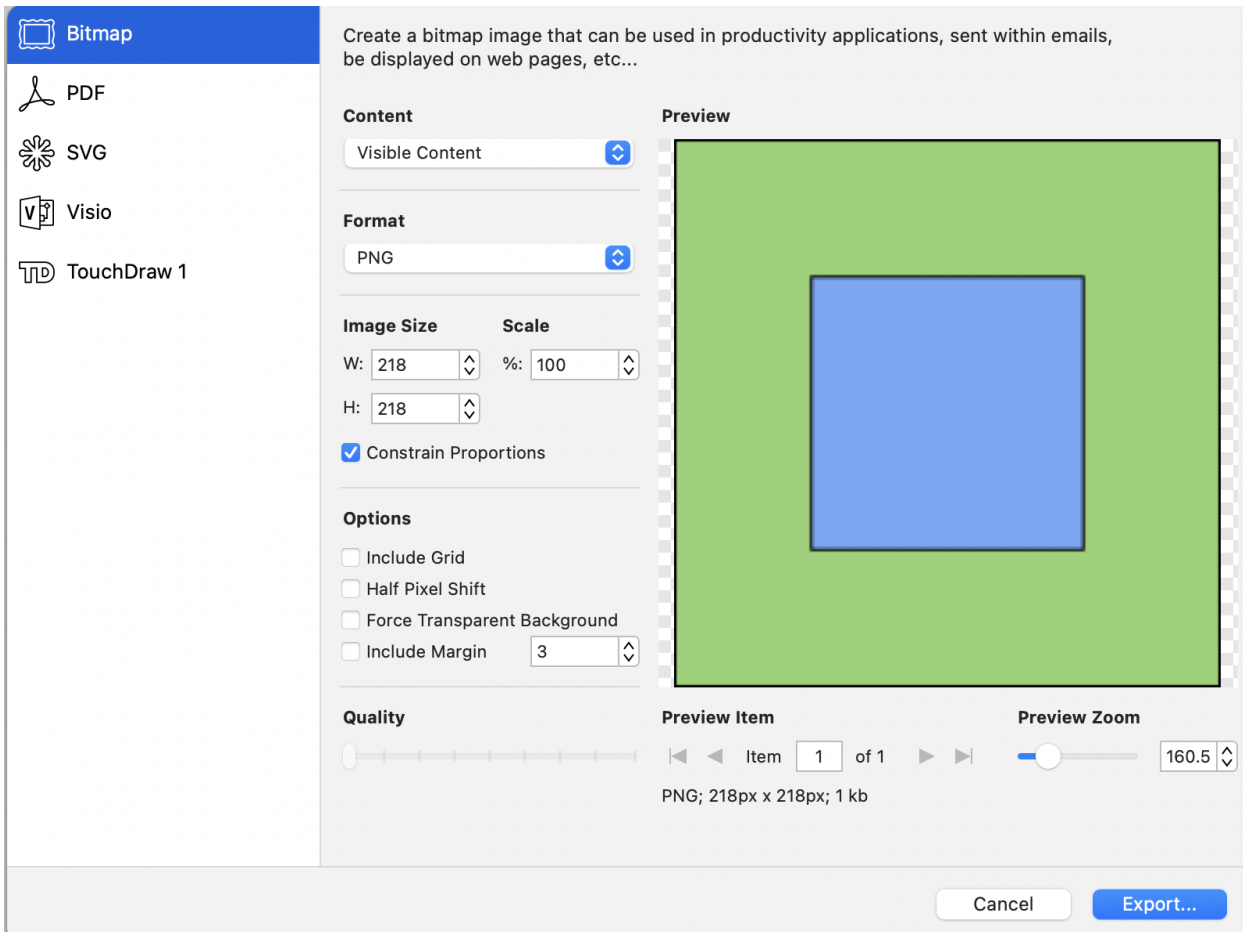
Additional Links

The following links can be used to learn more about the available options for each export format:

- [Exporting a Bitmap Image](#)
- [Exporting to PDF](#)
- [Exporting to SVG](#)
- [Exporting to VDX](#)
- [Exporting to TouchDraw 1](#)

Exporting a Bitmap Image

A drawing can be exported as an bitmap image file in any of the PNG, JPEG, TIFF, GIF, or BMP file formats.



Click on the name of the Image Export Option to learn more about what actions occur upon selection.

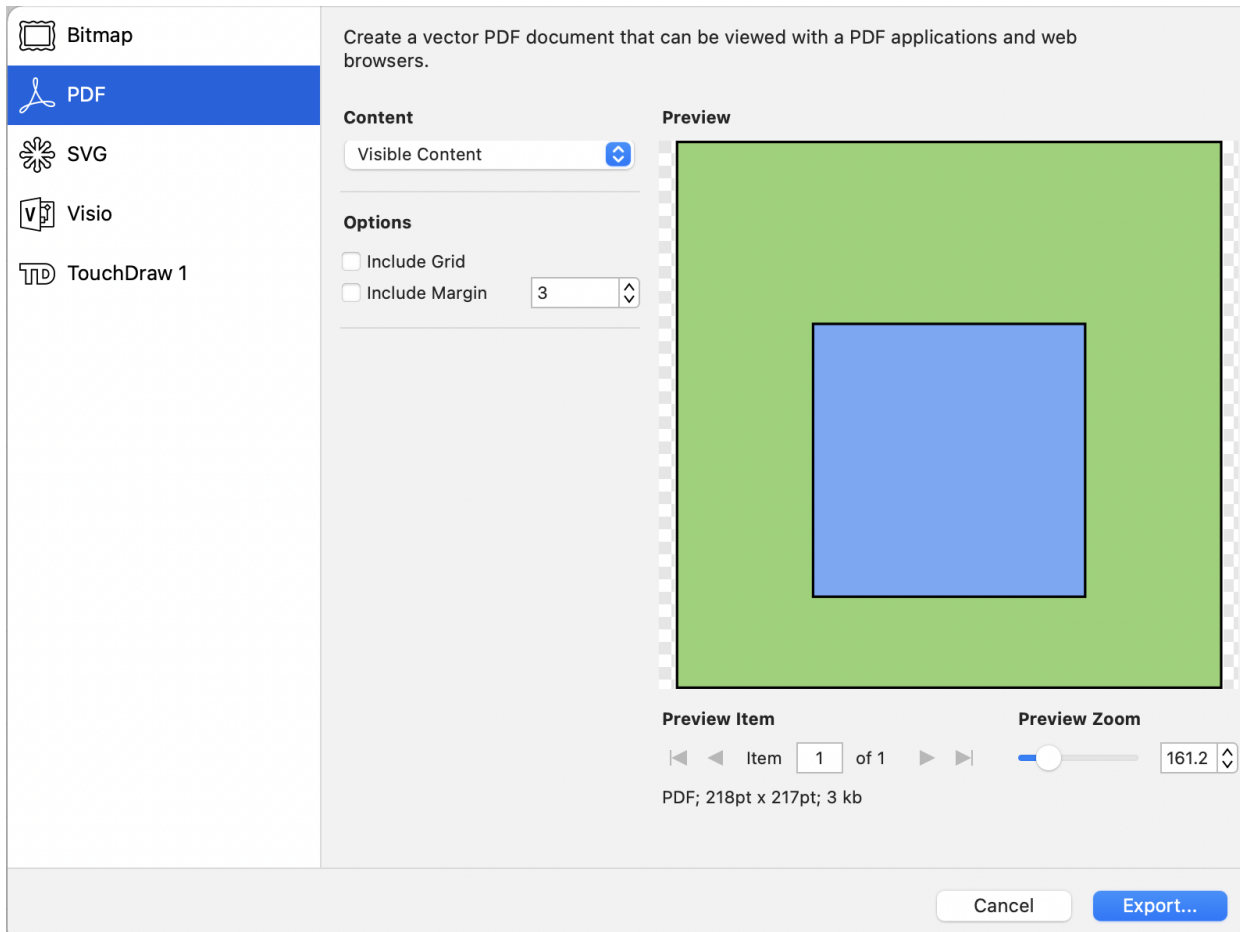
Option Name	Description
Content	The Content option is used to select what will be exported: current layer, current selection, all layers, or visible content.
Format	The Format option is used to select the type of image file to be created by the export: PNG, JPEG, TIFF, GIF, or BMP.
Image Size	The Image Size option shows the current width and height of the image and can be altered prior to exporting.

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Option Name	Description
Scale	The Scale option sets the dimension of the exported image to a specific percentage relative to the drawings actual size.
Constrain Proportions	The Constrain Proportions option links the width and height when selected.
Include Grid	The Include Grid option tells TouchDraw 2 to include (or not include) the grid in the generated file.
Half Pixel Shift	The Half Pixel Shift option shifts pixel half a pixel-width toward the right.
Force Transparent Background	The Force Transparent Background option makes the background transparent to only show the images to be exported.
Quality	The Quality option alters the image quality for JPEG image exports.
Preview Zoom	The Preview Zoom slider can be use to increase or decrease the zoom level in the export preview pane.

Exporting to PDF

A drawing can be exported as an PDF (Portable Document Format) file format.



Click on the name of the PDF Export Option to learn more about what actions occur upon selection.

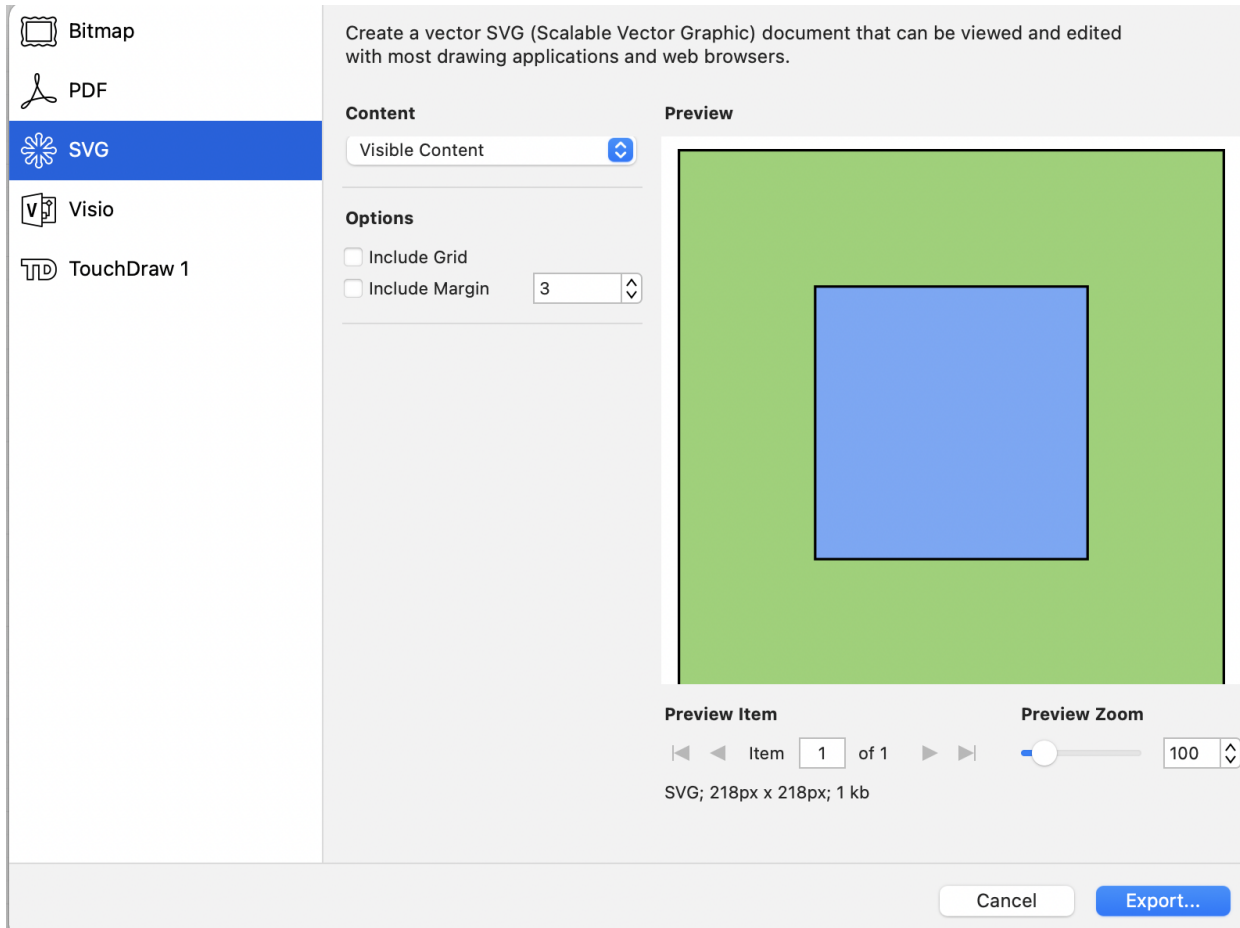
Option Name	Description
Content	The Content option is used to select what will be exported: current layer, current selection, all layers, or visible content.
Include Grid	The Include Grid option tells TouchDraw 2 to include (or not include) the grid in the generated file.
Include Margin	The Include Margin option generates a margin of a specified size around the drawing to be exported.

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Option Name	Description
Preview Zoom	The Preview Zoom slider can be use to increase or decrease the zoom level in the export preview pane.

Exporting to SVG

A drawing can be exported as an SVG (Scalable Vector Graphics) file format.



Click on the name of the SVG Export Option to learn more about what actions occur upon selection.

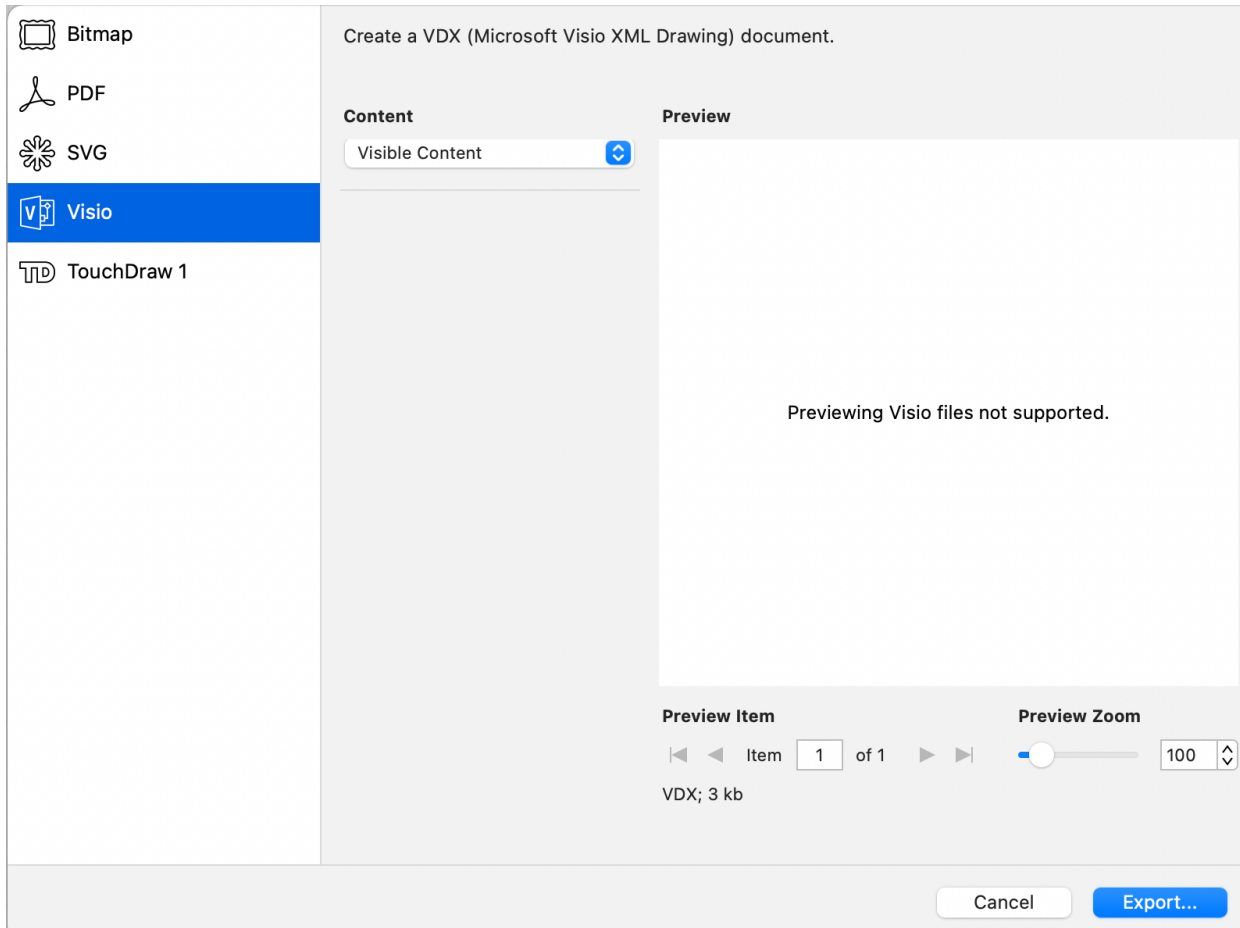
Option Name	Description
Content	The Content option is used to select what will be exported: current layer, current selection, all layers, or visible content.
Include Grid	The Include Grid option tells TouchDraw 2 to include (or not include) the grid in the generated file.
Include Margin	The Include Margin option generates a margin of a specified size around the drawing to be exported.

TouchDraw 2 for Mac

Option Name	Description
Preview Zoom	The Preview Zoom slider can be use to increase or decrease the zoom level in the export preview pane.

Exporting to VDX

A drawing can be exported as an VDX (Microsoft Visio XML Drawing) file format.

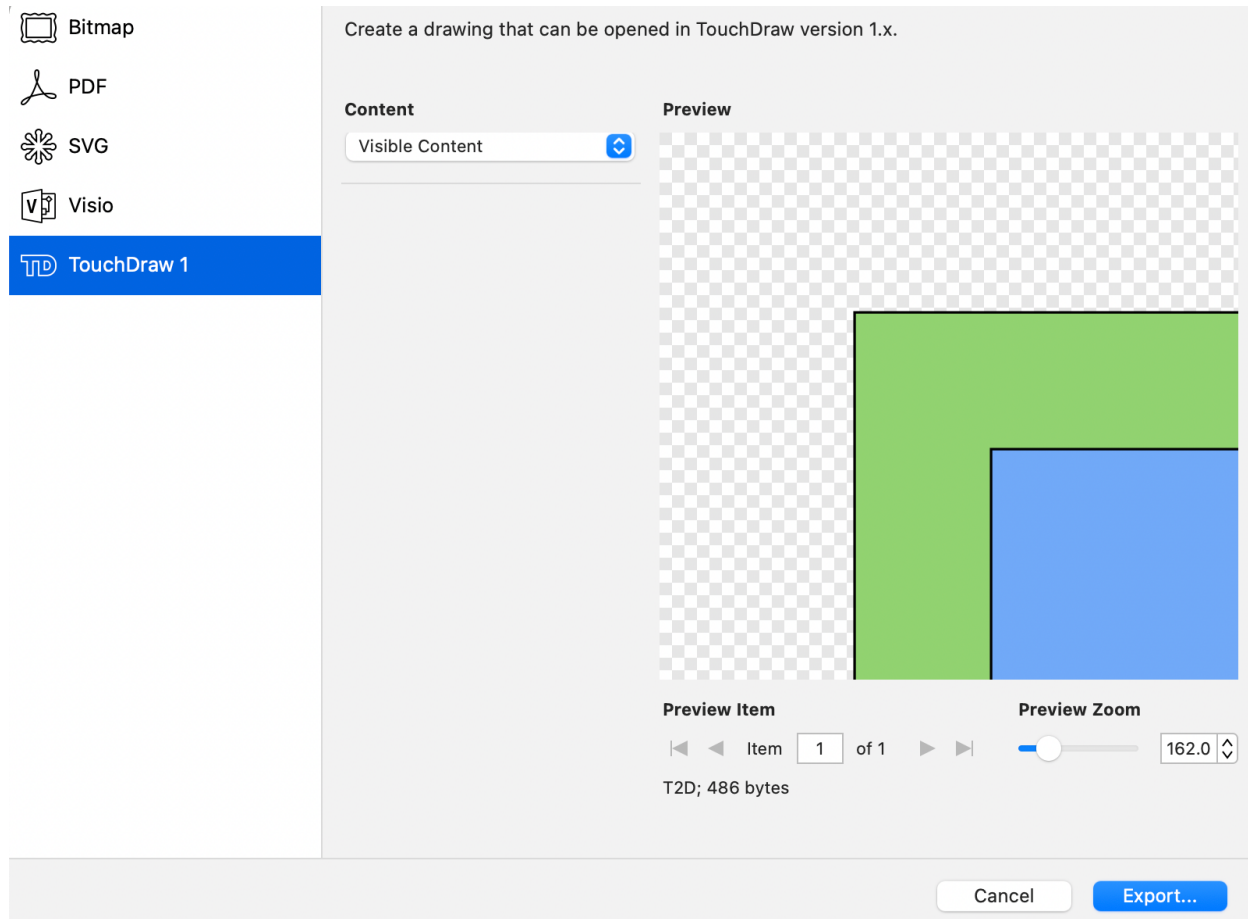


Click on the name of the VDX Export Option to learn more about what actions occur upon selection.

Option Name	Description
Content	The Content option is used to select what will be exported: current layer, current selection, all layers, or visible content.
Preview Zoom	The Preview Zoom slider can be use to increase or decrease the zoom level in the export preview pane.

Exporting to TouchDraw 1

A drawing can be exported as the native TouchDraw 1 file format.

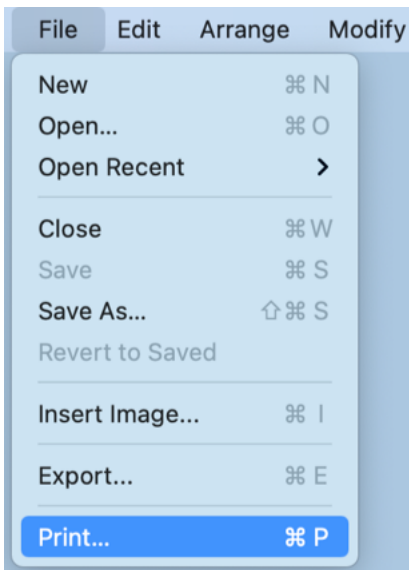


Click on the name of the TouchDraw 1 Export Option to learn more about what actions occur upon selection.

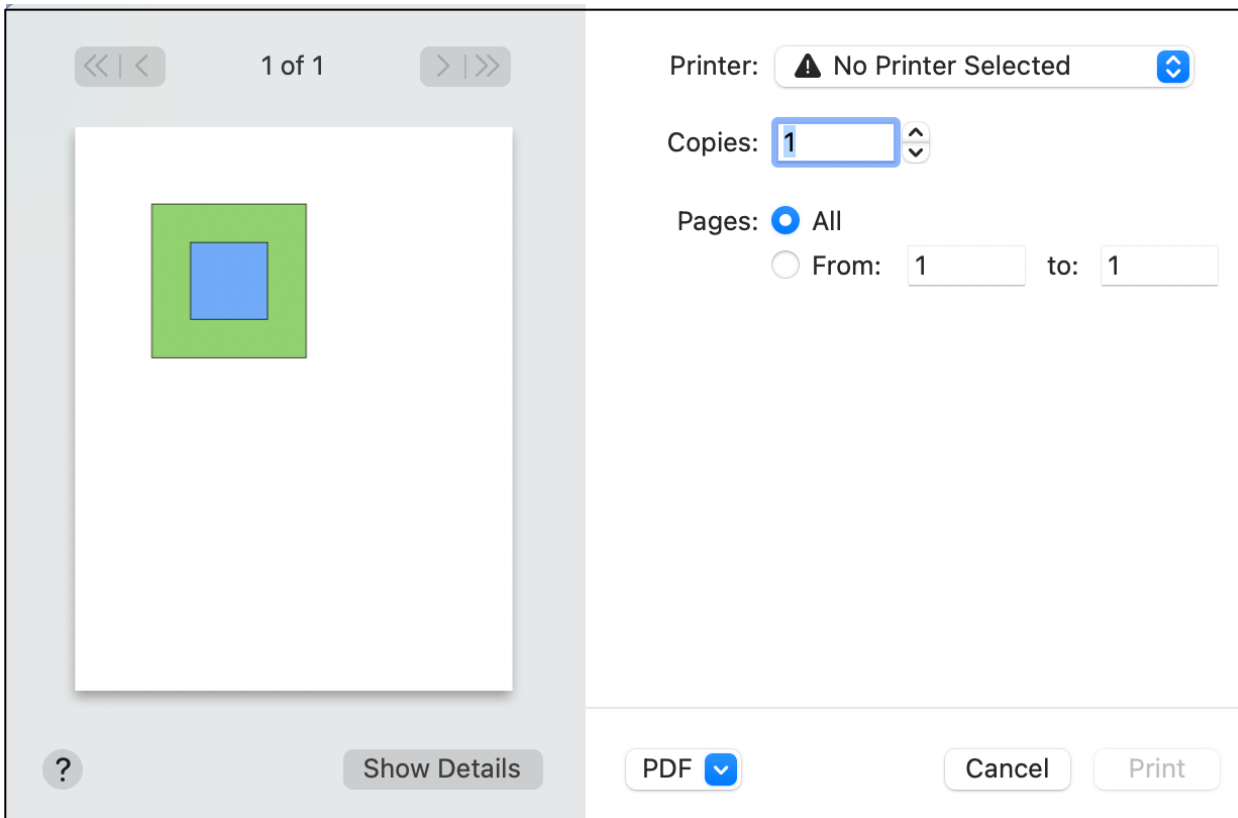
Option Name	Description
Content	The Content option is used to select what will be exported: current layer, current selection, all layers, or visible content.
Preview Zoom	The Preview Zoom slider can be use to increase or decrease the zoom level in the export preview pane.

5.6. Printing a Drawing

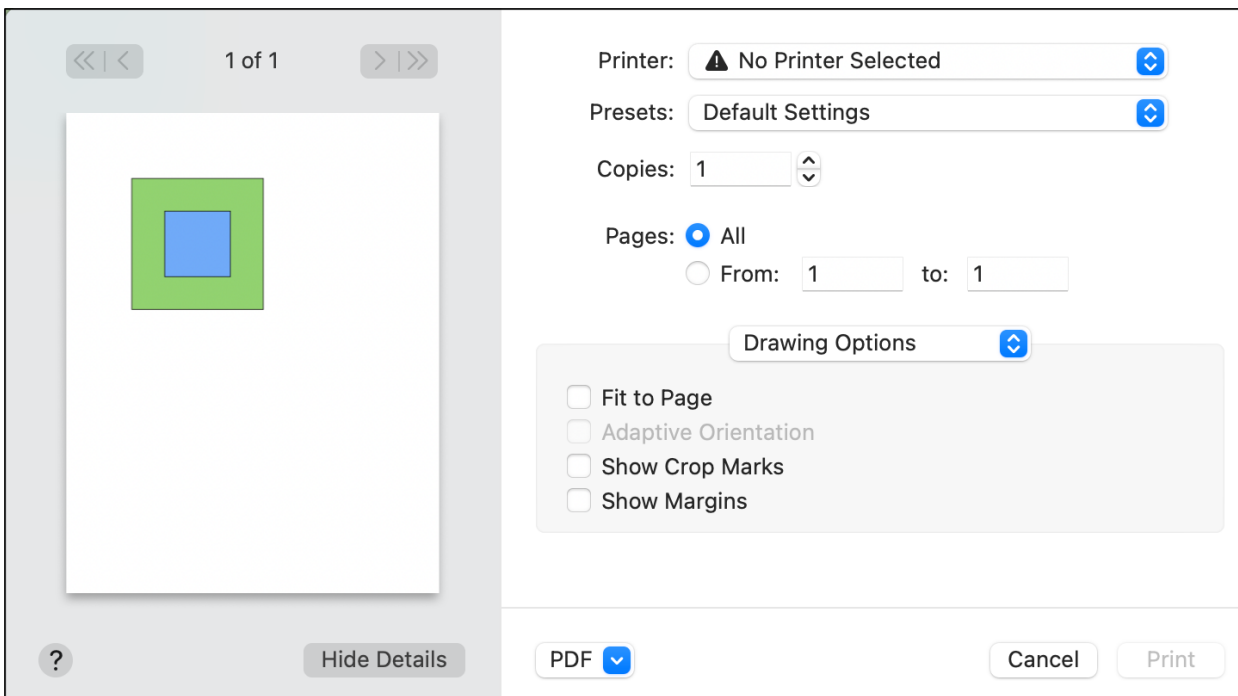
TouchDraw 2 supports the capability of printing drawings to local printers. The print options can be accessed from two locations: the [Main Toolbar](#) and the [File Menu](#) as shown below.



The **Printer Options** view will open. This view is used to configure printers, set the number of copies, choose the number of pages, and set additional print settings.



Use the **Show Details** button to view more TouchDraw 2 specific options for printing:

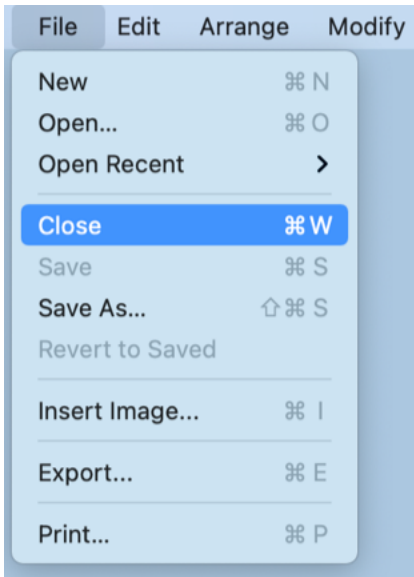


The TouchDraw 2 specific options can be set when Drawing Options is selected within the drop-down menu:

Printer Option	Description
Fit To Page	The Fit To Page option will scale the current drawing to fit onto the page.
Adaptive Orientation	The Adaptive Orientation option controls which page orientation will be used when the Fit to Page option is enabled. If the option is off, the page orientation will match the orientation selected for the drawing. If the option is on, the orientation will adapt to best fill the specified paper size.
Show Crop Marks	The Show Crop Marks option will show crop marks within the print preview.
Show Margins	The Show Margins option will show the page margins within the print preview.

5.7. Closing a Drawing

To **Close a Drawing**, select the [File Menu](#) and click on the **Close** option as shown below.



Note: You may also use the **Command-W** keyboard shortcut to perform the same action within TouchDraw 2.

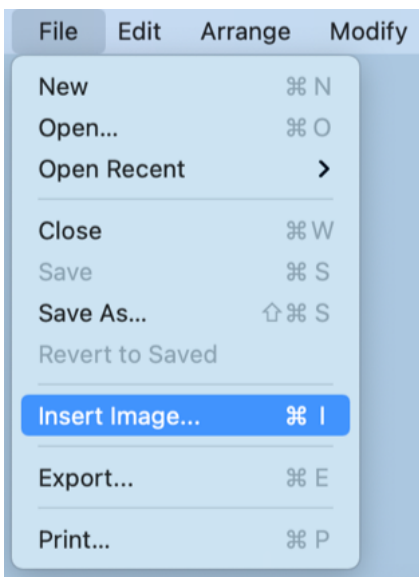
5.8. Inserting an Image

An image file can be inserted as part of a drawing. These image types are supported by the TouchDraw 2 application:

- Portable Network Graphic (.png)
- JPEG (.jpg, .jpeg)
- BMP (.bmp)
- TIFF (.tif, .tiff)
- GIF (.gif)

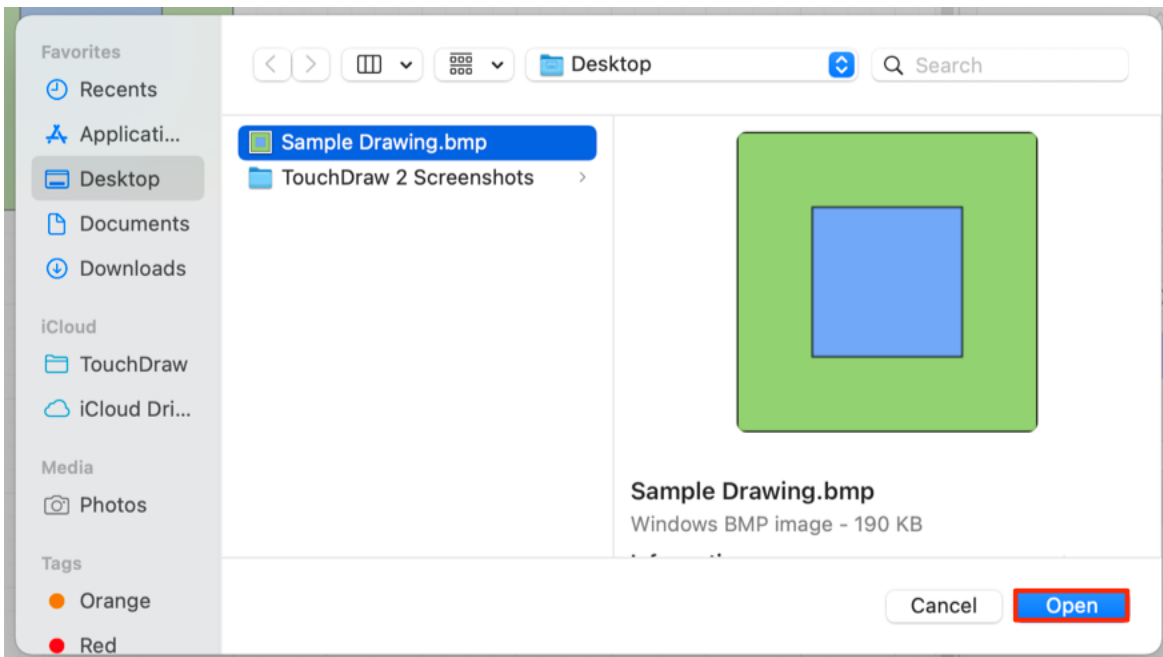
Follow the steps below to **Insert an Image**:

Step 1: Select the [File Menu](#) and click on **Insert Image...**

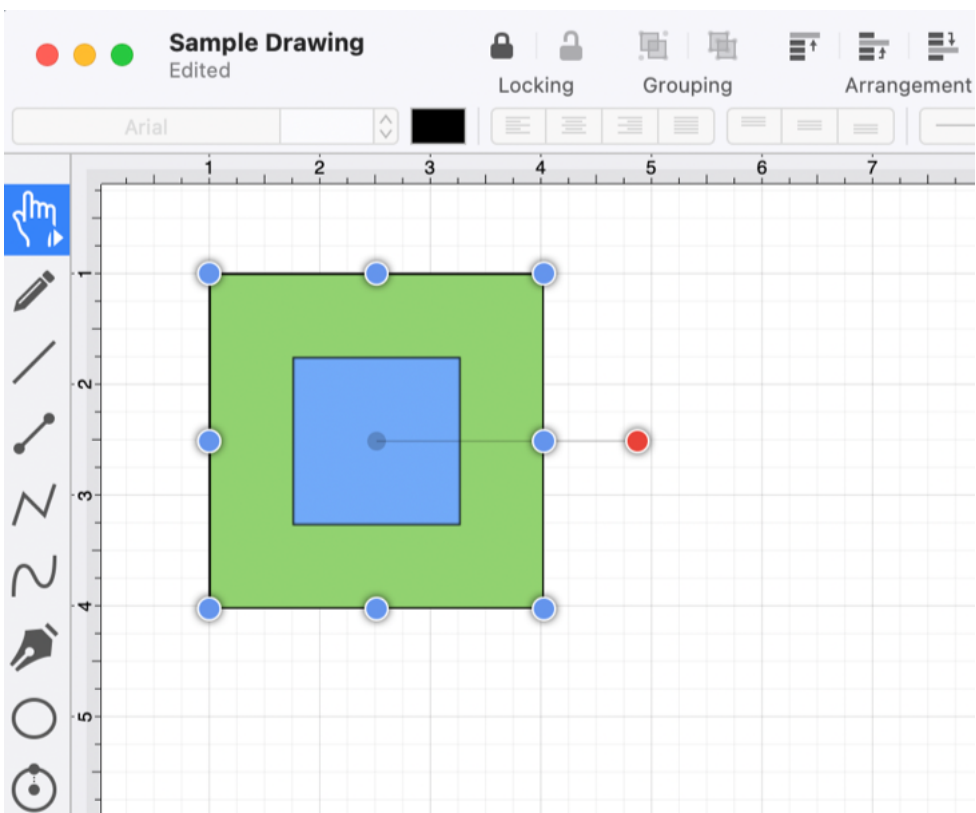


Step 2: Navigate to the directory location of a desired image file. Then click on the appropriate file name to select it.

Next, click on the **Open** button in the bottom right of the window.



Step 3: The selected image will appear in the drawing canvas.



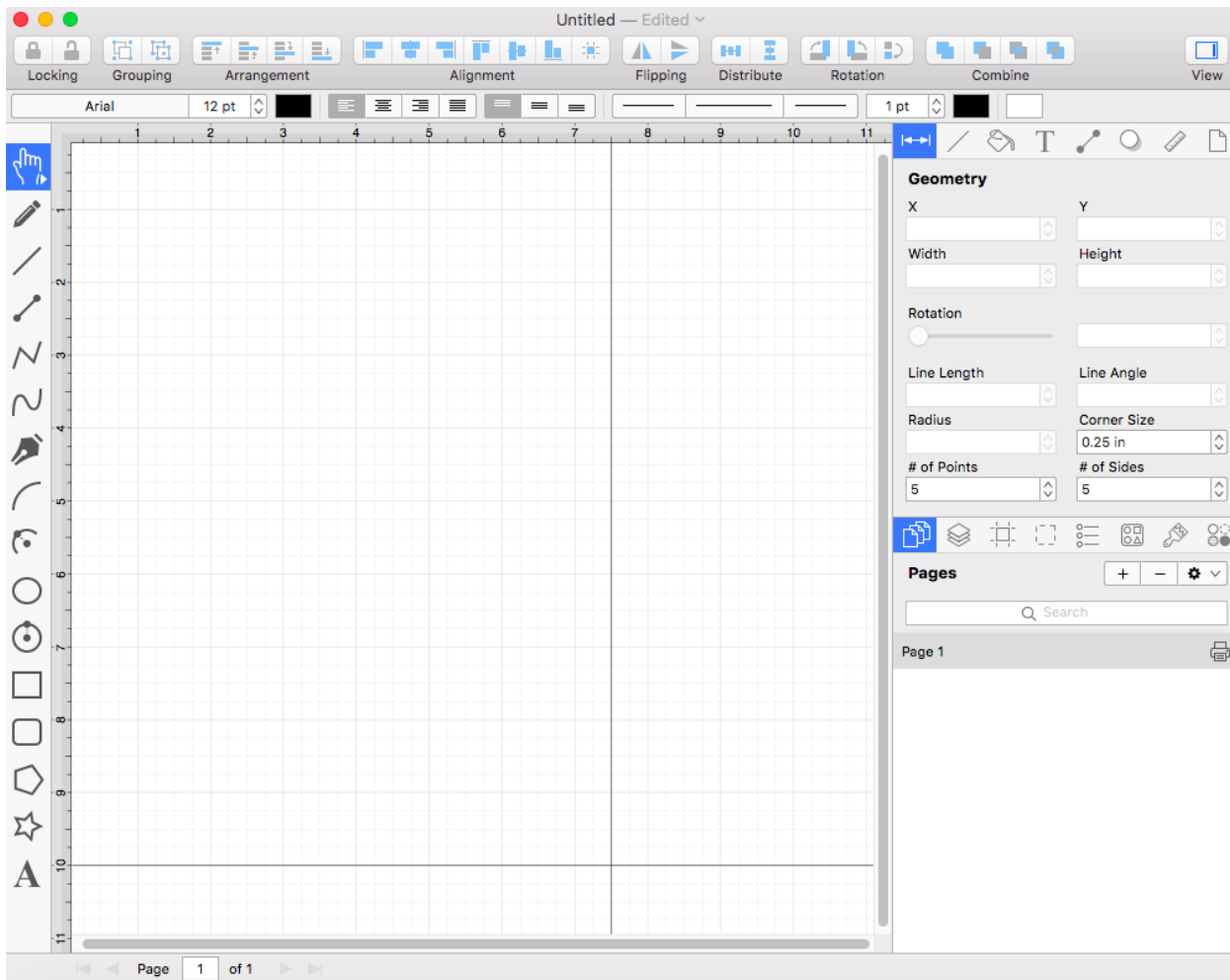
Note: Only files with the appropriate extension will be presented as a selectable item in the shown directory list.

6. Editing Drawings

The options for **Editing Drawings** in TouchDraw 2 are designed to make working with figures, lines, paths, and handles easier.

6.1. Editing Basics

The options for **Editing Drawings** in TouchDraw 2 are designed to make working with figures, lines, paths, and handles easier.



The following pages explain how to perform drawing editing operations.

- [Selecting a Figure](#)
- [Deleting a Figure](#)
- [Renaming a Drawing](#)

6.1.1. Selecting a Figure

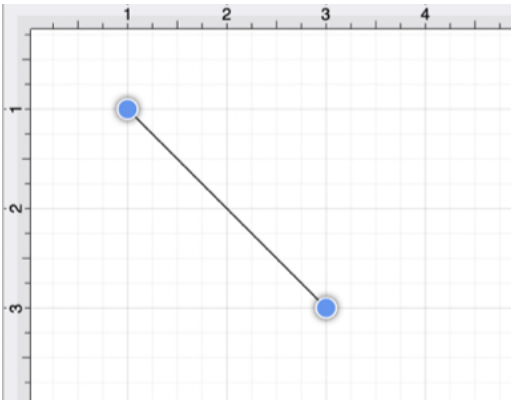
TouchDraw 2 contains five types of figures:

- Lines (including open paths)
- Shapes (including closed paths)
- Text
- Images
- Stencils and Groups (compound figures)

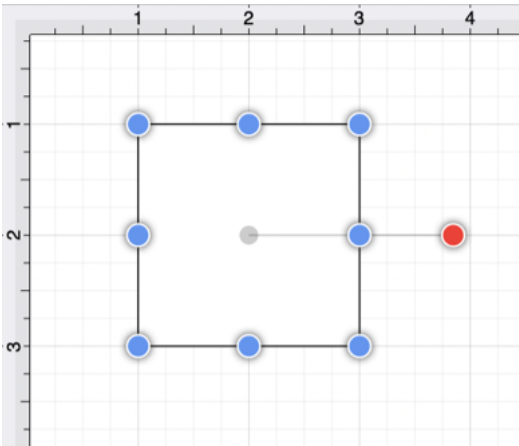
For the purposes of selecting a figure, there are really only two types: **Lines** and **Shapes**.

Images, text figures and compound figures all behave like shapes for selection, so we won't discuss them separately.

To select a line, click on the line and its handle endpoints will appear.



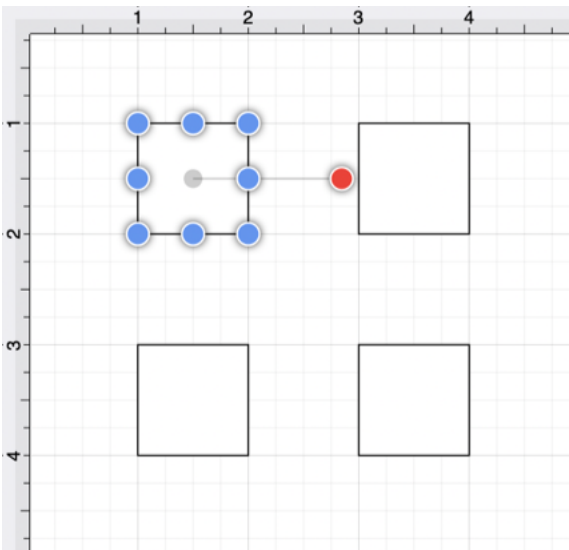
To select a shape, click anywhere within the shape and its handles will appear.

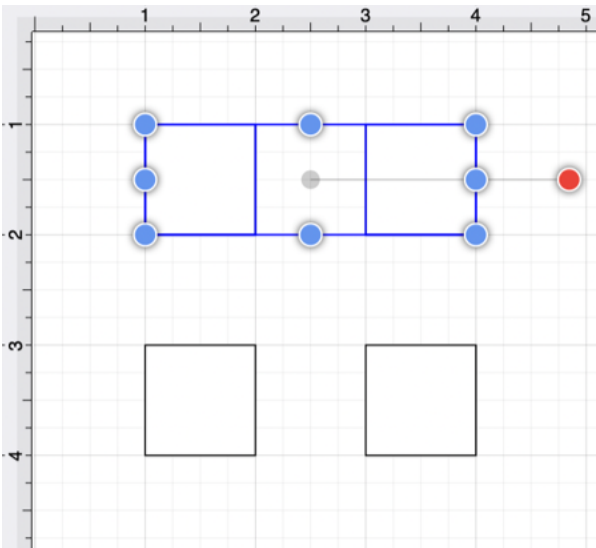


Multiple Selections

By default, a previously selected shape will be deselected when another is selected; however, TouchDraw 2 does support multiple selections.

Hold down the **Shift** key and **Click** to select multiple lines or shapes. Continue to hold the **Shift** key while clicking on each desired figure to complete a multiple selection in the drawing canvas.

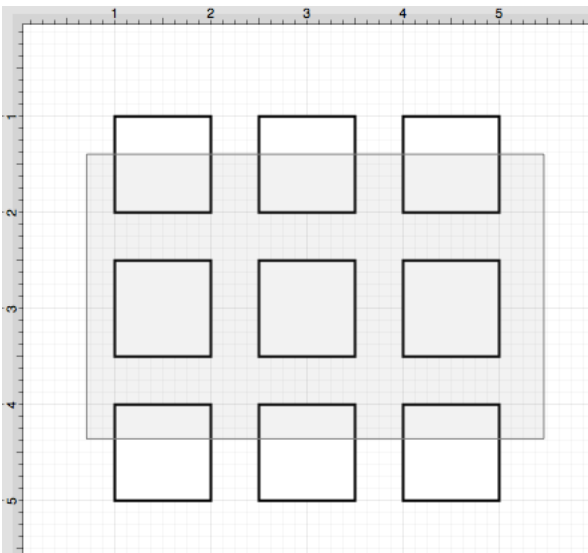


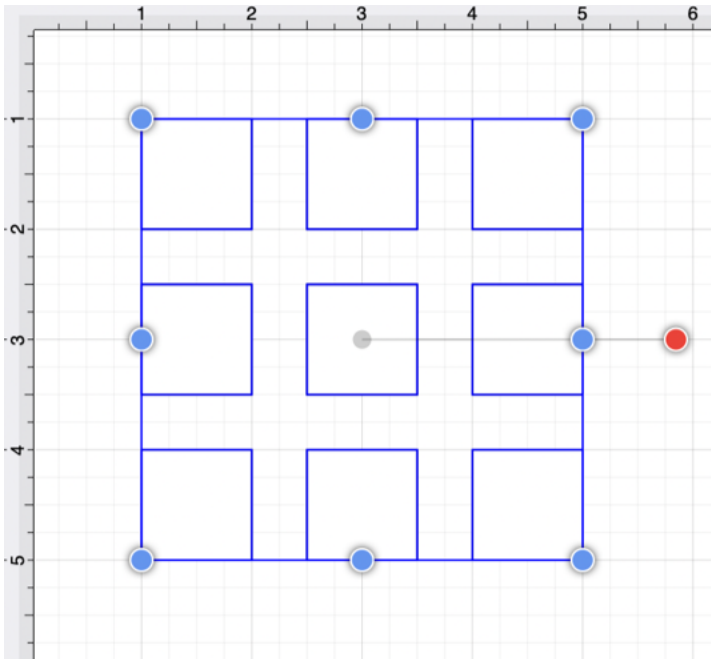


The **Selection Rectangle** may also be used to select multiple figures.

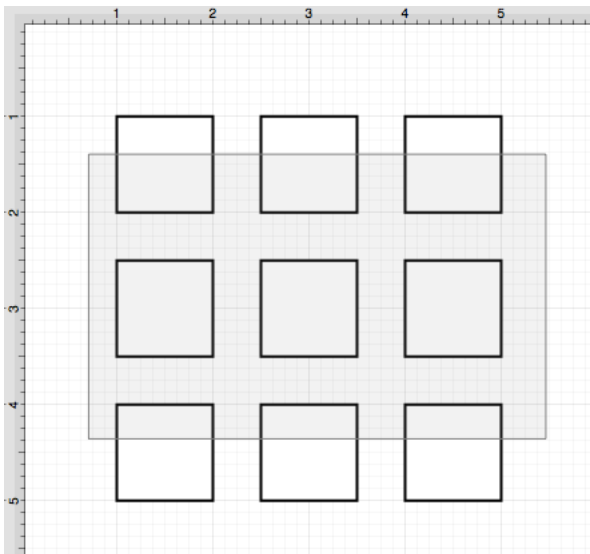
Click and drag the **Selection Rectangle** from left to right or right to left over an area within the [Drawing Canvas](#) and then release the click action once the rectangle covers the desired area to complete the selection.

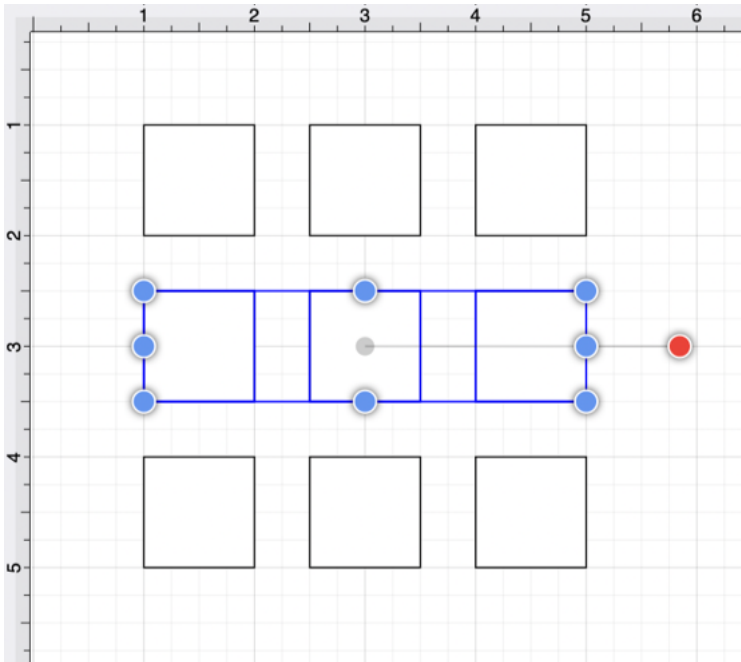
When the rectangle is dragged from left to right, it will select all figures within its bounds and every figure intersecting it, as shown below.





Dragging the **Selection Rectangle** from right to left from any point within the [Drawing Canvas](#) informs TouchDraw 2 to select only the figures within the rectangle's bounds, as shown below.



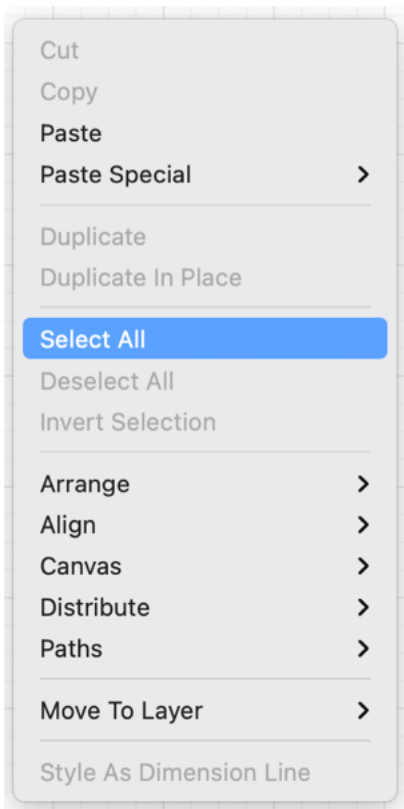


Using the Contextual Menu

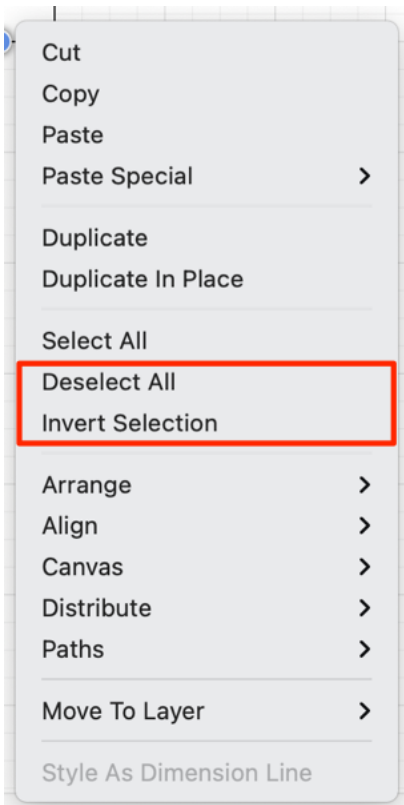
The [Contextual Menu](#) contains options for selecting all figures within a currently open drawing and inverting or clearing a current selection within the [Drawing Canvas](#).

Perform an **Right Click** on the [Drawing Canvas](#) to access these options.

Next, click on the **Select All** option to select all figures within a drawing.



Use the **Invert Selection** option to invert the current selection or the **Clear Selection** option to deselect all currently selected figures within the [Drawing Canvas](#).

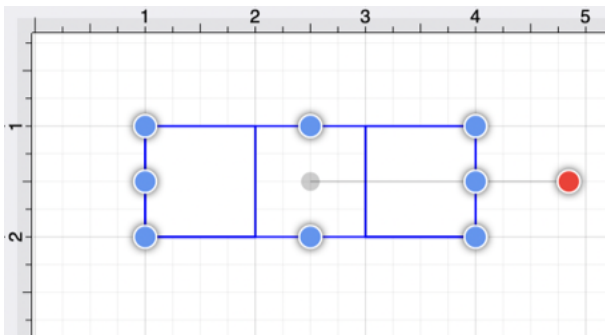
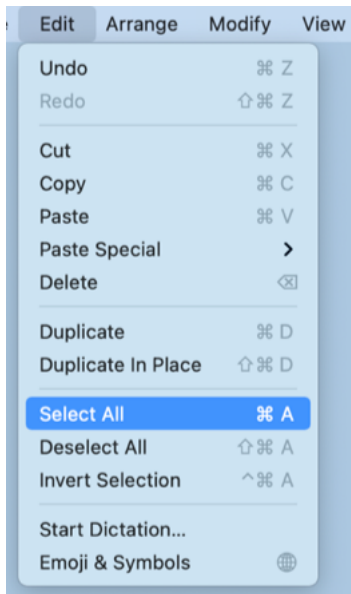


Using the Edit Menu

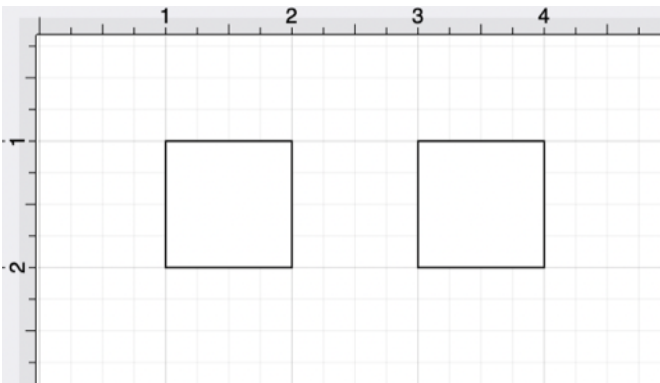
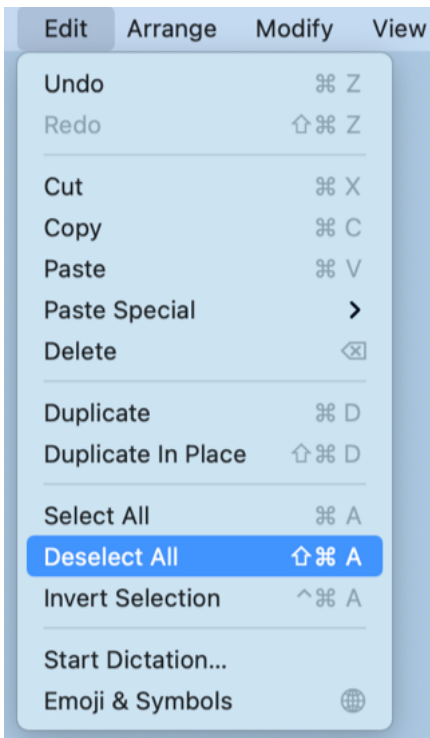
The **Edit Menu** contains options for selecting all figures within a currently open drawing and inverting or clearing a current selection within the [Drawing Canvas](#). Click on the [Edit Menu](#) in the Top Toolbar to access these options.



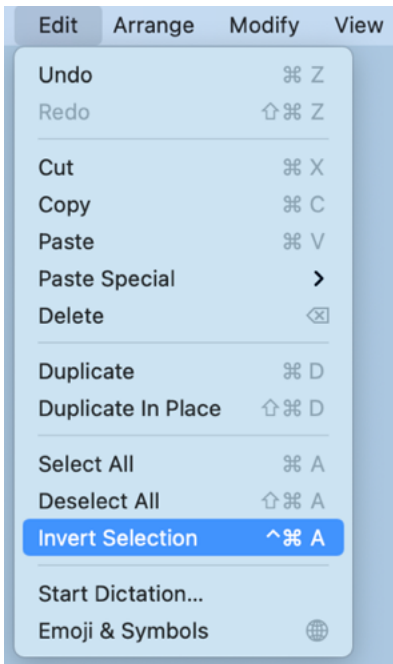
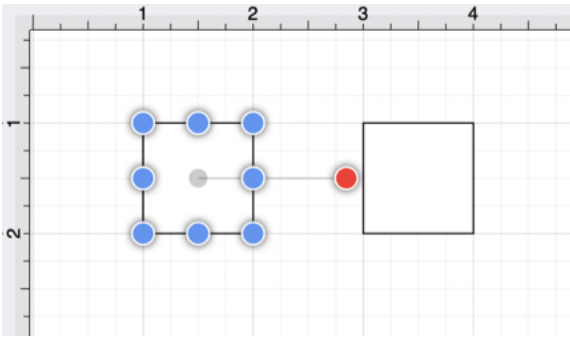
Click on the **Select All** option to select all figures within a drawing.



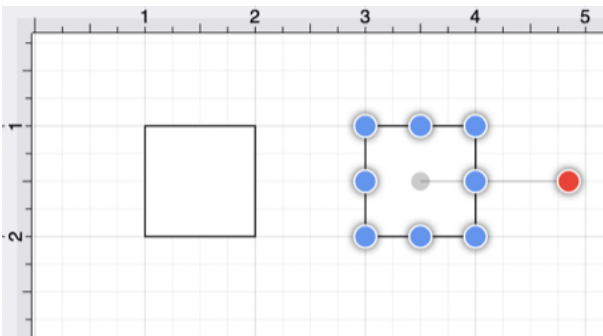
The **Deselect All** option to deselect all currently selected figures within the [Drawing Canvas](#).



Use the **Invert Selection** option to invert the current selection. Let's say for example that two squares reside in the [Drawing Canvas](#) and the one on the left is selected.



The **Invert Selection** will automatically deselect it and select the square on the right, as shown below:

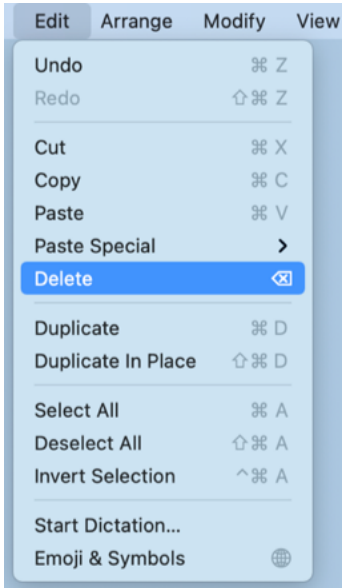


Note: The **Command-A** keyboard shortcut may also be used to access these options.

6.1.2. Deleting a Figure

An object must be [selected](#) before it can be deleted. A currently selected figure can be deleted in one of two ways:

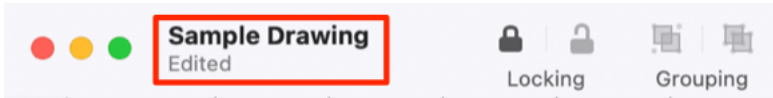
1. Select the [Edit Menu](#) and click on **Delete**.



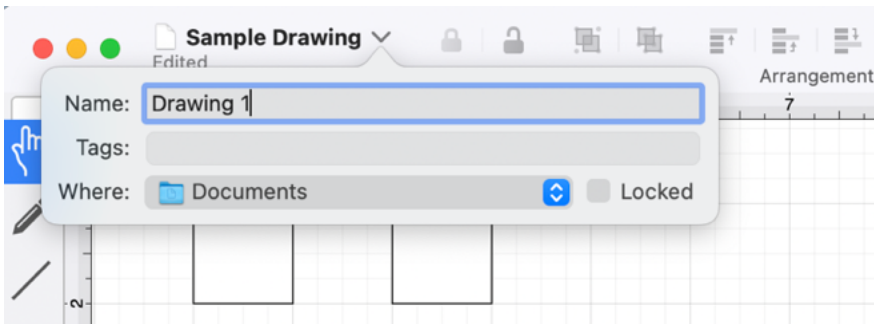
2. Press the **Delete** key on the Mac keyboard. **Note:** Please keep in mind that TouchDraw has support for Undo and Redo. If a figure is deleted by accident, choose the **Undo** option under the [Edit Menu](#) to redisplay the object.

6.1.3. Renaming a Drawing

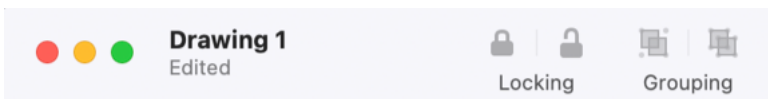
Performing a **Click** on the **Drawing Title** opens a prompt window for renaming the currently open drawing.



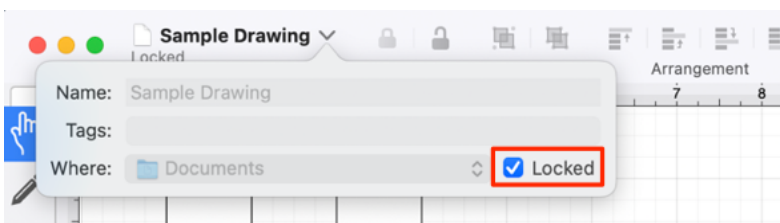
After a new drawing name has been entered in the prompt window, press on the **Enter Key** on your keyboard to complete the change.



The new drawing name will appear above the [Toolbar](#), as shown below:



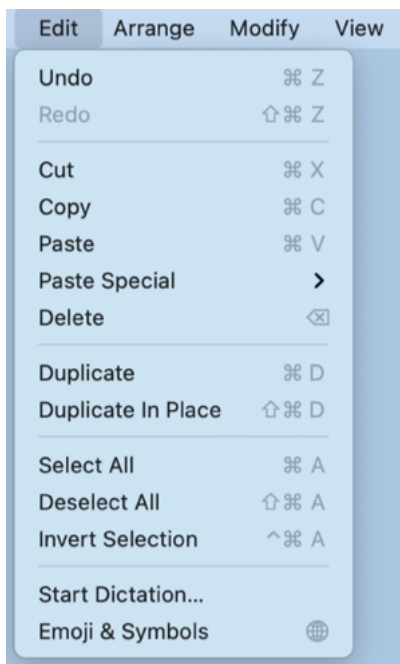
Note: The **Locked** option can be used to prevent changes to the file name, tags and save location.

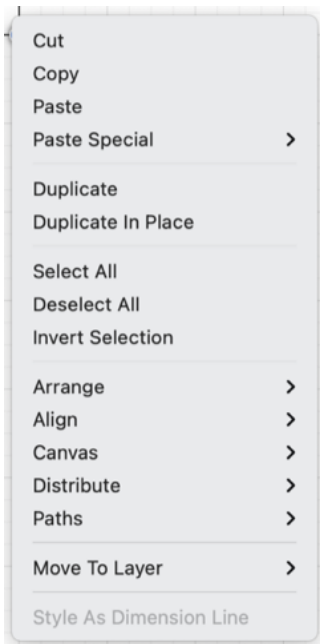


6.2. Using the Clipboard

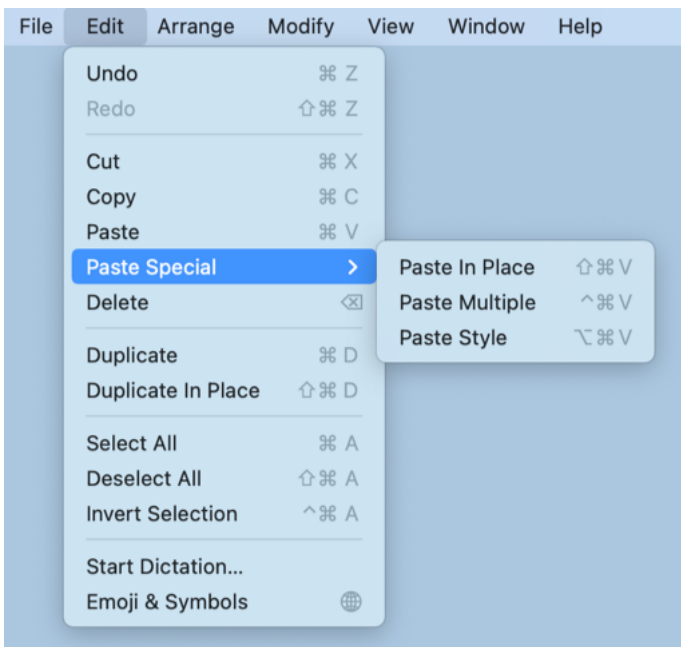
The **Clipboard** holds the most recent change made to a figure within the [Drawing Canvas](#). Changes are stored on the clipboard when an item is [copied](#), [cut](#) or [undone](#). They are reapplied by choosing the [Paste](#), [Paste Style](#), or [Redo](#) commands.

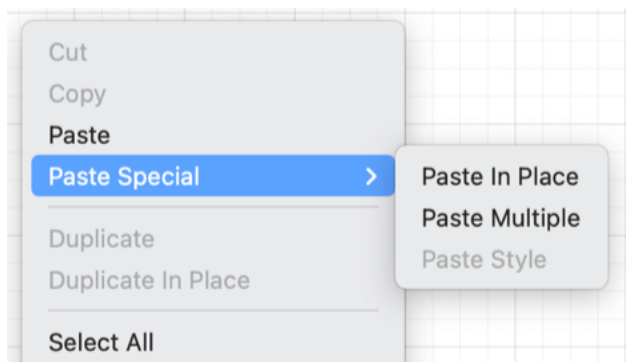
All **Clipboard** actions are accessible through the [Edit Menu](#) or [Contextual Menu](#) as shown below:





Additional options are available under the [Paste Special Submenu](#) for pasting in the same exact location, a formatting style, and multiple figures.





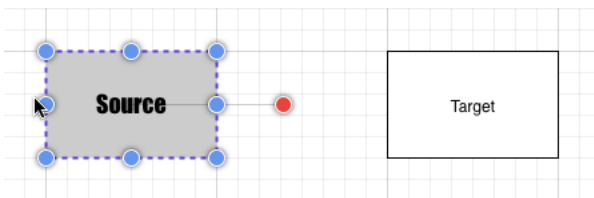
Note: The command shortcuts may also be used to gain quick access to Clipboard actions.

6.2.1. Paste Style

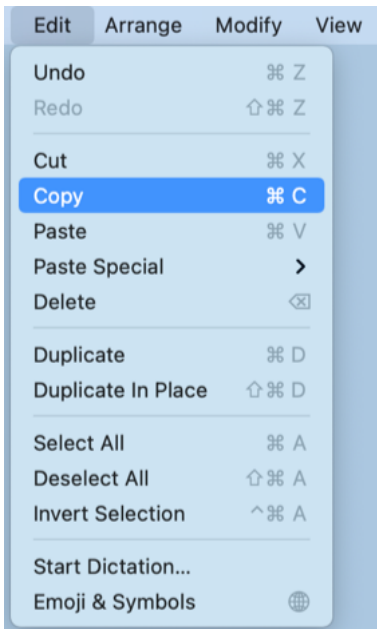
The **Paste Style** command allows formatting to be copied from one shape and pasted (applied) to another.

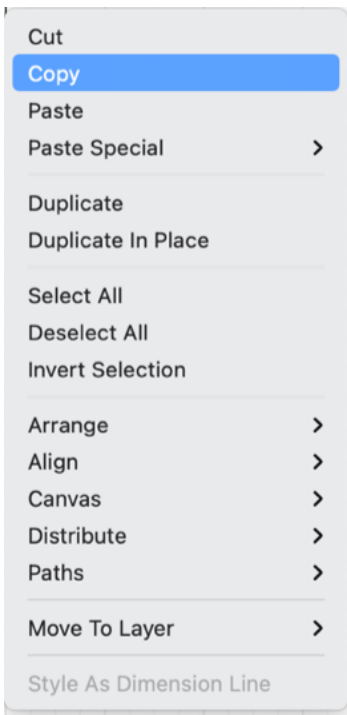
The process for this command is shown in the following example:

1. [Select](#) the source shape/figure with the formatting to applied to another object.

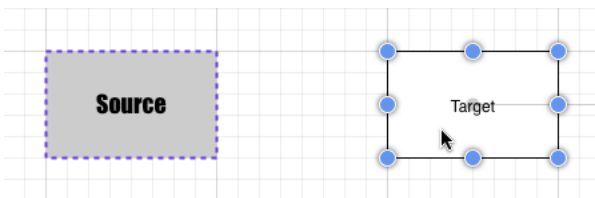


2. [Copy](#) the shape to the clipboard.

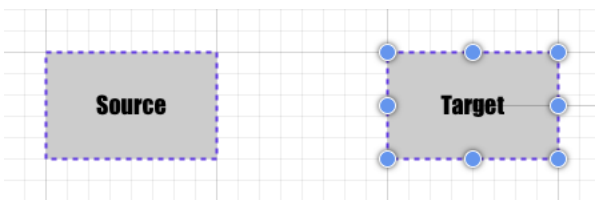
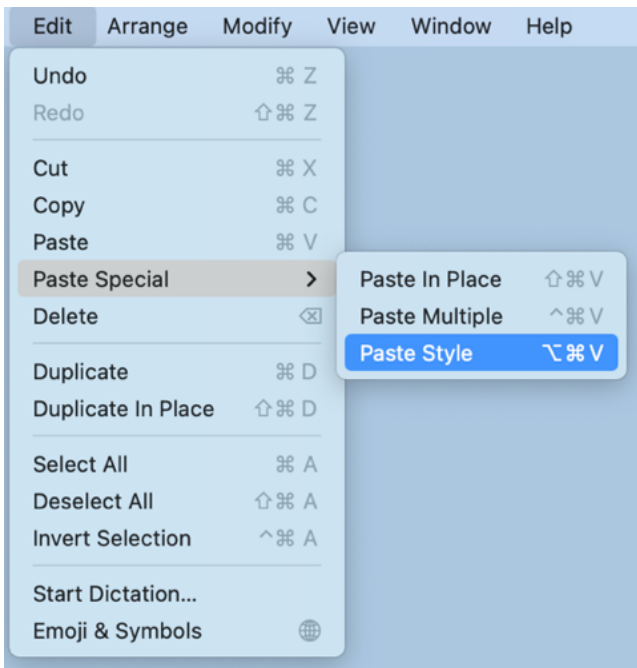




3. Select the target shape.



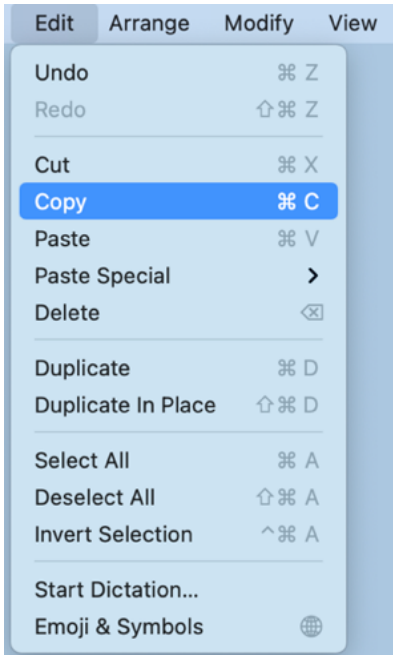
4. Select the **Paste Style** command from the [Edit Menu](#) or from the [Contextual Menu](#) to apply formatting from the source figure to the target figure.



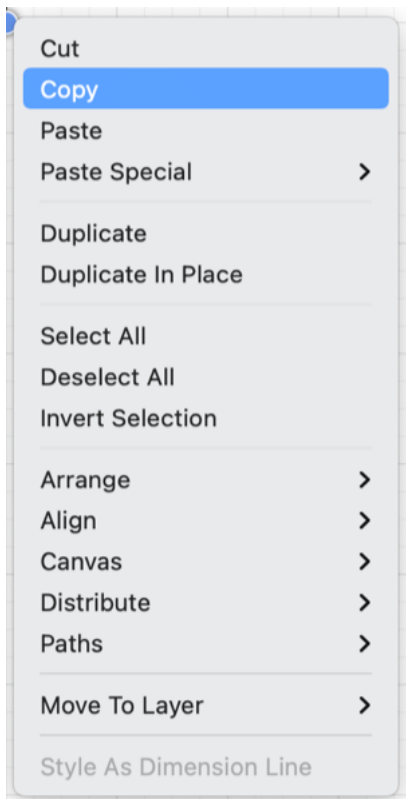
6.2.2. Copying a Figure

A figure or group of figures must be [selected](#) before copying can occur. Figures can be copied in one of three ways after a selection has been made.

1. Click on the [Edit Menu](#) and choose **Copy**.



2. Open the [Contextual Menu](#) and choose **Copy**.

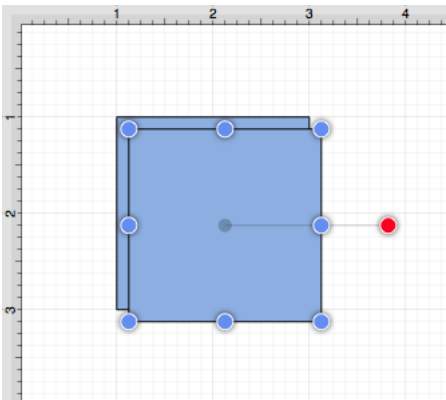
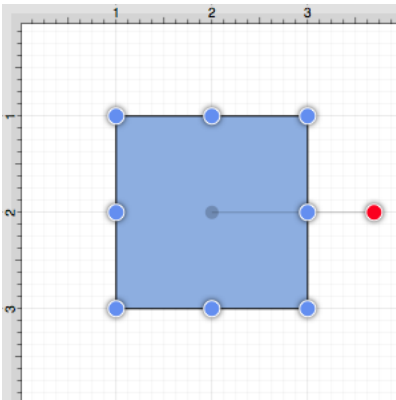


3. Use the **Command-C** keyboard shortcut. **Note:** Once a figure(s) has been copied, use the same menus or the **Command-V** keyboard shortcut to Paste in a desired location. The **Paste Style** command may also be used to copy the formatting of one figure to another.

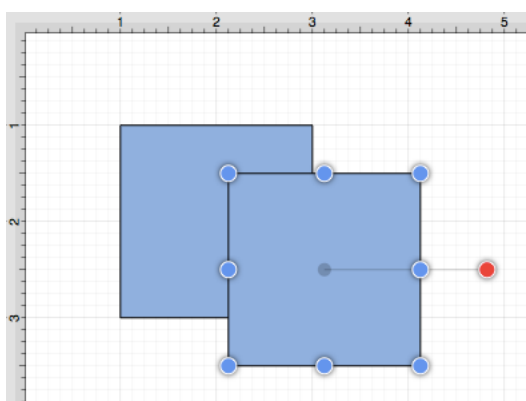
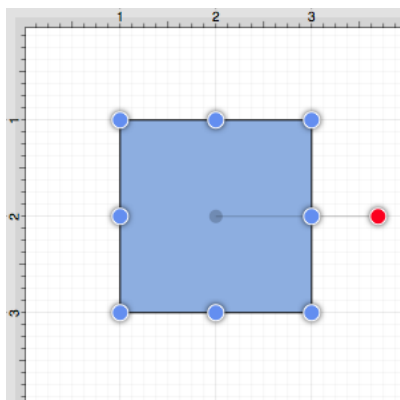
6.2.3. Duplicating a Figure

A figure can be duplicated to make sharing the same attributes easy. At least one figure or a group of figures must be selected for the **Duplicate** and **Duplicate in Place** options to be available.

The **Duplicate** option creates a copy of a selected figure(s) and places it at an offset position in the drawing canvas.

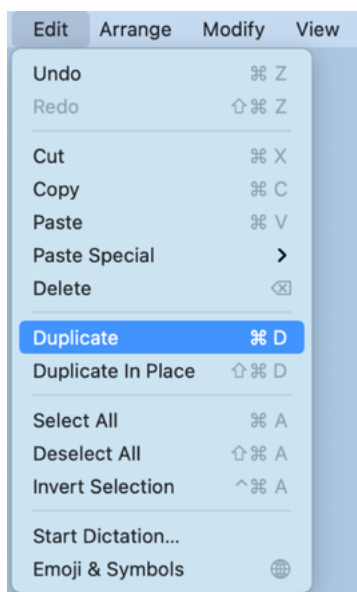


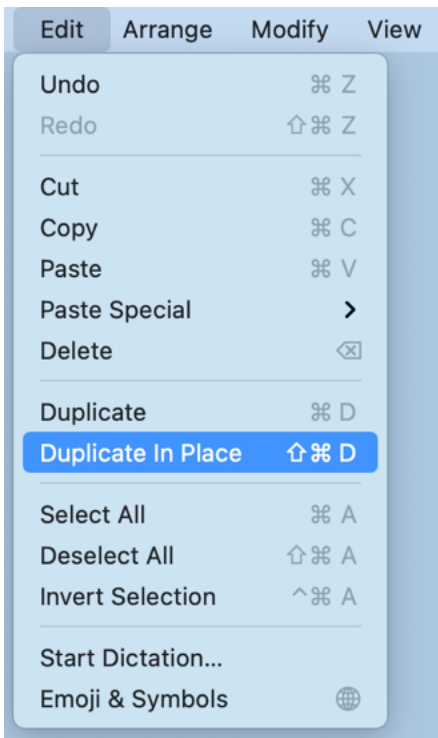
The **Duplicate in Place** option creates a copy of a selected figure(s) and places it in the same exact location as the original. Click and drag on the top figure to move it to a new position in the drawing canvas.



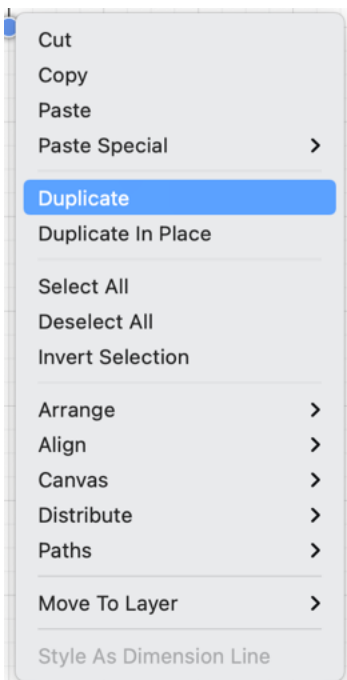
Figures can be duplicated in one of three ways after a selection has been made:

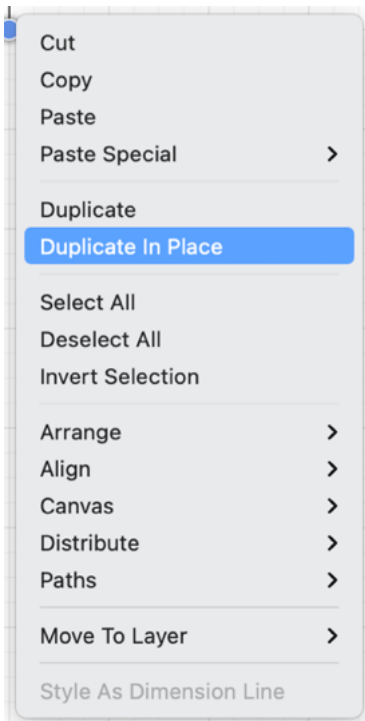
1. Click on the [Edit Menu](#) and choose **Duplicate** or **Duplicate in Place**.





2. Open the [Contextual Menu](#) and choose **Duplicate** or **Duplicate in Place**.





3. Use the **Command-D** or **Shift-Command-D** [Keyboard Shortcuts](#).

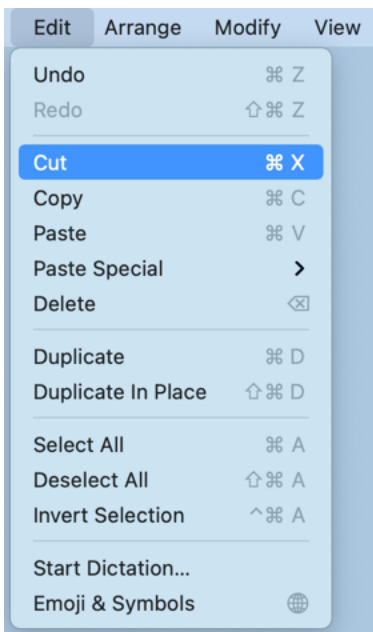
6.2.4. Cut and Paste

Cutting and pasting works in the same manner as copy and delete.

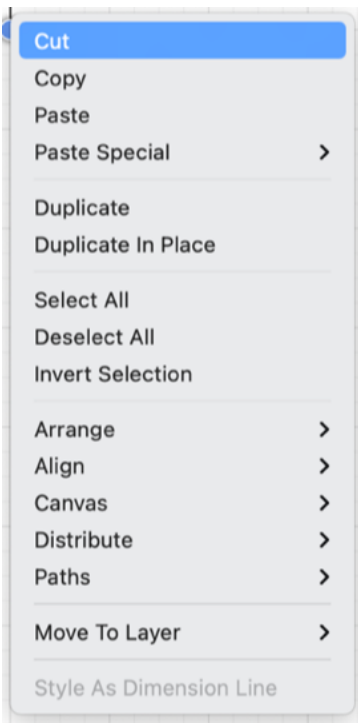
Cut Command

The **Cut** command removes the figure from the drawing canvas and adds it to the clipboard. [Select](#) a figure or group of figures and use one of the following three methods to perform a cut:

1. Select the [Edit Menu](#) and choose **Cut**.



2. Open the [Contextual Menu](#) and choose **Cut**.

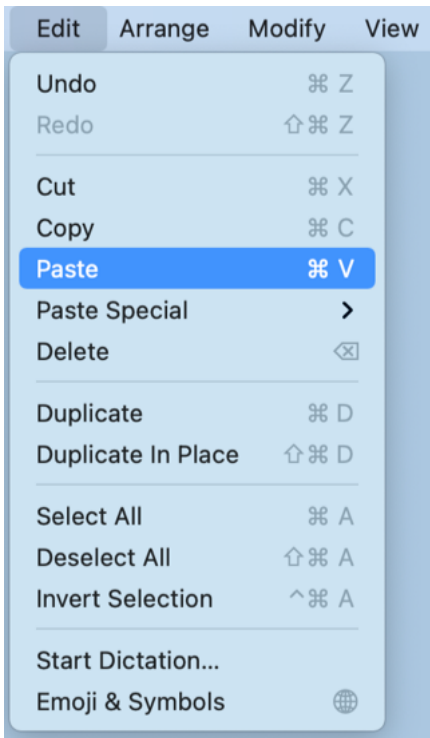


3. Use the **Command-X** keyboard shortcut.

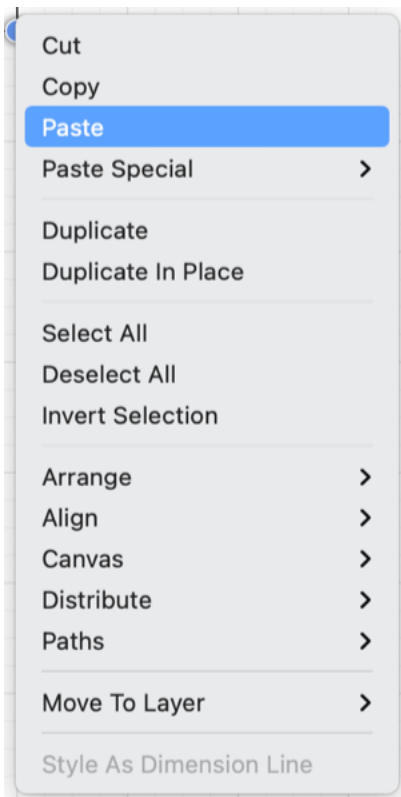
Paste Command

The **Paste** command adds the current clipboard contents to the drawing canvas. To **Paste** current clipboard contents:

1. Select the [Edit Menu](#) and choose **Paste**.

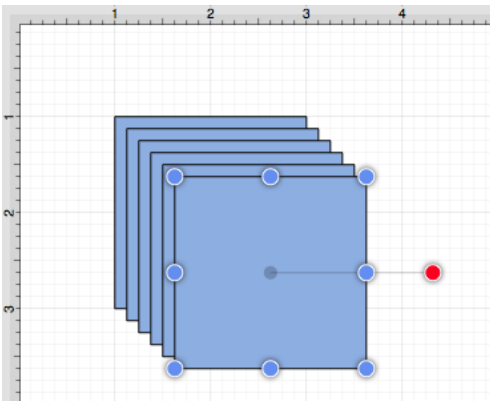
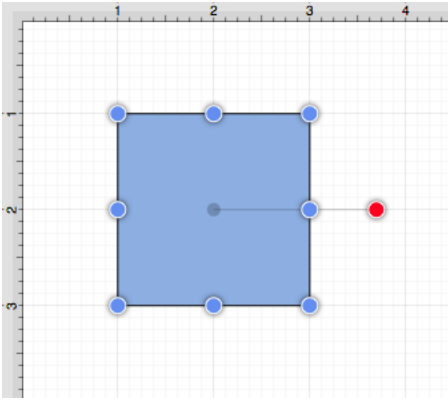


2. Open the [Contextual Menu](#) and choose **Paste**.



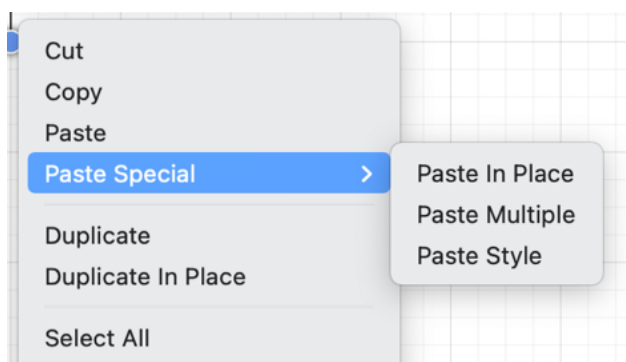
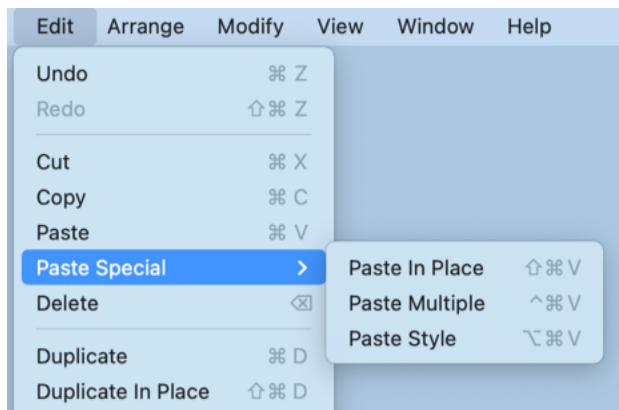
3. Use the **Command-V** keyboard shortcut.

Pasting the clipboard contents multiple times into the [Drawing Canvas](#) causes the figure(s) to be placed in slightly offset positions as shown below.

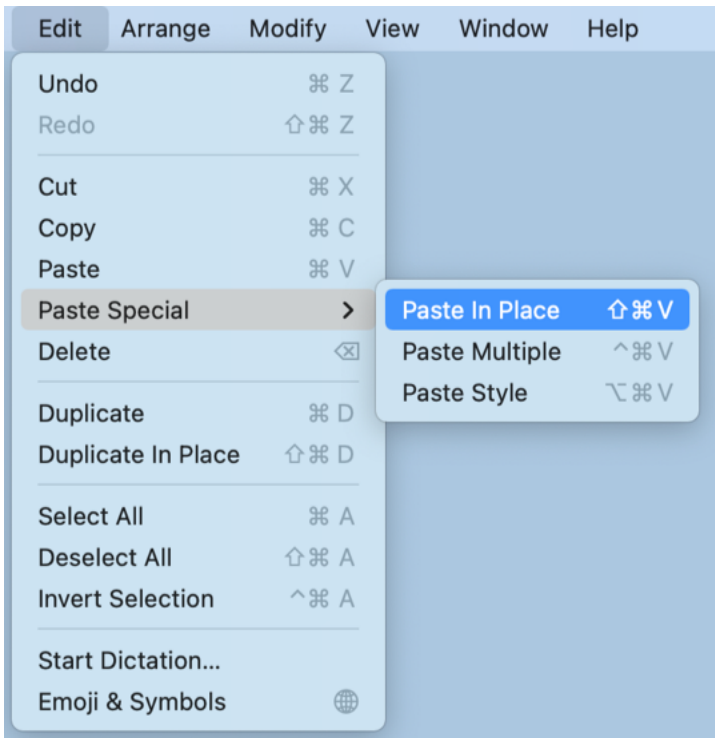


Paste Special Submenu

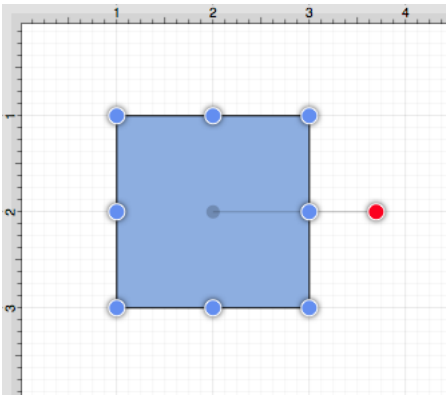
The [Paste Special Submenu](#) can be used to perform additional pasting actions.

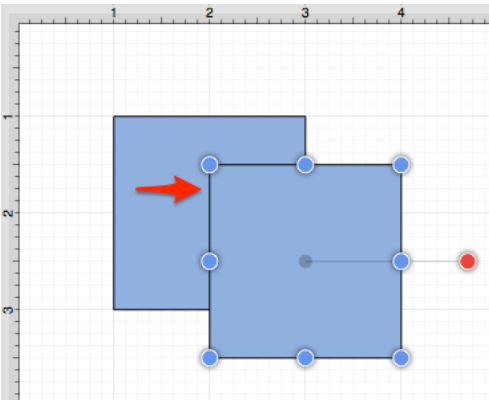


To paste a figure in the same exact location, click on the [Edit Menu](#) or [Contextual Menu](#), select **Paste Special**, and choose **Paste in Place**.

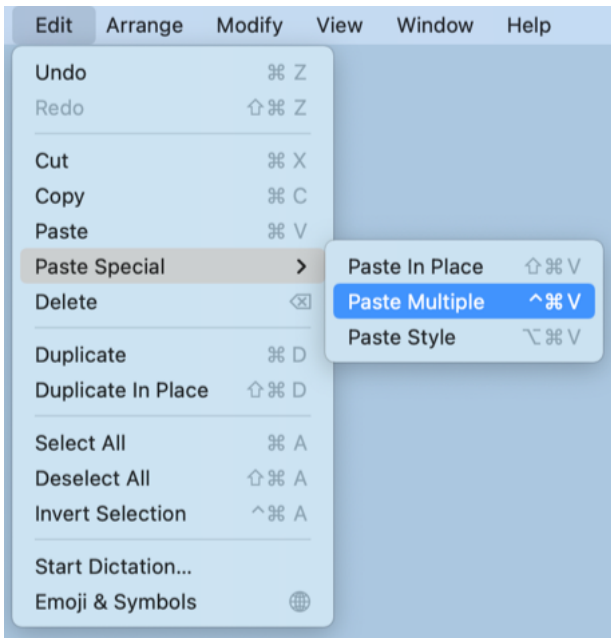


To see the pasted figure [select](#) the figure and drag in any direction. In the example below, the pasted figure is dragged to the right.

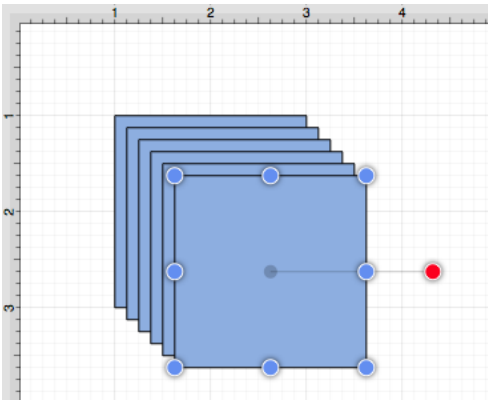




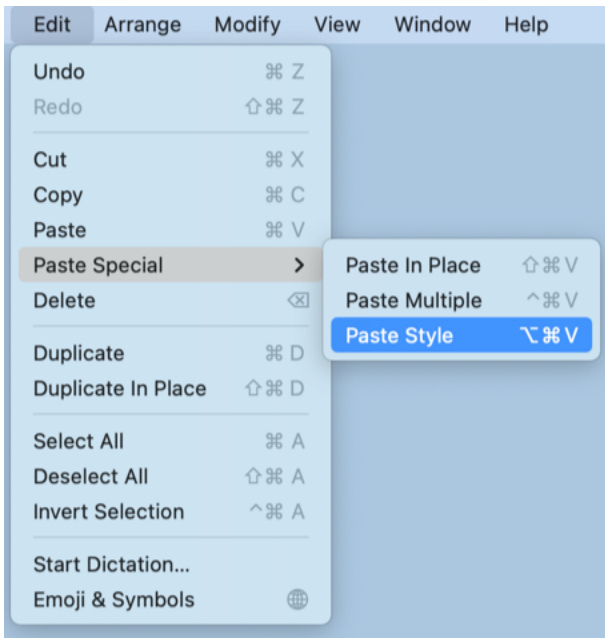
To paste multiple instance of a figure in the clipboard, bring up one of the above shown menus, select **Paste Special**, and choose **Paste Multiple...**



Multiple pastes of the clipboard content will cause each figure to be placed in slightly offset positions as shown below:



To paste the style of a figure, bring up one of the above shown menus, select **Paste Special**, and choose **Paste Style**. Refer to the [Paste Style](#) section of this documentation to learn more.



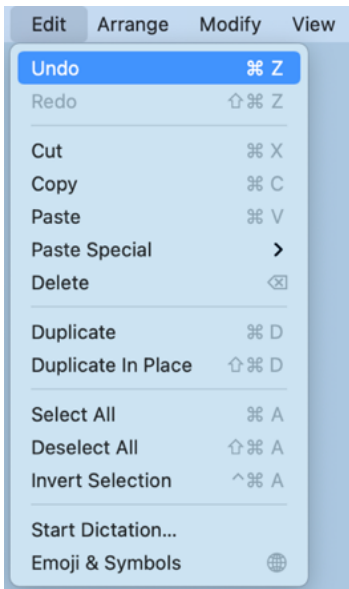
Note: An additional option resides in the [Contextual Menu](#). The **Paste as Image Fill** option may be used to copy a figure, image, etc. and then paste the item into the selected figure as a fill. In the example below, an Oval figure has been pasted into the [Rectangle](#).

6.2.5. Undo and Redo

The **Undo** command reverts the last change that was made to a drawing. This option is disabled (dimmed) when no changes have been made and enabled as soon as something is altered on the drawing canvas.

Perform one of the following actions to revert the last made change:

1. Select the [Edit Menu](#) and choose **Undo**.

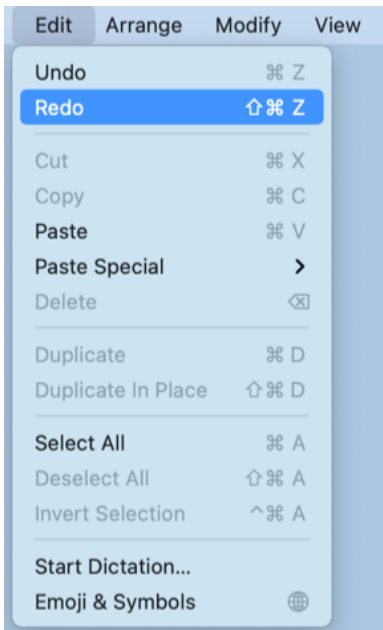


2. Use the **Command-Z**[keyboard shortcut](#).

The **Redo** command cancels the last undone change made to the drawing canvas. This option is disabled (dimmed) when nothing has been undone and is enabled as soon as the **Undo** command has been used or something is altered.

Perform one of the following actions to reapply the last undone change:

1. Select the [Edit Menu](#) and choose **Redo**.



2. Use the **Shift-Command-Z** keyboard shortcut. **Note:** The **Undo** and **Redo** toolbar buttons may also be used to perform these actions within TouchDraw 2.

6.3. Handling Figures

TouchDraw 2 supplies a variety of options for handling figures within a drawing. An individual shape or group of figures can be:

- [Moved](#)
- [Stretched](#)
- [Resized](#)
- [Rotated](#)
- [Flipped](#)
- [Scaled](#)
- [Shifted](#)

The following pages describe these actions in further detail and provide steps for using each method of figure handling.

6.3.1. Moving a Figure

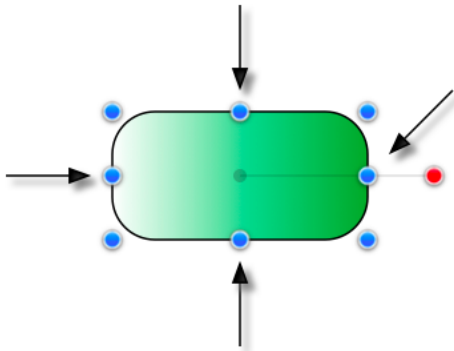
A figure must be [selected](#) to be moved to another location on the drawing canvas. Perform a **Drag** action to move an already selected figure or use a **Click/Drag** combination within the figures bounds to accomplish the move in one step.

To change the position of a group of selected figures, perform a **Click/Drag** combination within bounds of any selected object to move the entire selection. A move is completed when the **Click** action is released.

See the [Easy Drag Mode](#) section to learn more about an easier way to move smaller objects around the drawing view without worrying about inadvertently dragging one of their handles.

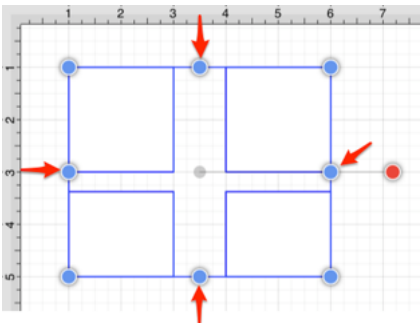
6.3.2. Stretching a Figure

Most shapes have handles in the top, center, bottom center, left middle, and right middle that allow the figure to be stretched and made wider or taller. The screenshot below demonstrates these handles for a rounded rectangle.



To **Stretch a Figure**, click on one of the above shown handles and then drag it to a desired location. The figure will stretch itself dynamically as the handle is dragged.

When the [Selection as Group \(Default\)](#) option is enabled and multiple figures are selected, all figures can be stretched at the same time by touching and dragging on the same handles for the selection group, as shown below:

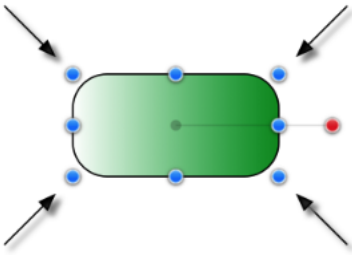


Tip: Pressing the **shift** key as a figure is stretched allows its current aspect ratio to be maintained.

Note: Multiple figures can be stretched at once by placing them into a group.

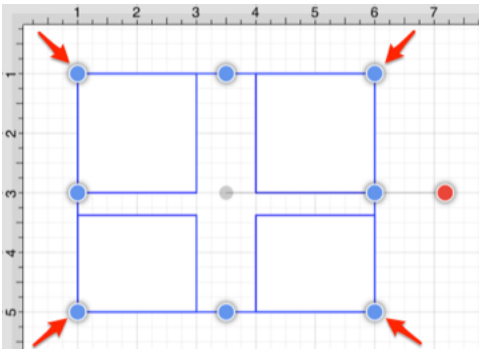
6.3.3. Resizing a Figure

In addition to the handles for [stretching a figure](#), shapes also have handles in the upper left, upper right, lower left and lower right for resizing the figure. The screenshot below shows these handles for a rounded rectangle:



To **Resize a Figure**, perform a **Click/Drag** combination on one of the above shown handles. The width and height of a figure will change dynamically as the handle is dragged.

When the [Selection as Group \(Default\)](#) option is enabled and multiple figures are selected, all figures can be resized at the same time by touching and dragging on the same handles for the selection group, as shown below:



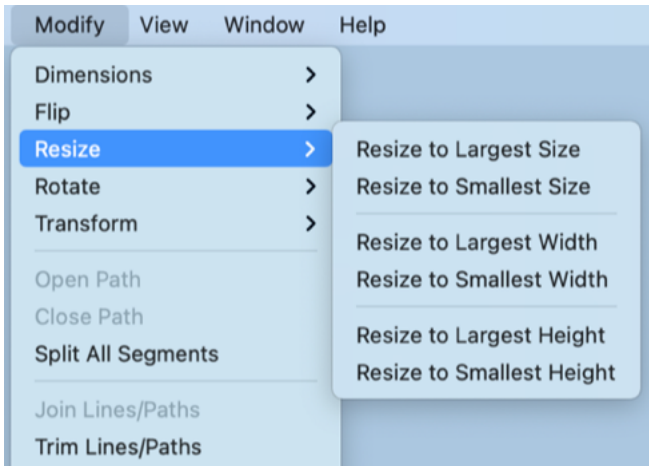
Tip: Pressing the **Shift Key** while resizing a figure allows it's current aspect ratio to be maintained.

Note: Multiple figures can be resized at once by placing them into a group.

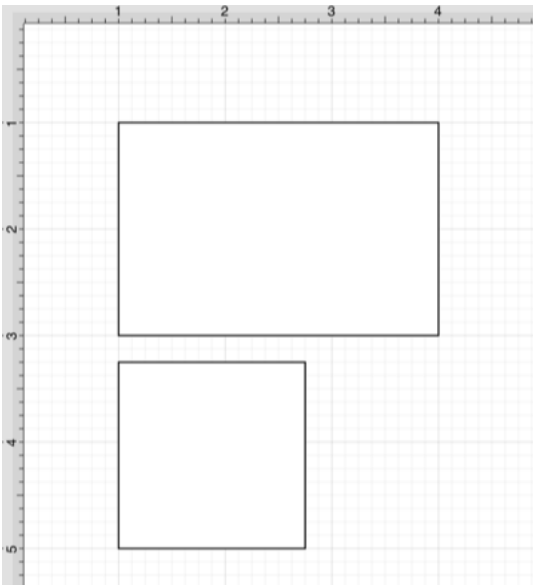
Resize Submenu

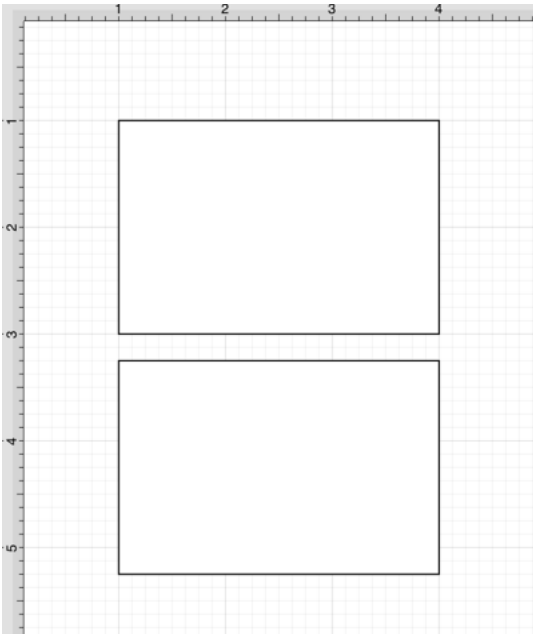
The **Resize Submenu** within the [Modify Menu](#) can also be used to resize multiple figures based on largest or

smallest size, height, or width.



At least two figures must be selected for this submenu and its options to be available. The following images show the before and after for two rectangle figures when the Resize to Largest Size option is used.

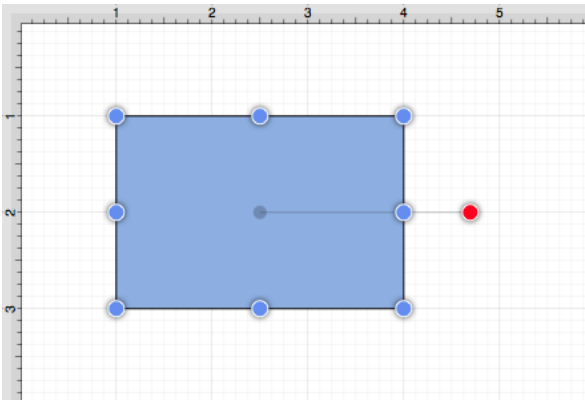




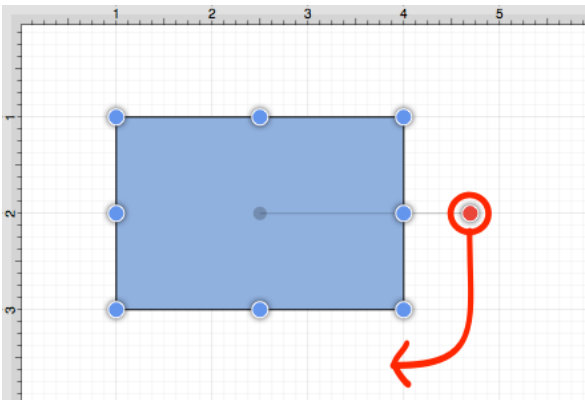
6.3.4. Rotating a Figure

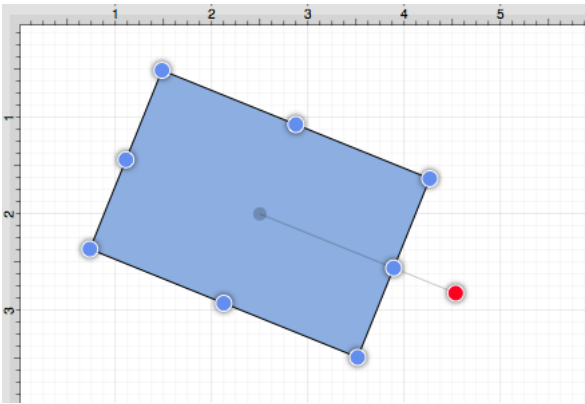
Every figure, with the exception of lines, can be rotated. A red handle will be shown to the right of a figure when it is **selected** for rotation. This red handle can be dragged to change the rotation angle of a selected shape.

A semi-transparent gray line going from the rotation handle to the figure's center of rotation point (typically represented by a gray circle in the middle) will also be displayed.



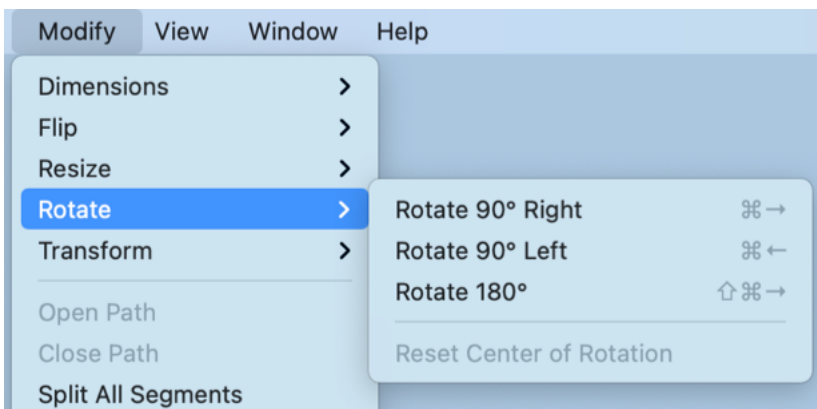
Perform a **Click/Drag** combination on the red handle to rotate the object in increments of 1° around its center of rotation point. In the example below, the red handle is dragged down and to the left.



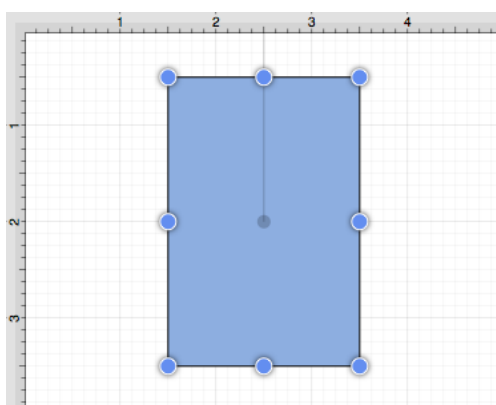
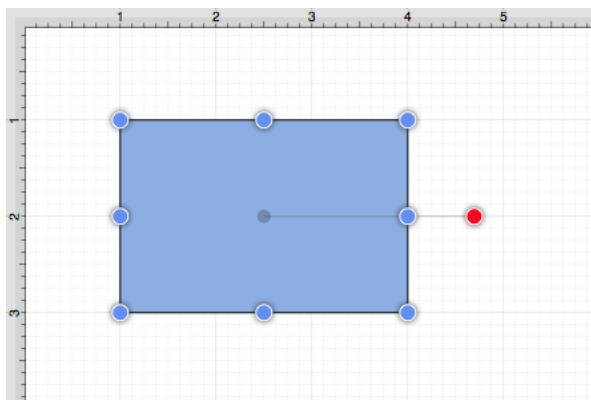


Note: Pressing the **Shift Key** as a figure is rotated causes this action to occur in 15° increments.

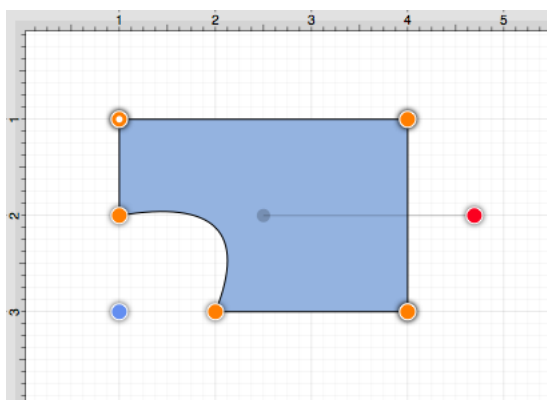
A figure may be rotated at 90° increments to the right or left by using the **Rotate 90° Right** or **Rotate 90° Left** options in the [Rotate Submenu](#). To access this submenu, click on the [Modify Menu](#) and then click on the **Rotate Submenu**.

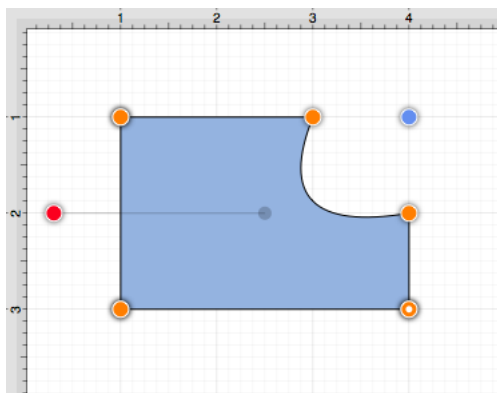


The example below shows what a figure looks like prior to and after being rotating 90 degrees to the left.



The **Rotate 180°** command may also be used to rotate a figure and is accessible through the same menu as discussed above. Below is an example of what a figure looks like prior to and after being rotated 180 degrees.



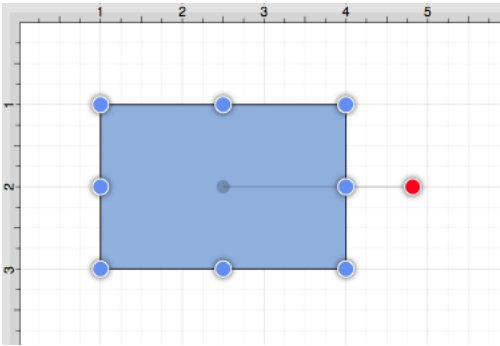


Note: The **Center of Rotation** can be changed to a different point within a shape or reset after it has been altered. See [Changing the Center of Rotation](#) or [Resetting the Center of Rotation](#) for additional information.

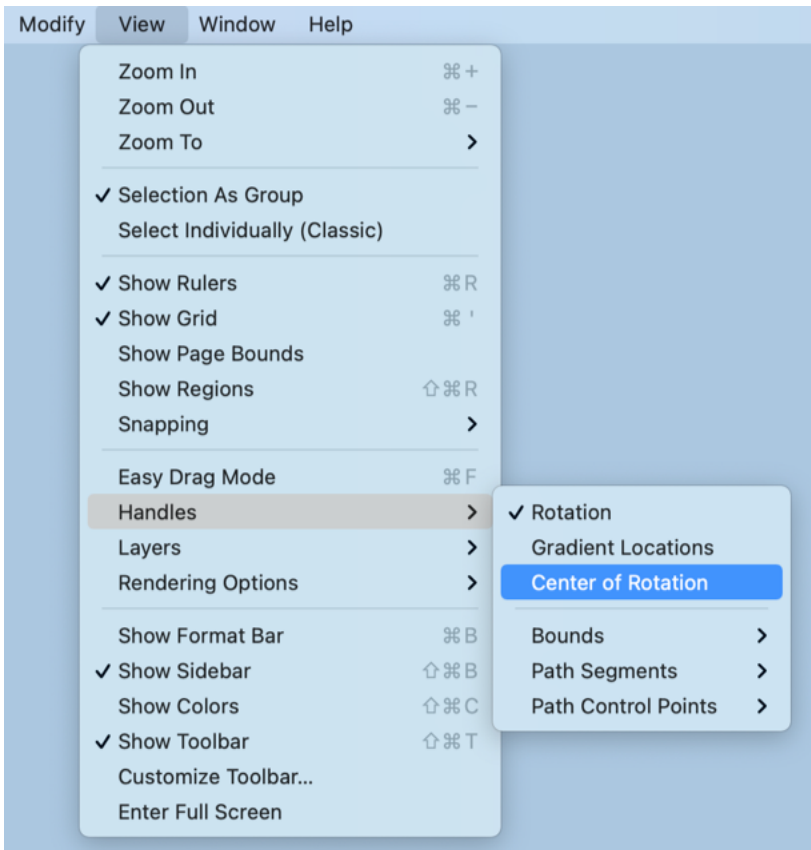
6.3.4.1. Changing the Center of Rotation

A selected shape will show a gray semi-transparent circle connected to the rotation handle. This gray circle indicates a selected shape's **Center of Rotation** and can be changed to any desired point within the shape's bounds.

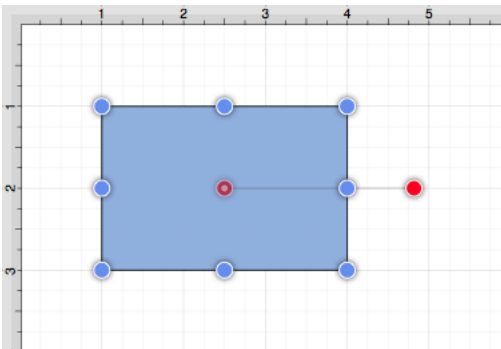
By default, the option to change a shape's **Center of Rotation** is not enabled.



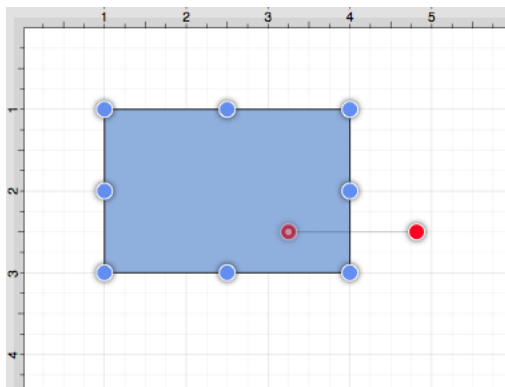
Click on the [View Menu](#) and then the [Handles Submenu](#) to enable the "Center of Rotation" handle.



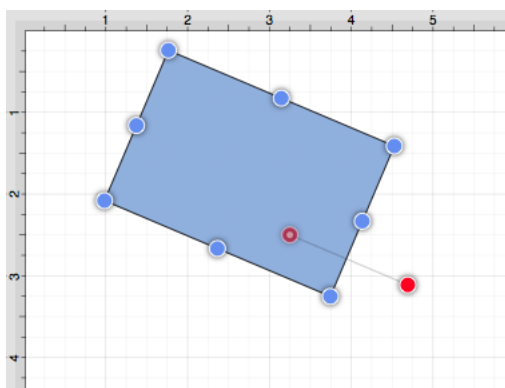
A new handle will replace the original semi-transparent circle once this option has been enabled.



To alter the **Center of Rotation**, drag the newly visible handle to a desired location.



The shape will rotate around the new point rather than its natural center once it has been set.

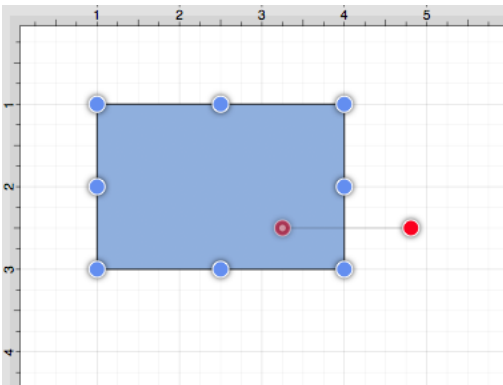


6.3.4.2. Resetting the Center of Rotation

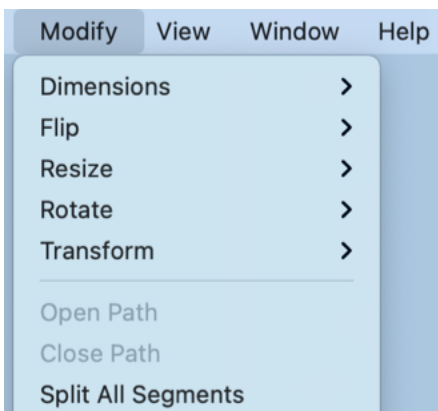
A selected shape will show a gray semi-transparent circle connected to the rotation handle. This gray circle indicates a selected shape's **Center of Rotation** and can be changed to any desired point within the shape's bounds.

This point can be set back to its natural center after it's location has been altered. Follow the steps below to **Reset the Center of Rotation**:

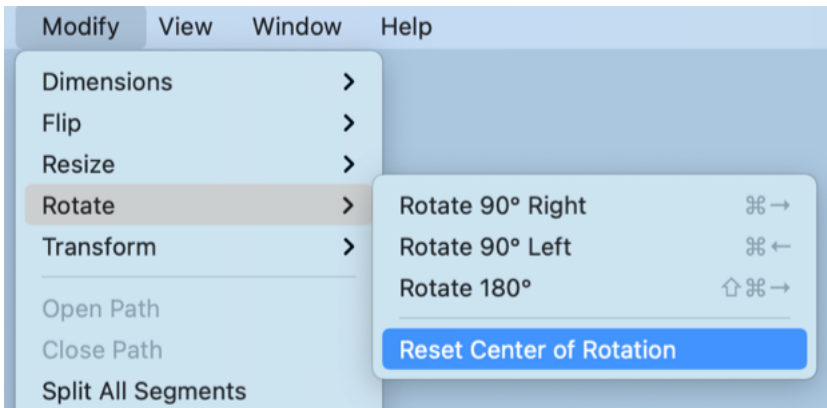
1. [Select](#) the desired Shape.



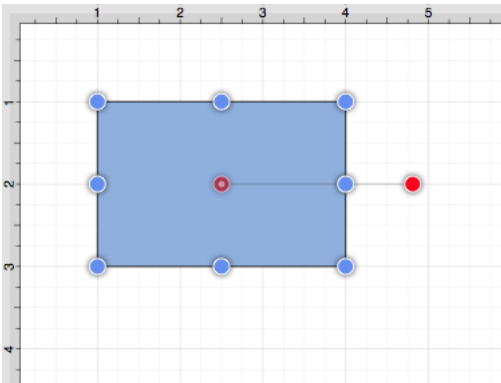
2. Select the [Modify Menu](#).



3. Choose the [Rotate Submenu](#) and click on **Reset Center of Rotation**.

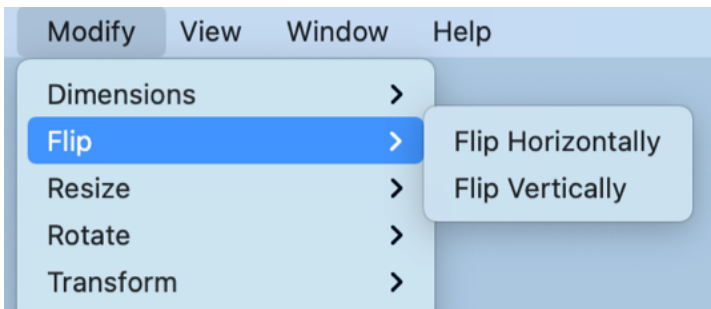


4. The point will be adjusted back to its natural center.



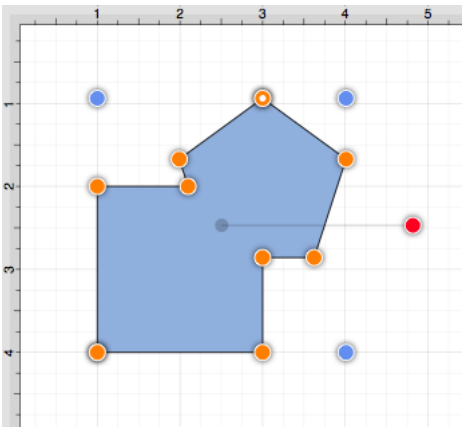
6.3.5. Flipping a Figure

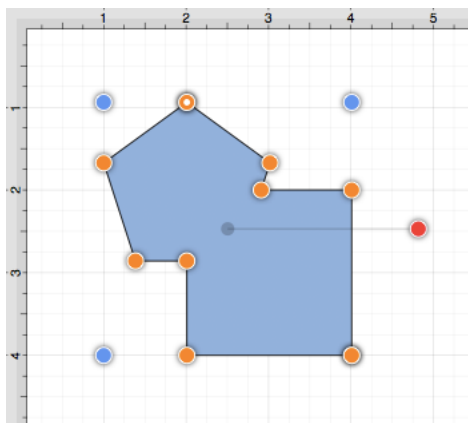
A figure can be flipped either horizontally or vertically in the drawing canvas. These options can be found in the [Flip Submenu](#) under the [Modify Menu](#). See image below:



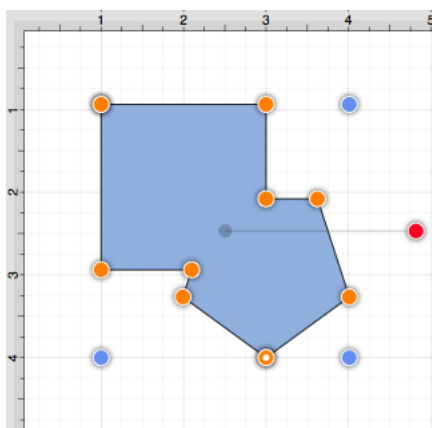
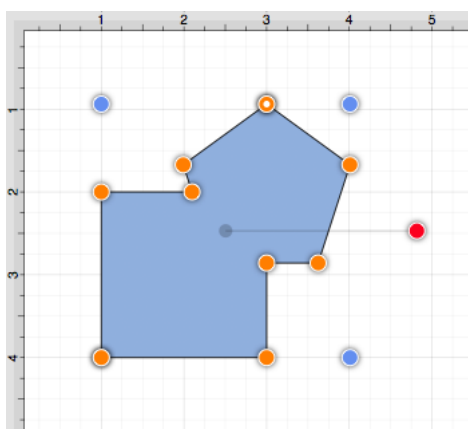
Note: A figure must be [selected](#) to choose one of the above options.

Choose **Flip Horizontally** from this menu to interchange a figure horizontally. The images below show a before and after of this figure transition:





Choose **Flip Vertically** from the above menu to interchange a figure vertically. The images below show a before and after of this figure transition.

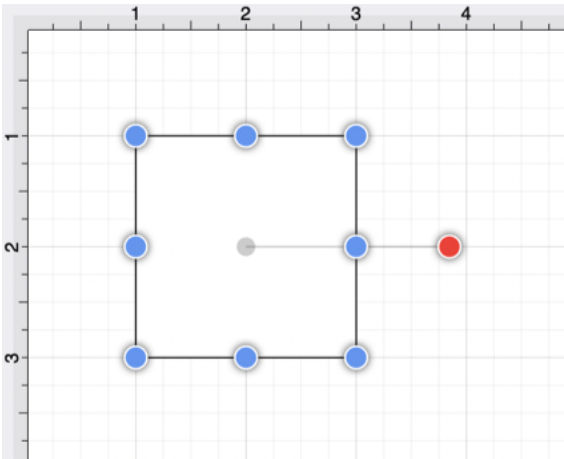


6.3.6. Scaling a Figure

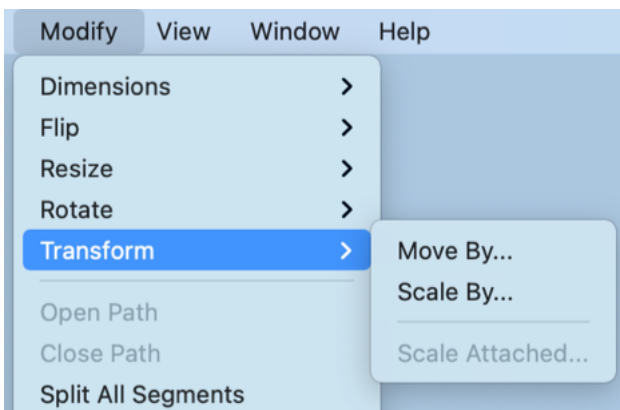
The **Scale By...** option can be used to alter figure size based on input coordinates to create a smaller or larger figure spanning over a specific area. It is accessible through the [Transform Submenu](#) of the [Modify Menu](#).

To **Scale a Figure** or group of figures:

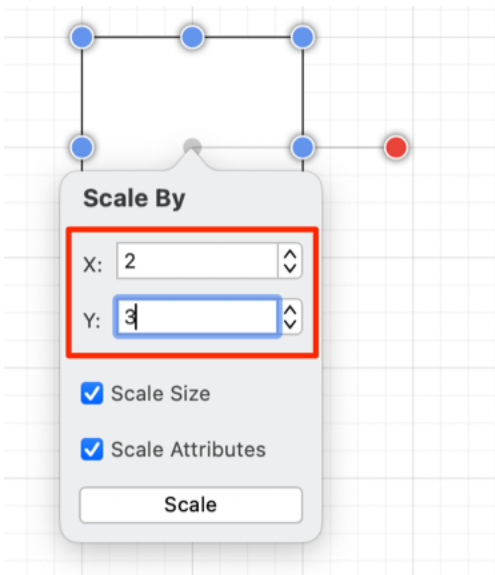
1. [Select](#) a figure(s) to be altered.



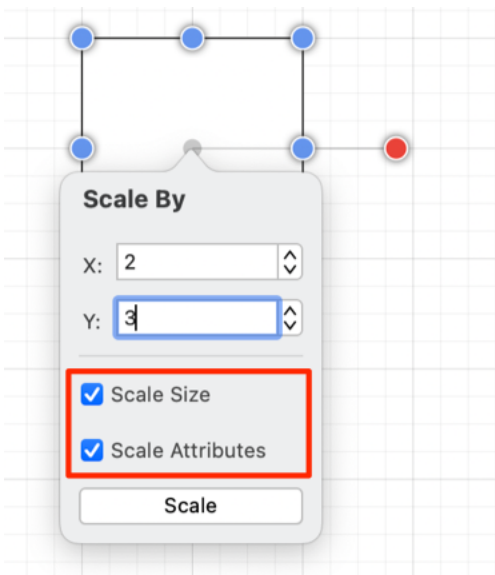
2. Select the **Modify Menu**, choose **Transform**, and click on **Scale By...**



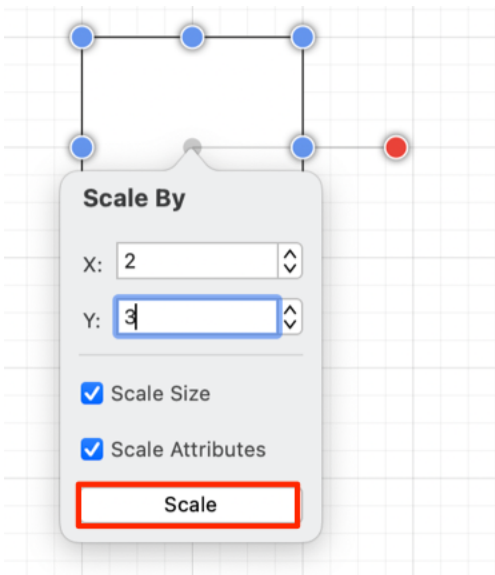
3. Enter the desired **X** and **Y** coordinates into the **Scale By** popup window by using the incremental buttons to the right of each field or by performing a **Click/Keyboard** entry action.



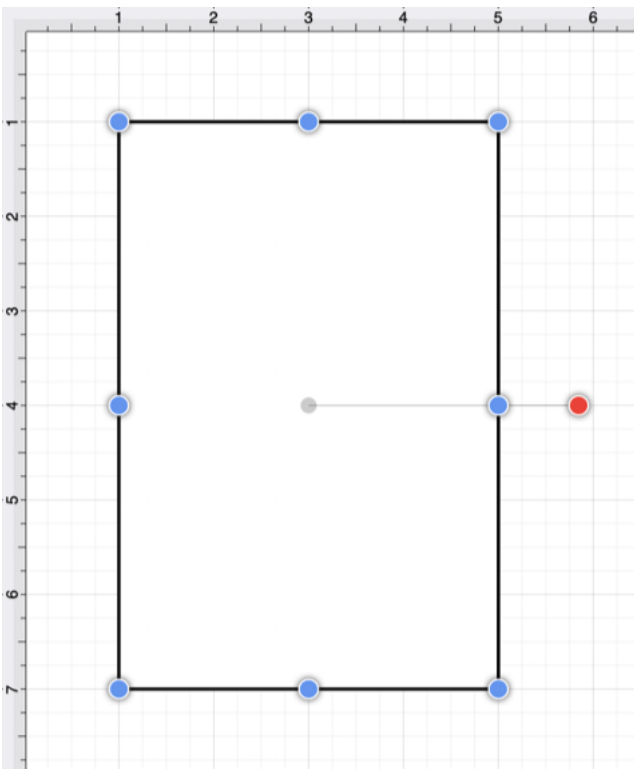
1. Select or deselect desired options in the **Scale By** popup window.



1. Click on the **Scale Button** when finished.



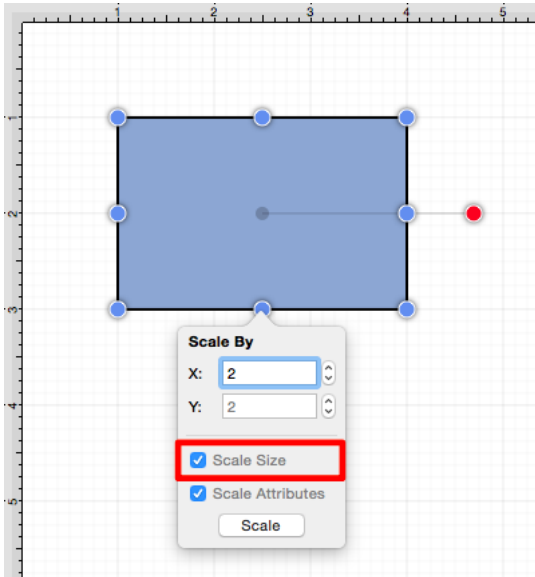
1. The selected figure will be scaled according to the entered coordinates and selected options. It will appear in scaled form with the **Scale By** popup window remaining available to make further changes.



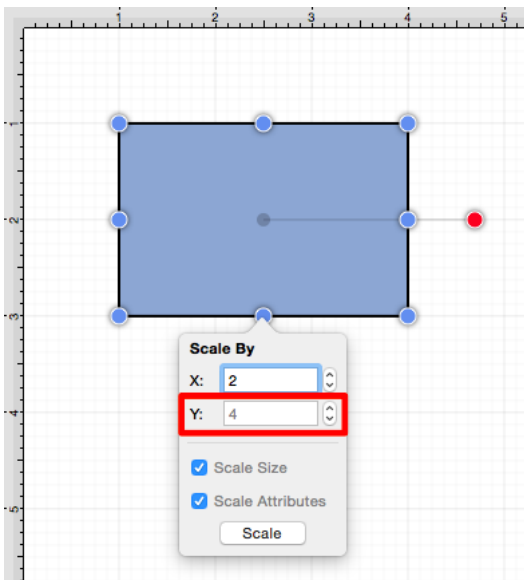
Note:Scale By... changes can be reverted by using the [Undo](#) option under the [Edit Menu](#) or with the **Command-Z** keyboard shortcut.

6.3.6.1. Scale Size

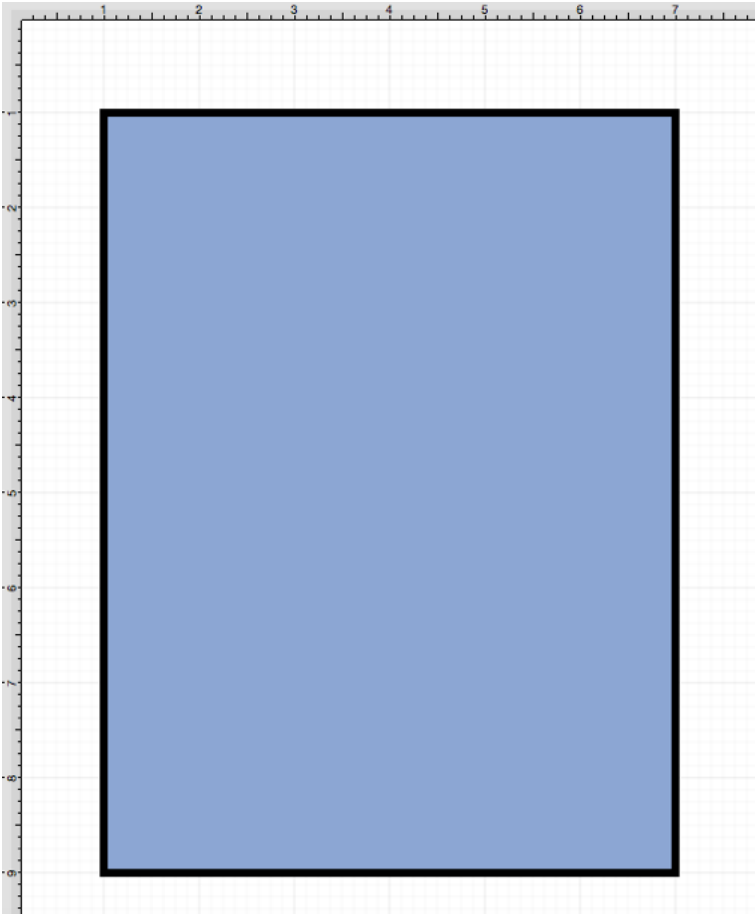
The **Scale Size** option informs TouchDraw 2 to scale the size of the selected figure(s) based on the entered **Factor X** and **Factor Y** values. If enabled, the check box will have a checkmark with a blue background, as shown below:



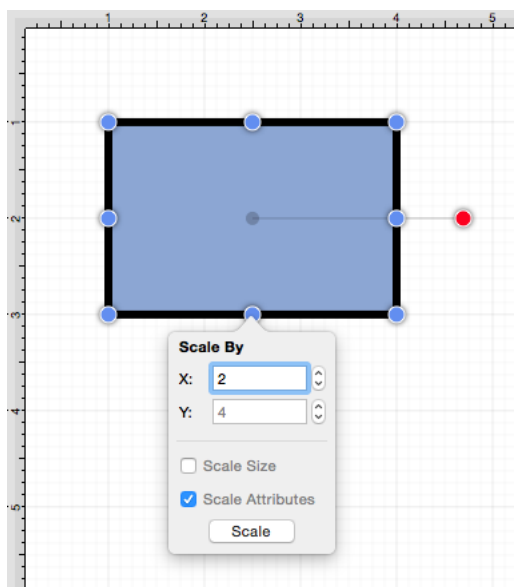
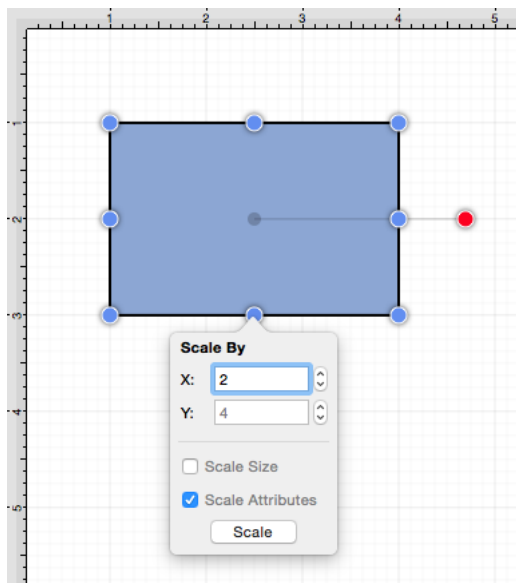
This option must be enabled for the selected figure(s) to be scaled by the entered values.



If **Factor Y** is changed to 4 for the above figure, it will appear as shown below:



If the **Scale Size** option is disabled (no checkmark), the size will not be scaled. However, if the [Scale Attributes](#) option remains enabled, then the attributes ([stroke](#), [text](#), etc.) will be scaled according to the entered values, as shown below:

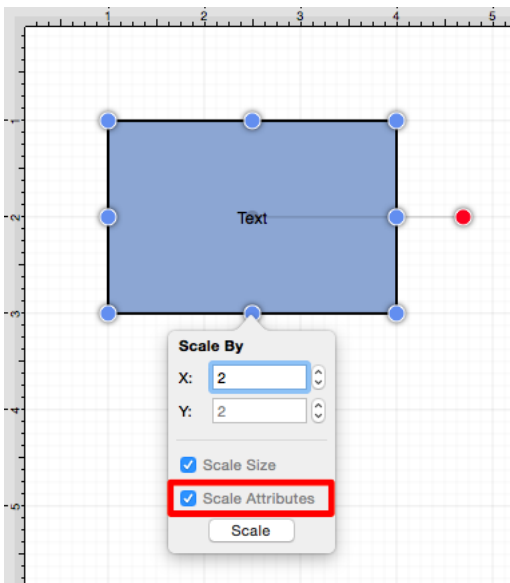


Note: Please note that if both options have been disabled, then the selected figure(s) will not be scaled.

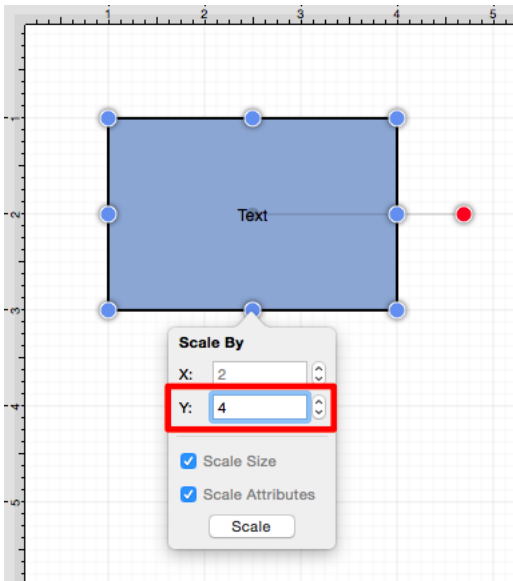
6.3.6.2. Scale Attributes

The **Scale Attributes** option informs TouchDraw 2 to scale the attributes ([stroke](#), [text](#), etc) of the selected figure(s) based on the entered **Factor X** and **Factor Y** values.

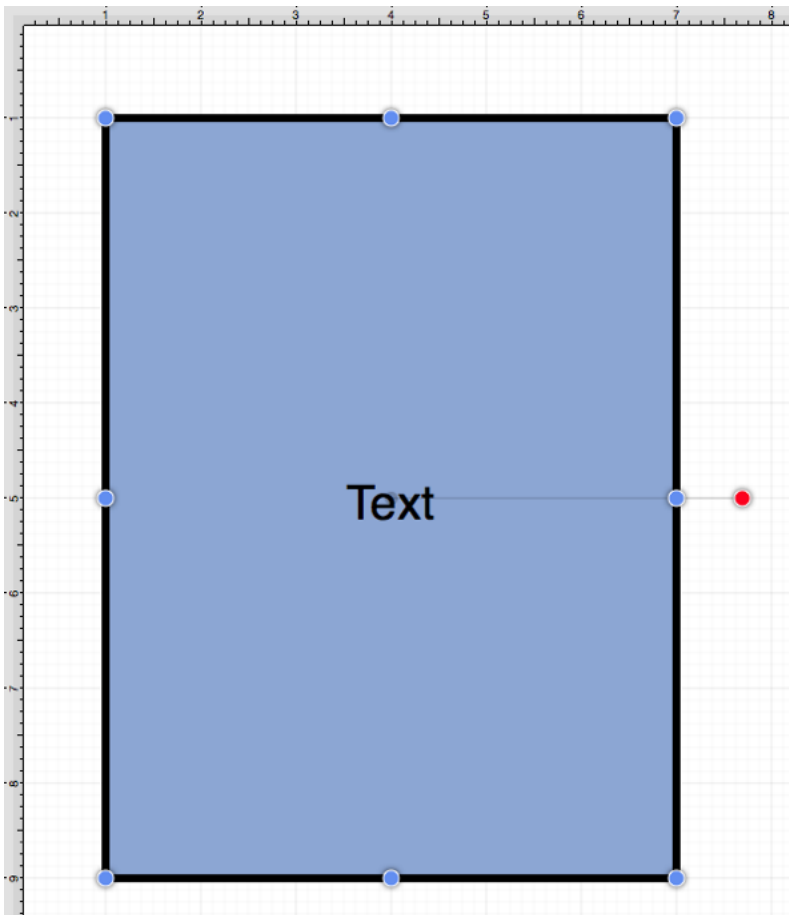
If enabled, the the check box will appear with a check mark and blue background, as shown below:



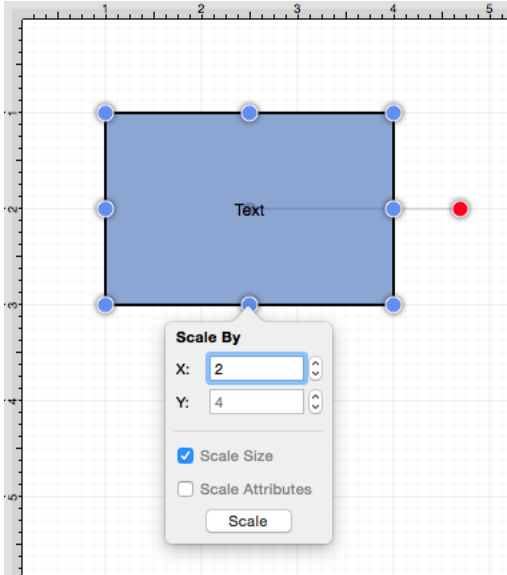
If the [Scale Size](#) option has been enabled as well, then the selected figure's size and attributes will be scaled according to entered values. If 4 is entered for **Factor Y**, then the height of the selected figure(s) will be scaled by that value.



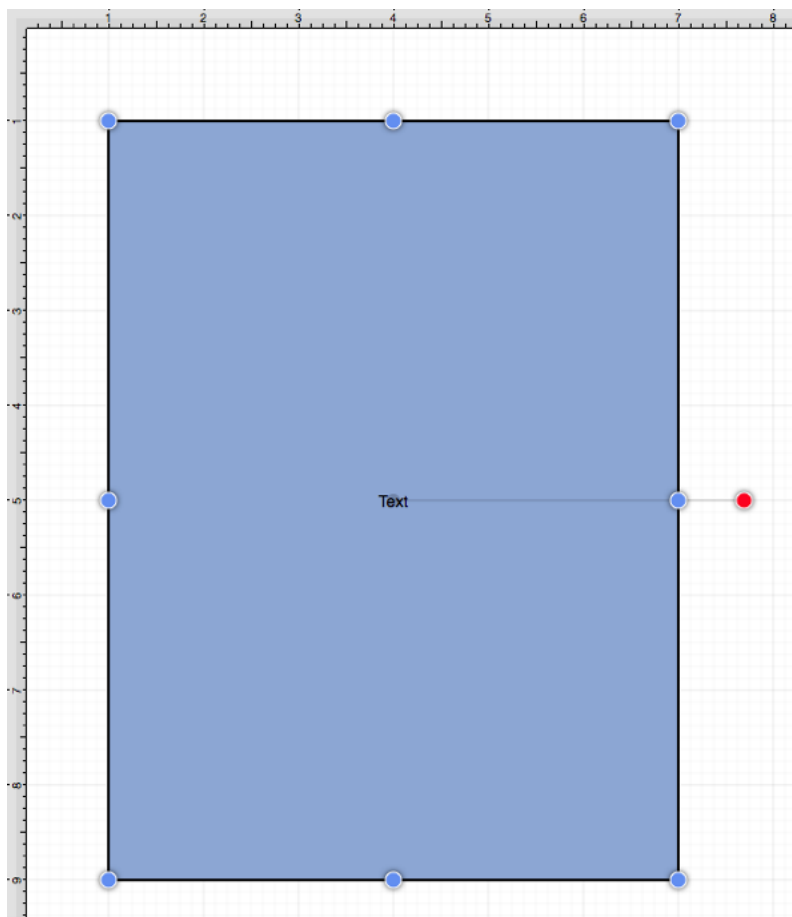
The above figure would appear as shown below:



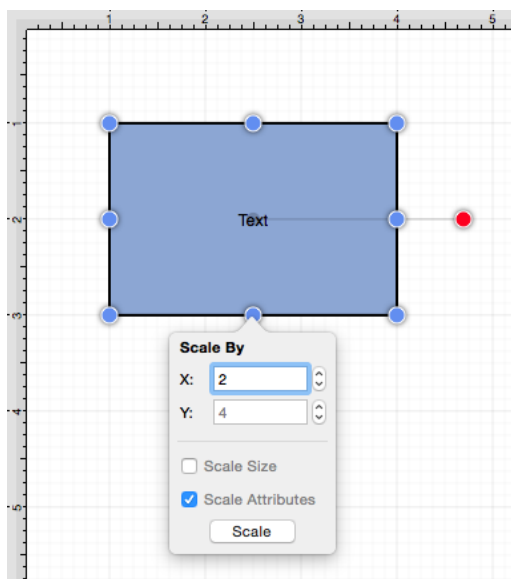
When the **Scale Attributes** option is disabled (no checkmark), only the **size** of the selected figure(s) will be scaled by the entered **Factor** values.

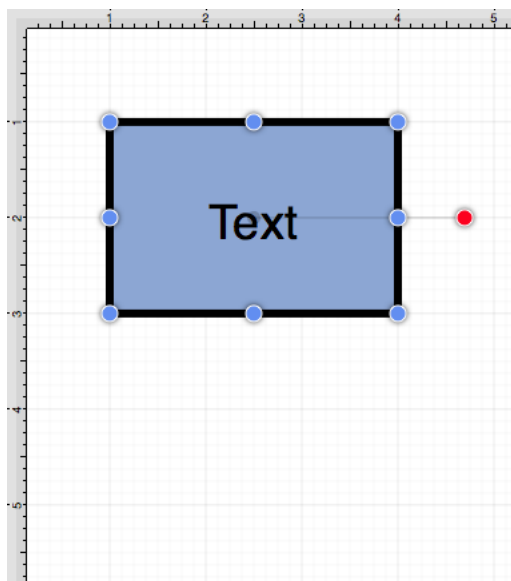


In the example below, the size of the figure is scaled; however, the stroke and text attributes are not.



If **Scale Attributes** is the only enabled option, then only the attributes of the selected figure(s) will be scaled according to the entered **Factor** values.





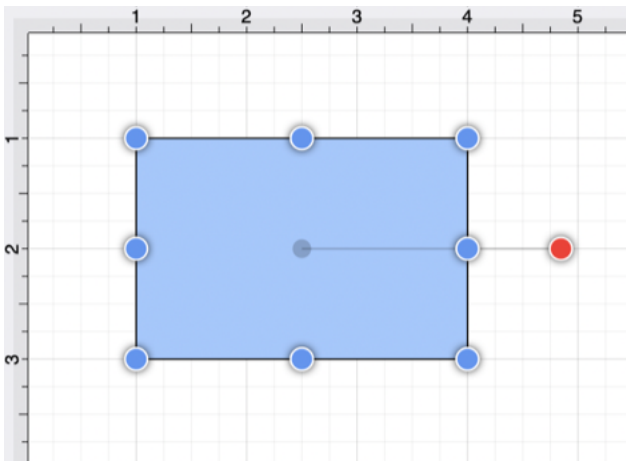
Note: Please note that if both options have been disabled, then the selected figure(s) will not be scaled.

6.3.7. Shifting a Figure

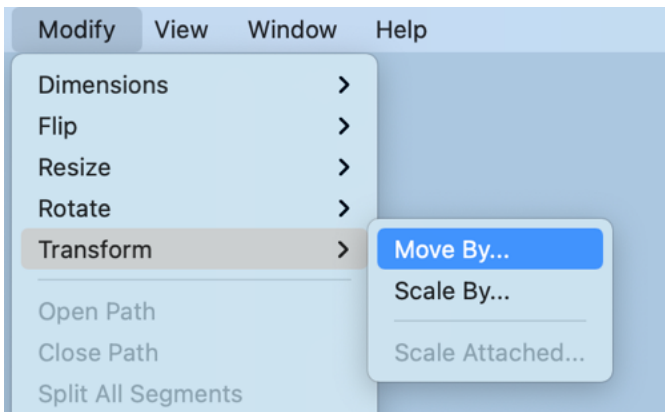
The **Move By...** option can be used to shift a selected figure or group of figures by an entered set of coordinates. This option changes the location of a figure based on input coordinates and is accessible through the [Transform Submenu](#) of the [Modify Menu](#).

To **Shift a Figure** or group of figures:

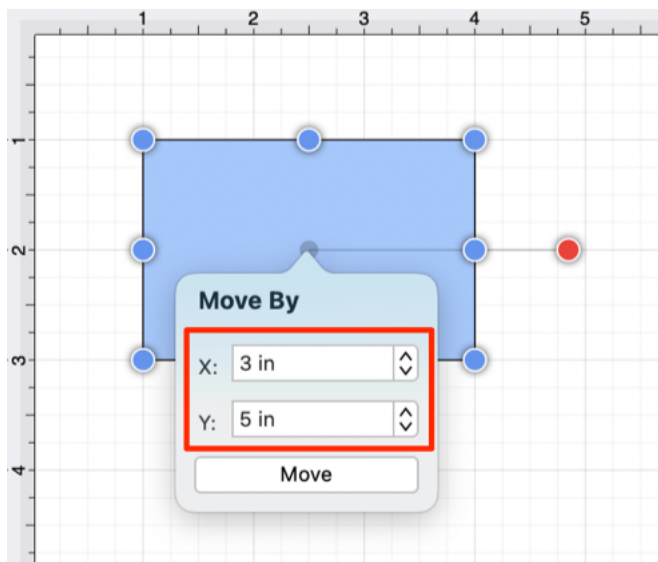
1. [Select a Figure](#) or grouping of figures to be shifted.



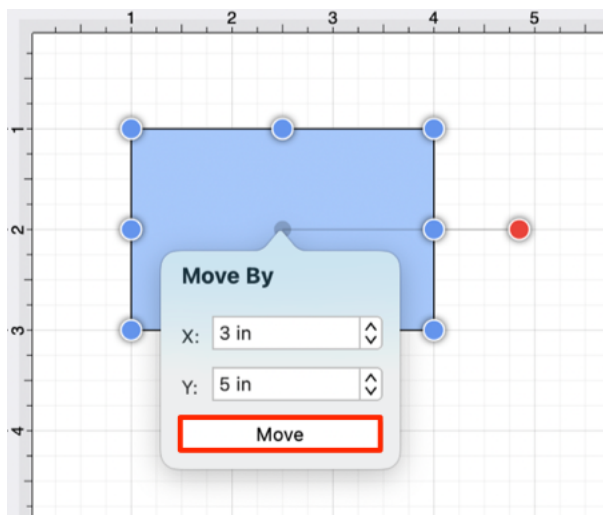
2. Select the **Modify Menu**, choose **Transform**, and click on the **Move By...** option.



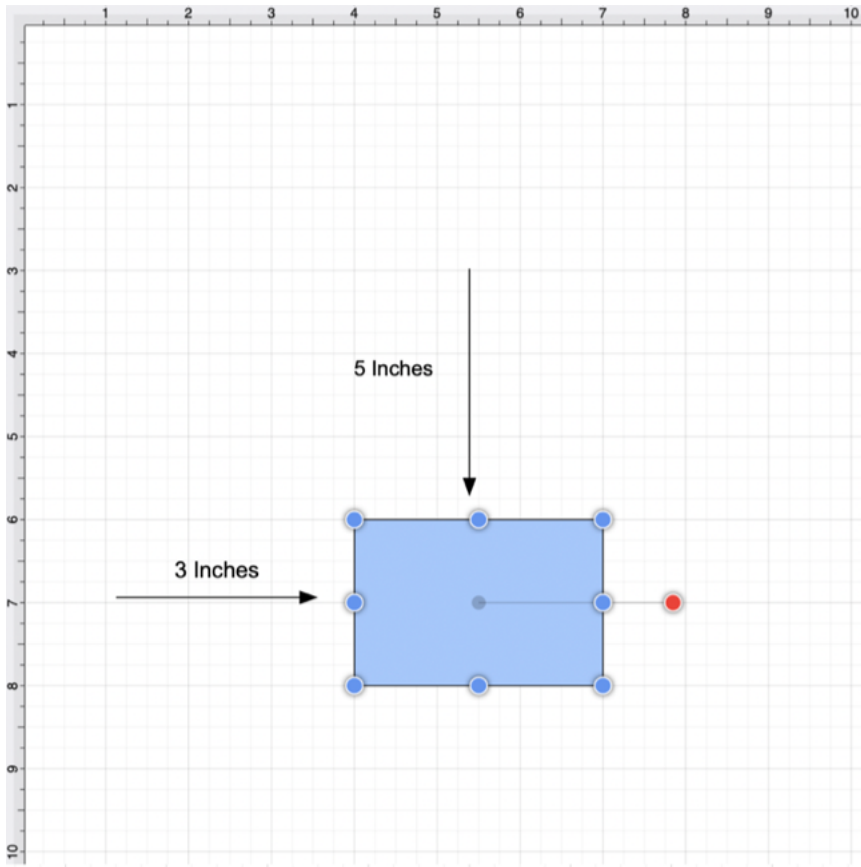
3. Enter the desired **X** and **Y** grid coordinates in the **Move By** popup window.



4. Click on the **Move Button** to finish the shift.



5. The selected figure or group of figures will shift in accordance to the entered coordinates.



6.4. Arranging Figures

TouchDraw 2 allows figures within the drawing canvas to be grouped or locked. **Grouped** figures are treated as a single object where all attribute, movement, and sizing changes are applied to the group as a whole.

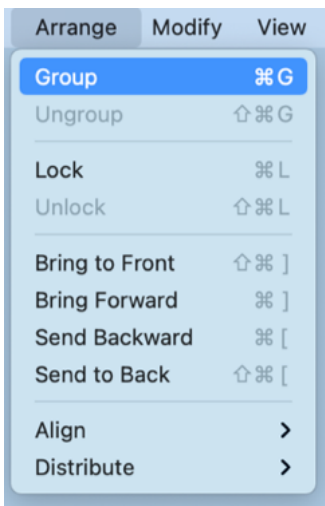
Locked figures cannot be moved or resized, but still allow for attribute changes such as the fill color or stroke properties. Figures can be **ungrouped** or **unlocked** any time object modification requirements change and then regrouped or locked again as needed.

6.4.1. Grouping Figures

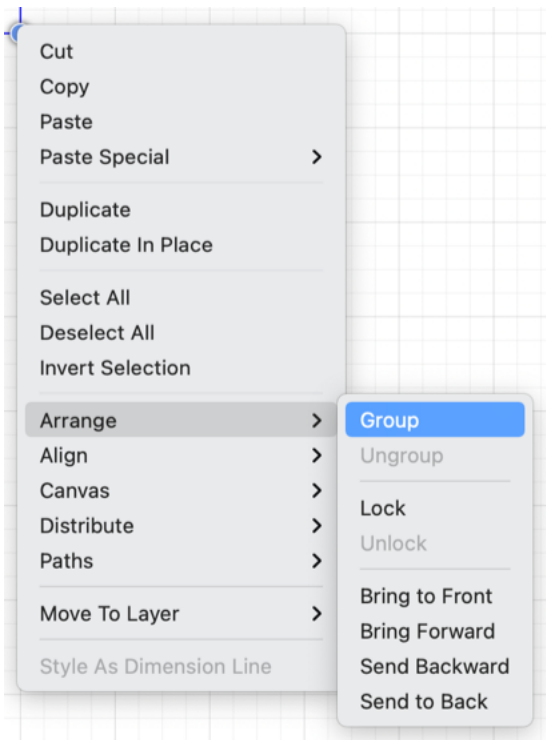
Shapes residing on the [Drawing Canvas](#) can be manipulated and treated as a single figure with the **Group** feature. More than one figure will need to be selected in order for this option to be enabled.

Use a **Shift Key/Click** combination to select multiple figures. The methods for **Grouping Figures** are described below:

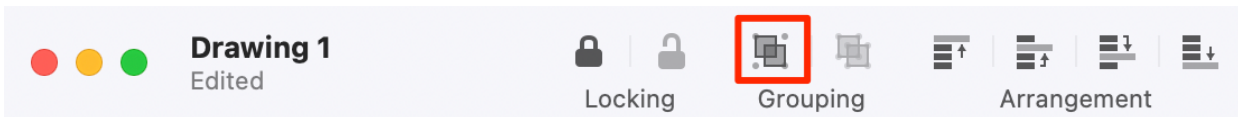
1. Select the [Arrange Menu](#) and choose **Group**.



2. Open the [Contextual Menu](#), select the **Arrange Submenu**, and choose **Group**.



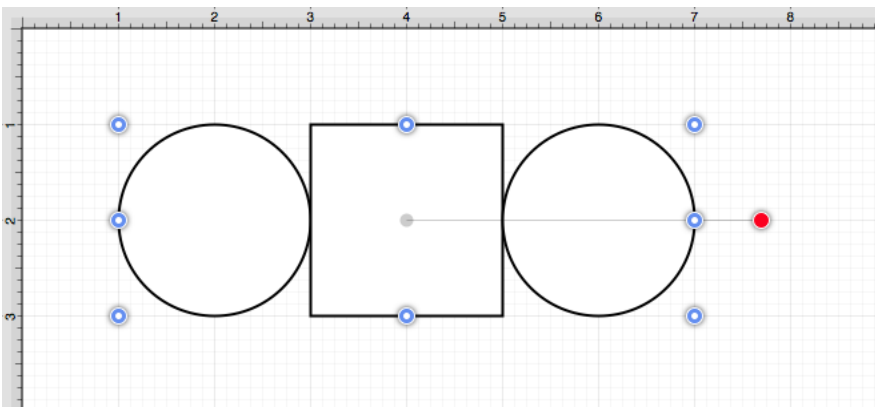
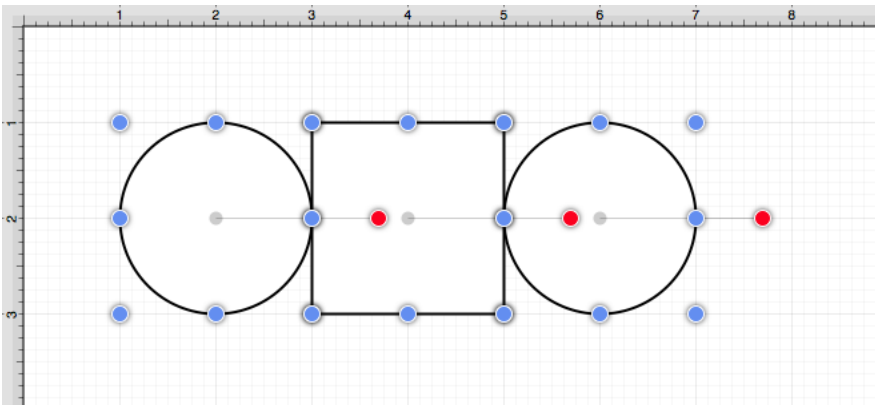
3. Use the **Group Button** located on the [Main Toolbar](#).



4. Use the **Command-G** keyboard shortcut.

Note: Paths are an exception to the multiple selection rule because a path or path shape can be added to a group by itself. This allows for path interaction without having to worry about the occurrence of reshaping when grabbing one of the available handles.

The screenshots below show a before and after for creating a group from a multiple selection of figures.

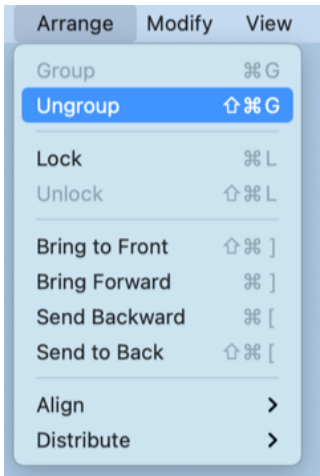


New bounds handles will appear after the selected figures are grouped. These handles correspond to the group as a whole rather than each individual figure. A new rotation handle is provided for making an entire group rotation. The standard "blue" handles are replaced by "blue handles with dots" to provide a visual indicator as to whether the entire group or a separate figure has been selected.

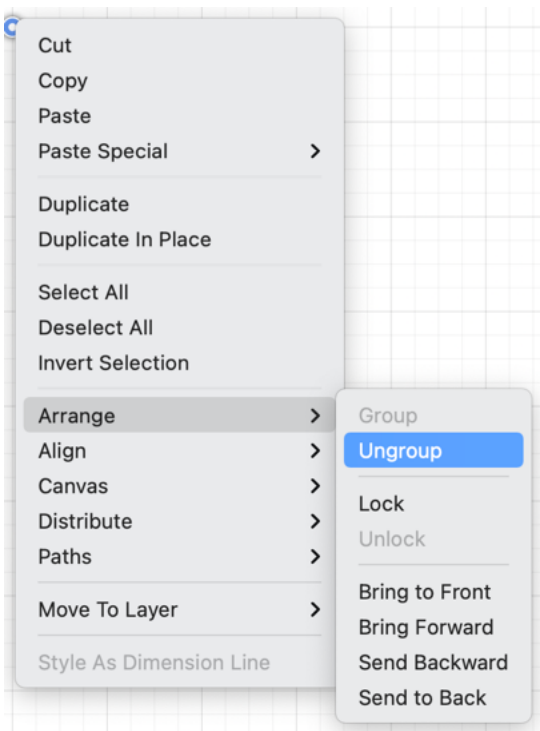
6.4.2. Ungrouping Figures

A **Group** must be [selected](#) for the ungrouping option to be enabled. Use one of the following methods to ungroup a set of grouped figures:

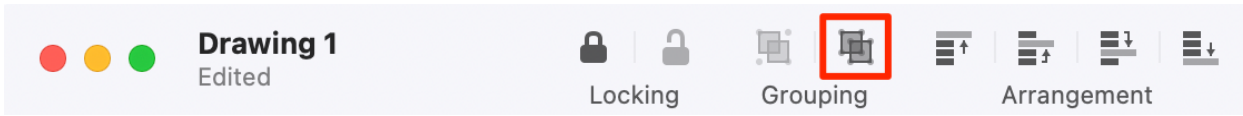
1. Select the [Arrange Menu](#) and choose **Ungroup**.



2. Open the [Contextual Menu](#), select the **Arrange Submenu**, and choose **Ungroup**.



3. Use the **Ungroup Button** located on the [Main Toolbar](#).

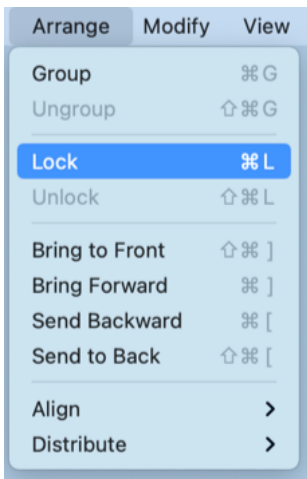


4. Use the **Shift-Command-G** [keyboard shortcut](#). **Note:** Any transformations made to the group (such as rotating, resizing, etc...) will be retained by previously grouped objects after the ungrouping action has been completed. Grouping provides a nice way to quickly make bulk changes to multiple figures or all objects within a drawing.

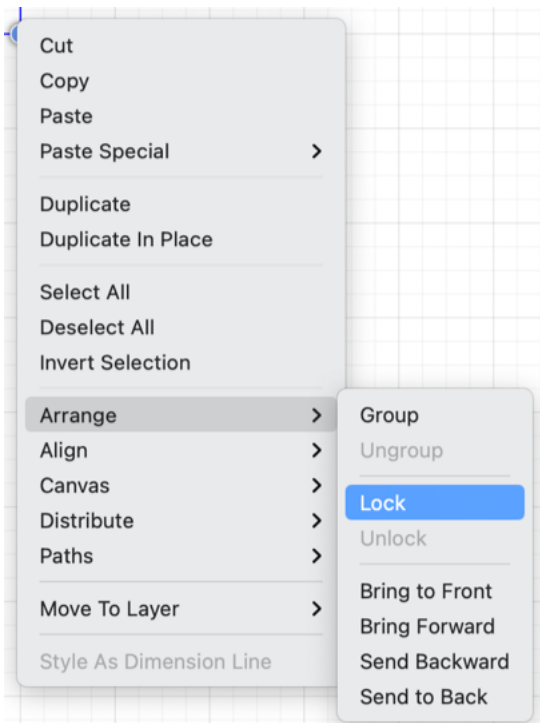
6.4.3. Locking Figures

A **Locked Figure** is one that cannot be [moved](#) or [resized](#) until it has been [unlocked](#). Attributes such as stroke, fill, shadow, etc... can still be manipulated on a locked figure. A minimum of one figure must be [selected](#) in order for this option to be enabled. Use one of the following methods to **Lock a Figure(s)**:

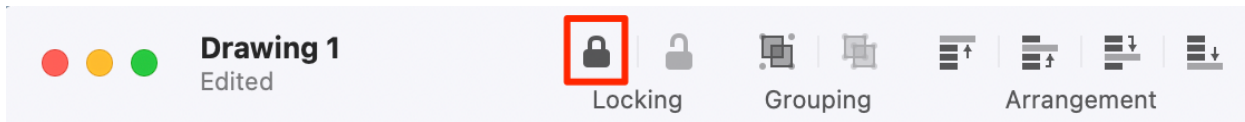
1. Select the [Arrange Menu](#) and choose **Lock**.



2. Open the [Contextual Menu](#), select the **Arrange Submenu**, and choose **Lock**.



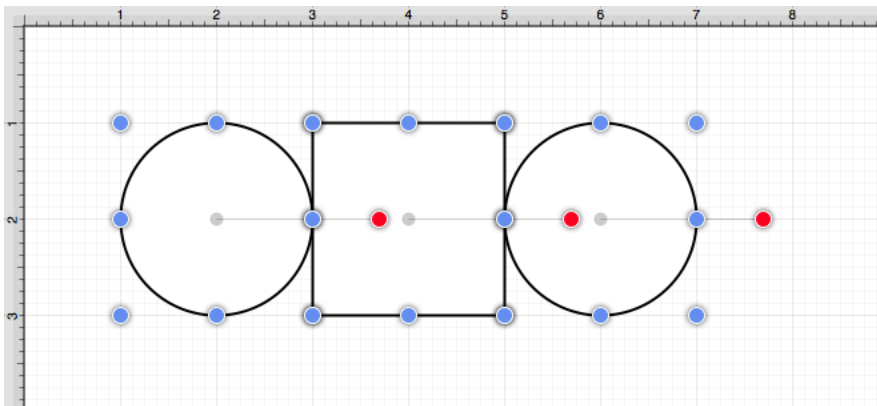
3. Use the **Lock Button** located on the [Main Toolbar](#).



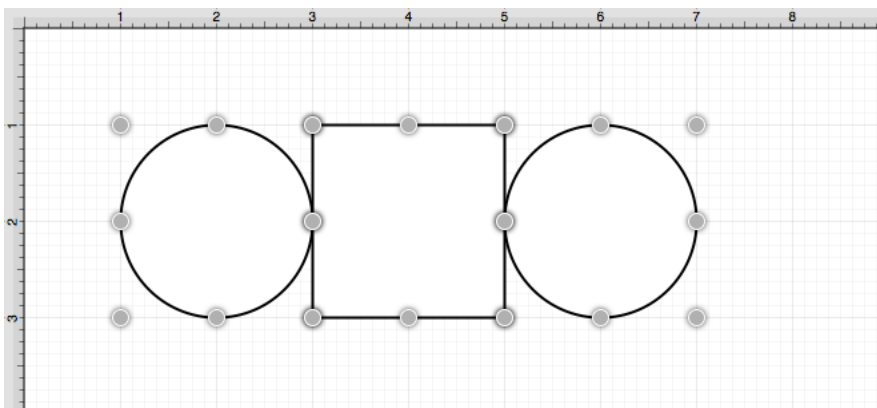
4. Use the **Command-L** [keyboard shortcut](#).

Note: Use a **Shift/Click** combination to select multiple figures for locking. All objects within a drawing can be selected at once by choosing **Select All** in the [Edit Menu](#) or by using the **Command-A** [keyboard shortcut](#).

A group of figures will appear as shown below when they are unlocked.



The group will appear as shown below once they have been locked.



Note: The handles appear gray after a figure(s) or group of figures are locked. This handle attribute change serves as a visual indicator of the selected figure(s) being locked.

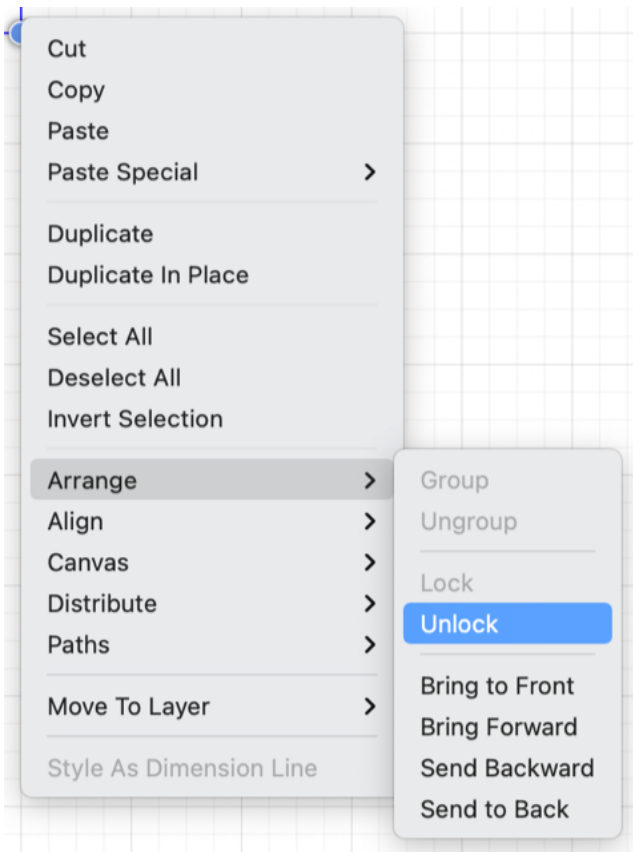
6.4.4. Unlocking Figures

A figure(s) or group of figures can be unlocked to allow for [moving](#) and [resizing](#). Use one of the following methods to **Unlock Figures**:

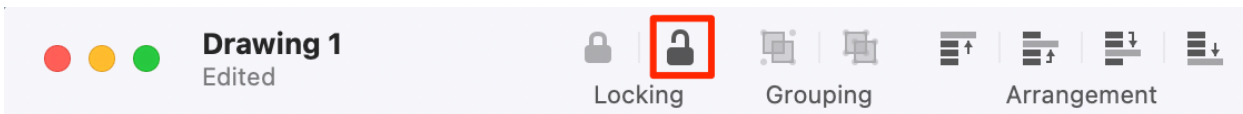
1. Select the [Arrange Menu](#) and choose **Unlock**.



2. Open the [Contextual Menu](#), select the **Arrange Submenu**, and choose **Unlock**.



3. Use the **Unlock Button** on the [Main Toolbar](#).



4. Use the **Shift-Command-L** keyboard shortcut. **Note:** This [Arrange Menu](#) item will only be enabled when a locked figure(s) or group of figures has been [selected](#) within the drawing panel.

6.5. Aligning Figures

TouchDraw 2 provides methods for aligning a set of figures to an attribute of the first selected figure in the set.

Relative Alignment

The first type of alignment that can be done is relative alignment, where figures are aligned in relation to one another. The list below outlines the relative alignment options available.

- [Top](#)
- [Vertical Center](#)
- [Bottom](#)
- [Left](#)
- [Horizontal Center](#)
- [Right](#)

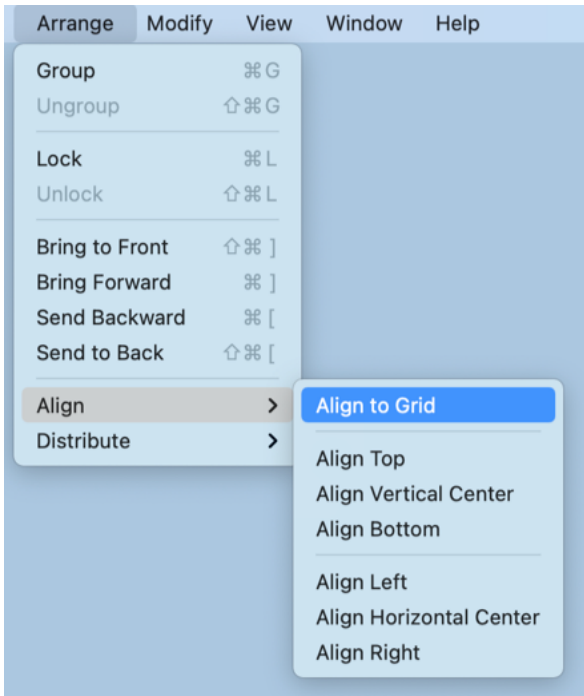
Grid Alignment

In addition to relative alignment, a figure (or set of figures) can also be [aligned to the grid](#) of the drawing canvas in the case that they were drawn or modified while the snap to grid option was disabled.

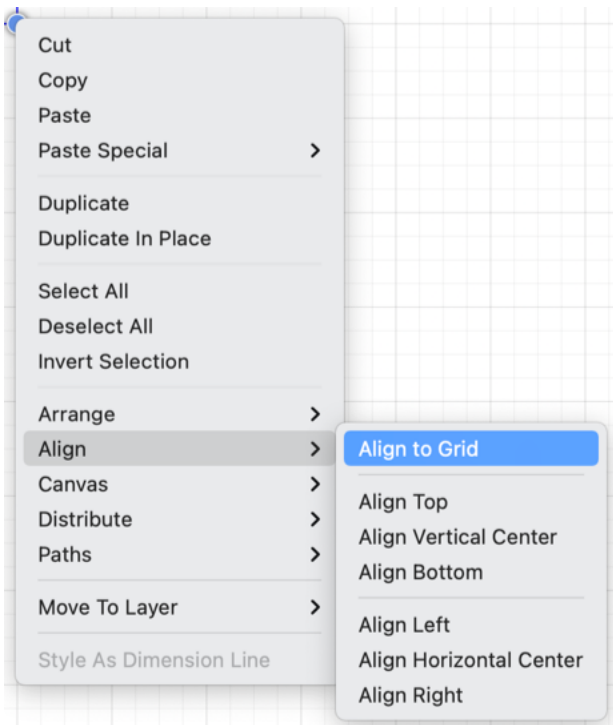
6.5.1. Align to Grid

The **Align to Grid** option is available to align figures with the grid. [Select](#) each desired figure and use one of the following methods to align a figure(s) to the grid:

1. Click on the [Arrange Menu](#), select the [Align Submenu](#), and choose **Align to Grid**.



2. Open the [Contextual Menu](#), select the [Align Submenu](#), and choose **Align to Grid**.

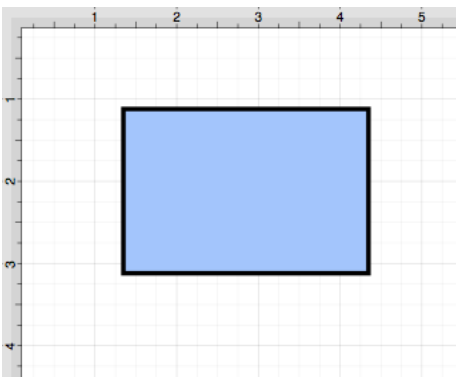


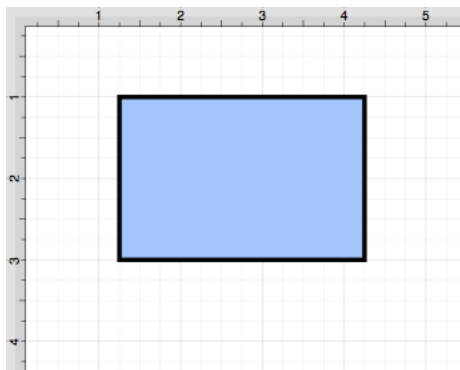
3. Use the **Align to Grid Button** located on the [main toolbar](#).



The option will first align the upper left hand corner of the selected figures to the grid and then resize it to make *all four corners* align with the grid.

The following screenshots show a before and after of a shape that has been aligned to the grid.



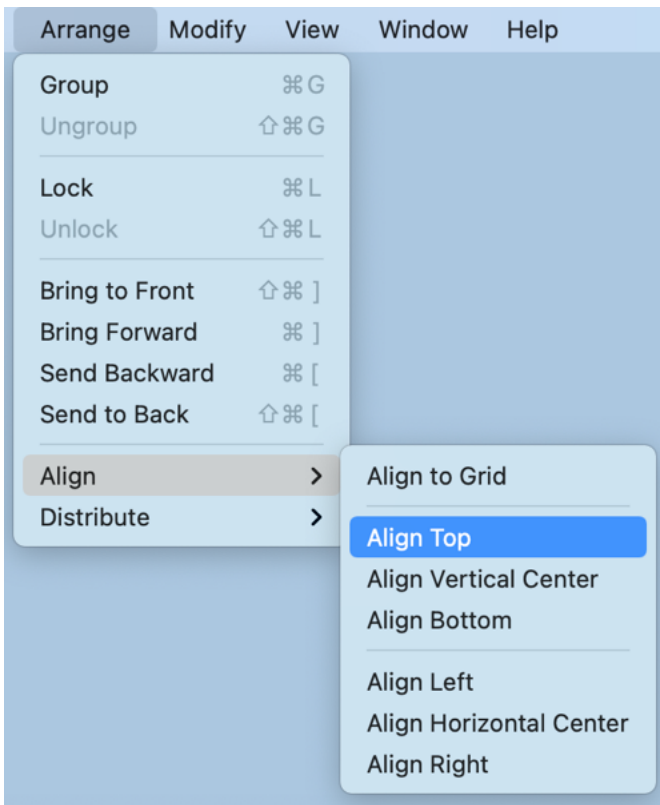


Note: The [Snap To Grid](#) option must be disabled to place a figure anywhere within the grid lines on the [Drawing Canvas](#). This option must be enabled for the **Align to Grid** option to provide the results shown above.

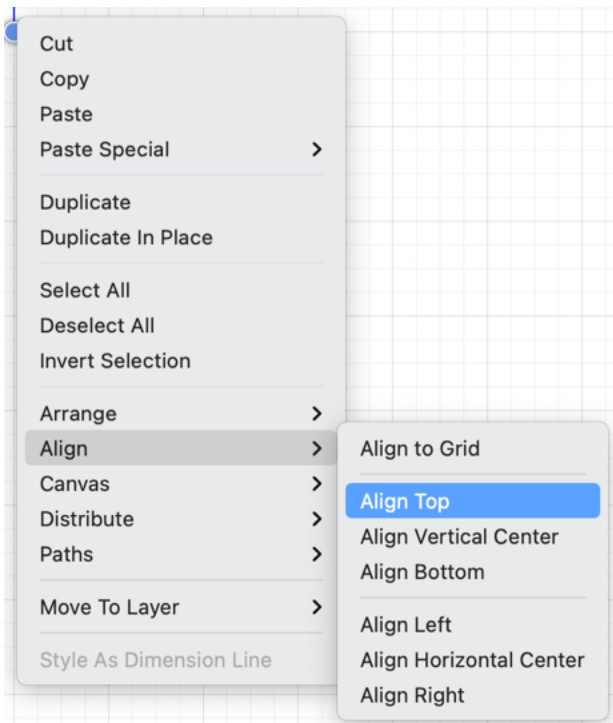
6.5.2. Align Top

The **Align Top** option moves all currently selected figures to match the top (Y position) of the **first** selected figure. At least two figures must be [selected](#) for this application feature to be enabled. Use one of the following methods to align selected figures with to the top position of the first selected figure:

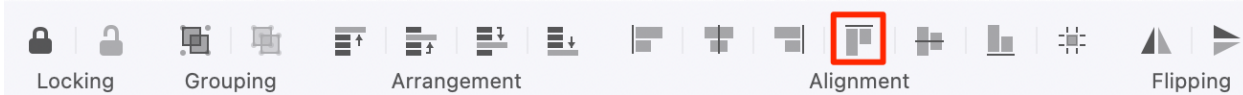
1. Click on the [Arrange Menu](#), select the [Align Submenu](#), and choose **Align Top**.



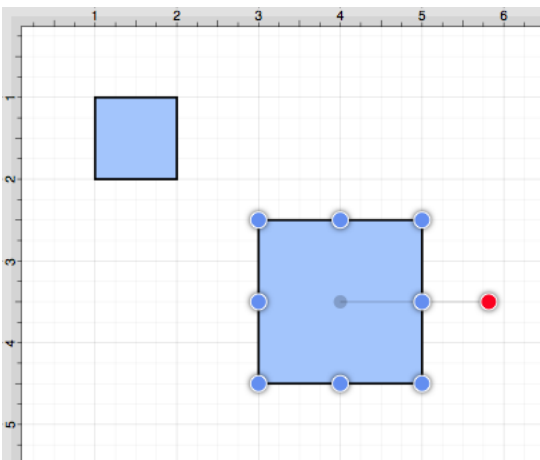
2. Open the [Contextual Menu](#), select the [Align Submenu](#), and choose **Align Top**.

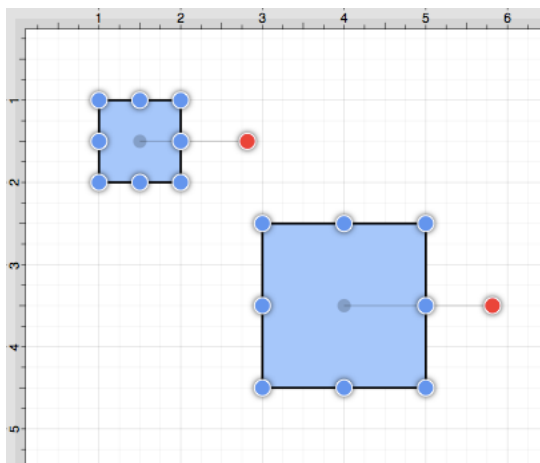


3. Use the **Align Top Button** located on the [main toolbar](#).

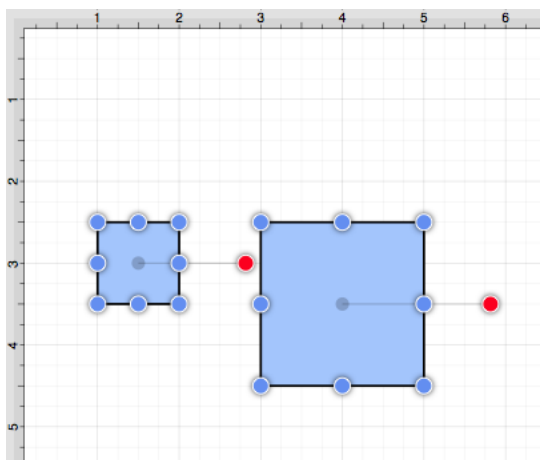


The following images display the selection order of items to be aligned.





The following image displays the selected objects after the alignment has been performed.

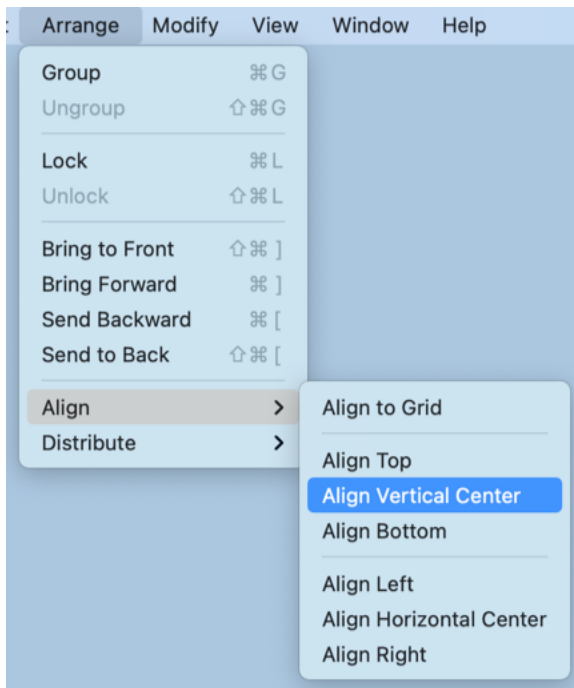


Note: Perform a **Shift/Click** to select multiple figures.

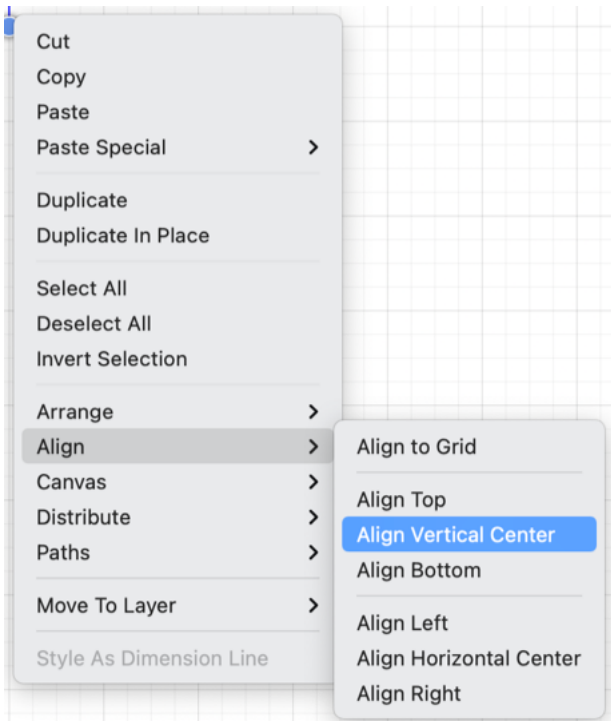
6.5.3. Align Vertical Center

The **Align Vertical Center** option moves all currently selected figures to match the vertical center (Y position + 1/2 of the height of all figures) of the **first** selected figure. At least two figures must be [selected](#) for this application option to be enabled. Use one of the following methods to align the vertical center of a figure(s):

1. Click on the [Arrange Menu](#), select the [Align Submenu](#), and choose **Align Vertical Center**.



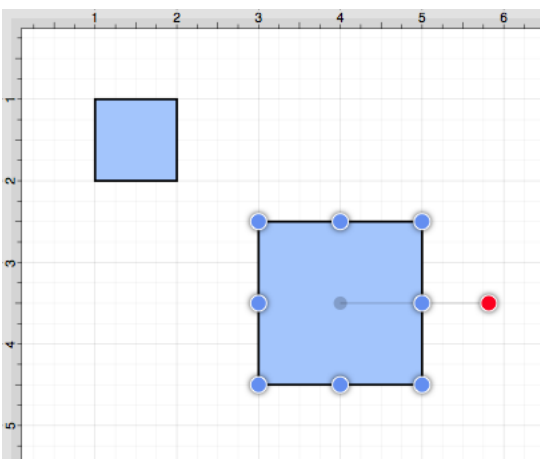
2. Open the [Contextual Menu](#), select the [Align Submenu](#), and choose **Align Vertical Center**.

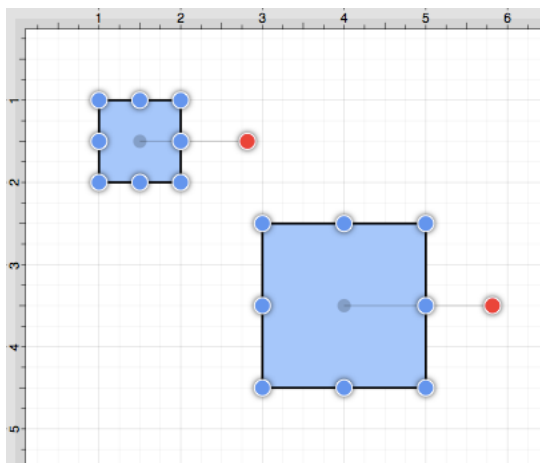


3. Use the **Align Vertical Center Button** located on the [main toolbar](#).

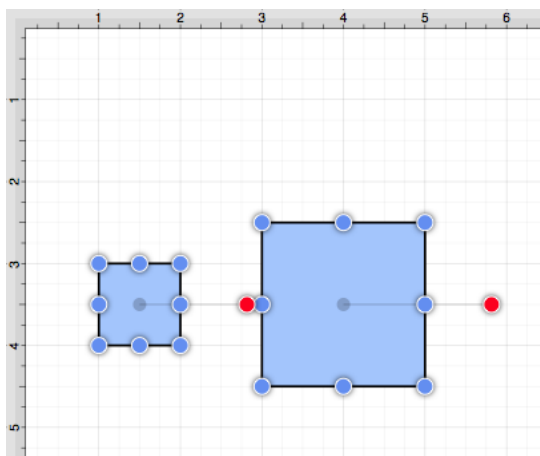


The following images display the selection order of items to be aligned.





The following image displays the selected objects after the alignment has been performed.

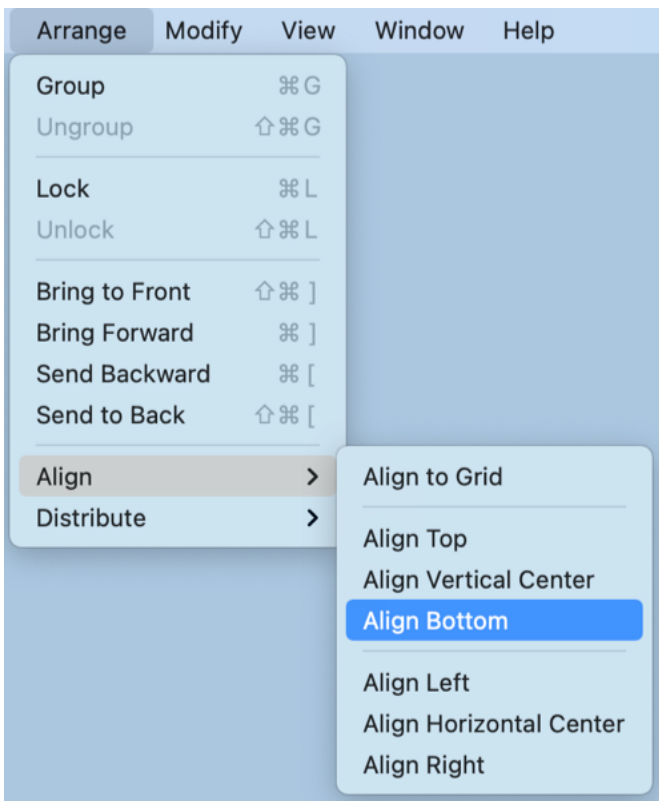


Note: Perform a **Shift/Click** to select multiple figures.

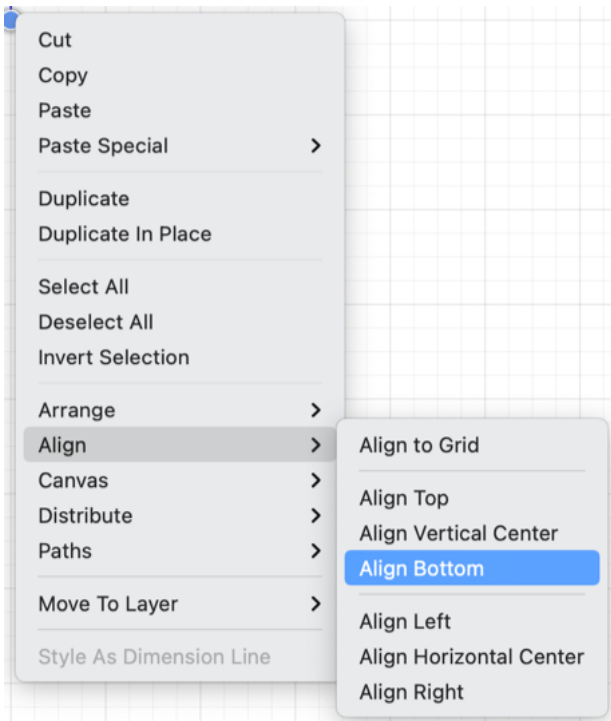
6.5.4. Align Bottom

The **Align Bottom** option moves all currently selected figures to match the the bottom (Y position + Height) of the **first** selected figure. At least two figures must be [selected](#) for this application feature to be enabled. Use one of the following methods to align figures with the bottom position of the first selected figure:

1. Click on the [Arrange Menu](#), select the [Align Submenu](#), and choose **Align Bottom**.



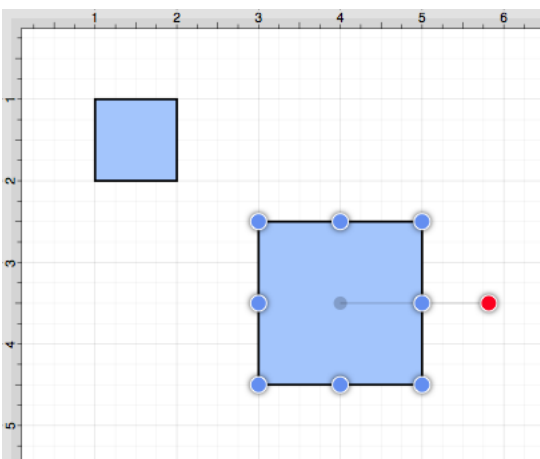
2. Open the [Contextual Menu](#), select the [Align Submenu](#), and choose **Align Bottom**.

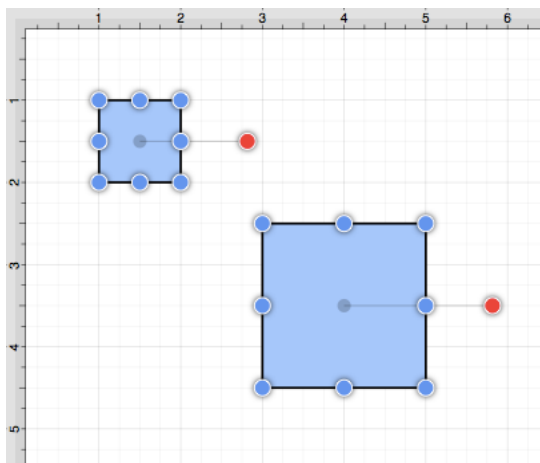


3. Use the **Align Bottom Button** located on the [main toolbar](#).

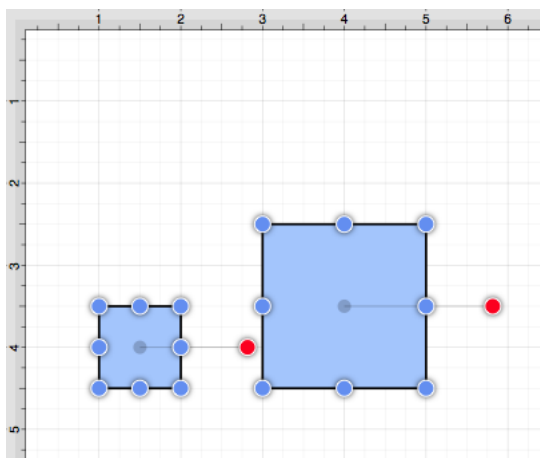


The following images display the selection order of items to be aligned.





The following image displays the selected objects after the alignment has been performed.



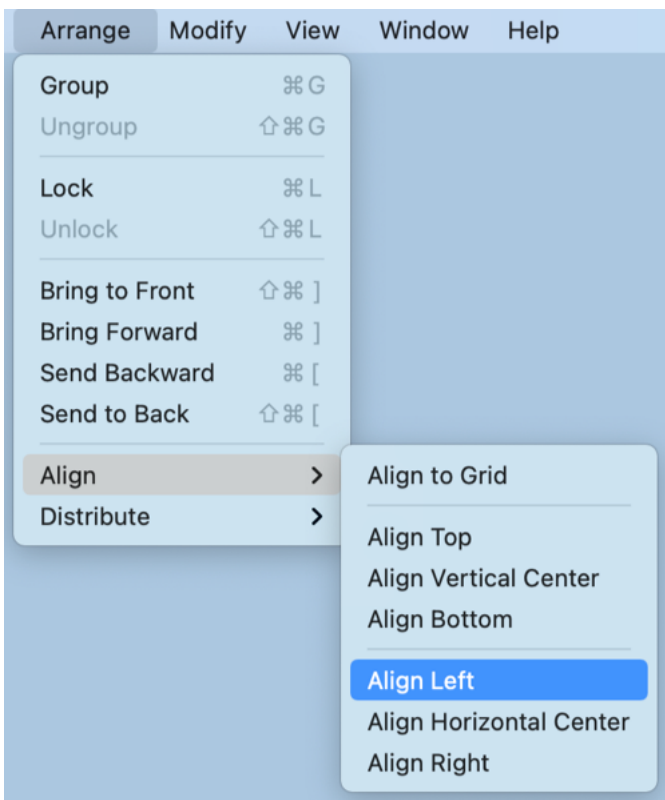
Note: Perform a **Shift/Click** to select multiple figures.

6.5.5. Align Left

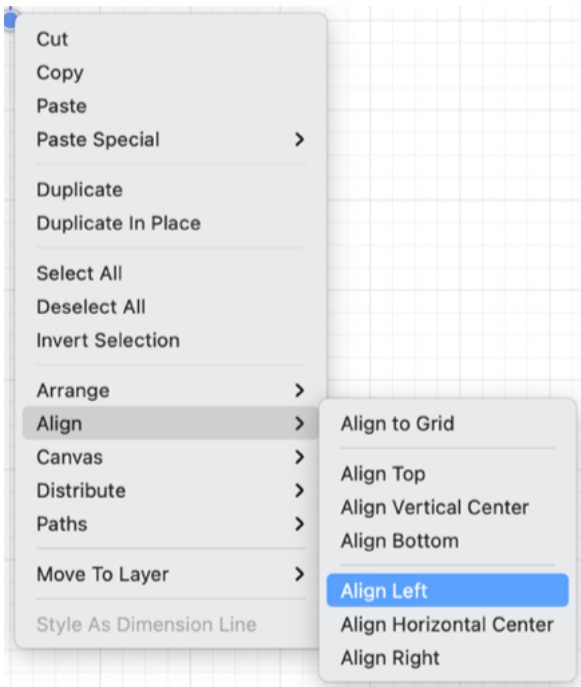
The **Align Left** option moves all currently selected figures to match the left (X position) of the **first** selected figure.

At least two figures must be [selected](#) for this application feature to be enabled. Use one of the following methods to align figures with the left position of the first selected figure:

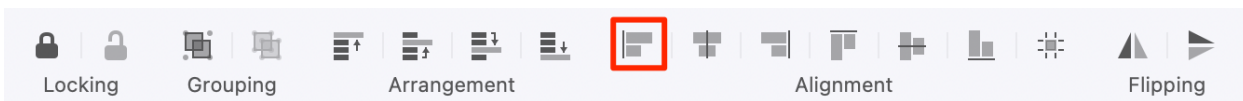
1. Click on the [Arrange Menu](#), select the [Align Submenu](#), and choose **Align Left**.



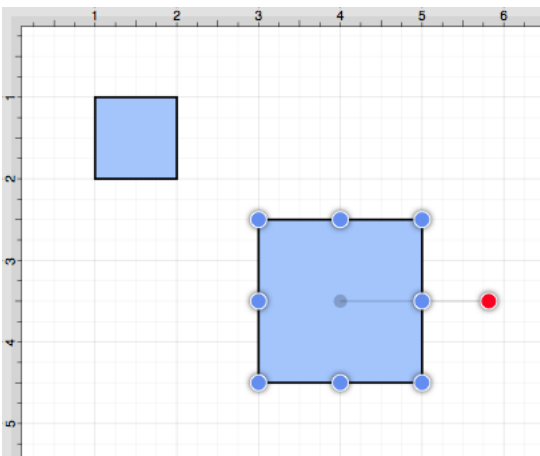
2. Open the [Contextual Menu](#), select the [Align Submenu](#), and choose **Align Left**.

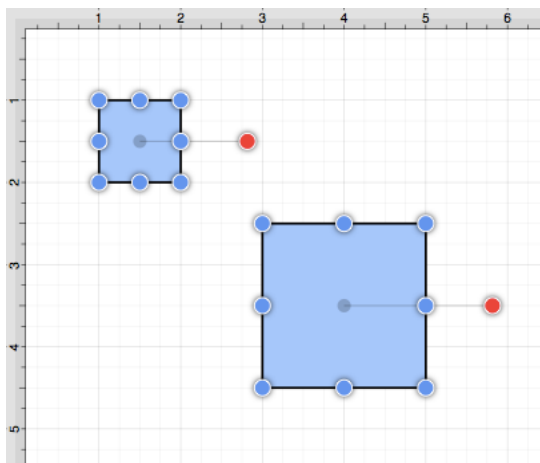


3. Use the **Align Left Button** located on the [main toolbar](#).

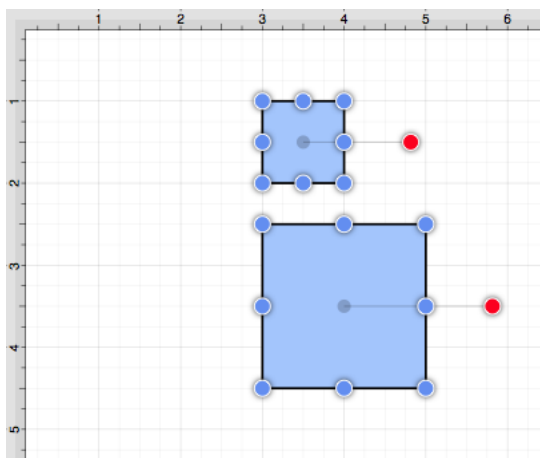


The following images display the selection order of items to be aligned.



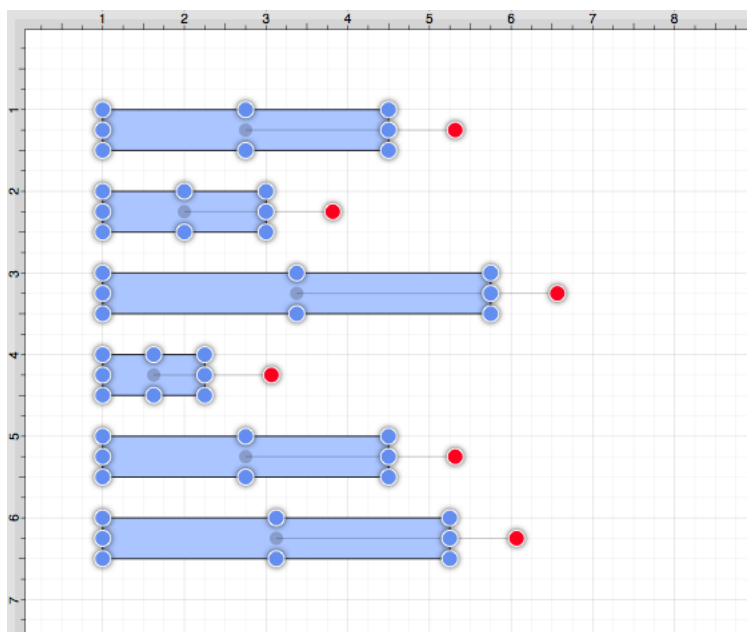
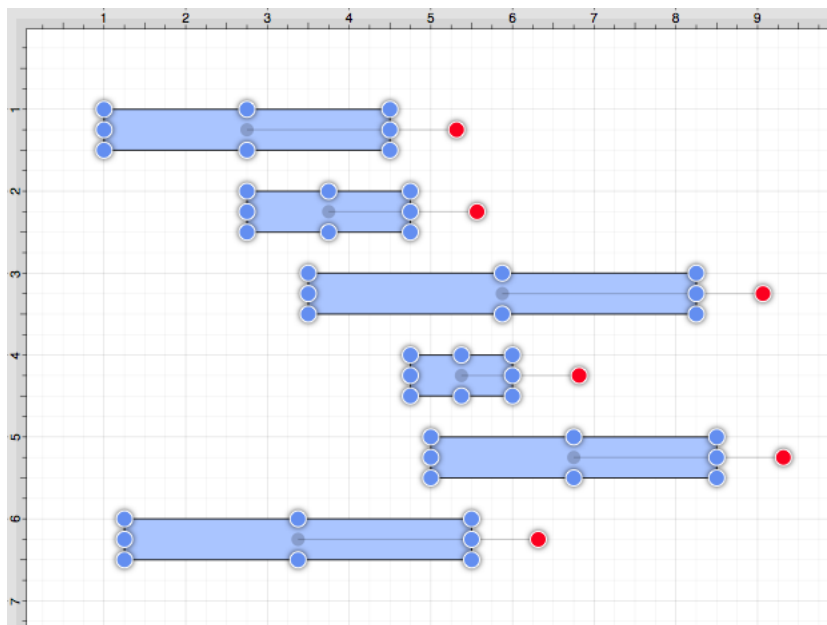


The following image displays the selected objects after the alignment has been performed.



Note: Perform a **Shift/Click** to select multiple figures.

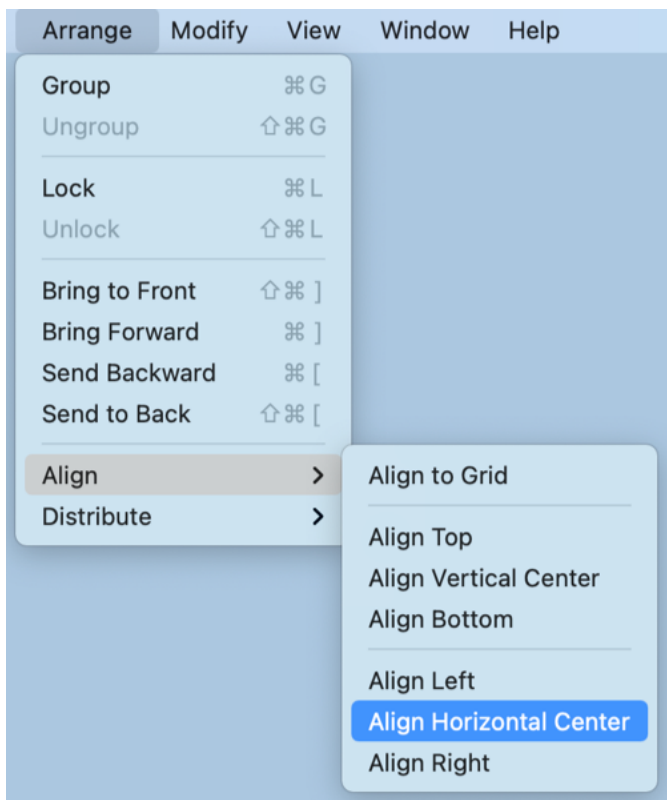
The following figures show an example of using the **Align Left** action.



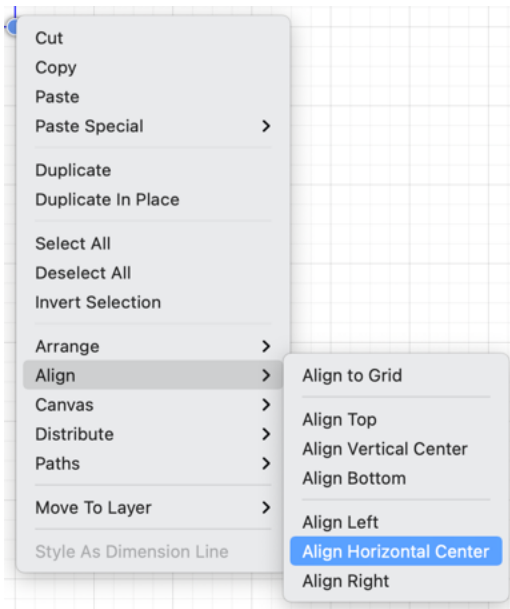
6.5.6. Align Horizontal Center

The **Align Horizontal Center** option moves all currently selected figures to match the horizontal center (X position + 1/2 of the width) of the **first** selected figure. At least two figures must be [selected](#) for this application feature to be enabled. Use one of the following methods to align figures with the horizontal center of the first selected figure:

1. Click on the [Arrange Menu](#), select the [Align Submenu](#), and choose **Align Horizontal Center**.



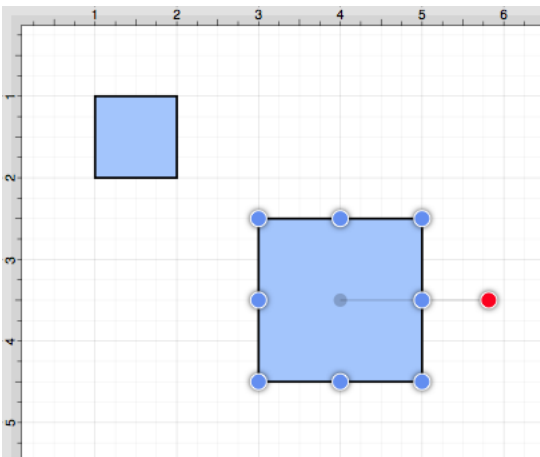
2. Open the [Contextual Menu](#), select the [Align Submenu](#), and choose **Align Horizontal Center**.

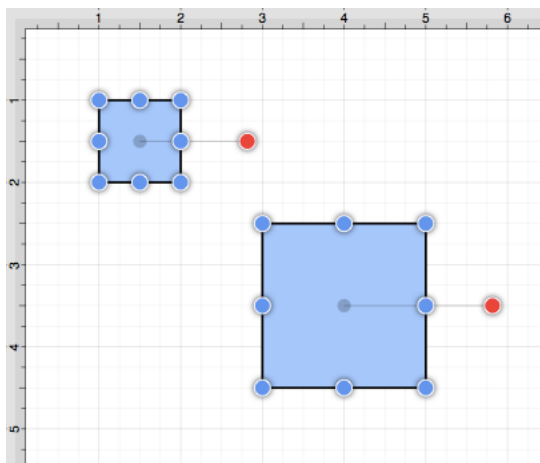


3. Use the **Align Horizontal Center Button** located on the [main toolbar](#).

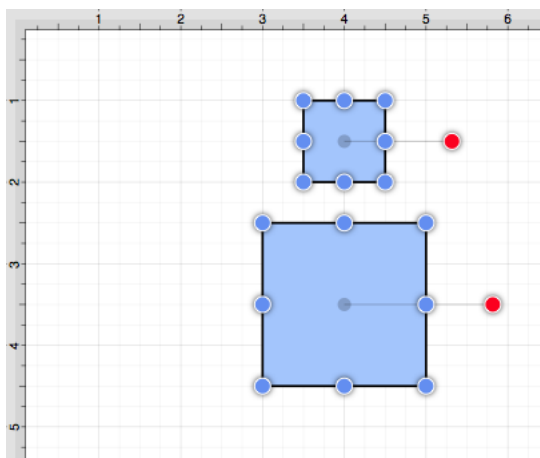


The following images display the selection order of items to be aligned.





The following image displays the selected objects after the alignment has been performed.

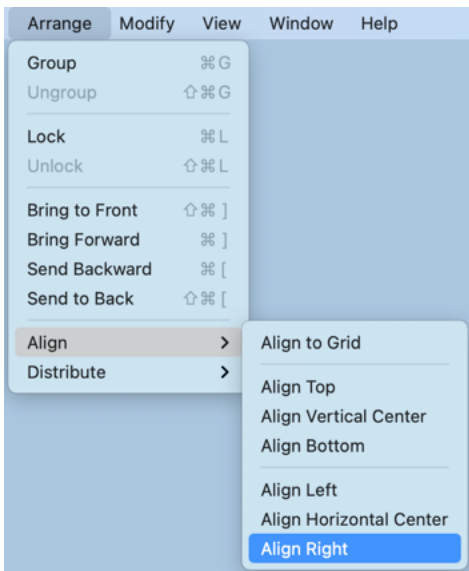


Note: Perform a **Shift/Click** to select multiple figures.

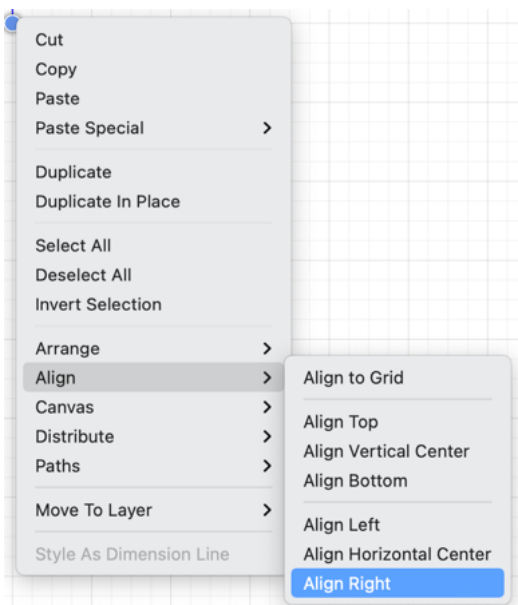
6.5.7. Align Right

The **Align Right** option moves all currently selected figures to match the right (X position + Width) of the **first** selected figure. At least two figures must be [selected](#) for this application feature to be enabled. Use one of the following methods to align figures with the right position of the first selected figure:

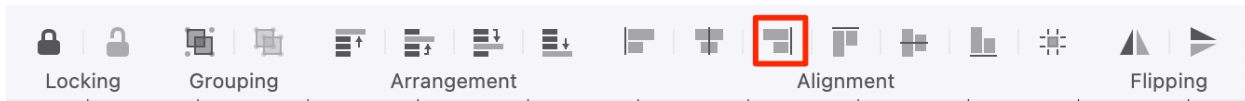
1. Click on the [Arrange Menu](#), select the [Align Submenu](#), and choose **Align Right**.



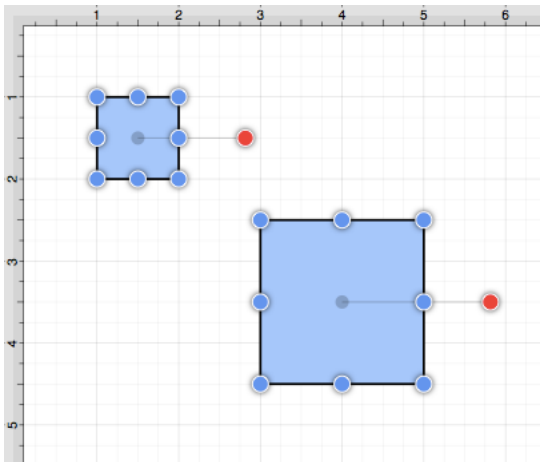
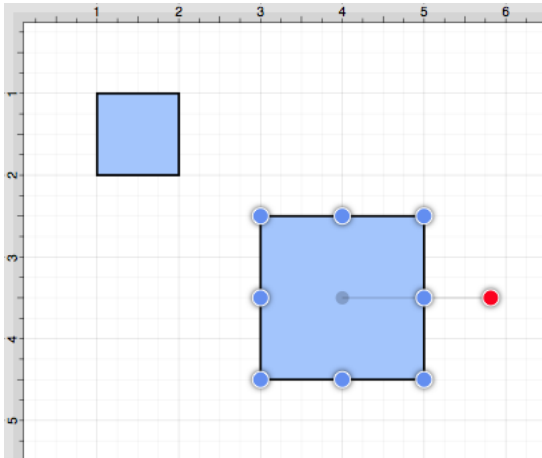
2. Open the [Contextual Menu](#), select the [Align Submenu](#), and choose **Align Right**.



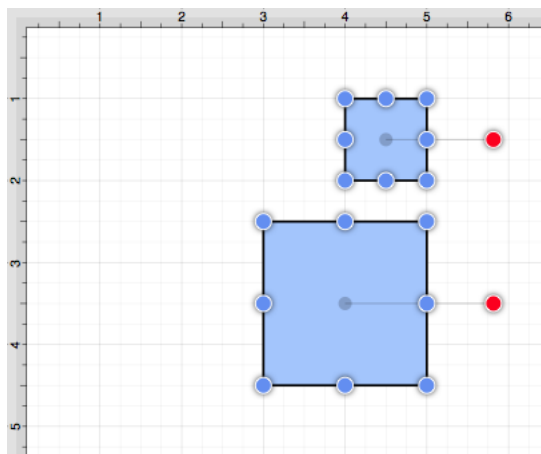
3. Use the **Align Right Button** located on the [main toolbar](#).



The following images display the selection order of items to be aligned.



The following image displays the selected objects after the alignment has been performed.



Note: Perform a **Shift/Click** to select multiple figures.

6.6. Snapping Figures

TouchDraw 2 supplies options for snapping figures to specific points on the grid, positions on the [Drawing Canvas](#) or positions relative to other shapes. Figures can be snapped to these locations:

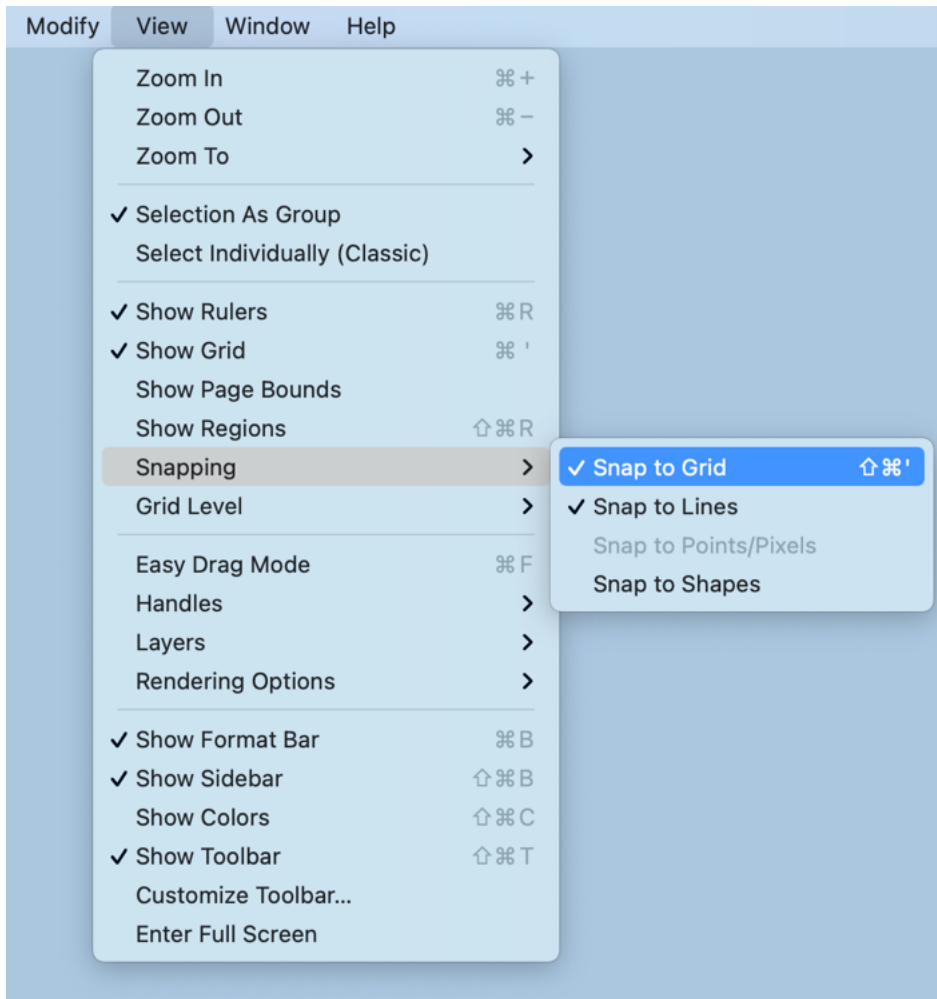
- [Grid](#)
- [Lines](#)
- [Pixels](#)
- [Points](#)
- [Shapes](#)

The [Snapping Submenu](#) provides access to these settings and can be used to make changes for the currently active [Drawing Canvas](#). This menu is located in the [View Menu](#), as shown below.

6.6.1. Snap to Grid

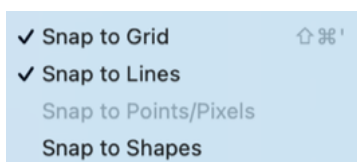
The **Snap to Grid** option toggles whether or not figures (and their handles) should be aligned to the grid as they are created and modified. Use one of the following methods to enable/disable this option:

1. Click on the [View Menu](#), select the [Snapping Submenu](#), and choose on **Snap to Grid**.



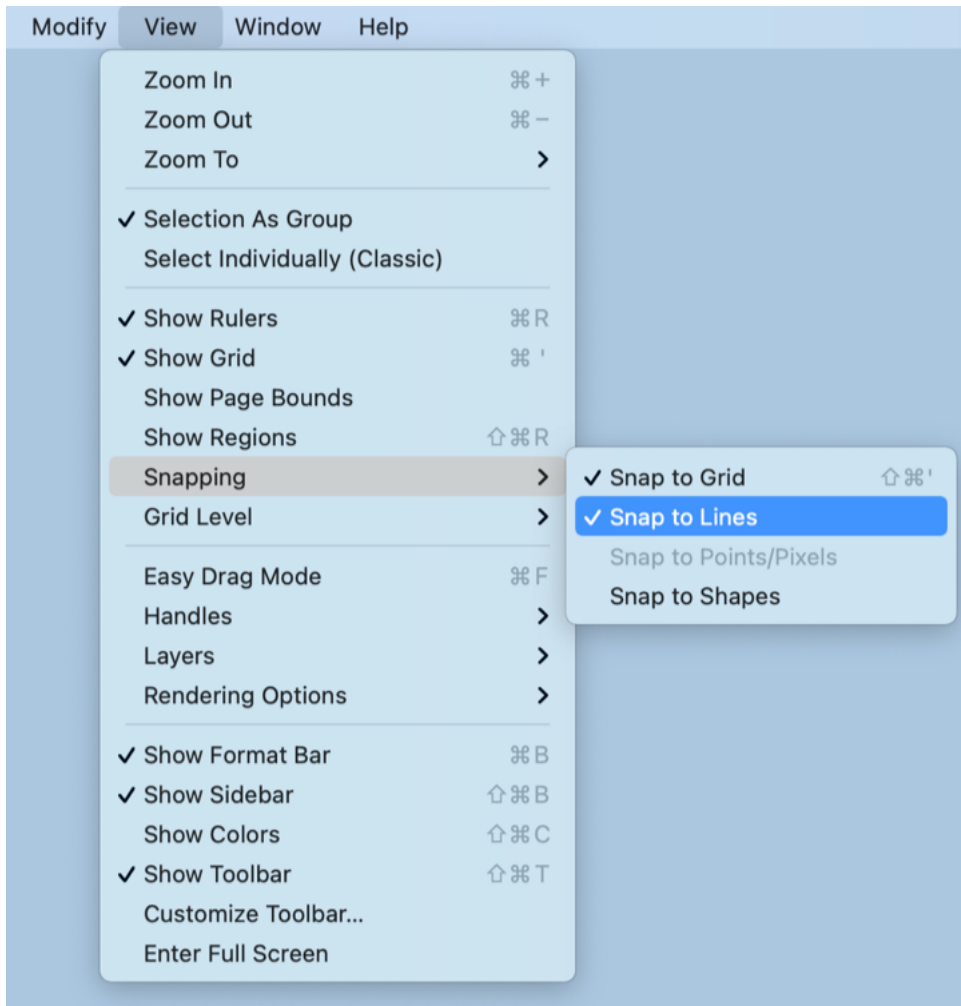
2. Use the **Shift-Command-Apostrophe**[keyboard shortcut](#).

The **Snap to Grid** option will show a checkmark symbol next to the menu selection area when enabled.

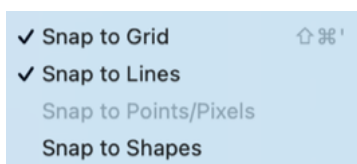


6.6.2. Snap to Lines

The **Snap to Lines** option allows dragged handles to snapped to the endpoints or the midpoints of lines in the **Drawing Canvas**. Click on the **View Menu**, select the **Snapping Submenu**, and choose **Snap to Lines** to enable/disable this option.



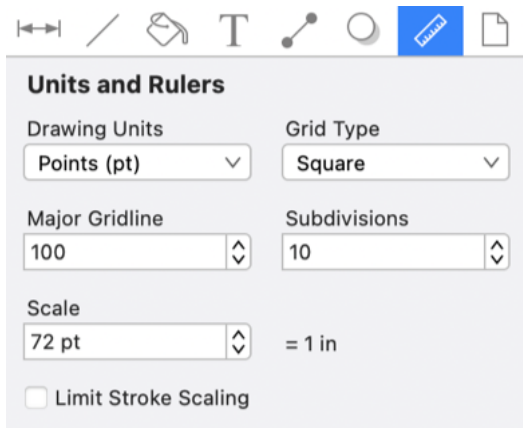
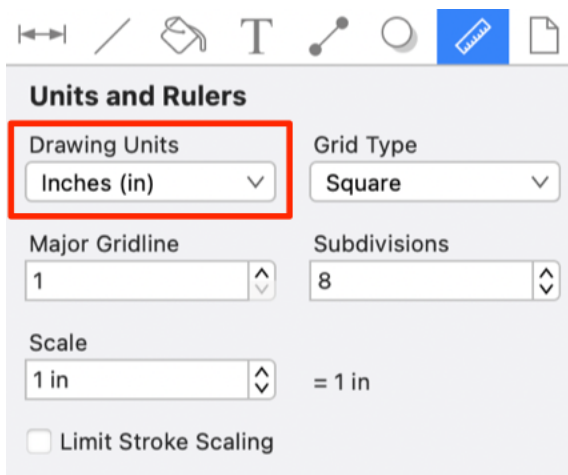
The **Snap to Lines** option will show a checkmark symbol in the menu selection area when enabled.



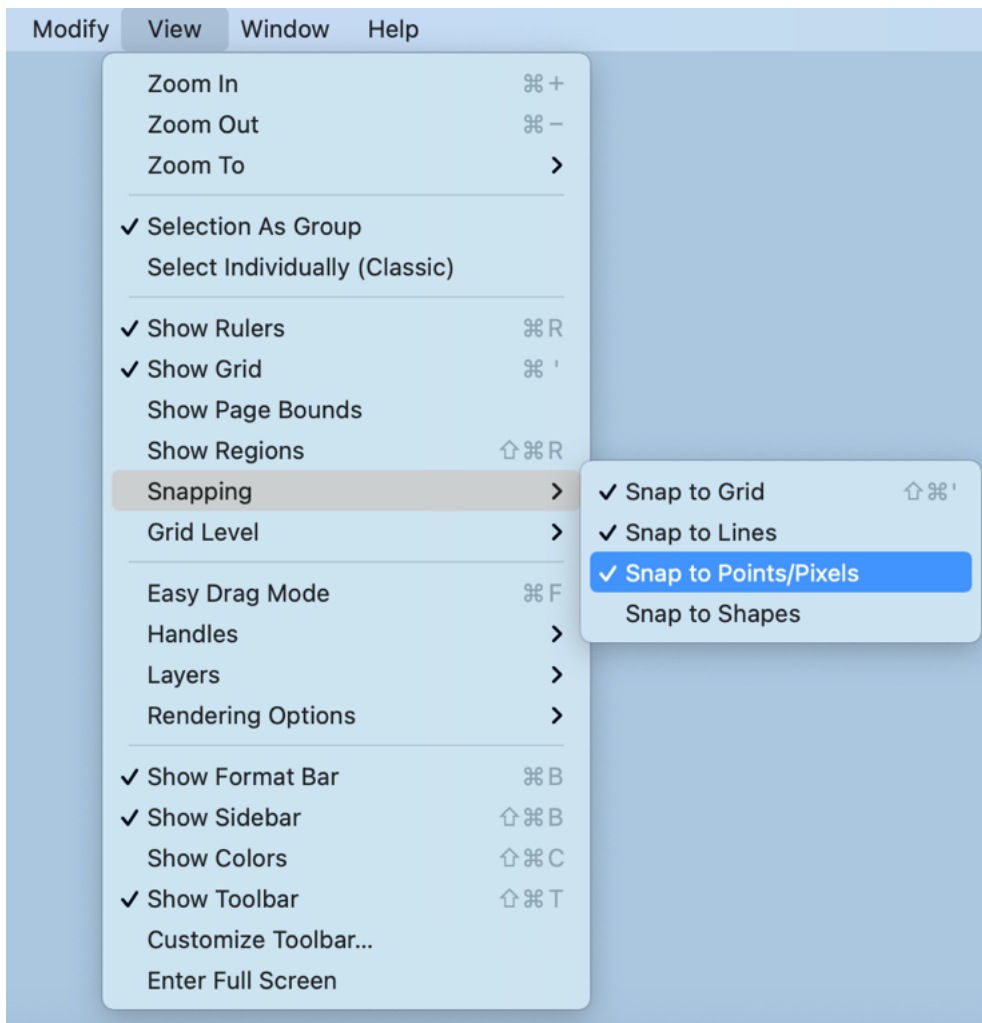
6.6.3. Snap to Pixels/Points

The **Snap to Pixels/Points** option aligns objects to whole pixel numbers for simplified modification and increased accuracy. This option remains disabled until the unit of measure for the drawing is changed to pixels or points.

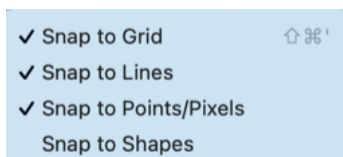
To change the **Units** attribute, click on the Units and Rulers Button located in the Info portion of the Sidebar.



To enable/disable this option, click on the [View Menu](#), select the [Snapping Submenu](#), and choose **Snap to Pixels/Points**.

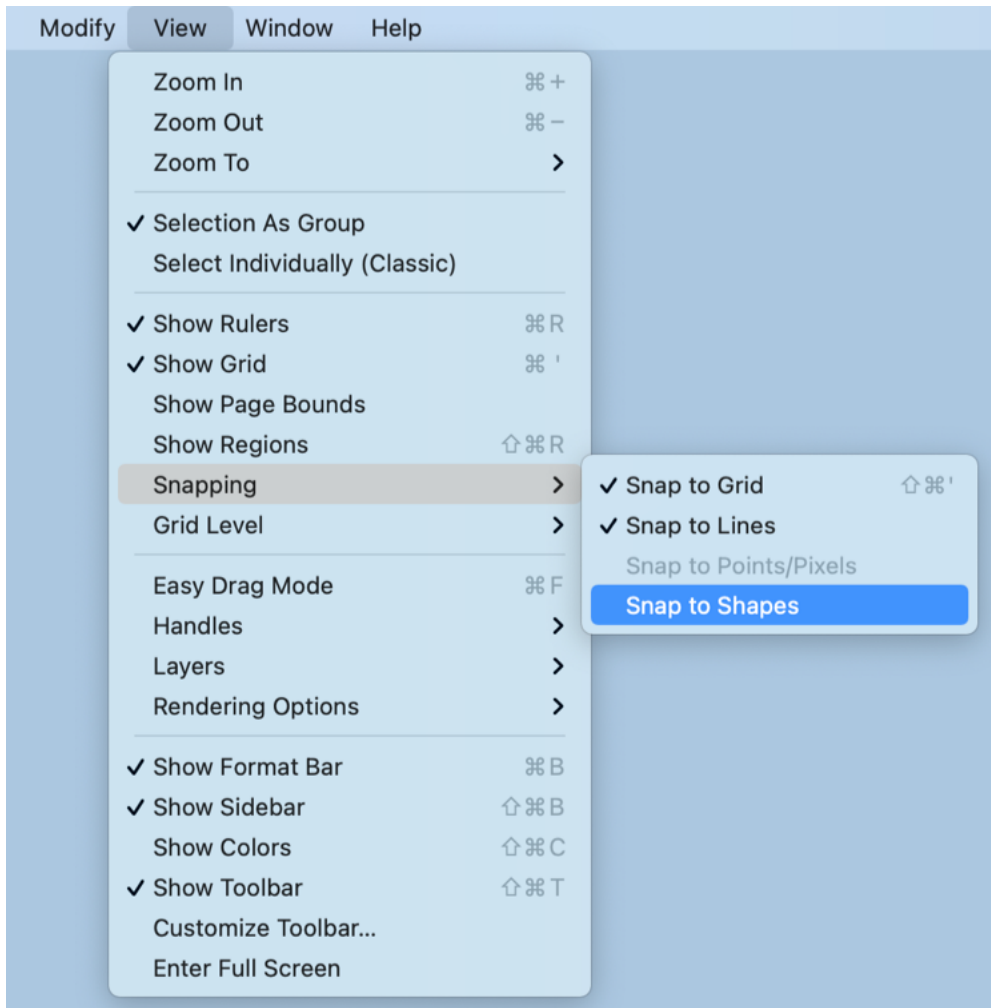


The **Snap to Pixels/Points** option will show a checkmark symbol in the menu selection area when enabled.

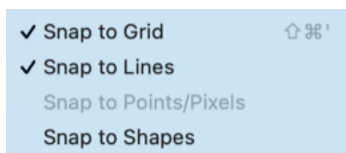



6.6.4. Snap to Shapes

The **Snap to Shapes** option snaps a figure to a selected shape vertex or center point. This option is enabled by default in TouchDraw 2. To enable/disable this option, click on the [View Menu](#), select the [Snapping Submenu](#), and choose **Snap to Shapes**.

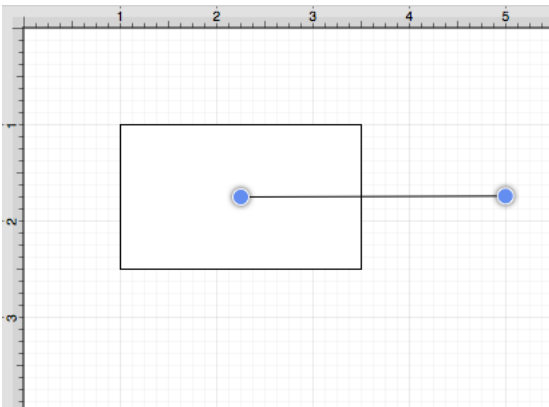
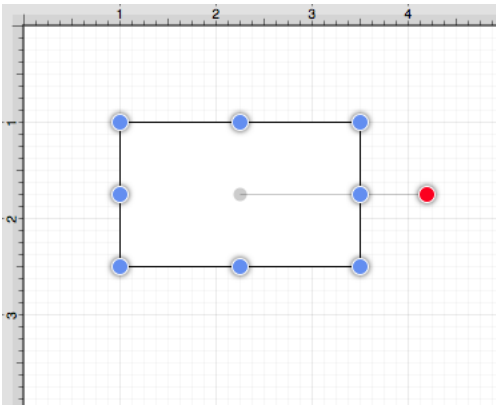


The **Snap to Shapes** option will show a checkmark when enabled and no checkmark when disabled.

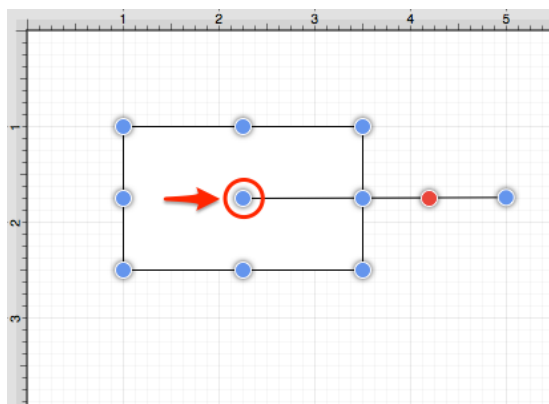


- ✓ Snap to Grid 
- ✓ Snap to Lines
- Snap to Points/Pixels
- ✓ Snap to Shapes

To see this option in action, disable the [Snap to Grid](#) option, make certain **Snap to Shapes** is enabled, and then draw a star or rectangle. Once the shape is completed, select the [Line Tool](#) and try to draw a line from one of the vertexes of the shape or its center point. The drawn line will snap to one of these locations.



In the example below, the line snaps to the center point of the rectangle.



6.7. Ordering Figures

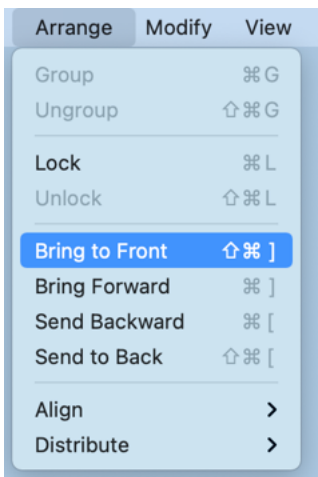
TouchDraw 2 supplies application functions for altering the order of a figure or multiple figures within a specific layer on the [Drawing Canvas](#).

Figures can be [moved to the front](#) of a layer or [moved forward by one level](#) from their previous position. They may also be [moved to the back](#) of a layer or [moved backward by one level](#) within a layer.

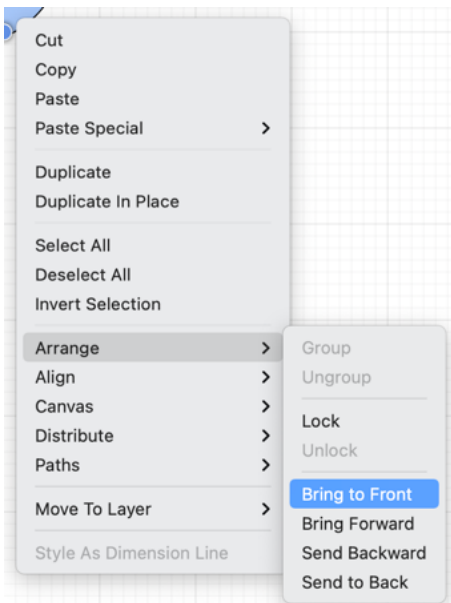
6.7.1. Bring to Front

The **Bring to Front** option moves a currently selected figure(s) to the front of all figures residing in the same layer. At least one figure within a layer must be [selected](#) for this option to be enabled. Use one of the following methods to bring a figure(s) to the front of a layer:

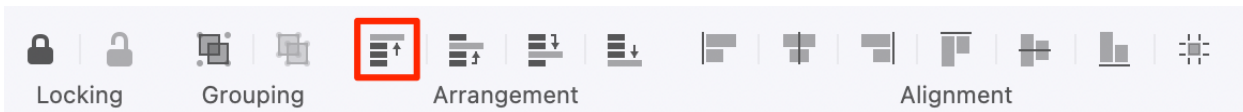
1. Select the [Arrange Menu](#) and choose **Bring to Front**.



2. Open the [Contextual Menu](#), select the **Arrange Submenu**, and choose **Bring to Front**.

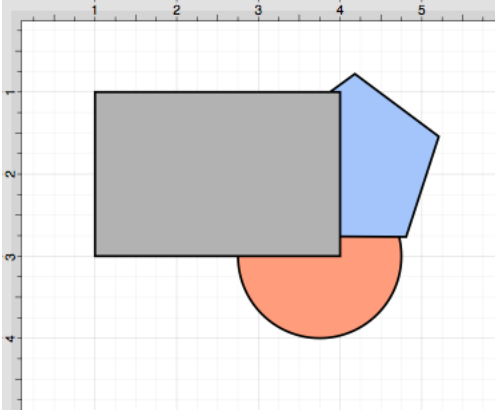
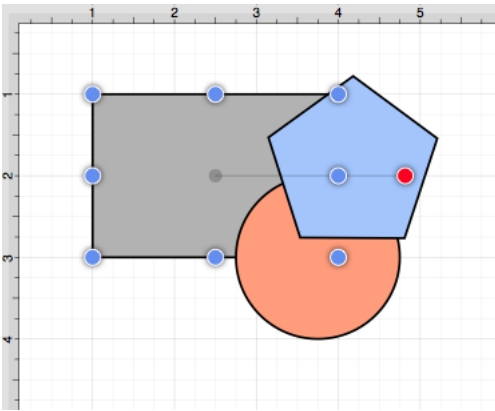


3. Use the **Bring to Front** button located on the [main toolbar](#).



4. Use the **Shift-Command-Closing Bracket** [keyboard shortcut](#).

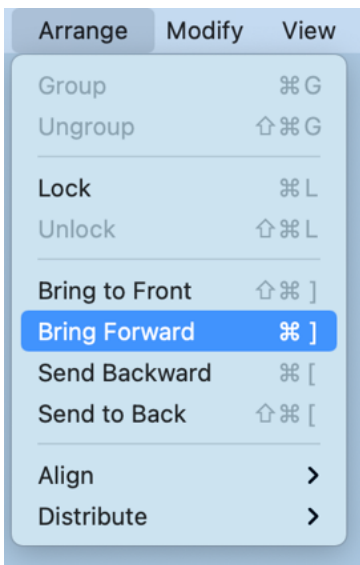
The following images display the position of a selected rectangle prior to and after using the **Bring to Front** option.



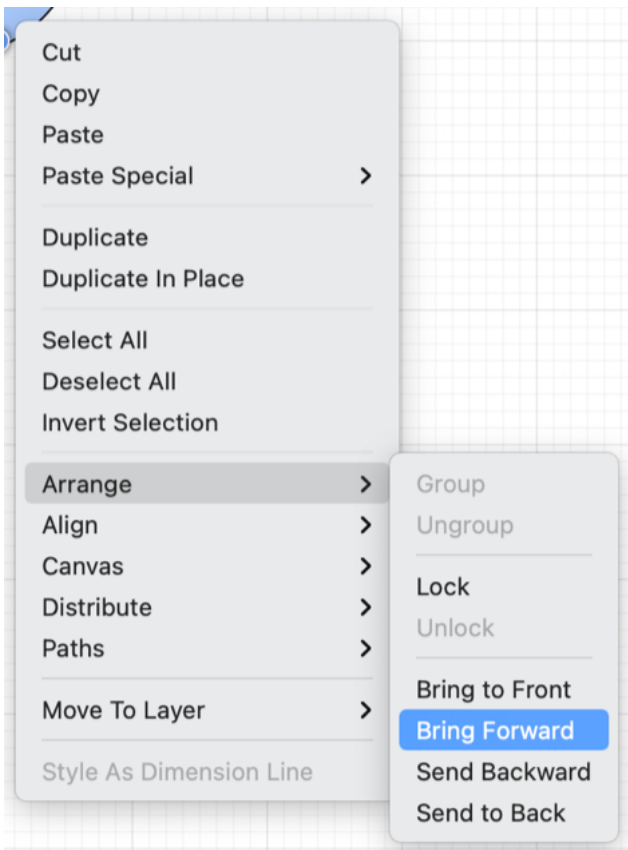
6.7.2. Bring Forward

The **Bring Forward** option moves a currently selected figure(s) one step closer to the top of the stack within the layer they reside in. At least one figure within a desired layer must be [selected](#) for this option to be enabled. Use one of the following methods to bring a figure(s) forward within a layer:

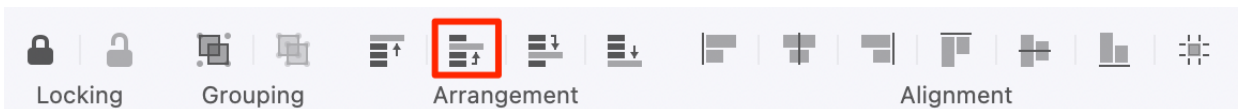
1. Select the [Arrange Menu](#) and choose **Bring Forward**.



2. Open the [Contextual Menu](#), select the **Arrange Submenu**, and choose **Bring Forward**.

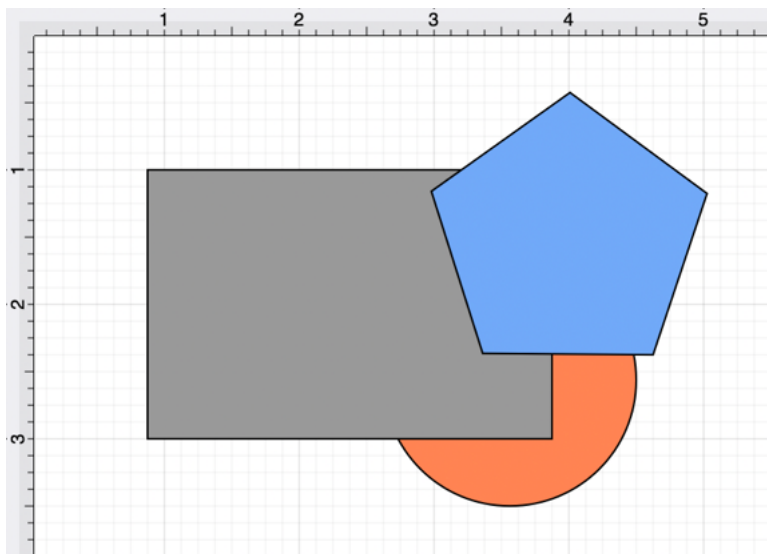
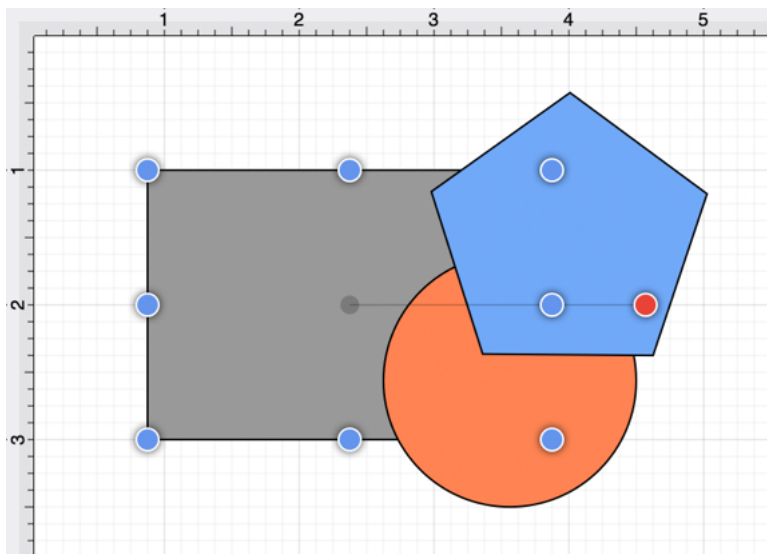


3. Use the **Bring Forward** button located on the [main toolbar](#).



4. Use the **Command-Closing Bracket** [keyboard shortcut](#).

The following images display the position of a selected rectangle prior to and after using the **Bring Forward** option.

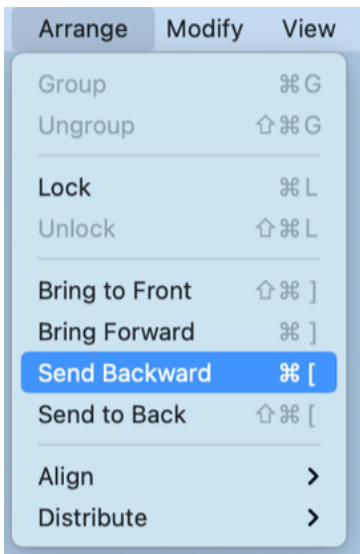


Note: The **Bring Forward** option can be chosen multiple times to continue moving a selected figure(s) to the front of a layer.

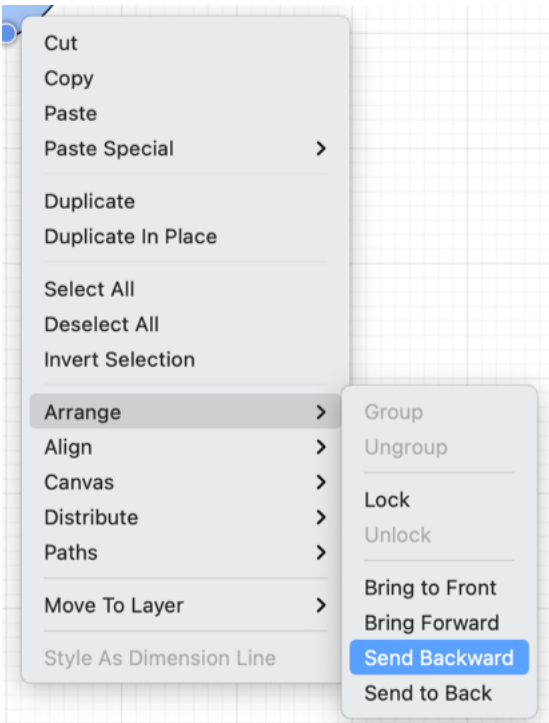
6.7.3. Send Backward

The **Send Backward** option moves a currently selected figure(s) one step closer to the bottom of a stack within their residing layer. At least one figure within a layer must be [selected](#) for this option to be enabled. Use one of the following methods to send a figure(s) back one step within a layer:

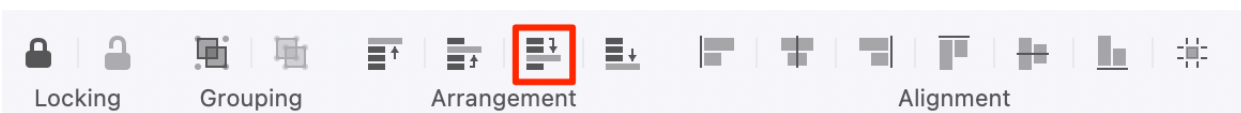
1. Select the [Arrange Menu](#) and choose **Send Backward**.



2. Open the [Contextual Menu](#), select the **Arrange Submenu**, and choose **Send Backward**.

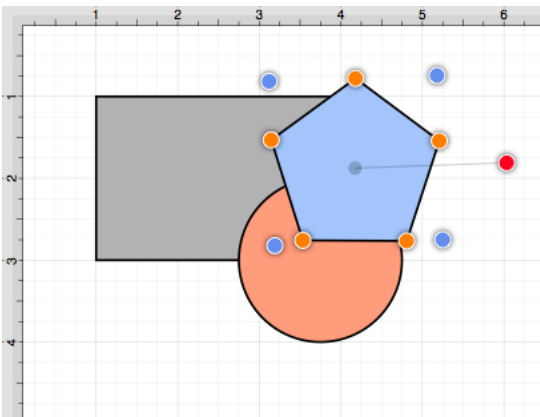


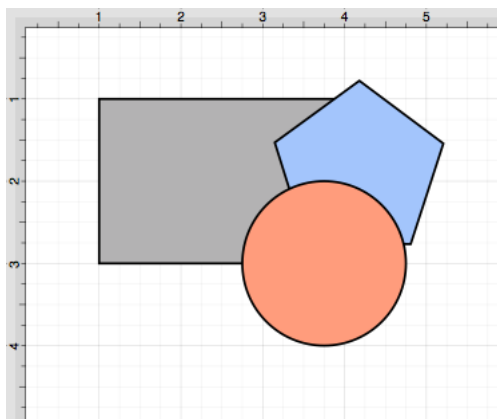
3. Use the **Backward** button located on the [main toolbar](#).



4. Use the **Command-Opening Bracket**[keyboard shortcut](#).

The following images display the position of a selected pentagon prior to and after using the **Send Backward** option.



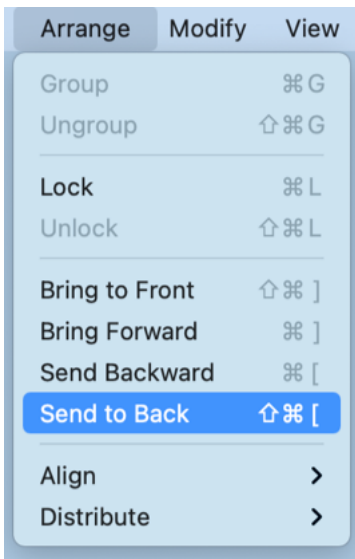


Note: The **Send Backward** option can be chosen multiple times to continue moving a selected figure(s) to the back of a layer.

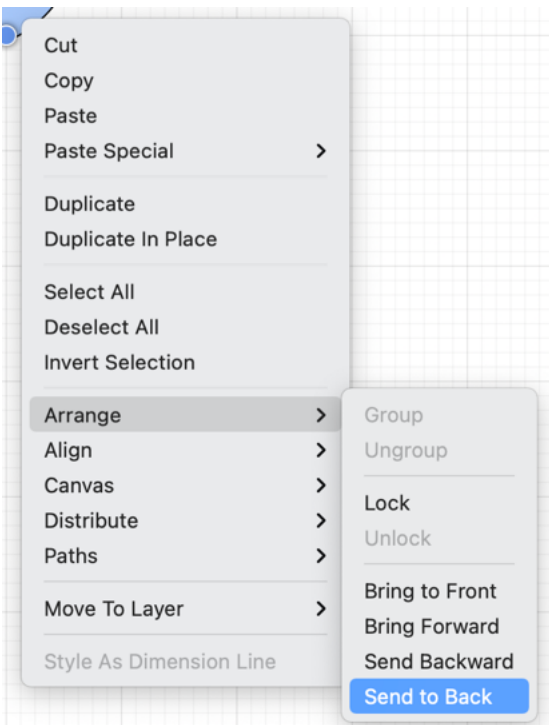
6.7.4. Send to Back

The **Send to Back** option moves a currently selected figure(s) behind all other figures residing within the same layer. At least one figure within a layer must be [selected](#) for this option to be enabled. Use one of the following methods to send a figure(s) to the back of a layer:

1. Select the [Arrange Menu](#) and choose **Send to Back**.



2. Open the [Contextual Menu](#), select the **Arrange Submenu**, and choose **Send to Back**.

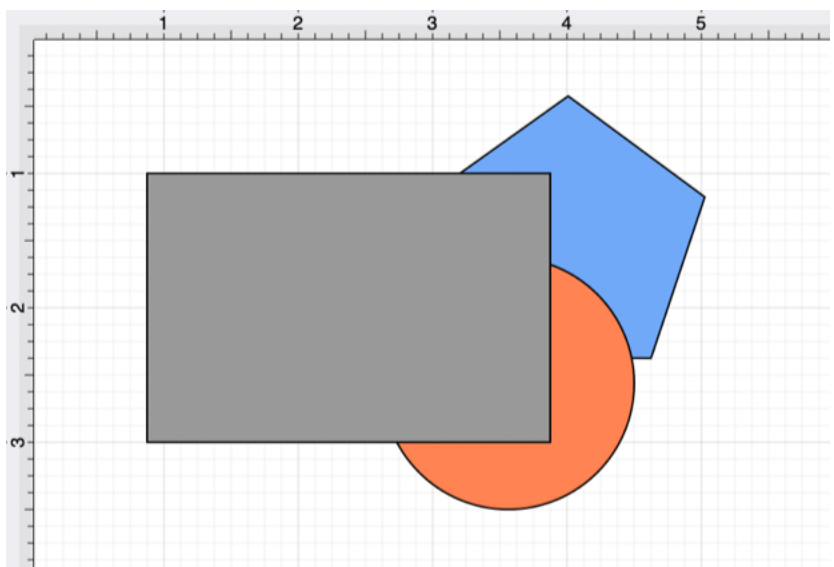
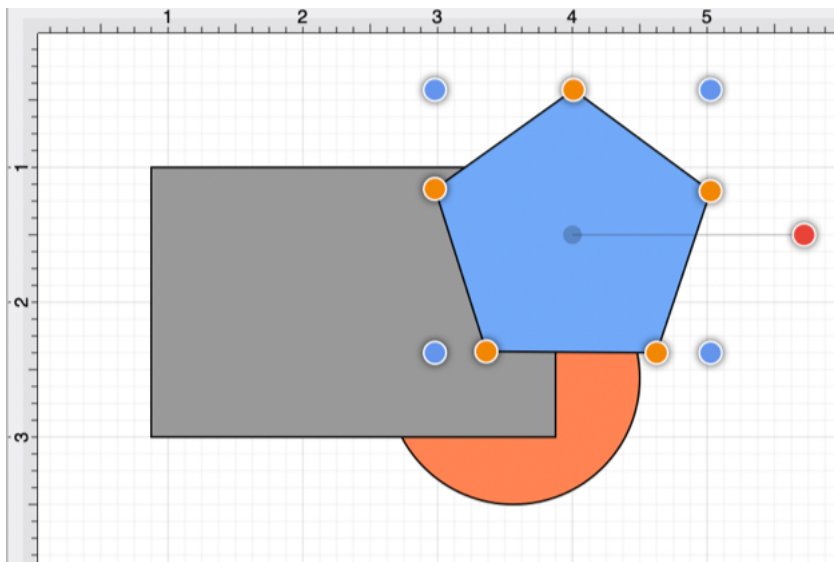


3. Use the **Sent to Back** button located on the [main toolbar](#).



4. Use the **Shift-Command-Opening Bracket** [keyboard shortcut](#).

The following images display the position of a selected pentagon prior to and after using the **Send to Back** option.



6.8. Distributing Figures

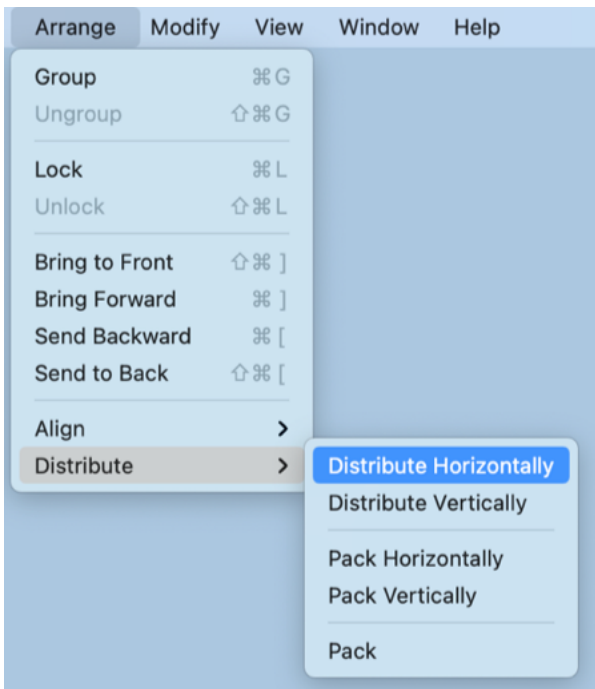
TouchDraw 2 offers options for apportioning figures evenly in relation to each other. A set of figures can be laid out to have equal spacing between each figure measured either [horizontally](#) or [vertically](#).

A group of [selected](#) figures may also be packed into the smallest rectangular space possible with the [Pack](#) command.

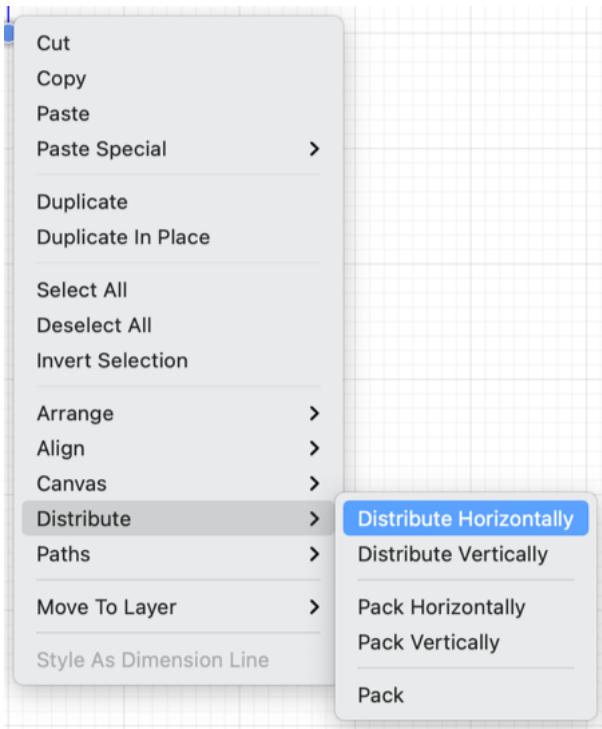
6.8.1. Distribute Horizontally

The **Distribute Horizontally** option adjusts the positioning of selected figures to create an even amount of horizontal space between each figure. This option is enabled when three or more [unlocked](#) figures are [selected](#) in the drawing canvas. Use one of the following methods to distribute a set of figures horizontally:

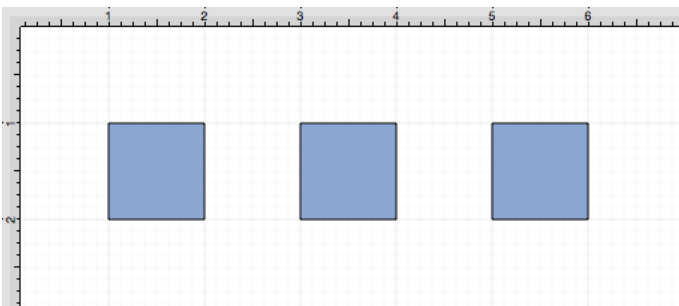
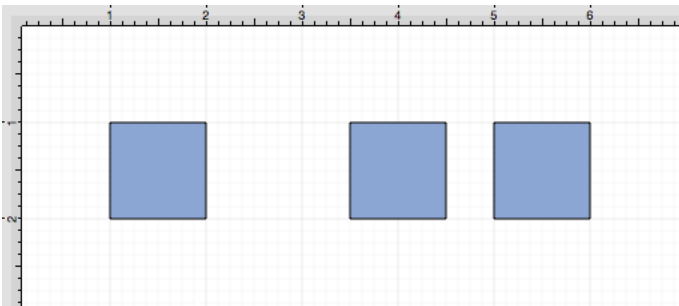
Method 1: Click on the [Arrange Menu](#), select the [Distribute Submenu](#), and choose **Distribute Horizontally**.



Method 2: Open the [Contextual Menu](#), select the **Distribute Submenu**, and choose **Distribute Horizontally**.



The following images display the positions of a selected set of figures prior to and after using the **Distribute Horizontally** option.



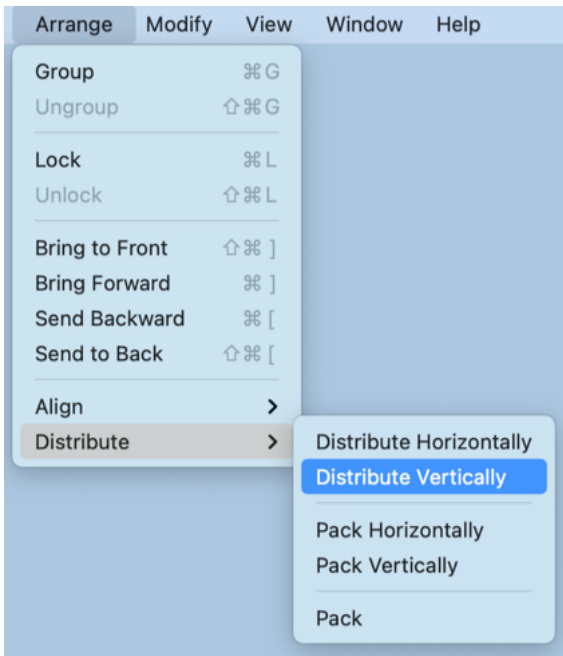
In the above example, the first and middle figures were originally 2.5 inches apart. The spacing between the

middle and last figure totaled 1.5 inches. After this option has been applied, the horizontal space between each figure is adjusted to 2 inches to provide three evenly spaced figures.

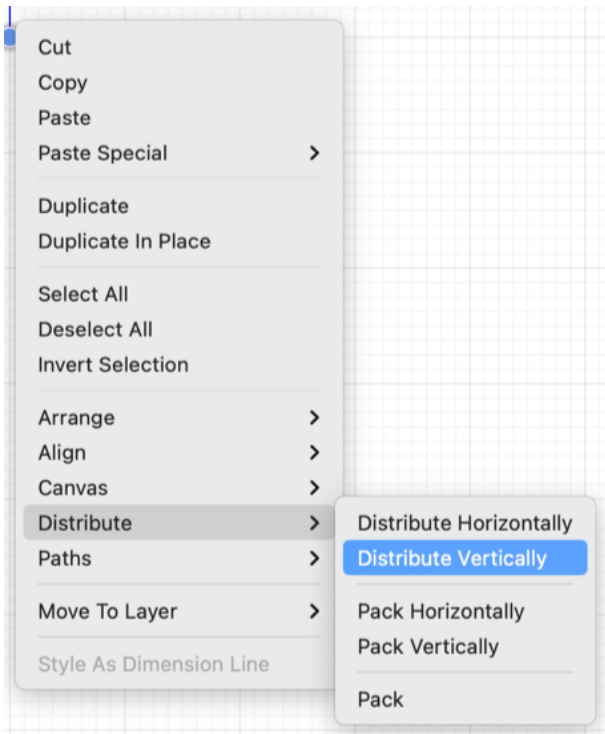
6.8.2. Distribute Vertically

The **Distribute Vertically** option adjusts the positioning of selected figures to create an even amount of vertical space between each figure. This option is enabled when three or more [unlocked](#) figures are [selected](#) in the drawing canvas. Use one of the following methods to distribute a set of figures vertically:

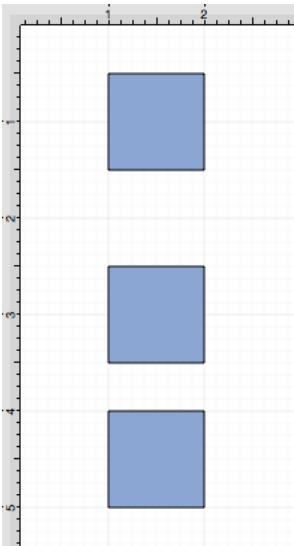
Method 1: Click on the [Arrange Menu](#), select the [Distribute Submenu](#), and choose **Distribute Vertically**.

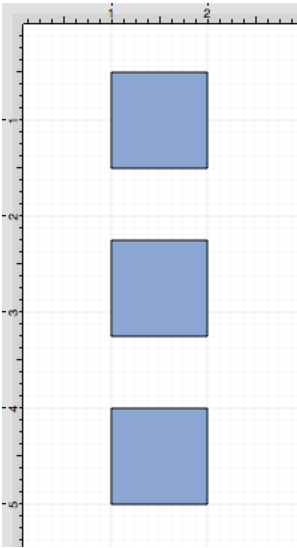


Method 2: Open the [Contextual Menu](#), select the **Distribute Submenu**, and choose **Distribute Vertically**.



The following images display the positions of a set of figures prior to and after using the **Distribute Vertically** option.





In the above example, the spacing between the top and middle squares totals 2 inches. The middle and bottom figures have a vertical spacing of 1.5 inches. After this option has been applied, the vertical space between each figure is adjusted to 1.75 inches to provide three evenly spaced figures.

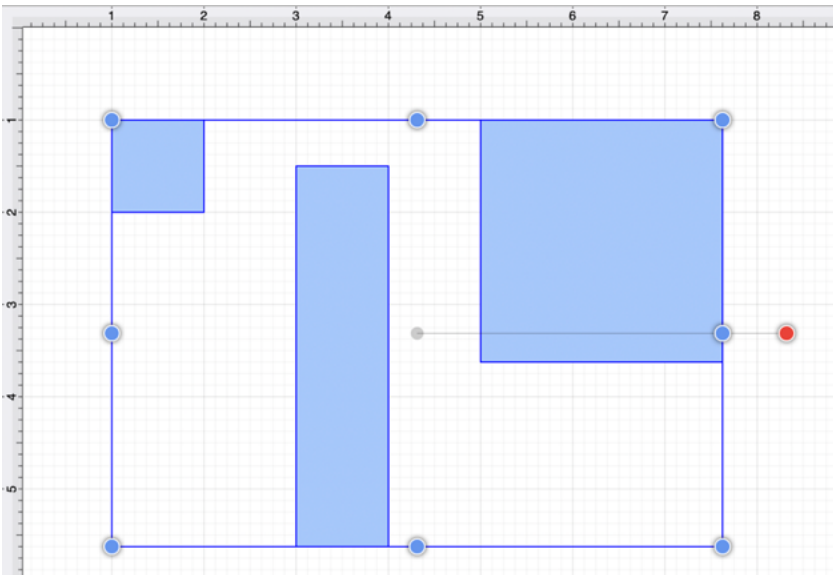
6.8.3. Pack Horizontally

The **Pack Horizontally** menu item takes a set of selected shapes and "packs" them into the smallest space possible horizontally.

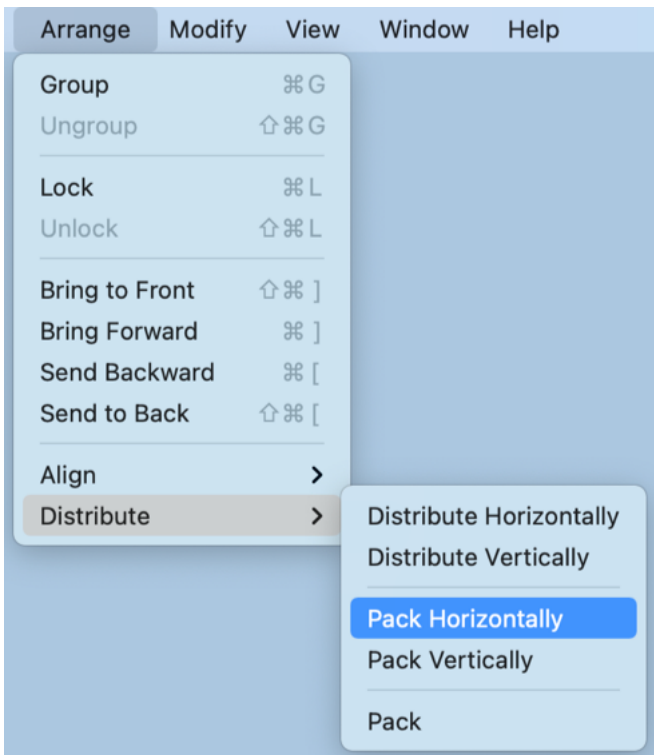
This option is enabled when three or more [unlocked](#) figures are [selected](#) in the drawing canvas.

Complete the following steps to pack a set of figures horizontally:

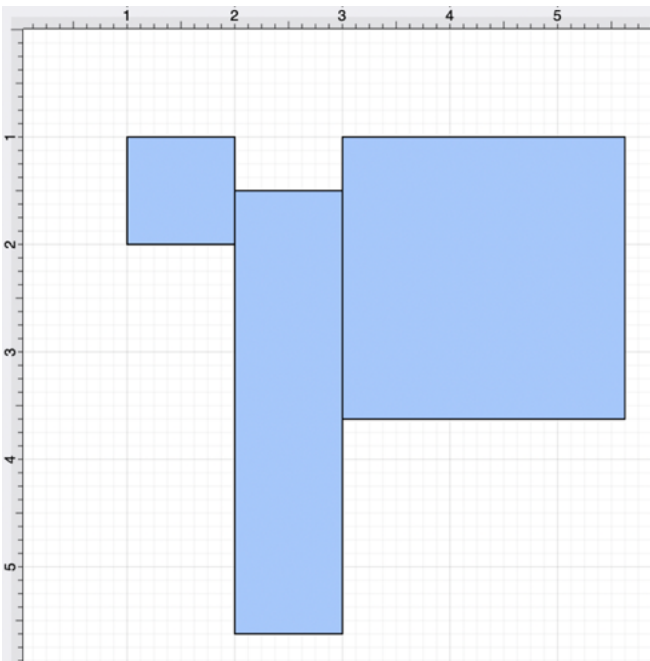
1. [Select](#) the figures or shapes to be packed horizontally.



2. Then click on the [Arrange Menu](#), select the [Distribute Submenu](#), and choose **Pack Horizontally**.



3. The following image displays the positions of a selected set of figures after using the **Pack Horizontally** option.

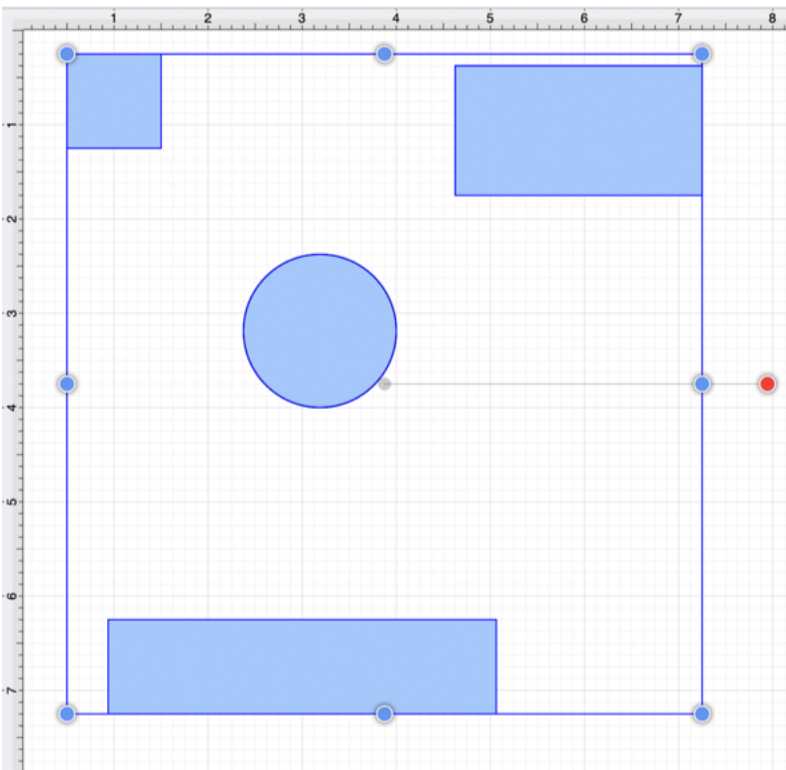


6.8.4. Pack Vertically

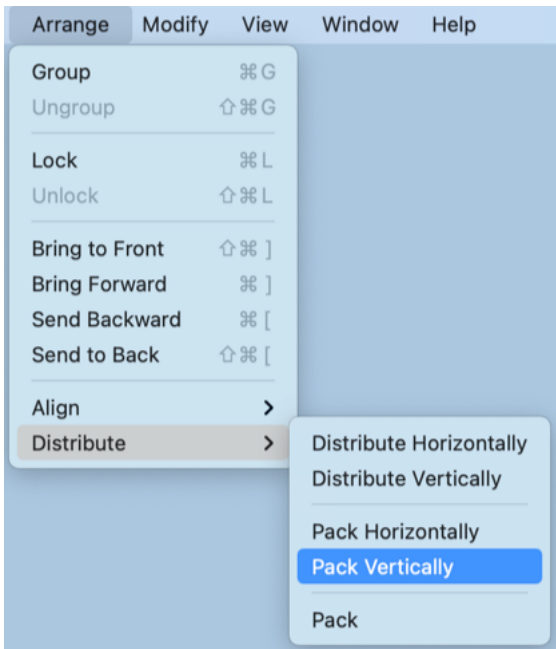
The **Pack Vertically** menu item takes a set of [selected](#) shapes and "packs" them into the smallest space possible vertically.

This option is enabled when three or more [unlocked](#) figures are [selected](#) in the drawing canvas. Complete the following steps to pack a set of figures vertically:

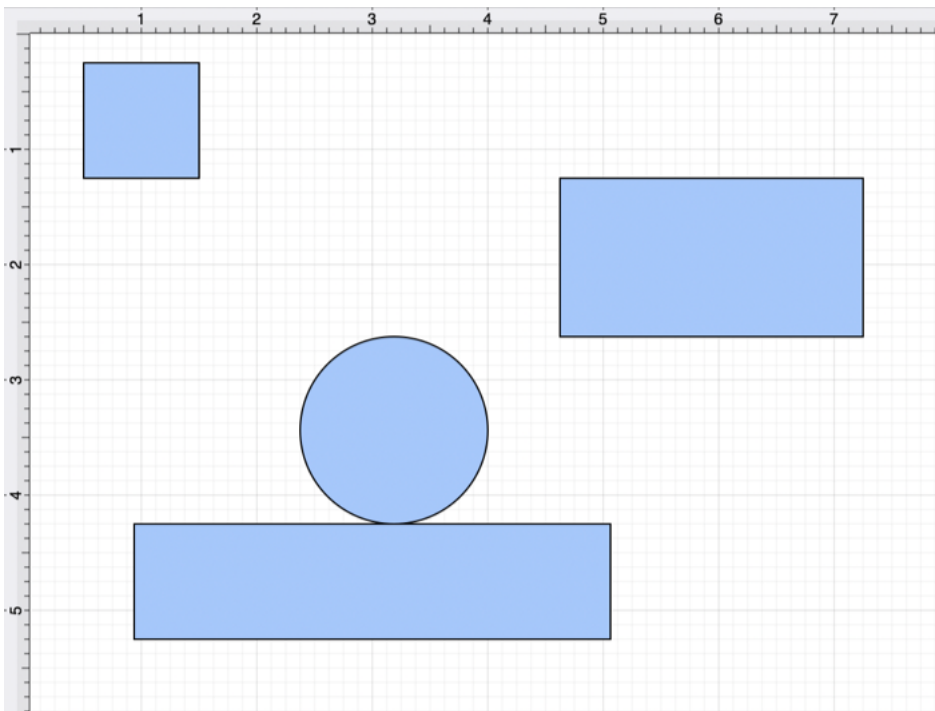
1. Select the figures or shapes to be packed vertically.



2. Click on the [Arrange Menu](#), select the [Distribute Submenu](#), and choose **Pack Vertically**.



3. The following image displays the positions of a selected set of figures after using the **Pack Vertically** option.

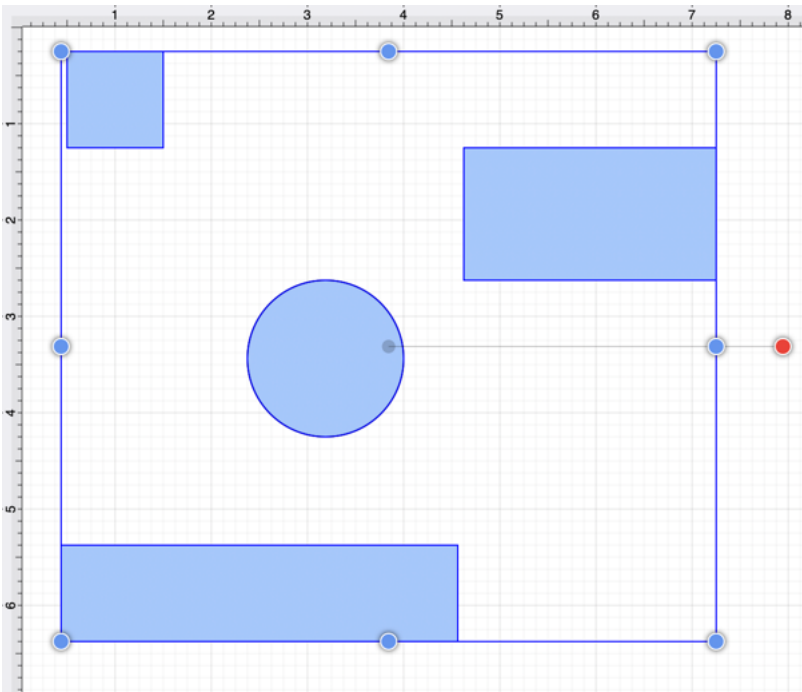


6.8.5. Pack

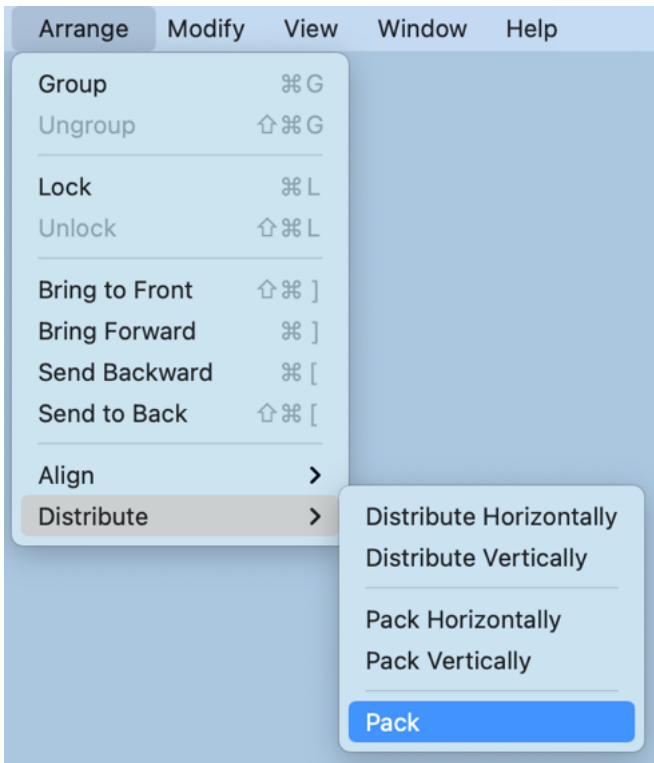
The **Pack** option can be used to "pack" a group of [selected](#) figures into the smallest possible rectangular space within the drawing canvas. This option is enabled when two or more [unlocked](#) figures are [selected](#) in the drawing canvas.

To pack a set of figures, complete the following steps:

Step 1: Select the figures to be packed in the [Drawing Canvas](#).

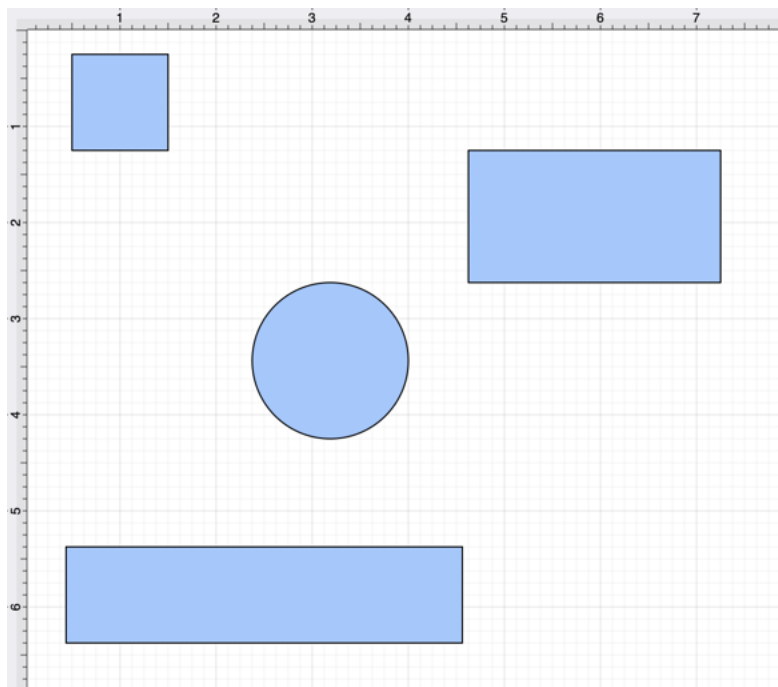


Step 2: Click on the [Arrange Menu](#), select the [Distribute Submenu](#), and choose **Pack**.

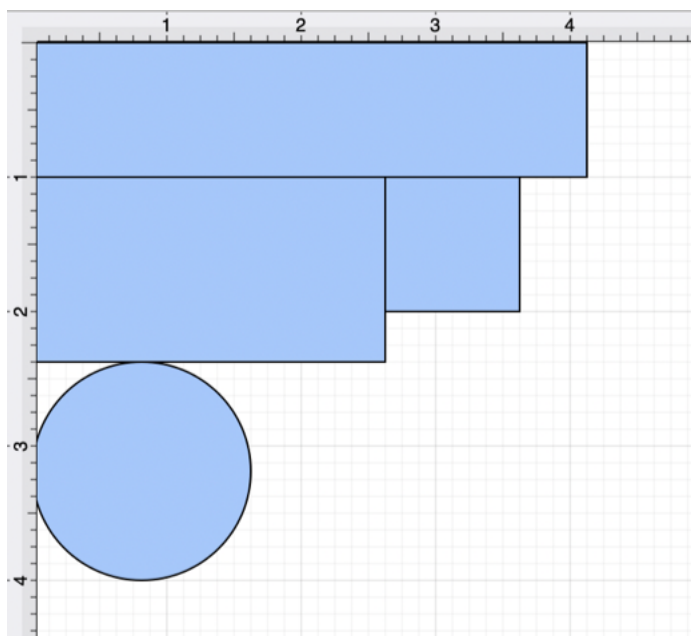


The following images display the positions of a selected set of figures prior to and after using the **Pack** option.

In the example shown below, four shapes have been added to the Drawing Canvas and placed in random positions. This is how they appear **before** the action is performed:



After the pack, they appear as shown below:



6.9. Combining Shapes

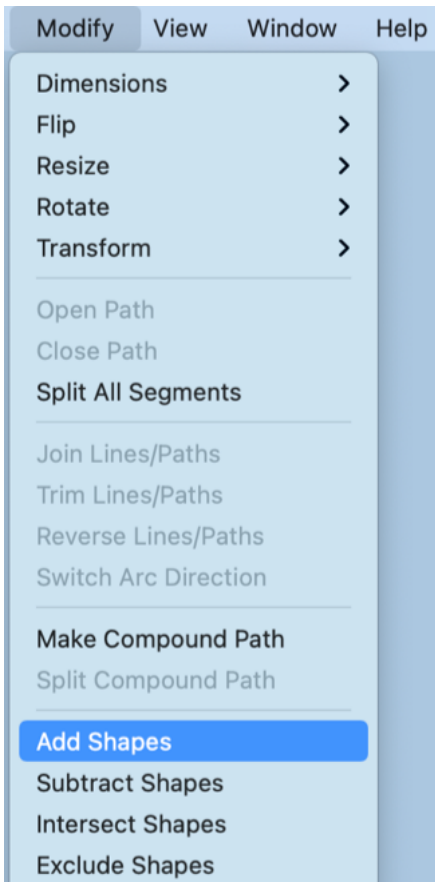
TouchDraw 2 offers multiple options for combining two shapes within the drawing canvas. Options for selected shapes include:

- [Add Shapes](#)
- [Subtract Shapes](#)
- [Intersect Shapes](#)
- [Exclude Shapes](#)

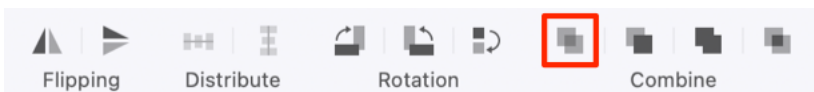
6.9.1. Add Shapes

The **Add Shapes** option combines two selected shapes into one figure. It remains disabled until two figures have been [selected](#). Use one of the following methods to **Add** selected shapes:

1. Select the [Modify Menu](#) and choose **Add Shapes**.

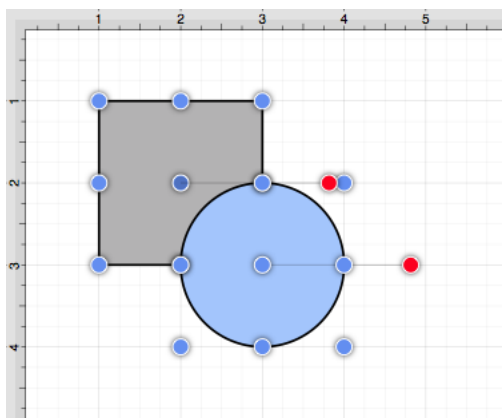
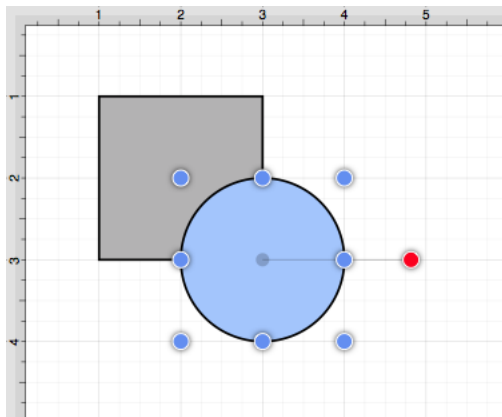


2. Use the **Add Shapes** button located on the [main toolbar](#).

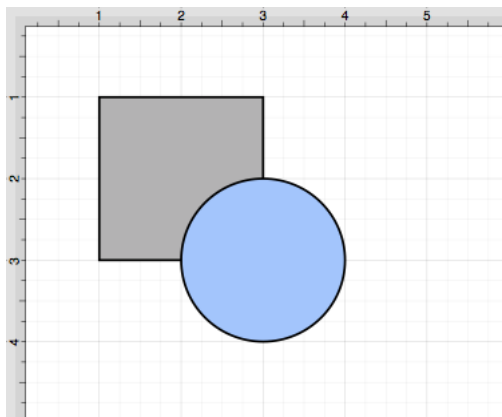


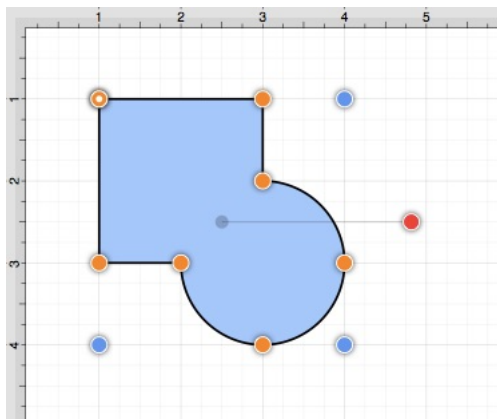
Note: The selection of two non-intersecting shapes has no effect on their appearance, but does cause the figures to be treated as one shape.

The properties of the first selected shape will be applied to the combined shape. In the example below, the circle is selected first.



The following images display two selected shapes prior to and after using the **Add Shapes** option.

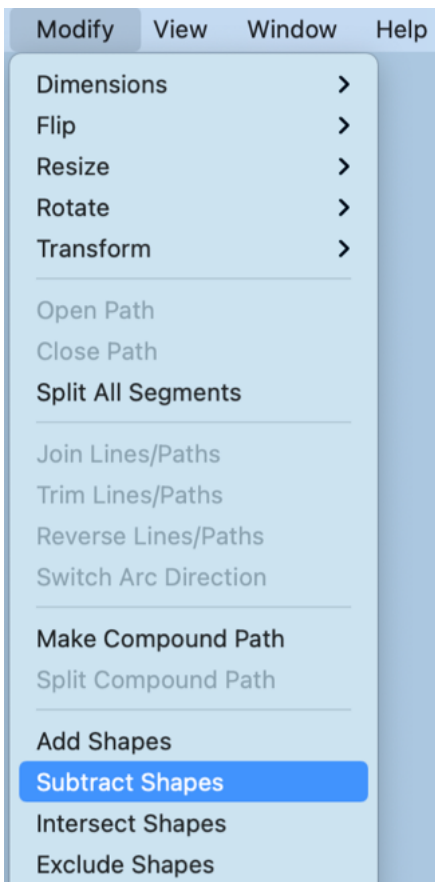




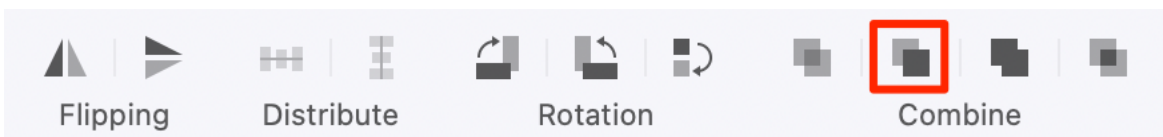
6.9.2. Subtract Shapes

The **Subtract Shapes** option removes the intersecting portions of the second selected shape from the first figure selected in the drawing canvas. This option remains disabled until two figures have been [selected](#). Use one of the following methods to **Subtract** selected shapes:

1. Select the [Modify Menu](#) and choose **Subtract Shapes**.



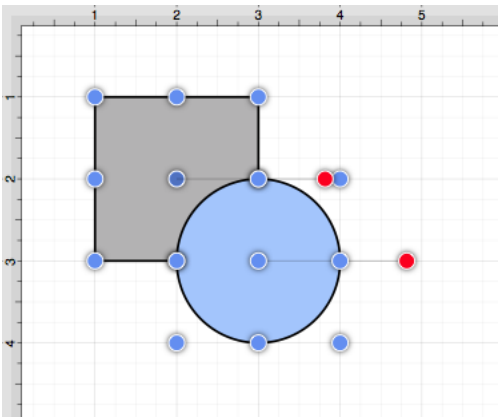
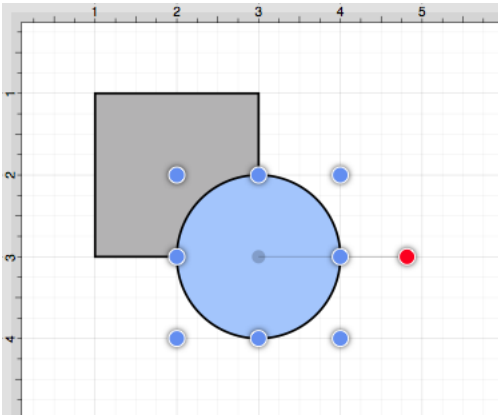
2. Use the **Subtract Shapes** button located on the [main toolbar](#).



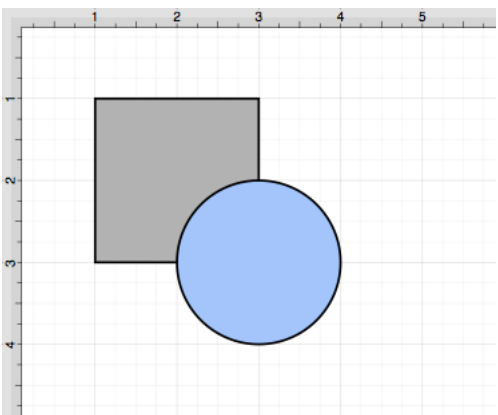
Note: The selection of two non-intersecting shapes causes the second shape to be removed entirely.

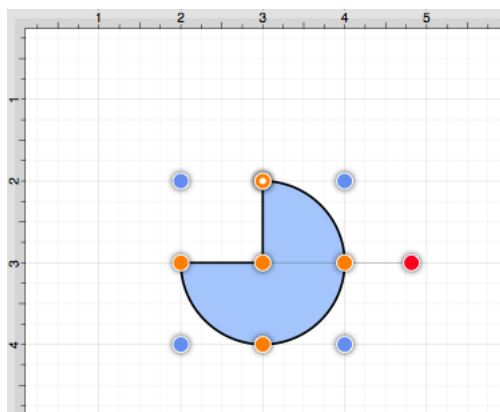
The properties of the first selected shape will be applied to the combined shape. In the example below, the

circle is selected first.



The following image shows the resulting shape after using the **Subtract Shapes** option.

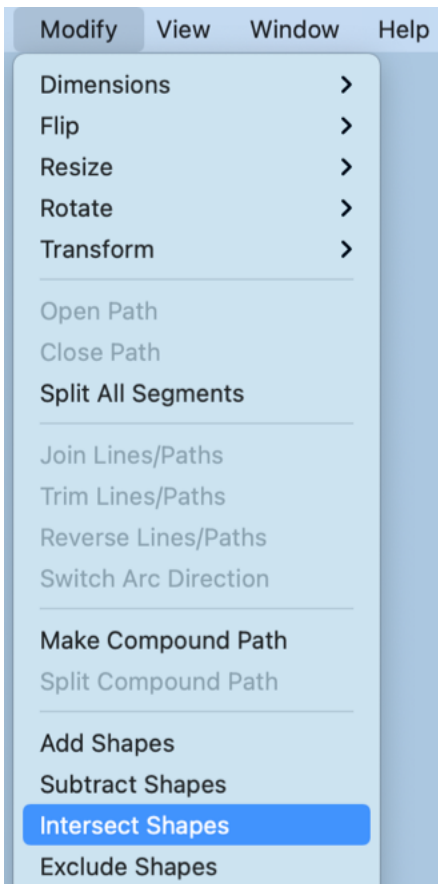




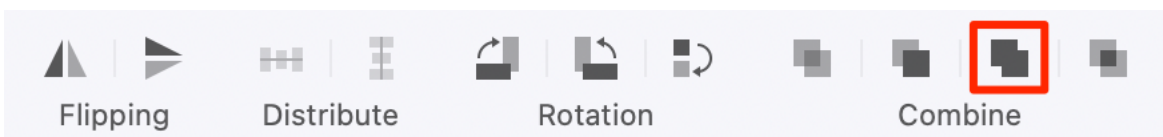
6.9.3. Intersect Shapes

The **Intersect Shapes** option removes all non-intersecting portions of selected figures from the drawing canvas. This option remains disabled until two figures have been [selected](#). Use one of the following methods to **Intersect** selected shapes:

1. Select the [Modify Menu](#) and choose **Intersect Shapes**.



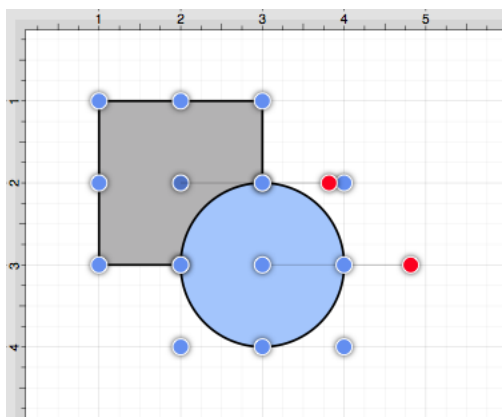
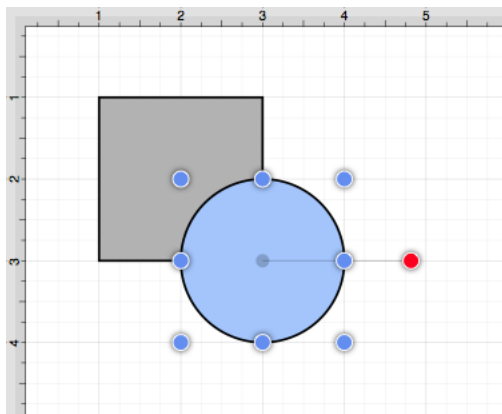
2. Use the **Intersect Shapes** button located on the [main toolbar](#).



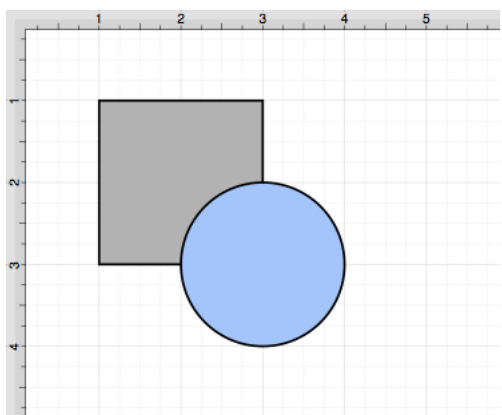
Note: The selection of two non-intersecting shapes results in complete removal of both objects.

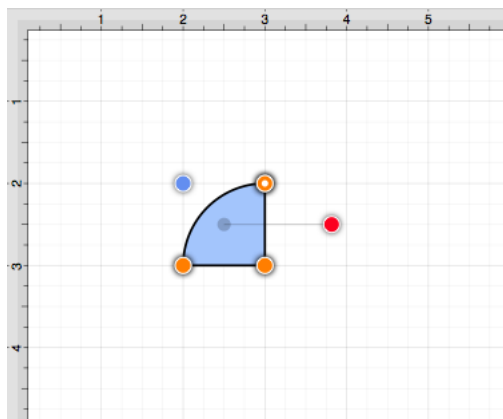
The properties of the first selected shape will be applied to the combined shape. In the example below, the oval

is selected first.



The following images display two intersecting shapes prior to and after using the **Intersect Shapes** option.

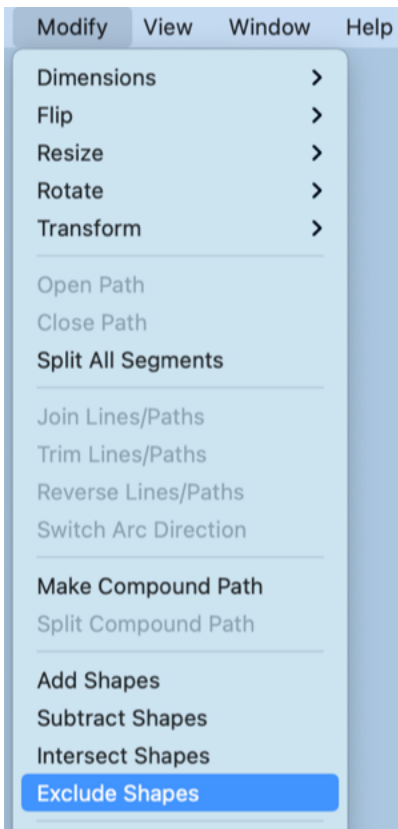




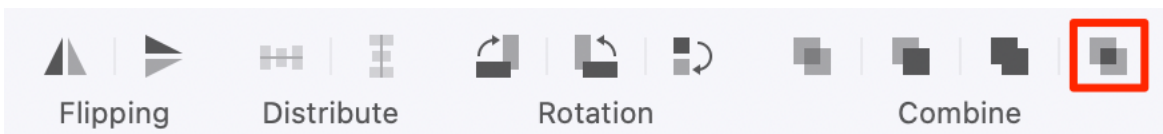
6.9.4. Exclude Shapes

The **Exclude Shapes** option removes the intersecting portions of selected figures from the drawing canvas. This option remains disabled until two figures have been [selected](#). Use one of the following methods to **Exclude** selected shapes:

1. Select the [Modify Menu](#) and choose **Exclude Shapes**.



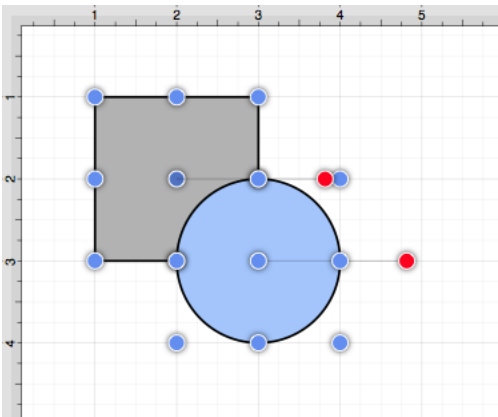
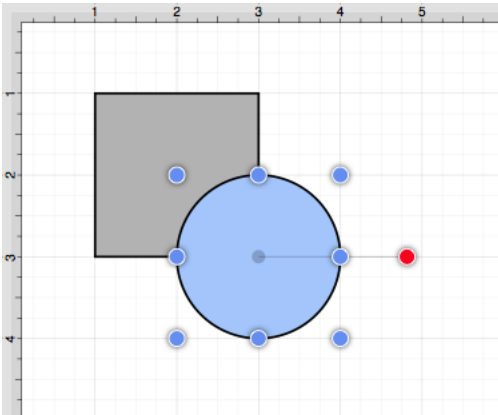
2. Use the **Exclude Shapes** button located on the [main toolbar](#).



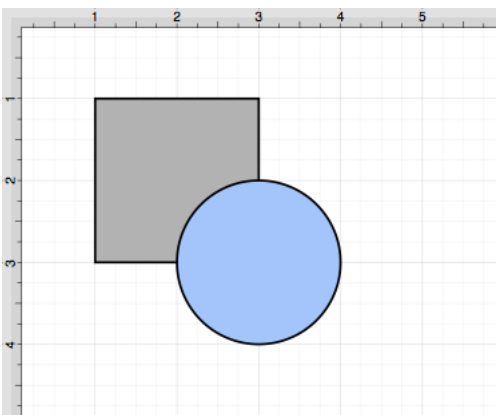
Note: The selection of two non-intersecting shapes has no effect on appearance, but does cause the figures to be treated as one shape.

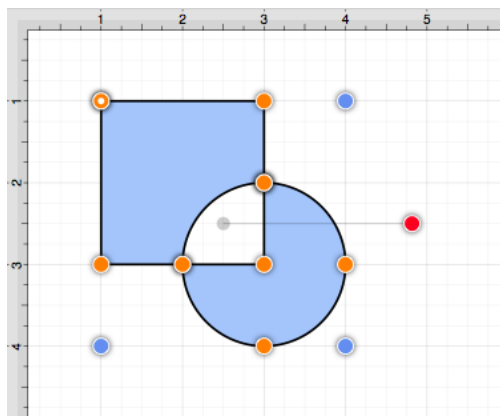
The properties of the first selected shape will be applied to the combined shape. In the example below, the oval

is selected first.



The following images display two intersecting shapes prior to and after using the **Exclude Shapes** option.





6.10. Handling Colors

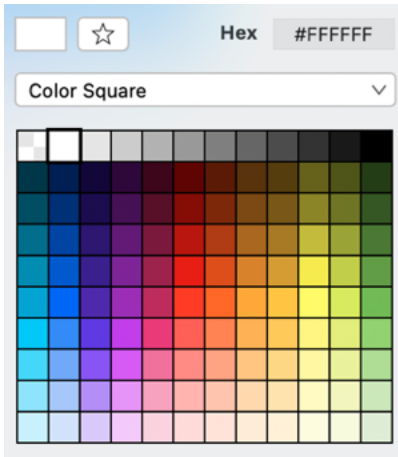
TouchDraw 2 provides multiple ways to select and change the color attributes of figures or text within the [Drawing Canvas](#). Color attributes can be changed for these items:

- [Shapes](#)
- [Strokes](#)
- [Text](#)
- [Canvas Background](#)

Additional attributes are available for changing the [shadow](#) and [fill style](#) of a selected figure(s). All color attributes are accessible through the [Drawing Toolbar](#) and are managed through the standard [Color Picker](#).

6.10.1. Color Picker

The **Color Picker** is used to set the fill, stroke, text, and shadow color for currently [selected](#) figures or new additions to an active drawing. As shown in the image below, the **Color Picker** is made up of different components which allow for varying interactions with the Color Picker.



Click or tap on the corresponding Color Picker item name in the table below to learn more about what the control does.

Control Name	Description
Add to Favorites	The Add to Favorites button can be used to add the current color selection to a favorites list for easier access during future changes.

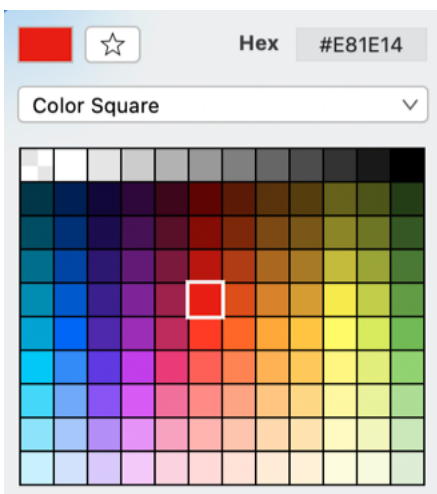
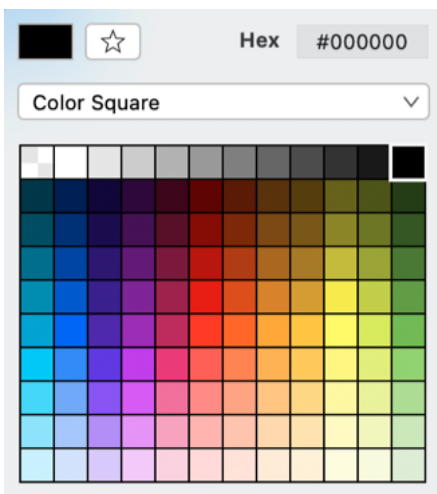
TouchDraw 2 for Mac

Control Name	Description
HEX Editor	The HEX Editor control shows the hex value of a selected color and can be used to change the color by editing this value.
Color Selection Method	The Color Selection Method controls offer seven methods for selecting a color: Color Square , Color Wheel , RGB , HSV , Gray Scale , Favorite Colors , Named Colors , Colors In Use

6.10.1.1. Color Square

The **Color Square** provides a quick way to select a color from the standard operating system colors. It is the default view when the **Color Picker** is opened to set the fill color, stroke color, etc.

To make a selection, just click on any color in the square and it will be set automatically. The selected color will be shown in the square located in the top left corner of the color square and the **Hex value** will also appear in the top right corner.

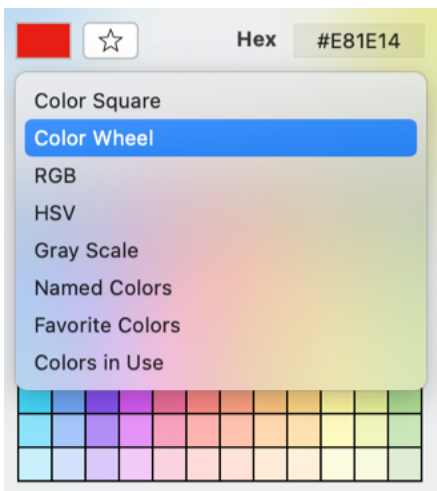
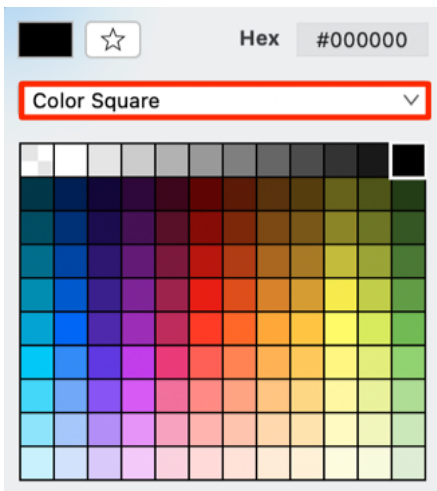


Note: The **Hex Editor** may be used to change the color by performing a tap and entering a different value.

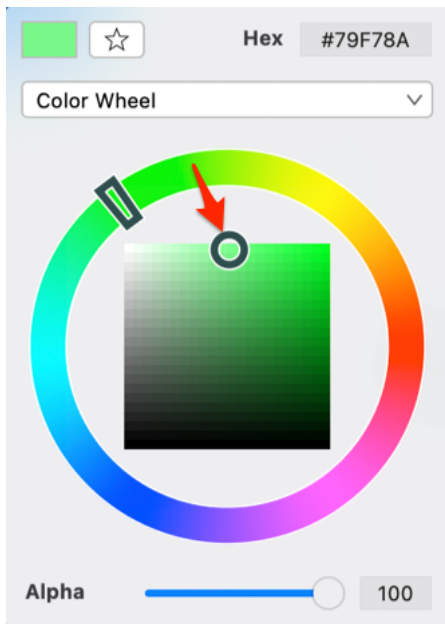
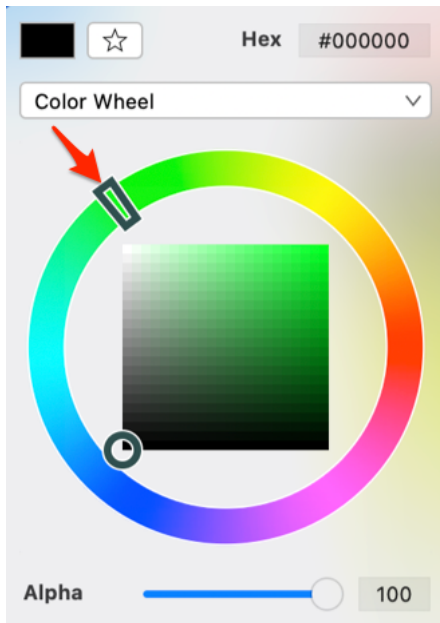
6.10.1.2. Color Wheel

The **Color Wheel** is the most common way to select a color within TouchDraw 2. This color selection method consists of a **Color Wheel** for selecting an exact color hue and a **Saturation Box** for altering the lightness or darkness of a hue.

To access this color selection method, click on the **Color Selection Menu** and then choose **Color Wheel**.



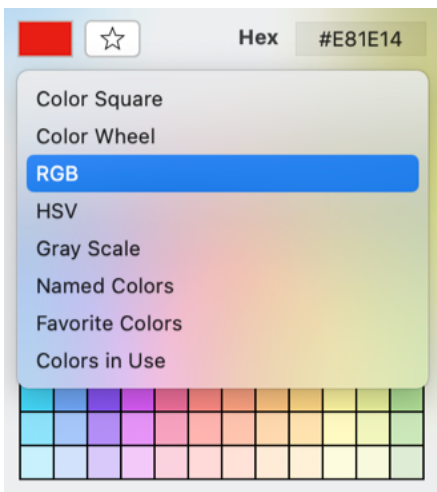
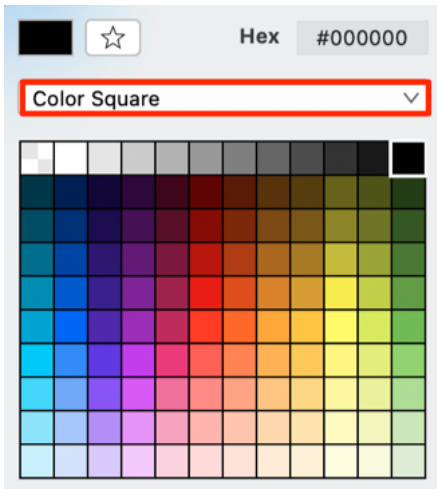
Click on the desired hue in the **Color Wheel** and then click on the desired lightness or darkness value in the **Saturation Box**.



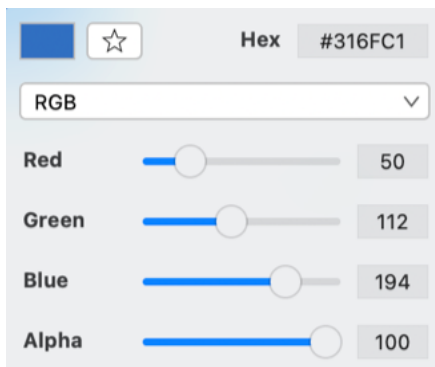
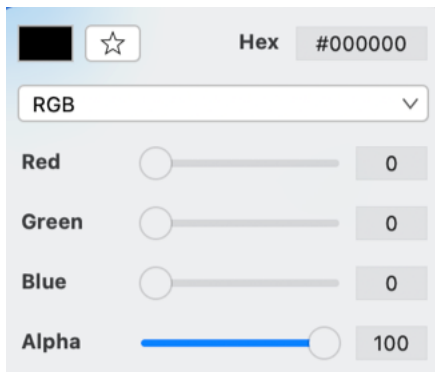
Note: The **Opacity Slider (Alpha)** may be used to the opaqueness of a selected color. Click on the **Hex Editor** to type in a specific value and alter the color.

6.10.1.3. RGB

The **RGB Editor** control can be used to alter the amount of red, green, and blue of the color being selected. To access these options, click on the **Color Selection Menu** and then click on **RGB**.



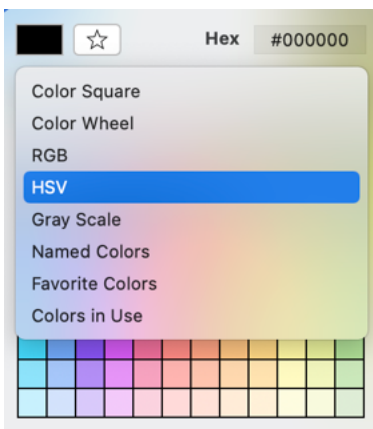
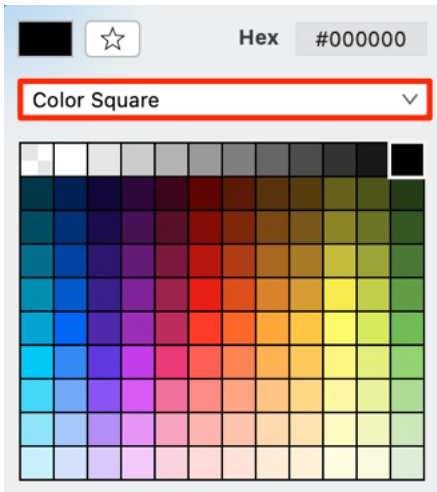
To change the values, click on a slider and then drag the slider to the right or left to set the desired color value. You may also click on the number to type in a different value.



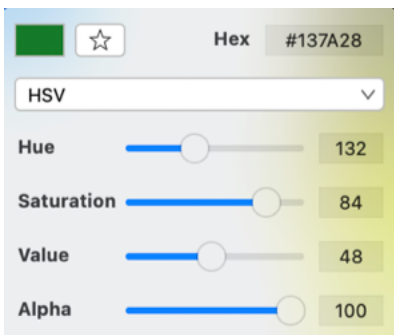
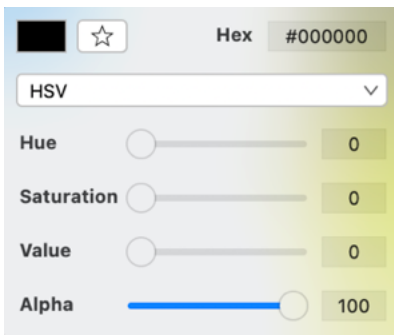
Note: Click on the **Hex Editor** to alter the color by changing the value or use the **Favorites Button** to save it to the list of favorite colors.

6.10.1.4. HSV

The **HSV Editor** control can be used to alter the hue, saturation, and value of a color being selected. To access this color selection option, click on the **Color Selection Menu** and then click on **HSV**.



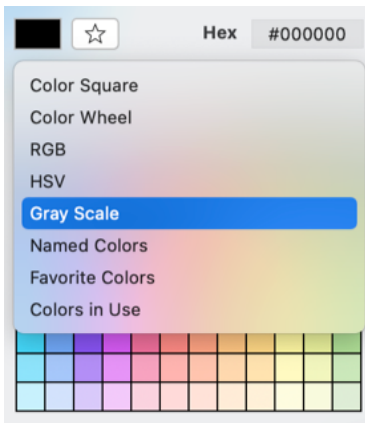
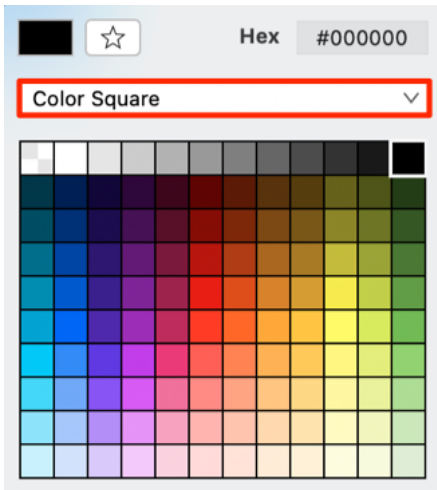
To change the values, click on a slider and then drag the slider to the right or left to set the desired color value. You may also click on the number to type in a different value.



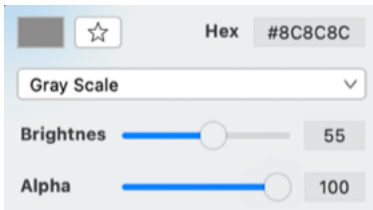
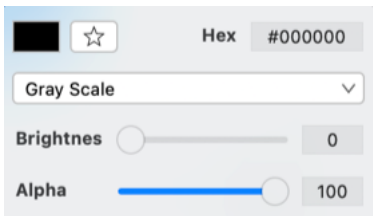
Note: Click on the **Hex Editor** to alter the color by changing the value or use the **Favorites Button** to save it to the list of favorite colors.

6.10.1.5. Gray Scale

The **Gray Scale** color selection option can be used to alter the brightness and opaqueness (opposite of transparency) of a color. To access this option, click on the **Color Selection Menu** and then click on **Gray Scale**.



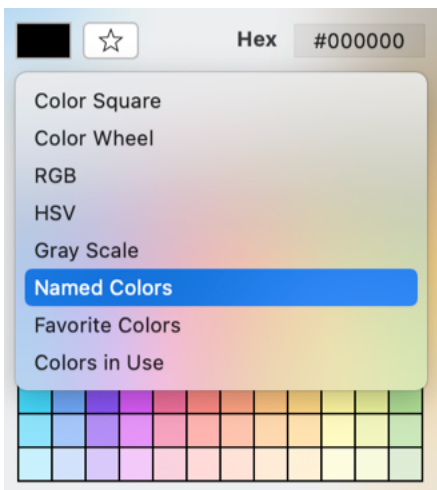
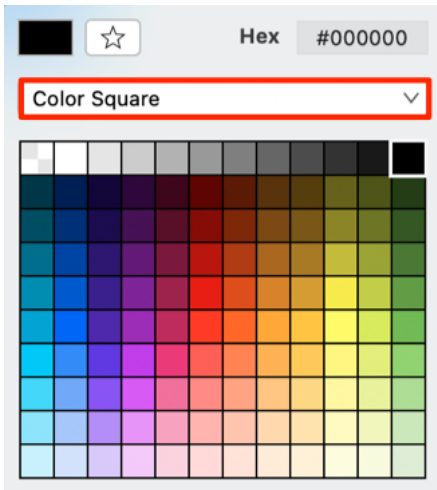
To change the values, click on a slider and then drag the slider to the right or left to set the desired color value. You may also click on the number to type in a different value.



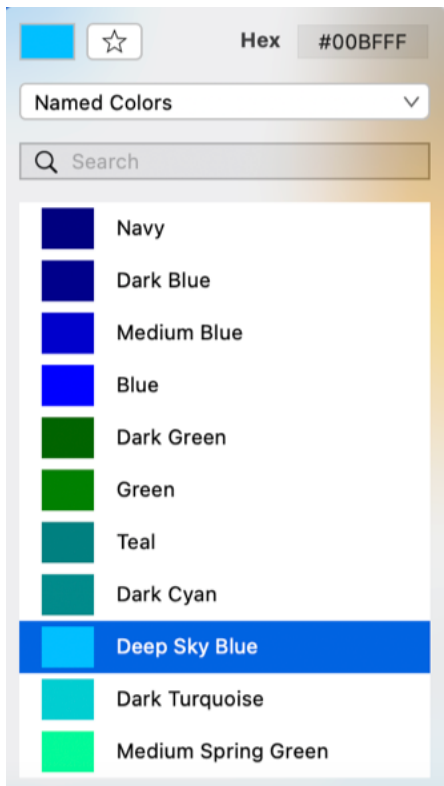
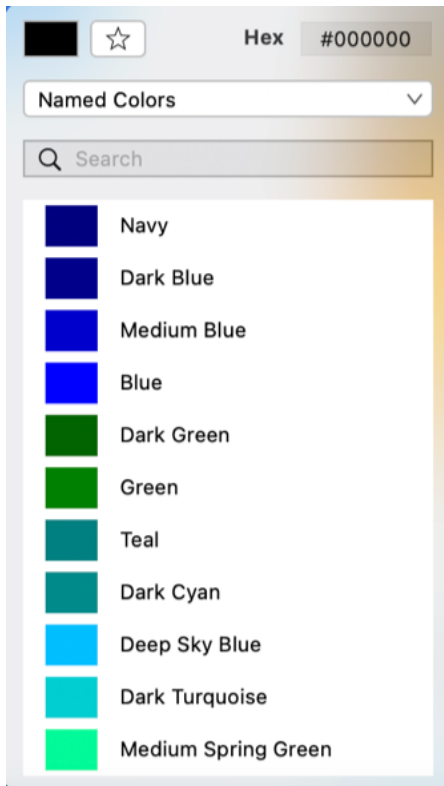
Note: Click on the **Hex Editor** to alter the color by changing the value or use the **Favorites Button** to save it to the list of favorite colors.

6.10.1.6. Named Colors

The **Named Colors** option is an alternative method for selecting a color within TouchDraw 2. The list consists of pre-configured color options which are chosen by pressing on the desired color name in the list. To access this option, click on the **Color Selection Menu** and then click on **Named Colors**

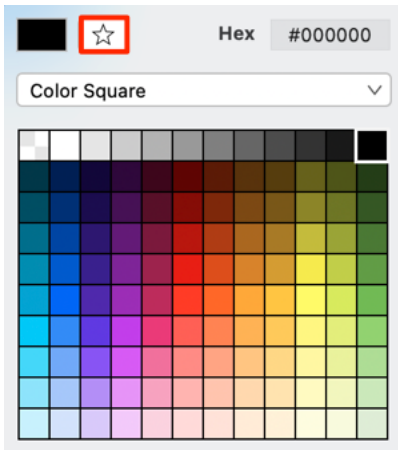


Click on a color to select it. In the example below, Black was originally chosen and is being changed to Dark Sea Green. The currently selected color will be highlighted in blue.

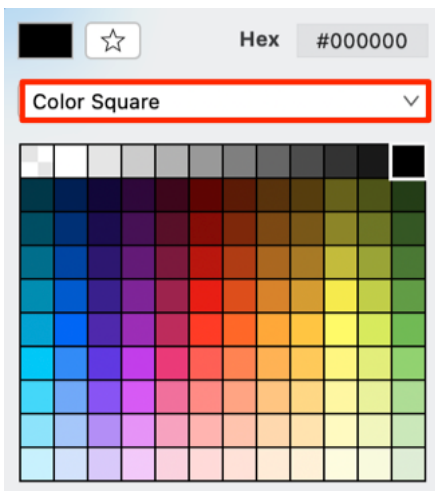


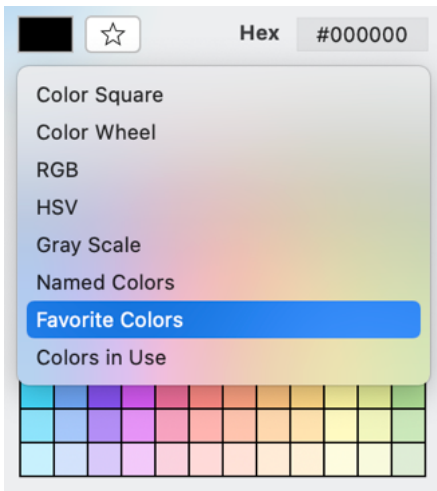
6.10.1.7. Favorite Colors

In TouchDraw 2, a color can be saved as a favorite to make it easier to find and use the color in a drawing(s). This can be done by clicking on the **Favorites Button (Star)** after configuring the exact hue you want to save. A few pre-defined colors are also present in the favorites list and can be used for drawings.

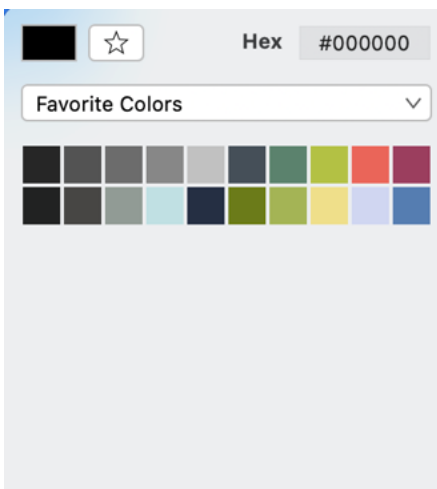


To access saved colors, click on the **Color Selection Menu** and click on **Favorite Colors**.





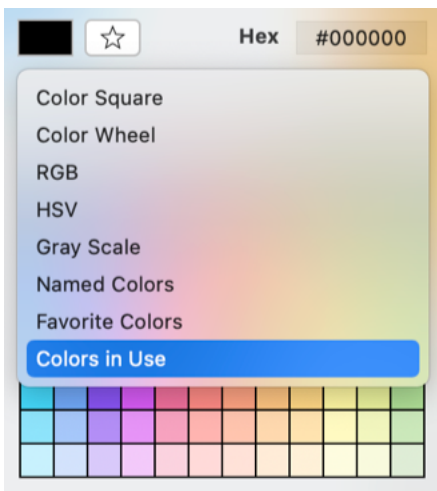
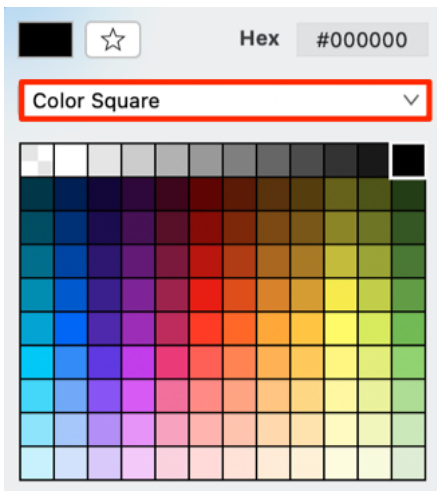
Then just click on a color in the list to make a selection.



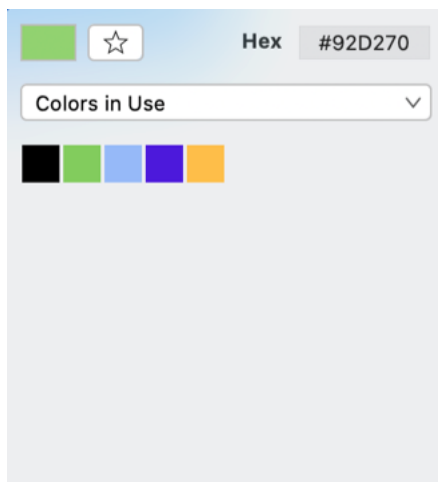
6.10.1.8. Colors in Use

The **Colors in Use** option will display every color currently applied in your drawing and the displayed hues come from the fill, stroke, shadow, and text colors that have been used within the drawing.

To access this option, click on the **Color Selection Menu** and then click on **Colors in Use**.

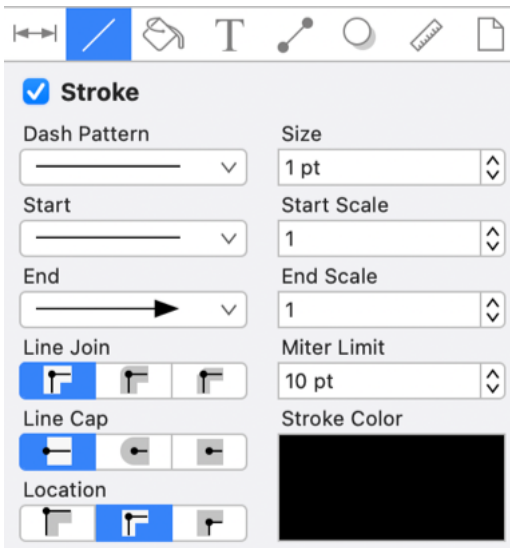


You can click on a color to apply it to the selected attribute (stroke, fill, etc.) for all figures or only **selected figures** within the drawing. This is an easy way to switch between common colors in your drawing and to maintain the same hues without having to perform additional steps to use the same colors.



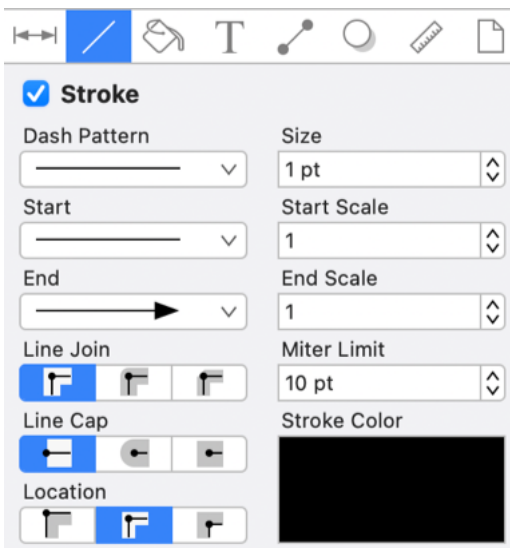
6.10.2. Stroke Color

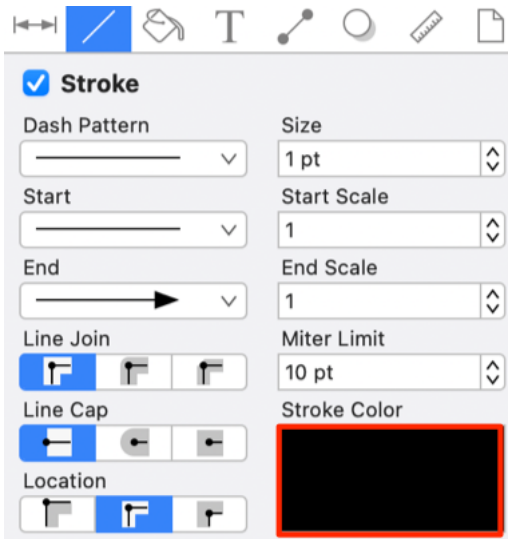
The **Stroke Color** of a selected figure can be changed to meet a desired preference. It can be altered for a [selected](#) figure(s) or in instances where no figures have been selected.



If a figure has not been selected, the color change applies to any figure added after the change. This attribute can be altered in the following ways:

1. Click on the **Info Button** in the [Toolbar](#).

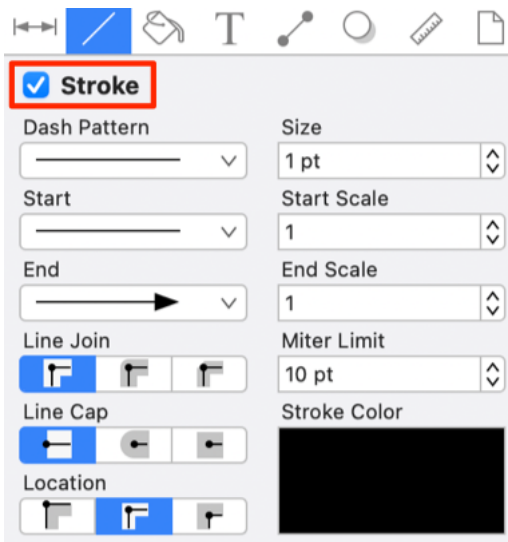




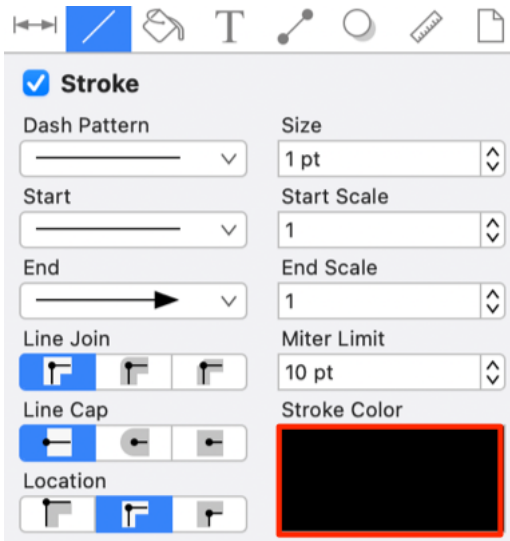
2. Click on the **Stroke Color Button** in the [Format Bar](#).

To alter the **Stroke Color**:

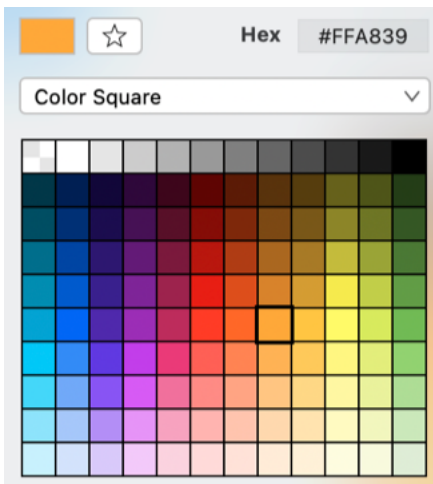
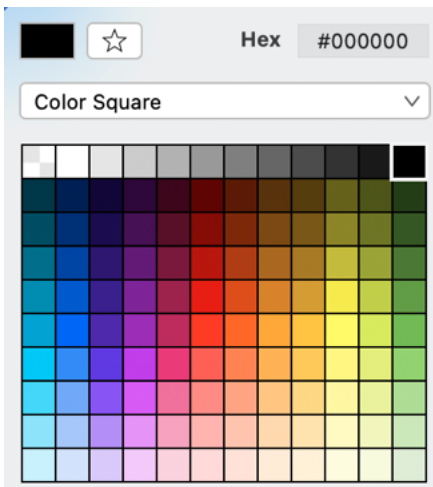
1. Click on the **On/Off** toggle slider in upper right hand corner of the **Stroke Window** to turn on this option. The slider will appear with a green background when this option is enabled.



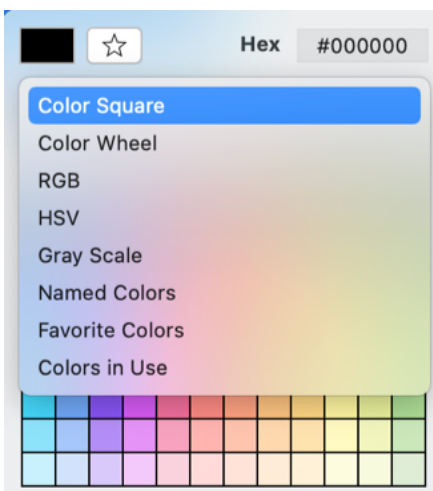
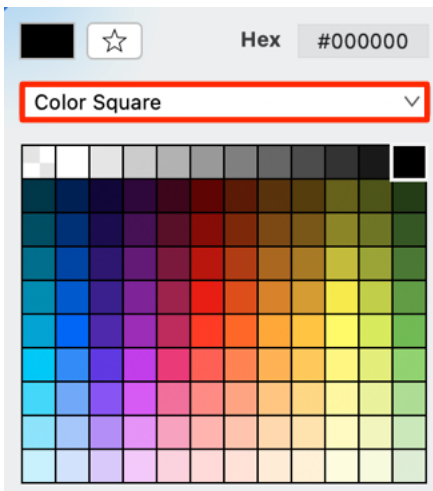
2. Click on the **Stroke Color** attribute on the Stroke Tab.



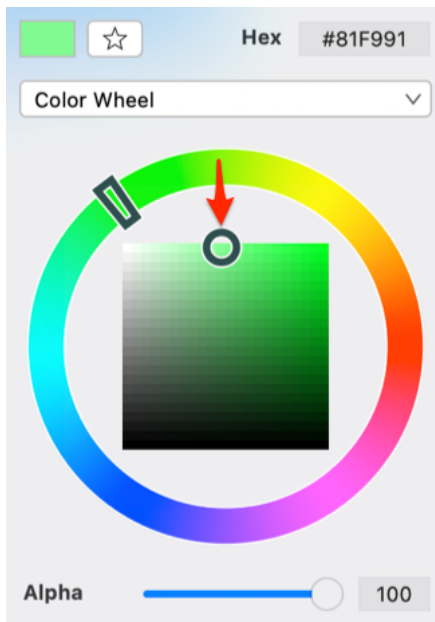
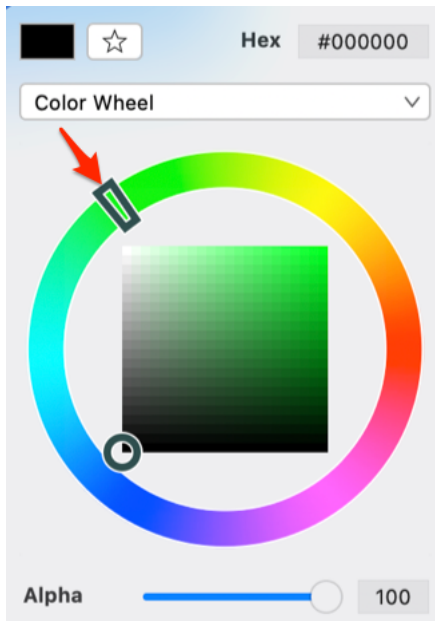
3. To select a pre-defined color in the **Color Square**, simply click on the desired color.



4. You may also configure a color by choosing an option from the **Color Selection Menu**: [Color Wheel](#), [RGB](#), [HSV](#), [Gray Scale](#), [Named Colors](#), [Favorite Colors](#), or [Colors in Use](#). To do so, click on the menu and then click on an option.

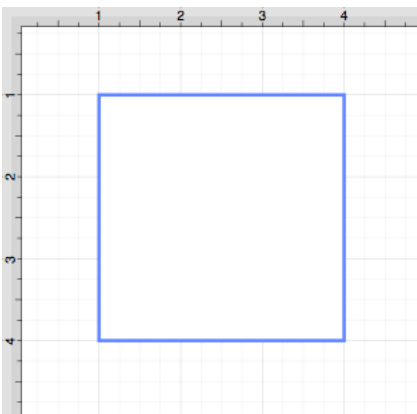
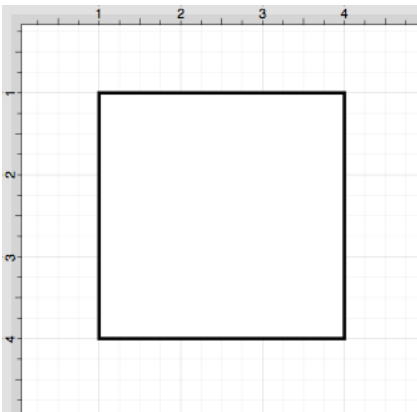


5. If using the **Color Wheel**, first click on the desired color range within the outside of the wheel view. Then choose the desired lightness or darkness of the selected color in the center (saturation) square.





6. Alter the [Stroke Style](#) options (arrowhead, dashed, solid, etc.) by clicking on an option and then clicking on the desired selection in the **Stroke Window**. **Click** on additional options (opacity, line join, etc.) to make further attribute changes.
7. Click anywhere within the [Drawing Canvas](#) to close the window.

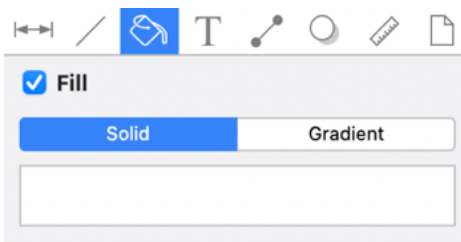


6.10.3. Fill Color

The **Fill Color** of a selected figure can be changed to meet a desired preference. It can be altered for a [selected](#) figure(s) or in instances where no figures have been selected.

If a figure has not been selected, the color change applies to any figure added after the change. This attribute can be altered in one of the following ways:

1. Click on the **Fill Tab** to open the popover window shown below.

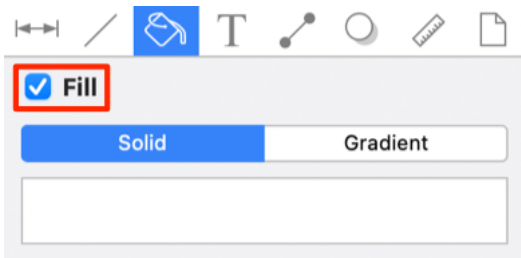


2. Click on the **Fill Color Button** in the [Format Bar](#).

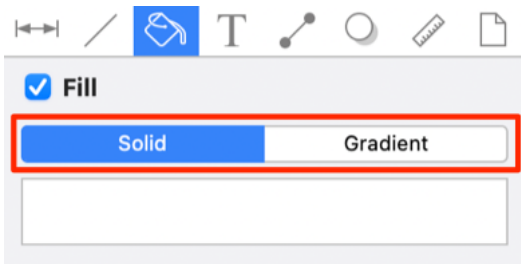


To alter the **Fill Color**:

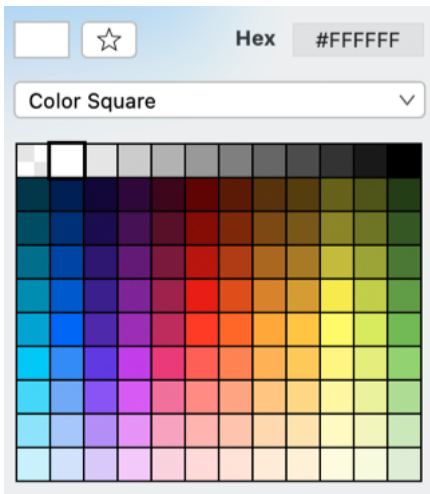
1. Click on the **Fill Checkbox** in the upper right hand corner of the **Fill Window** to turn on the **Fill** option. The checkbox will have a checkmark when this option is enabled.



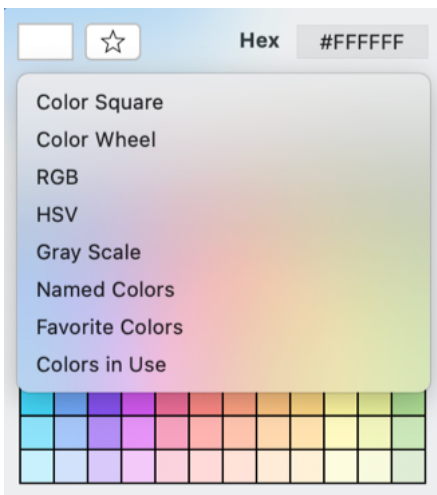
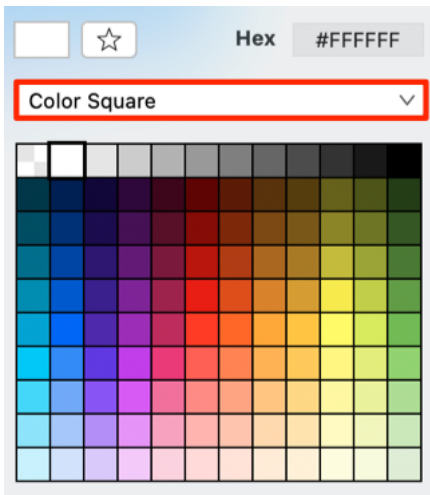
2. Then choose a Fill option (*Solid*, *Gradient*, *Pattern*, or *Image*). The current selection will be highlighted in gray.



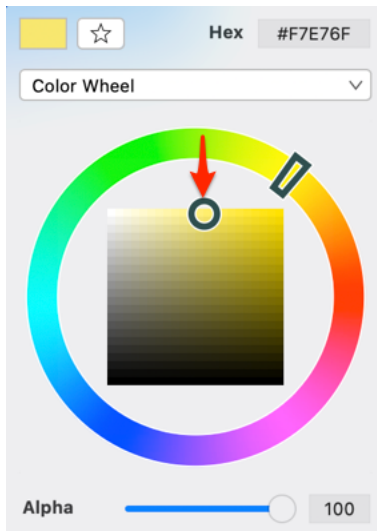
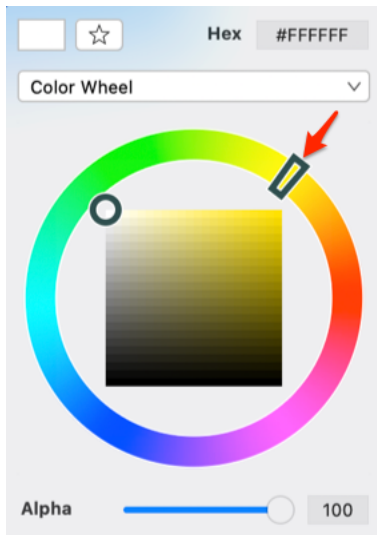
3. To select a pre-defined color in the **Color Square**, simply click on the desired color.



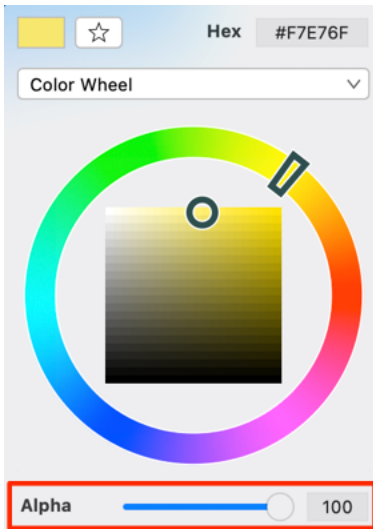
4. You may also configure a color by choosing an option from the **Color Selection Menu**: [Color Wheel](#), [RGB](#), [HSV](#), [Gray Scale](#), [Named Colors](#), [Favorite Colors](#), or [Colors in Use](#). To do so, click on the menu and then click on an option.



5. If using the **Color Wheel**, first click on the desired color range within the outside of the wheel view. Then choose the desired lightness or darkness of the selected color in the center (saturation) square.



6. Perform a **Click/Drag** gesture combination or **Click** on additional options such as the opacity slider within the **Fill Window** to make further attribute changes.



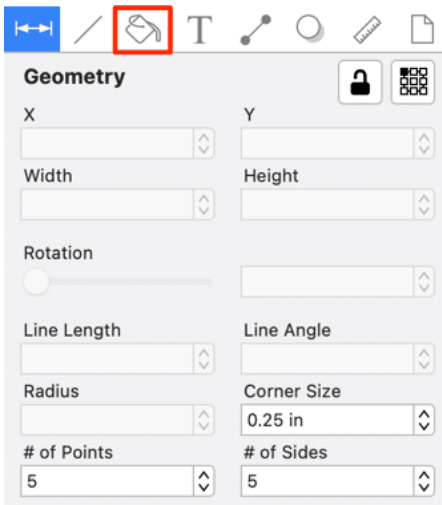
7. Click anywhere within the [Drawing Canvas](#) to close the window. The following screenshots show a figure that has been changed to a light blue fill.**Note:** A color change will be seen instantaneously when a stroke figure is [selected](#). If no figures have been selected, the color change will apply to all subsequently created stroke figures.

6.10.3.1. Fill Visibility

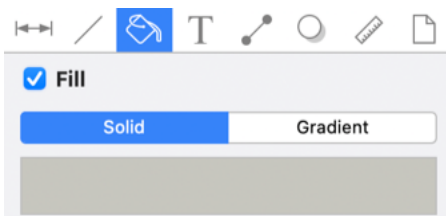
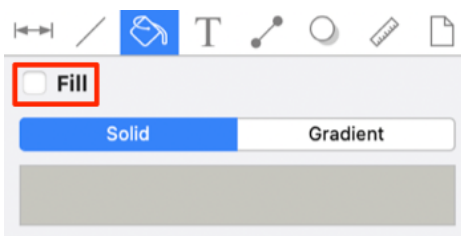
The **Fill Visibility** toggle may be used to show or hide the fill for one or more figures within a drawing. If a figure(s) is selected, then the fill color will be enabled/disabled for that figure only. Otherwise if no figures have been selected in the [Drawing Canvas](#), the fill visibility will be enabled/disabled for every figure within the drawing.

To access this option and enable/disable it:

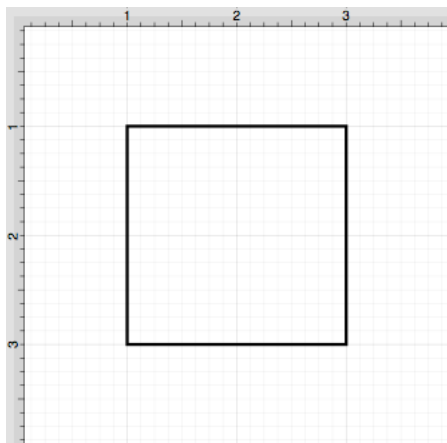
1. Click on the [Fill Tab](#) within the [Sidebar](#).



2. To enable/disable the **Fill Visibility** toggle, click on the checkbox in the top left corner of the Fill Tab. It will have a checkmark when enabled and no checkmark when disabled.



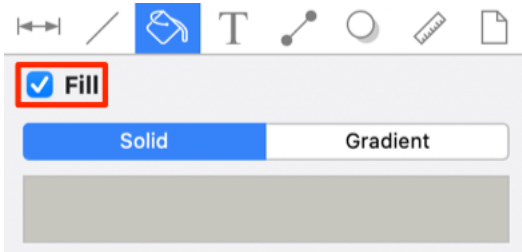
3. When **Fill Visibility** is disabled, you will see the [Drawing Canvas](#) within each figure or only the ones that were selected, as shown below:



6.10.3.2. Solid

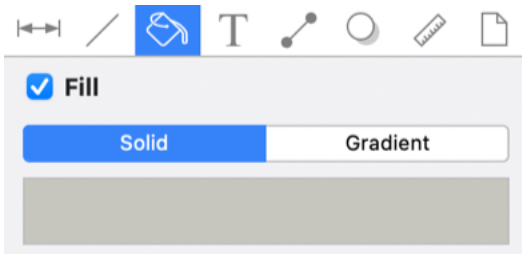
The **Solid** fill style option is located on the Fill tab in the Info portion of the Sidebar. This attribute sets the fill of a [selected](#) or any created figure(s) to a solid color.

The **Fill** option must be enabled for a change in this tab to be applied to currently selected or new figures. Click on the box next to the option name to enable/disable it, as shown below:



Follow the steps below to set this attribute to **Solid**:

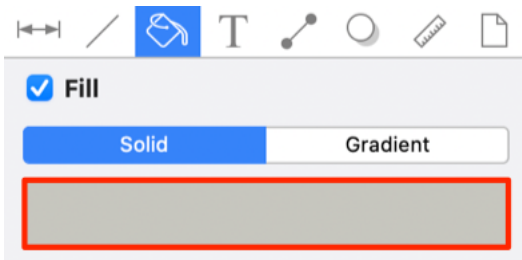
1. Select the **Fill Tab** located in the [Sidebar](#).



2. Choose the **Solid** fill style by clicking on its name.

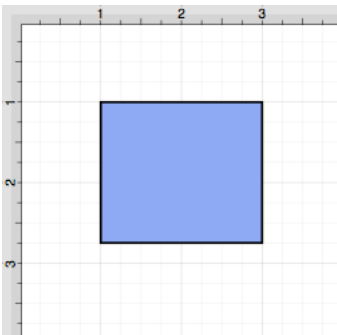


3. Then click on the **Color Square** to configure the color attribute.



Note: A style change will be seen instantaneously when a figure is [selected](#). If figures have not been selected, the style change will apply to all subsequently created figures.

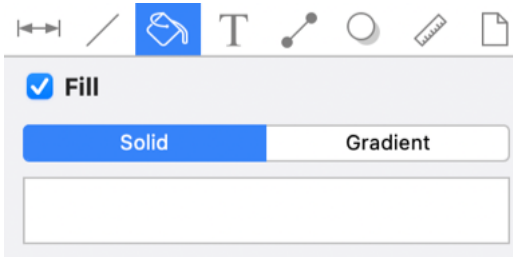
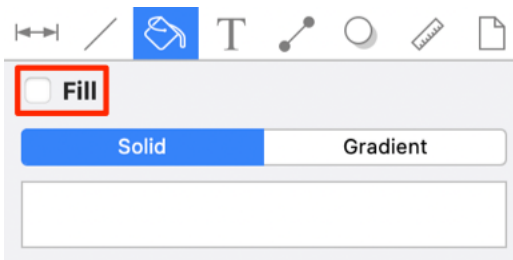
The following example shows a rectangle with the **Fill Style** set to solid and **Color** set to blue:



6.10.3.3. Linear Gradient

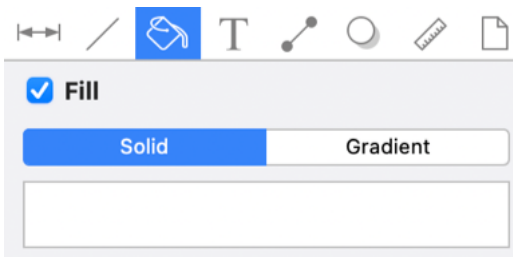
The **Linear Gradient** fill style option is located on the Fill tab in the Info portion of the Sidebar. This attribute transitions the fill from a specific start color to the specified end color at a designated angle within a [selected](#) or created figure(s).

The **Fill** option must be enabled for a change in this tab to be applied to currently selected or new figures. Click on the box next to the option name to enable/disable it, as shown below:

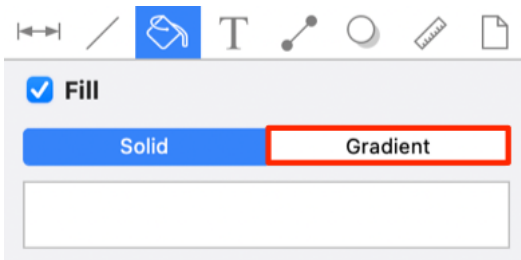


Follow the steps below to set this attribute to **Linear Gradient**:

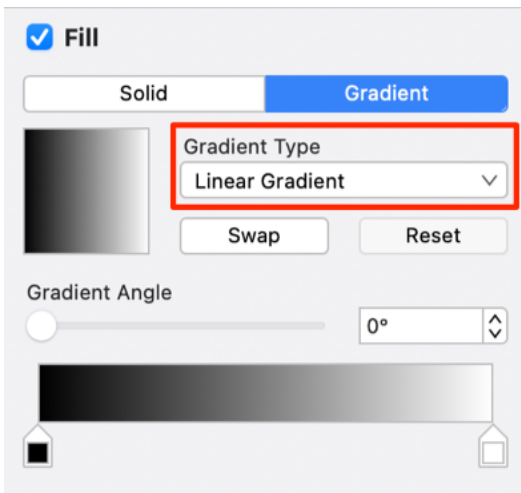
1. Select the **Fill Tab** located in the [Sidebar](#).



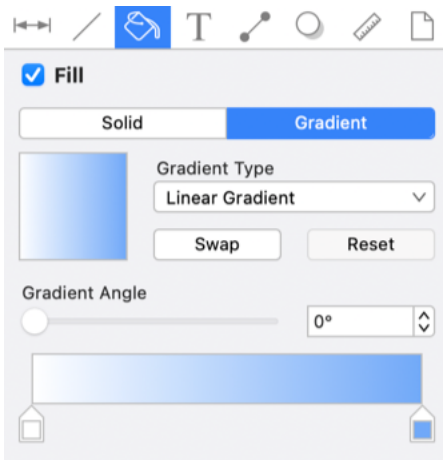
2. Click on **Gradient**.

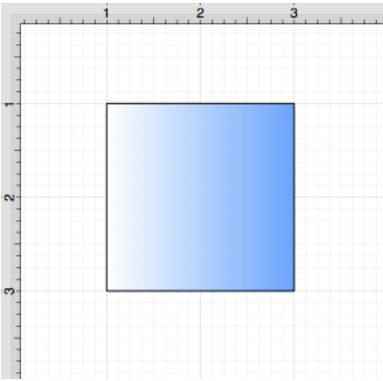


3. Then make certain **Linear Gradient** has been chosen in the **Gradient** drop-down menu.



4. The following example shows a rectangle with the **Fill Style** set to linear gradient and **Colors** set to white and blue:



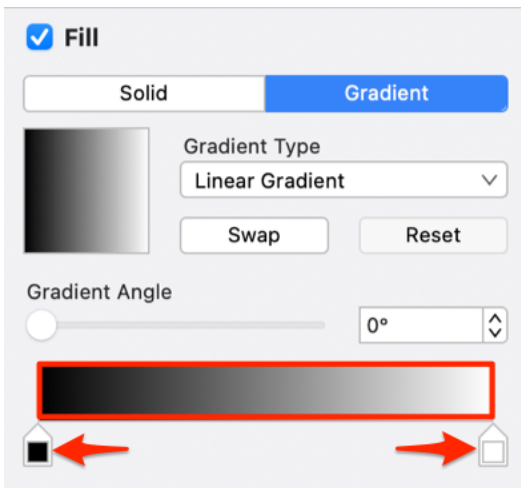


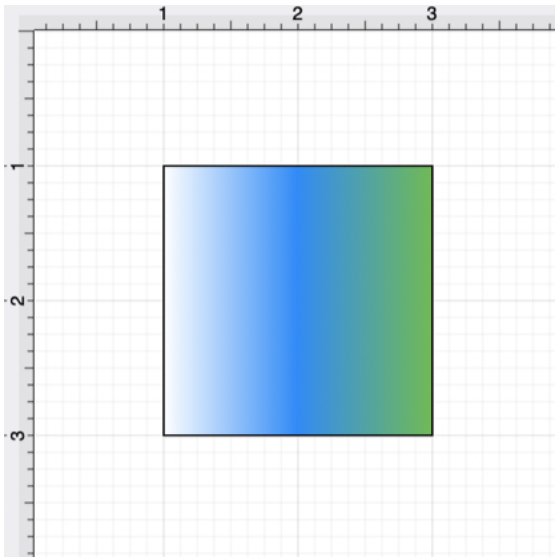
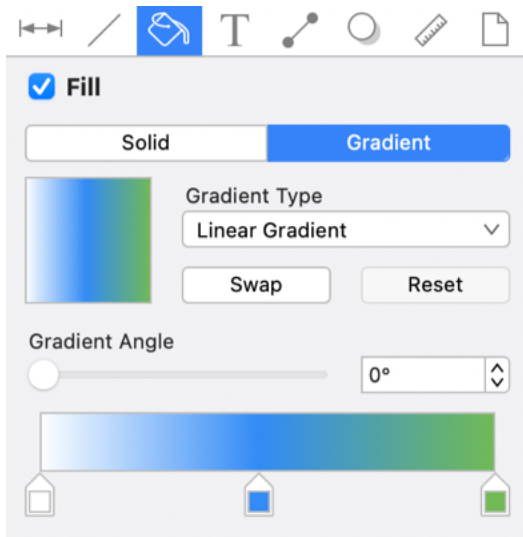
Note: A style change will be seen instantaneously when a figure is [selected](#). If figures have not been selected, the style change will apply to all subsequently created figures.

Working with Linear Gradients

Click on a **Gradient Handle** to select a color from the [color picker](#) or click anywhere within the color slider to add additional handles. The **Gradient Handles** can be moved to any desired position by clicking and dragging to the right or left on the color slider.

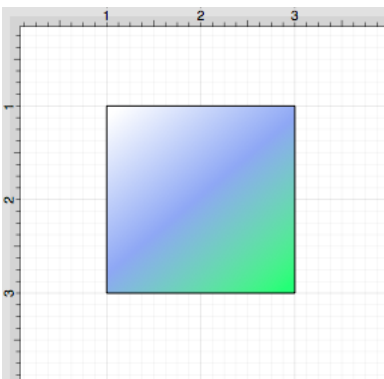
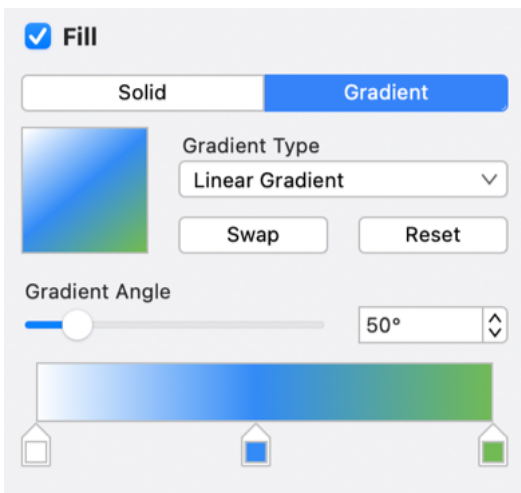
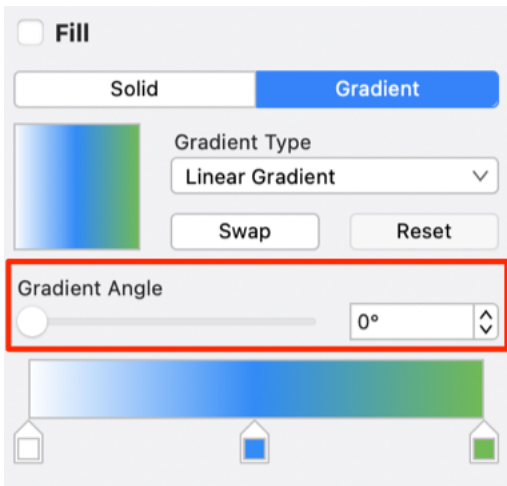
More than one color can be added by setting each individual gradient handle to one of the desired colors. In the example below, three gradient handles are used with these colors: white, blue, and green.





Angle

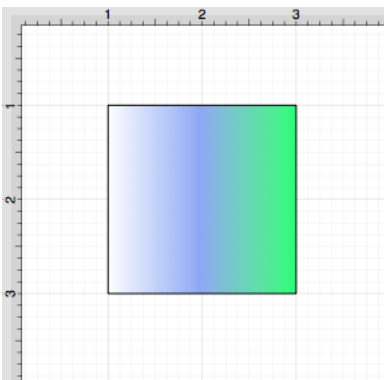
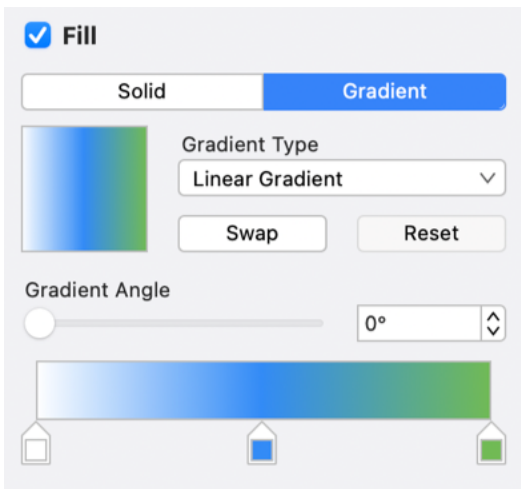
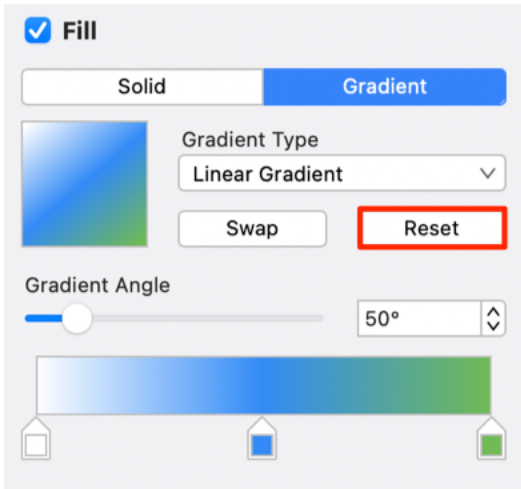
Type in a value or use the incremental buttons to change the **Angle** of the linear gradient. This option remains unavailable unless a figure has been selected within the [Drawing Canvas](#). In the example below, a value of 75 has been entered for the angle.



Reset Button

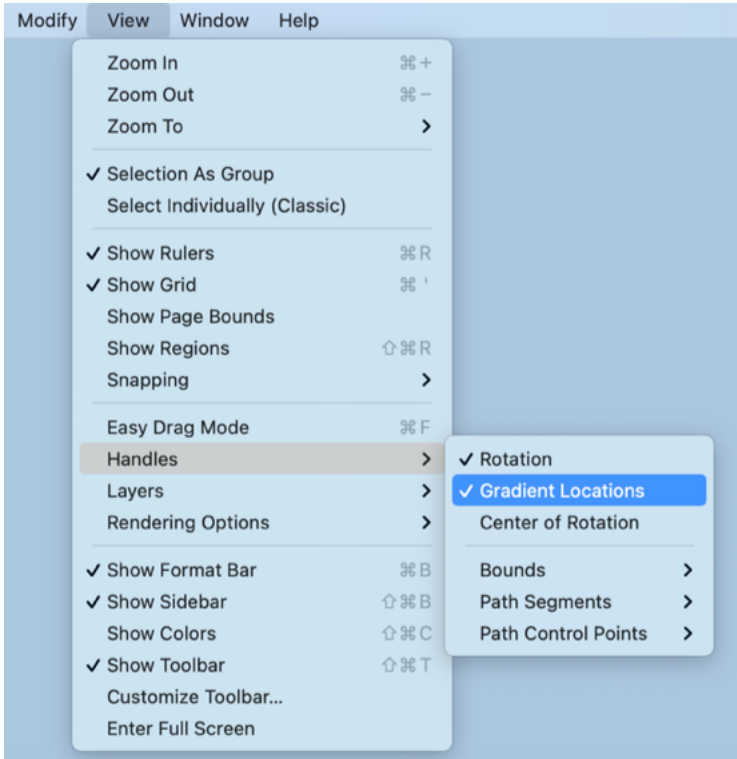
Click on the **Reset Button** to reset the angle back to zero and the gradient handles on the figure back to their

original position.

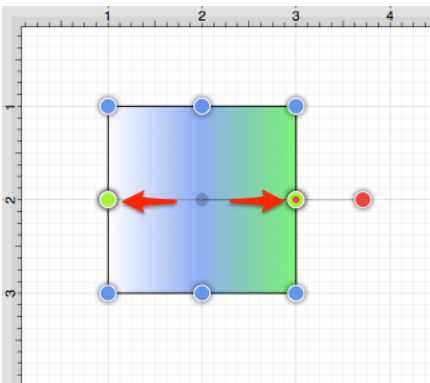


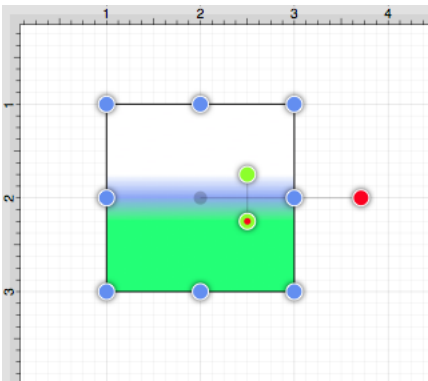
The **Reset Button** can also be used to reset the gradient handles on a figure(s) after they have been moved to another location. In order for this to be seen, you must have the Gradient Locations option enabled.

This can be done by clicking on the [View Menu](#) and then the [Handles Submenu](#). Then click on **Gradient Locations**. When this option is enabled, it will have a checkmark next to its name in the menu.

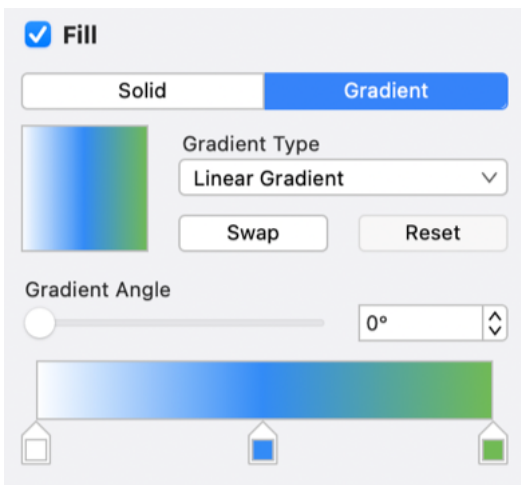
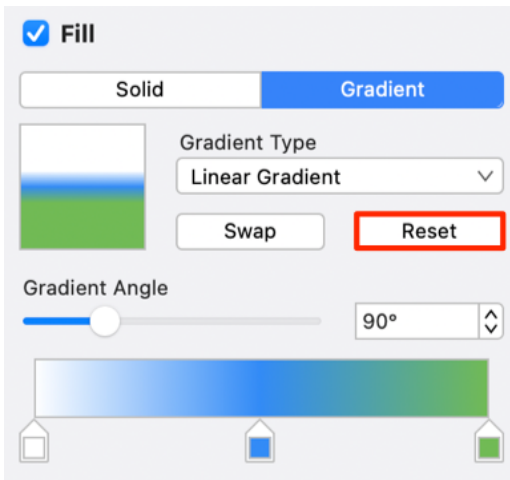


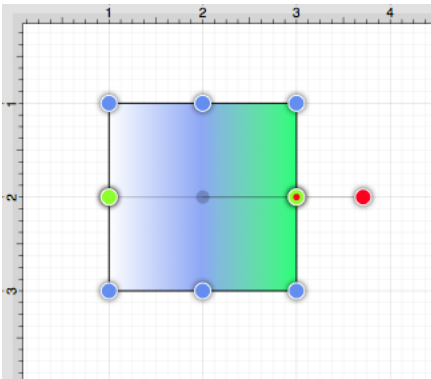
Once this option is enabled, you will be able to click and drag to move each gradient handle to another location within a figure (see below).





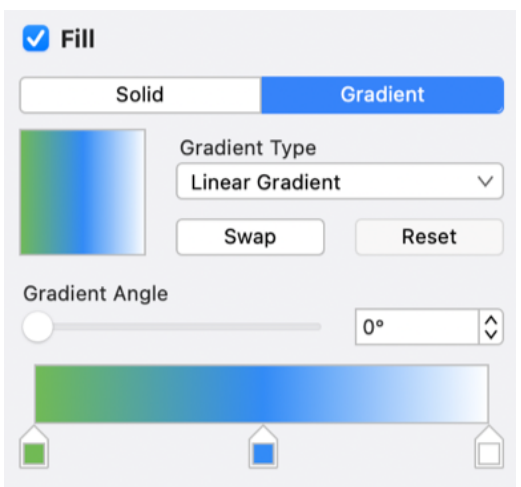
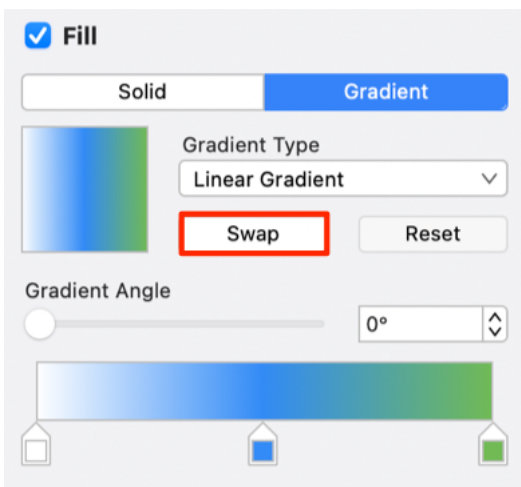
After one or both gradient handles has been moved, click on the **Reset Button** to set the linear gradient handles back to their original location.

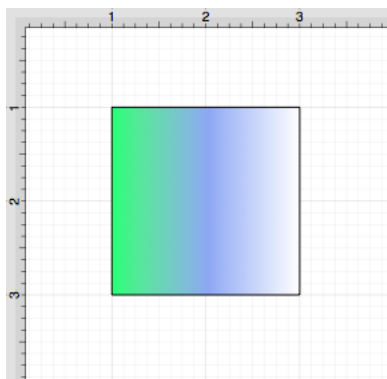




Swap Button

Click on the **Swap Button** to reverse the current color slider settings.

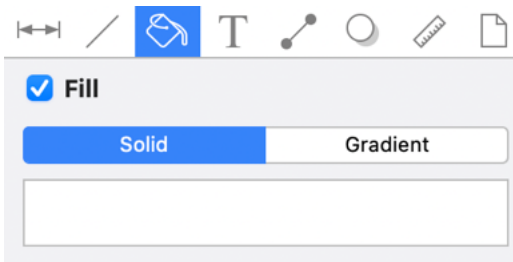
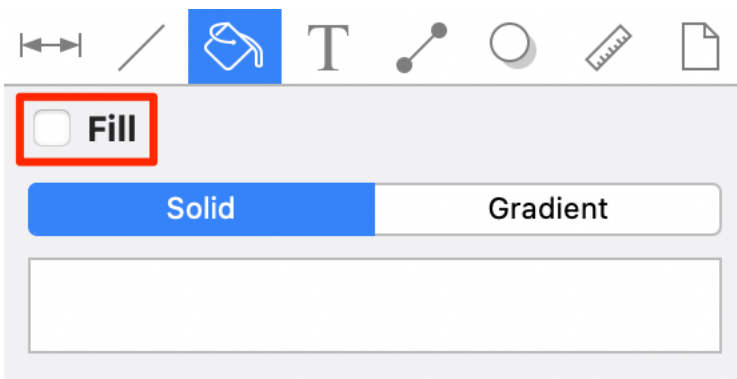




6.10.3.4. Radial Gradient

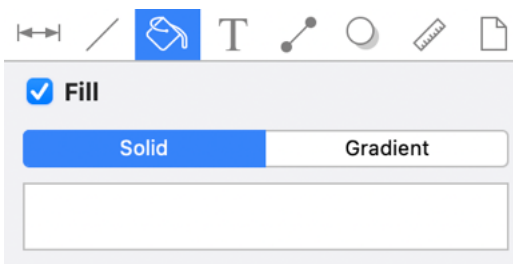
The **Radial Gradient** fill style option is located on the Fill tab in the Info portion of the Sidebar. This attribute transitions the fill from the specified start color to the specified end color by starting from the center of a [selected](#) or created figure(s) and then moving outward in a circular manner.

The **Fill** option must be enabled for a change in this tab to be applied to currently selected or new figures. Click on the box next to the option name to enable/disable it, as shown below:

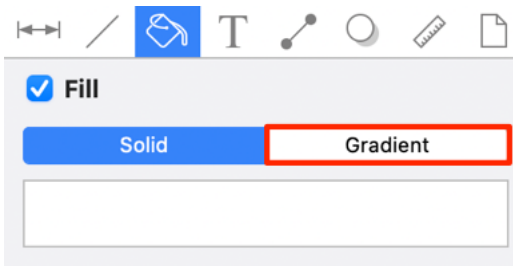


Follow the steps below to set this attribute to **Radial Gradient**:

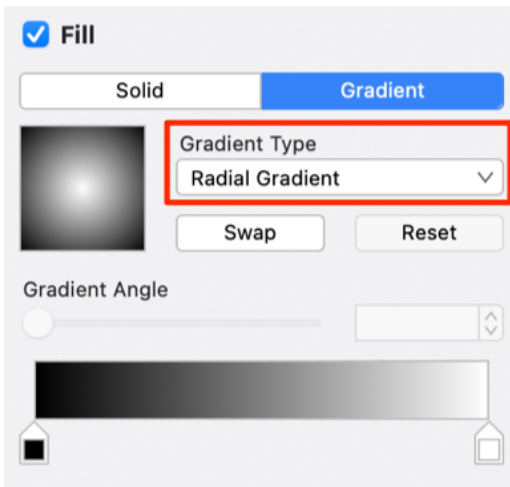
1. Select the **Fill Tab** located in the [Sidebar](#).



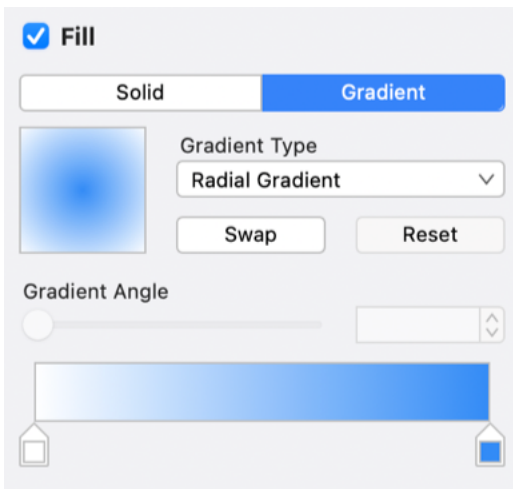
2. Click on the **Gradient** fill style.

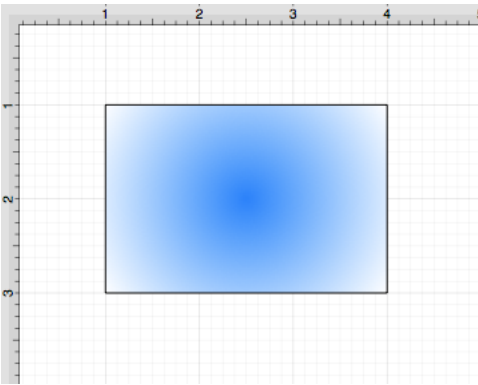


3. Choose the **Radial Gradient** option from the **Gradient** drop-down menu.



4. The following example shows a rectangle with the **Fill Style** set to radial gradient and **Color** set to blue:



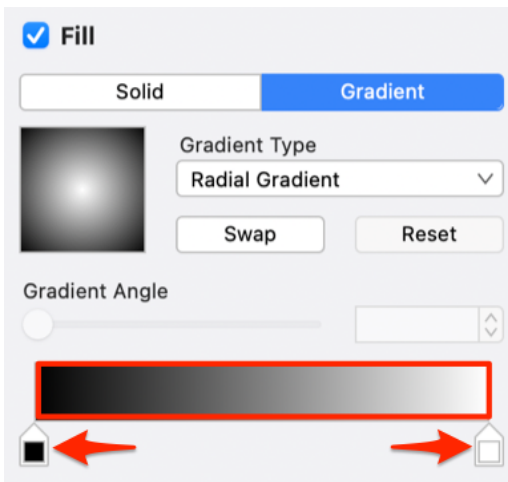


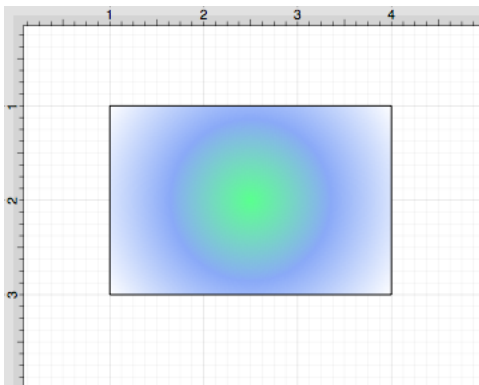
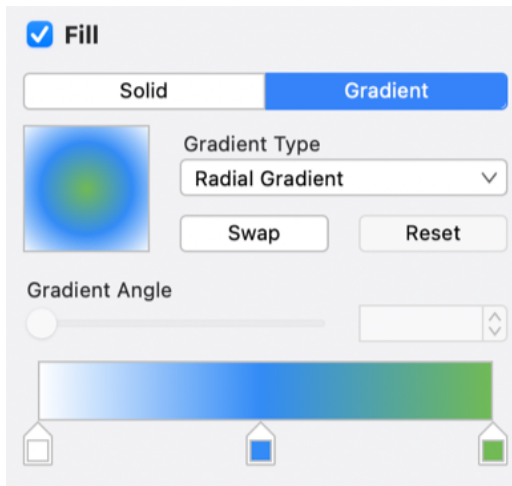
Note: A style change will be seen instantaneously when a figure is [selected](#). If figures have not been selected, the style change will apply to all subsequently created figures.

Working with Radial Gradients

Click on a **Gradient Handle** to select a color from the [color picker](#) or click anywhere within the color slider to add additional handles. The **Gradient Handles** can be moved to any desired position by clicking and dragging to the right or left on the color slider.

More than one color can be added by setting each individual gradient handle to one of the desired colors. In the example below, three gradient handles are used with these colors: white, blue, and green.

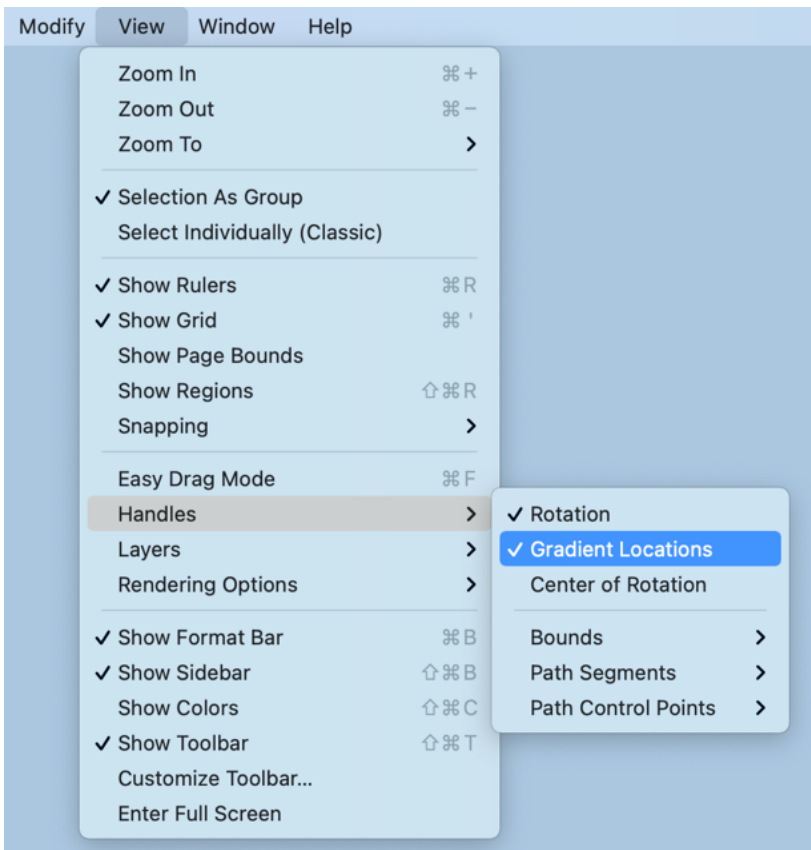




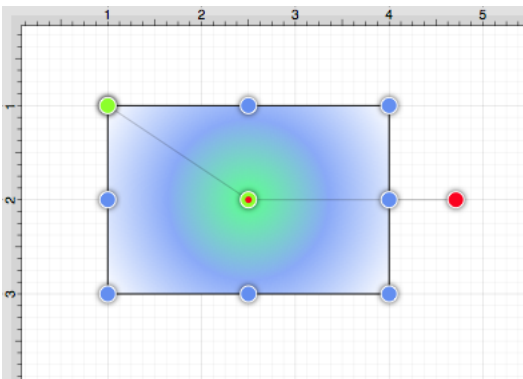
Reset Button

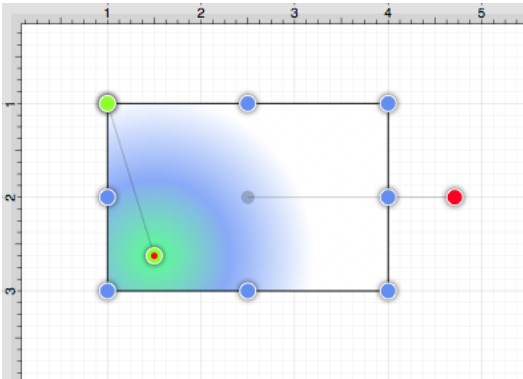
The **Reset Button** can be used to reset the center point of the radial gradient after it has been moved. In order for this to be seen, you must have the Gradient Locations option enabled.

To do this, click on the [View Menu](#) and the [Handles-Submenu](#). Then click on **Gradient Locations**. When this option is enabled, it will have a checkmark by its name.

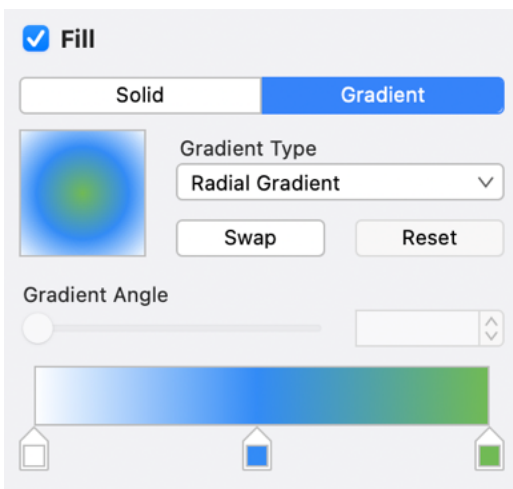
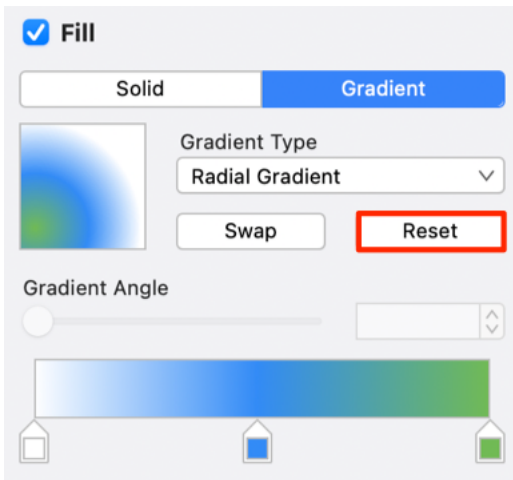


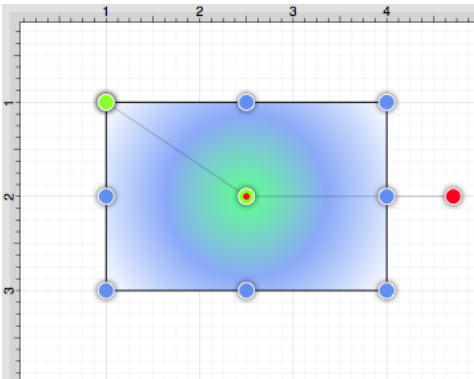
Once this option is enabled, you will be able to click and drag to move the center point to another location within a figure (see below).





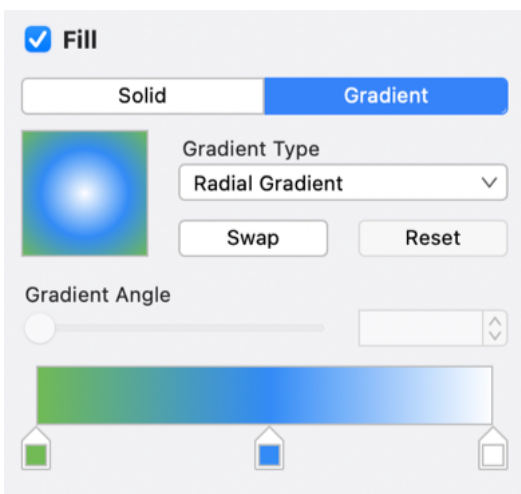
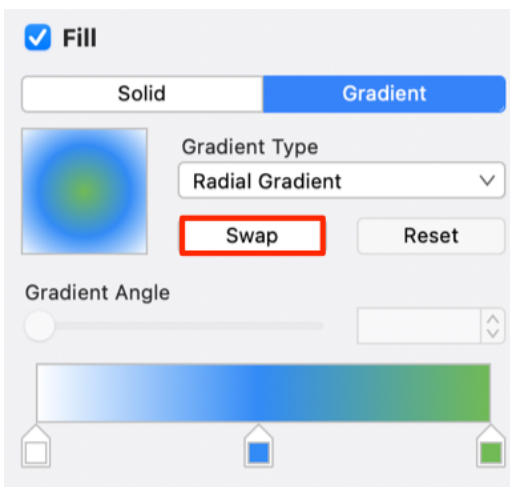
After the center point has been moved, click on the **Reset Button** to set the radial gradient back to its true center point.

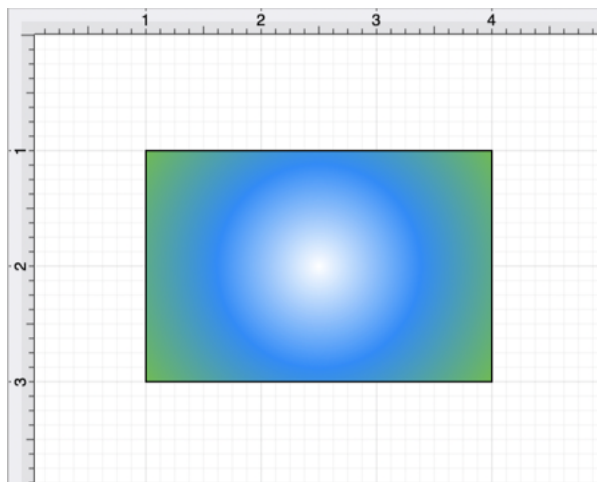




Swap Button

Click on the **Swap Button** to reverse the current color slider settings.

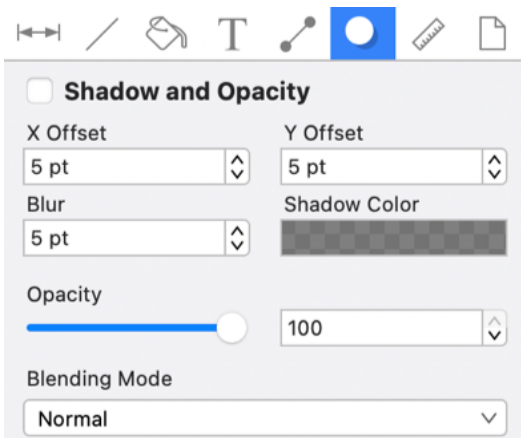




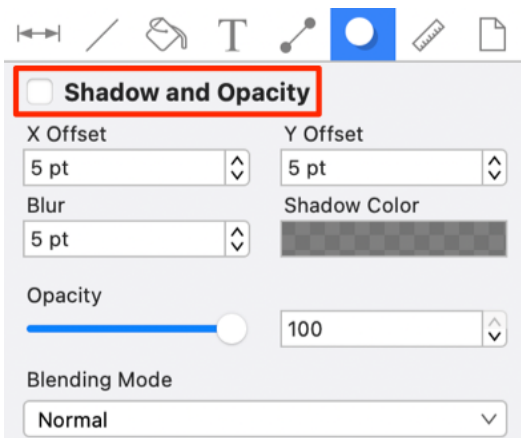
6.10.4. Shadow Color

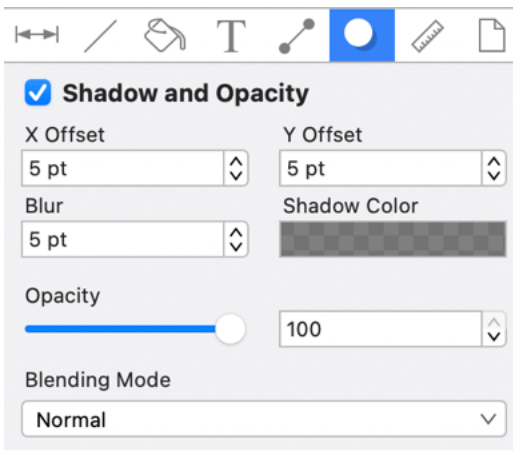
The **Shadow Color** of a selected figure can be changed to meet a desired preference. It can be altered for a [selected](#) figure(s) or in instances where no figures have been selected. If a figure has not been selected, the color change applies to any figure added after the change. To alter the shadow color:

1. Click on the **Shadow and Opacity Tab** in the [Sidebar](#).

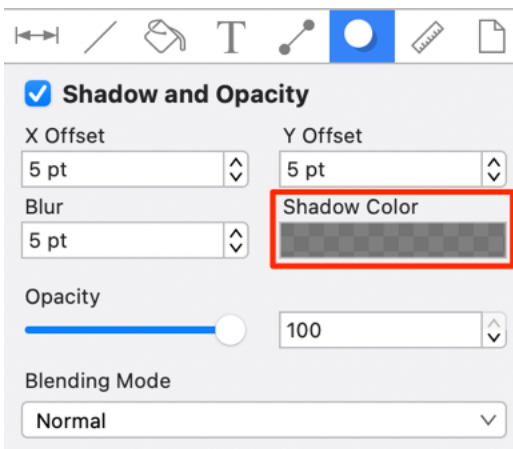


2. Changes made to this attribute are only reflected on current or new figures within the [Drawing Canvas](#) when the **Shadow Visibility** option has been enabled. To **enable/disable** this option, click on the checkbox next to the option labeled "Shadow and Opacity". It will have a checkmark and blue background when enabled.

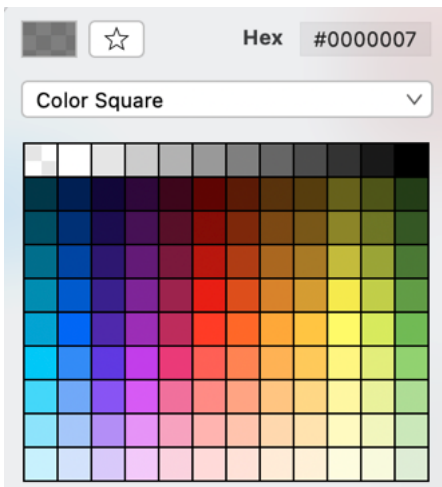


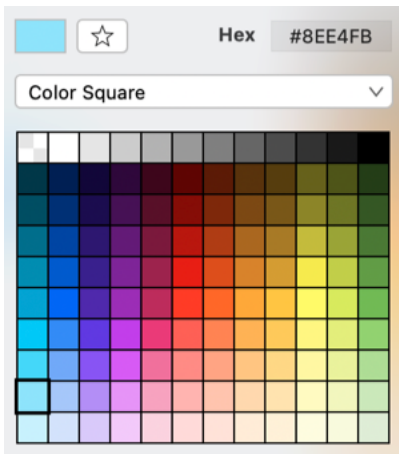


3. Then **Click** on the **Shadow Color** attribute in the Shadow and Opacity Tab.

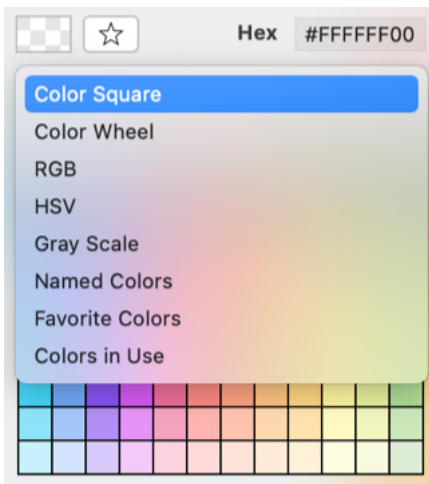
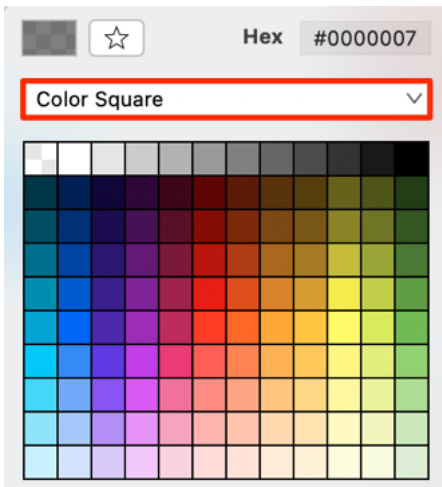


4. To select a pre-defined color in the **Color Square**, simply click on the desired color.

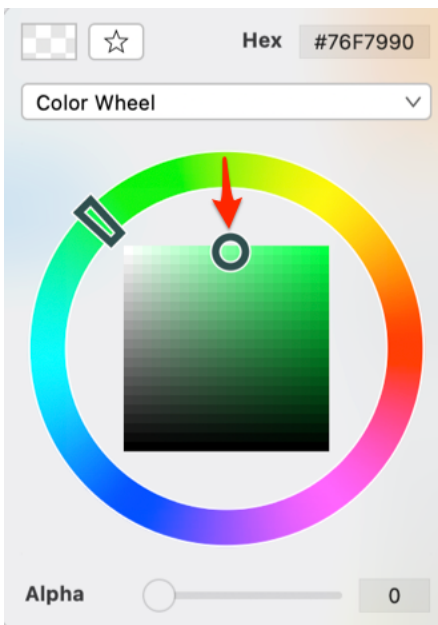
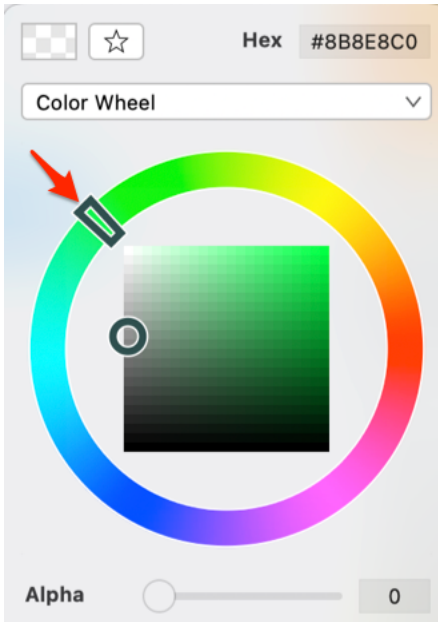




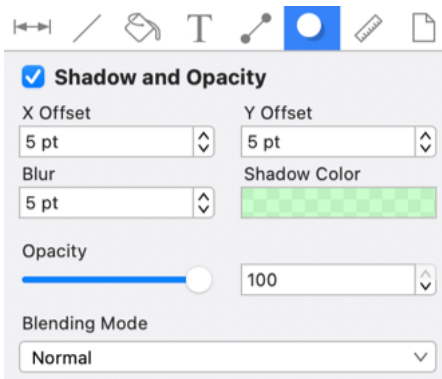
5. You may also configure a color by choosing an option from the **Color Selection Menu**: [Color Wheel](#), [RGB](#), [HSV](#), [Gray Scale](#), [Named Colors](#), [Favorite Colors](#), or [Colors in Use](#). To do so, click on the menu and then click on an option.



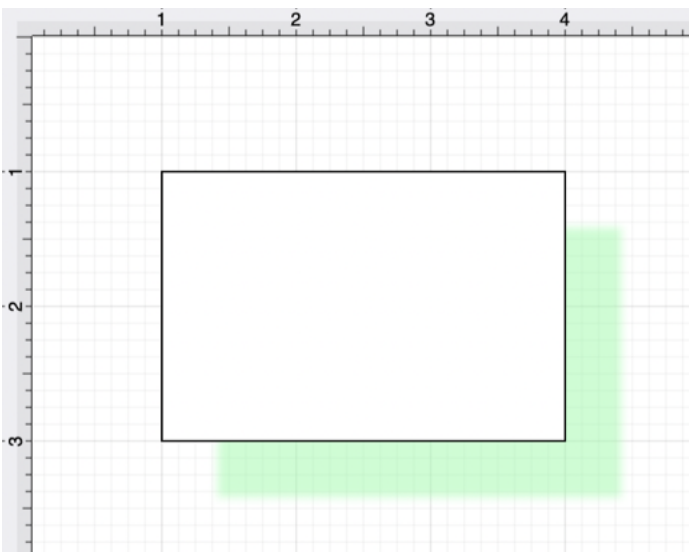
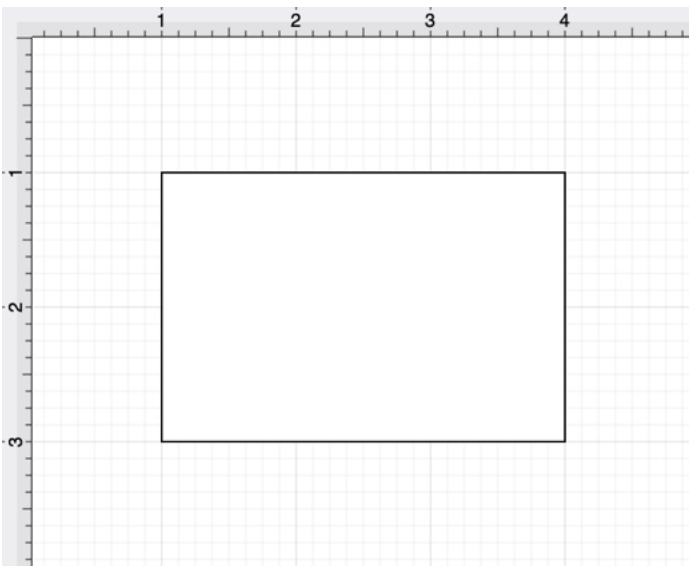
6. If using the **Color Wheel**, first click on the desired color range within the outside of the wheel view. Then choose the desired lightness or darkness of the selected color in the center (saturation) square.



7. Perform a **Click/Drag** gesture combination on the **Opacity Slider** to change the degree to which the shadow can be seen through. Then click anywhere within the [Drawing Canvas](#) to close the window.



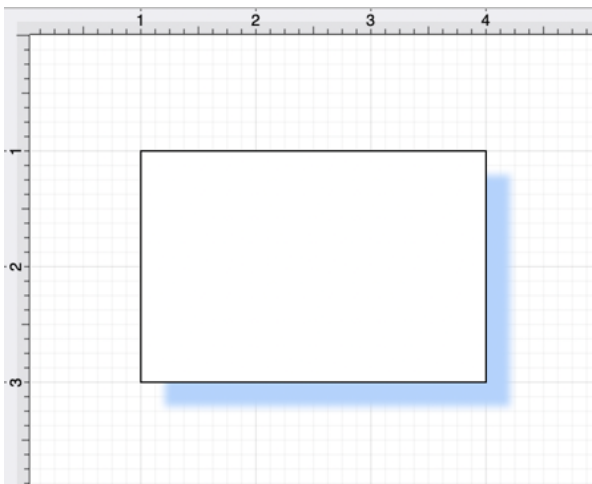
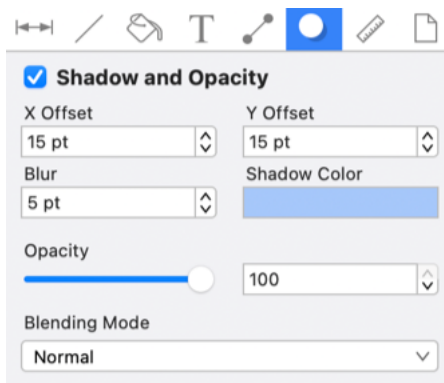
8. The following examples show a square prior to adding a shadow and after the color has been altered.



Note: A color change will be seen instantaneously when a figure is [selected](#). If no figures have been selected, the color change will apply to all subsequently created figures.

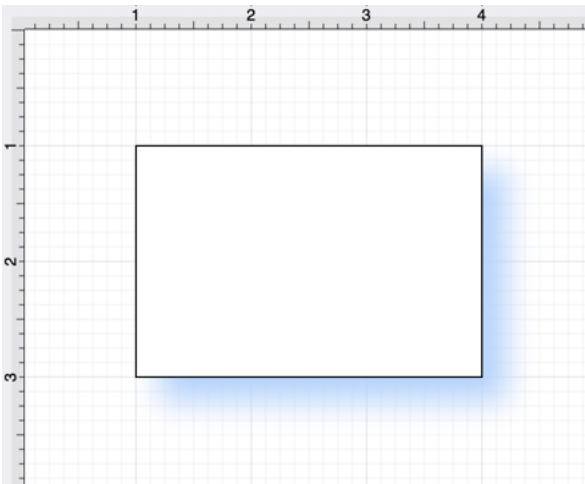
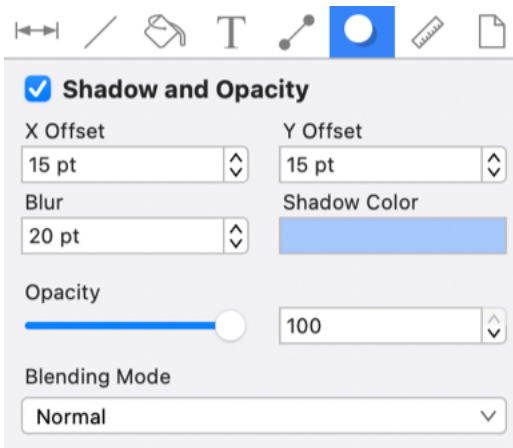
X and Y Offset

The **X Offset** and **Y Offset** attributes set the offset of the shadow in the X axis and Y axis. Type a value in the text field or use the **"Up"** or **"Down"** Buttons to alter the shadow offset for a figure(s). In the example below, the X and Y Offset has been changed to 15 points.



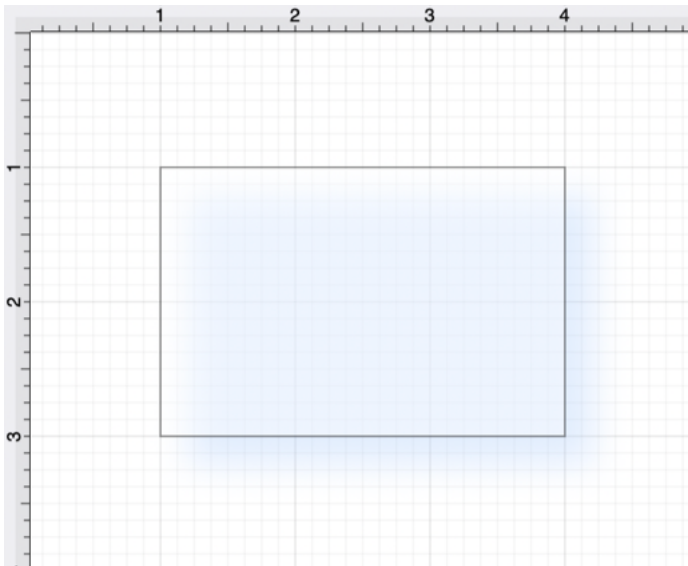
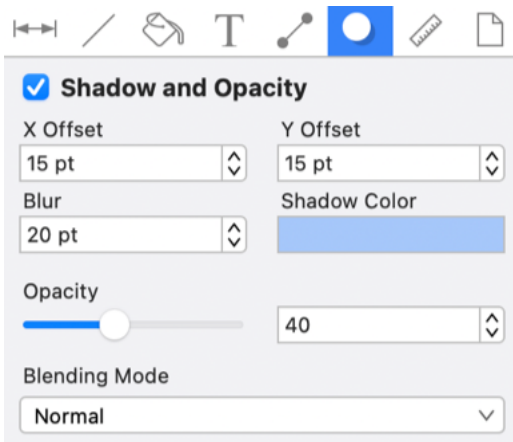
Blur

The **Blur** attribute sets the amount of blur applied to the shadow. Type in a number in the text field or use the **"Up"** or **"Down"** Buttons to alter the Blur value for the shadow. In the example below, the Blur value has been changed to 20 points.



Opacity

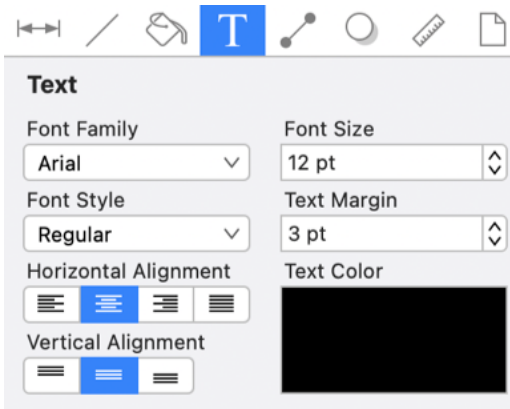
Use the **Opacity** slider, text field, or "**Up**" and "**Down**" **Buttons** to alter the opaqueness (opposite of transparency) of a selected color. In the example below, the Opacity has been changed to 50.



6.10.5. Text Color

The **Text Color** of a selected figure can be changed to meet a desired preference. It can be altered for a [selected](#) figure(s) or in instances where no figures have been selected. If a figure has not been selected, the color change applies to any figure added after the change. This attribute can be altered by:

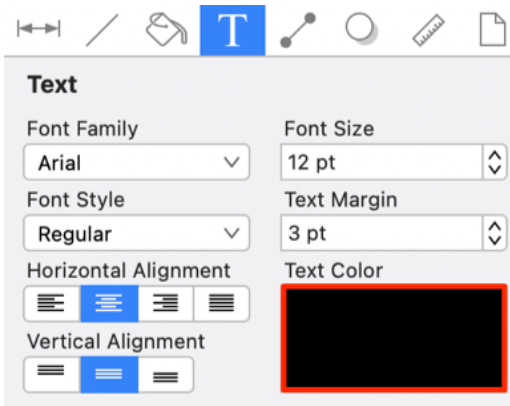
1. Click on the **Text Tab** to view the text attributes.



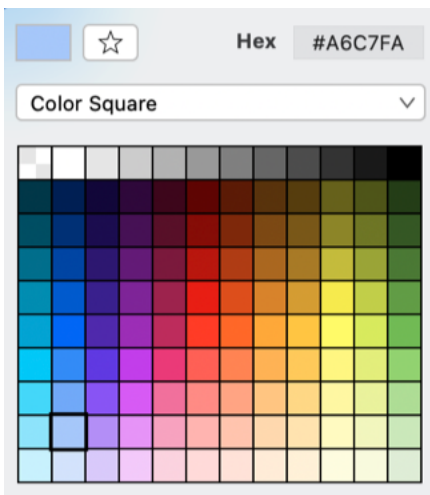
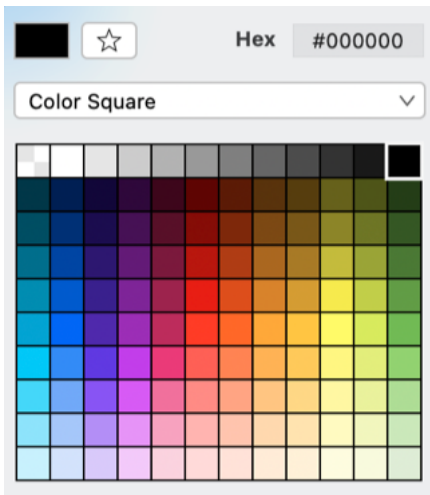
2. Click on the **Text Color Button** in the [Format Bar](#).

To alter the **Text Color**:

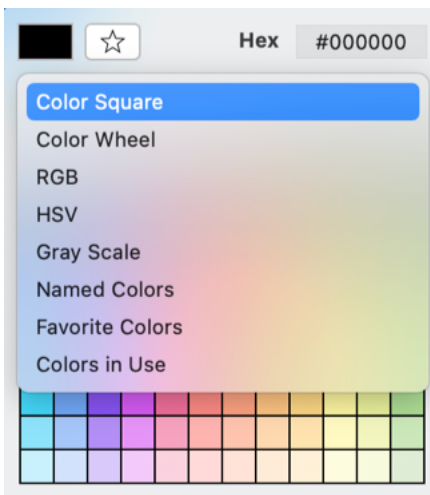
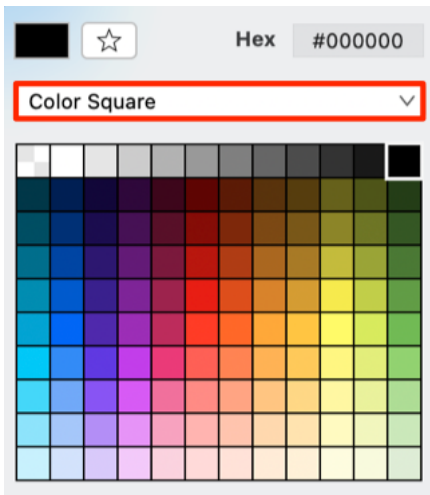
1. Click on the **Text Color** attribute in the Text Tab.



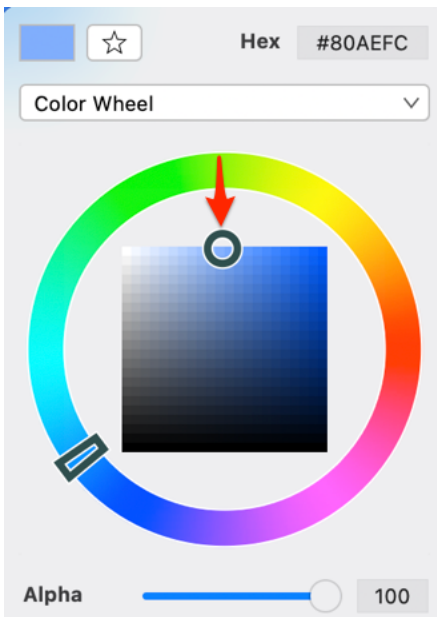
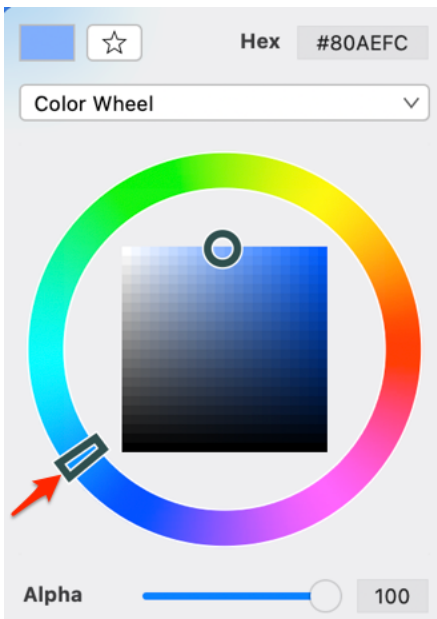
2. To select a pre-defined color in the **Color Square**, simply click on the desired color.



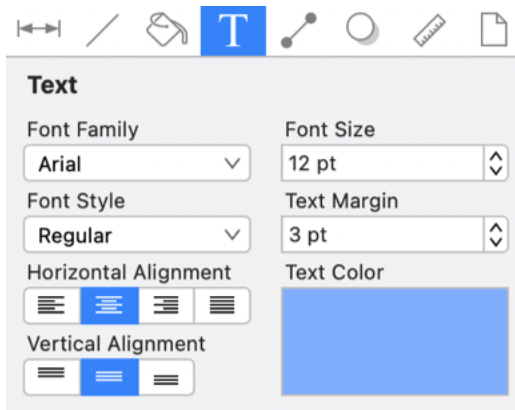
3. You may also configure a color by choosing an option from the **Color Selection Menu**: [Color Wheel](#), [RGB](#), [HSV](#), [Gray Scale](#), [Named Colors](#), [Favorite Colors](#), or [Colors in Use](#). To do so, click on the menu and then click on an option.



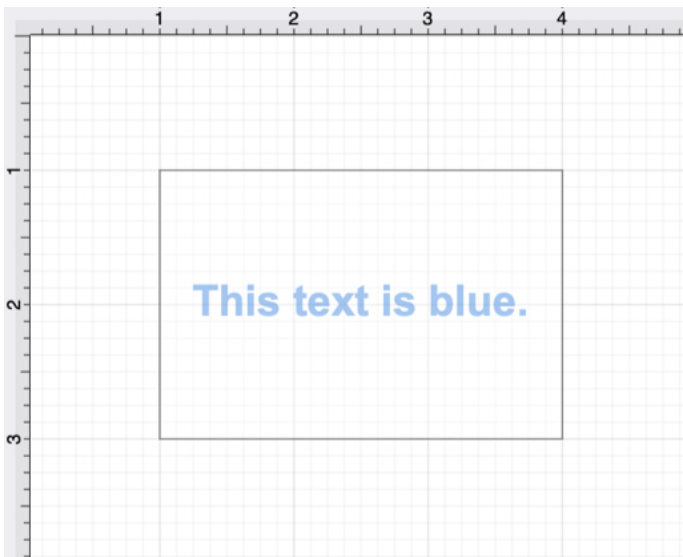
4. If using the **Color Wheel**, first click on the desired color range within the outside of the wheel view. Then choose the desired lightness or darkness of the selected color in the center (saturation) square.



5. Scroll through the [Font Family](#) and [Font Style](#) options by clicking and dragging in an upward or downward direction on the wheel to make a selection or **Click** on additional options (opacity slider, fill type, etc.) within the popover window to make further attribute changes.



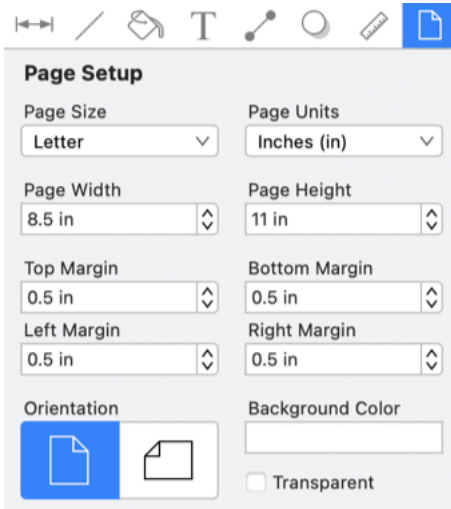
6. Click anywhere within the [Drawing Canvas](#) to close the window.



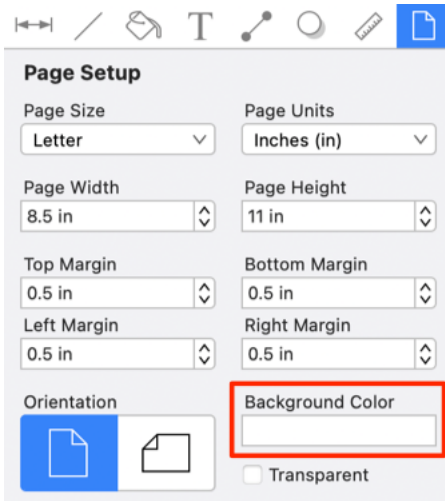
6.10.6. Canvas Background Color

The **Canvas Background Color** can be changed to meet a desired preference. Follow the steps below to alter this attribute:

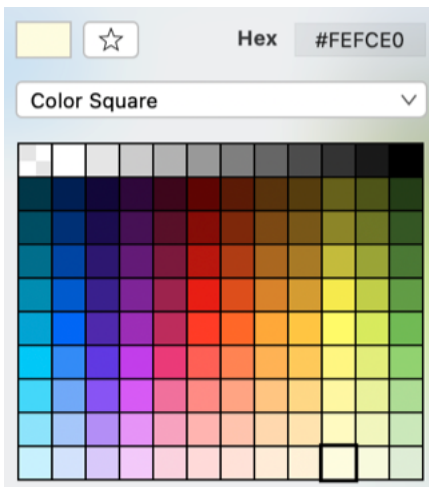
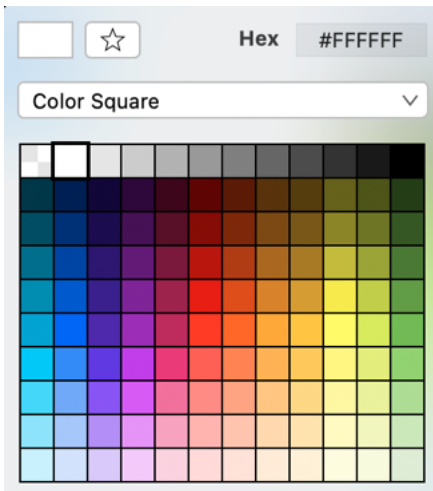
1. Click on the **Page Setup Tab** in the [Sidebar](#).



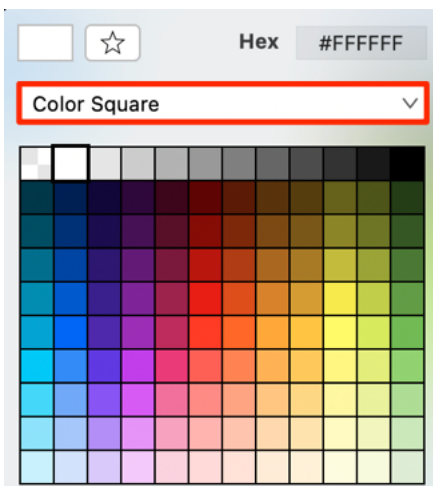
2. Click on the **Background Color** attribute in the **Page Setup Tab**.

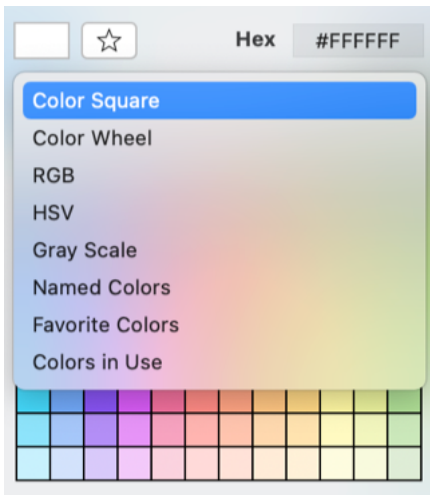


3. To select a pre-defined color in the **Color Square**, simply click on the desired color.

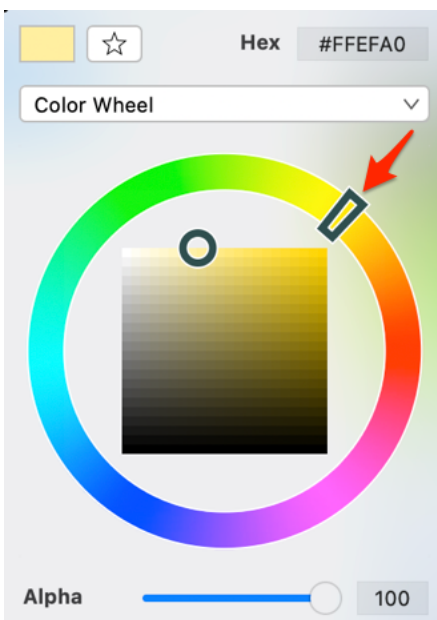


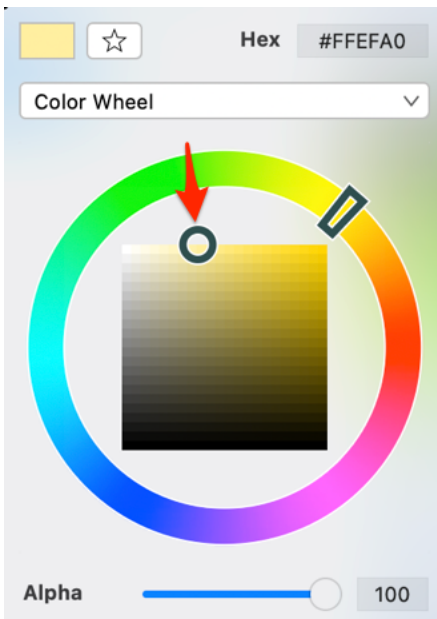
4. You may also configure a color by choosing an option from the **Color Selection Menu**: [Color Wheel](#), [RGB](#), [HSV](#), [Gray Scale](#), [Named Colors](#), [Favorite Colors](#), or [Colors in Use](#). To do so, click on the menu and then click on an option.



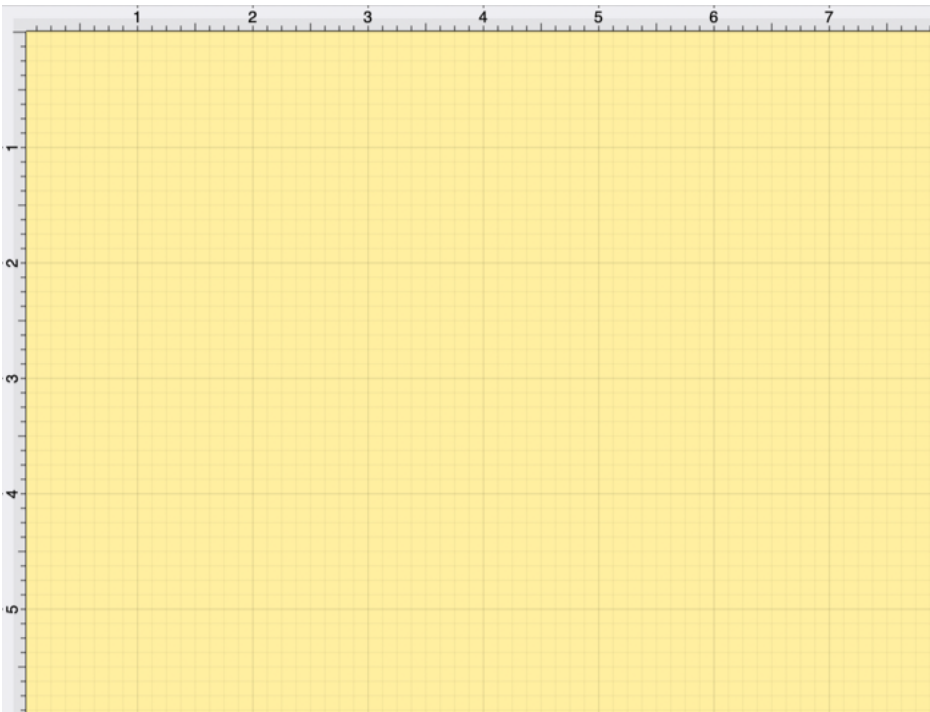


5. If using the **Color Wheel**, first click on the desired color range within the outside of the wheel view. Then choose the desired lightness or darkness of the selected color in the center (saturation) square.





6. Click anywhere within the [Drawing Canvas](#) to close the window.
7. The **Canvas Background Color** change will appear instantaneously.

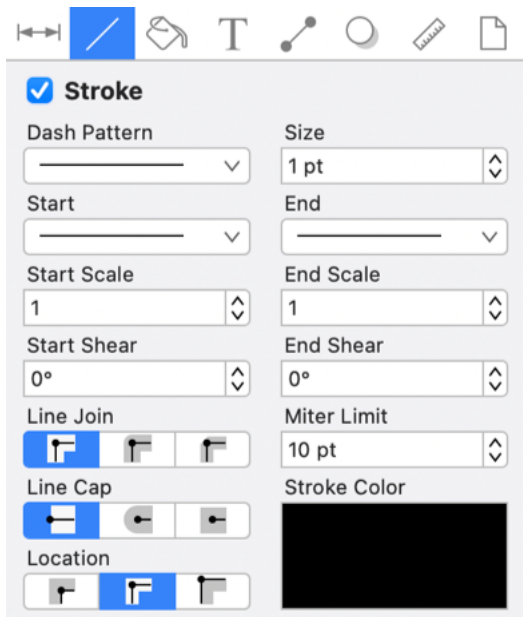


6.11. Handling Strokes

TouchDraw 2 provides multiple options for altering the attributes of a stroke (line) for existing or new figures(s) within the drawing canvas. **Stroke** attributes are accessible through the Info of the Sidebar and can be used to change:

- [Stroke Visibility](#)
- [Line or Endpoint Styles](#)
- [Stroke Size](#)
- [Start or End Scale](#)
- [Start or End Shear](#)
- [Line Caps](#)
- [Line Joins](#)
- [Line Location](#)
- [Miter Limit](#)
- [Line Colors](#)

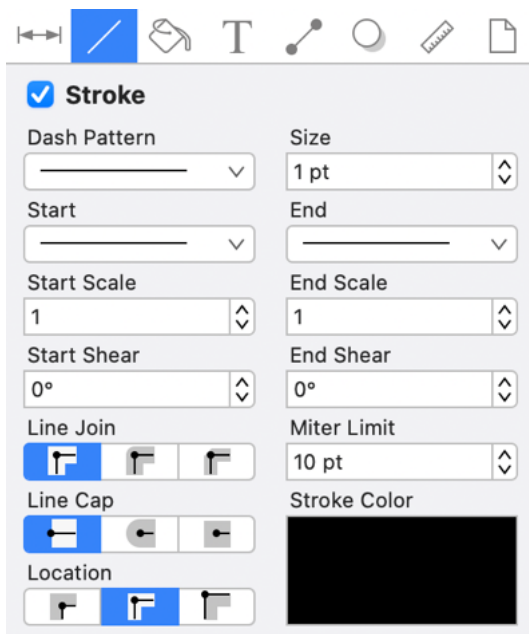
The **Stroke Tab** appears as shown below:



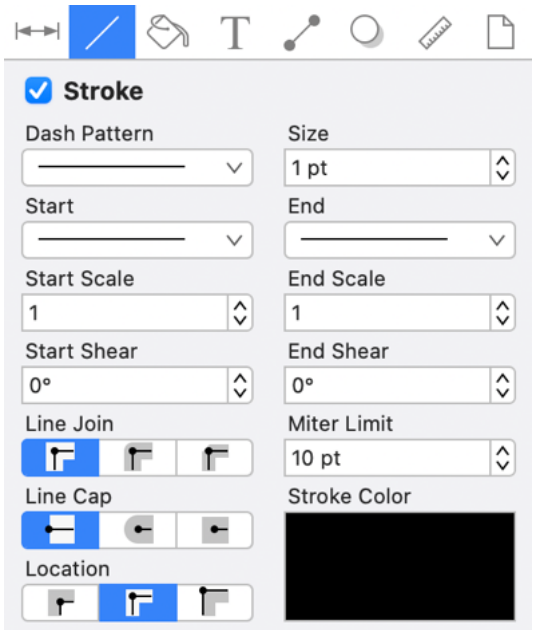
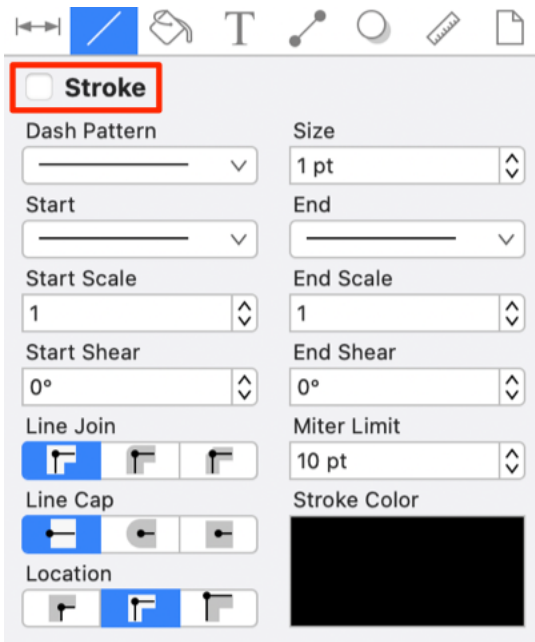
6.11.1. Stroke Visibility

The **Stroke Visibility** option is an **On/Off** toggle used to set the visibility of strokes/lines of a figure(s). If the visibility option is turned off, the border/line of a selected or added figure(s) is not drawn at all.

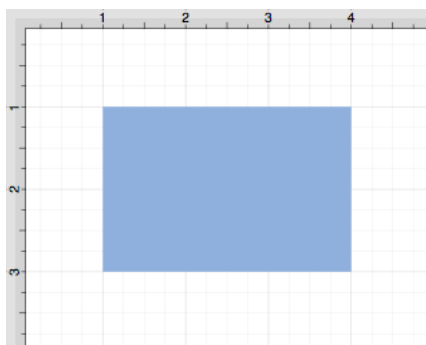
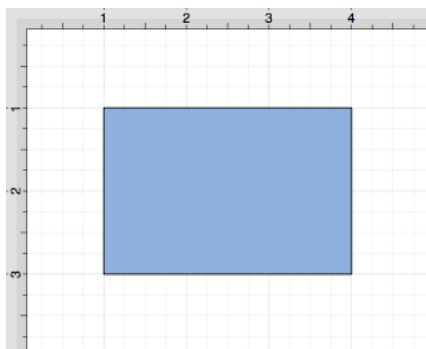
The **Stroke Visibility** toggle is accessed by clicking on the Stroke Tab in the Sidebar, as shown below:



Click on the check box next to the **Stroke** label to enable or disable the **Stroke Visibility** option.



If **Stroke Visibility** is on, an outline around the figure will be present and if it is off and Fill Visibility is on, the figure will appear with no border, as shown below:

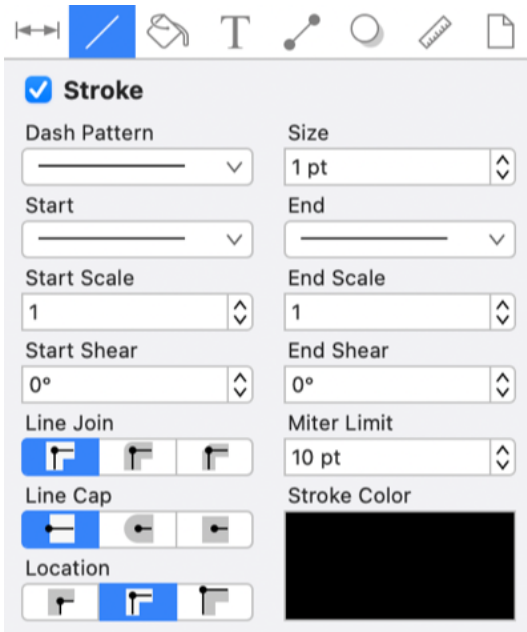


Note: Stroke attribute changes will not be reflected in a selected or added figure(s) until this option has been enabled.

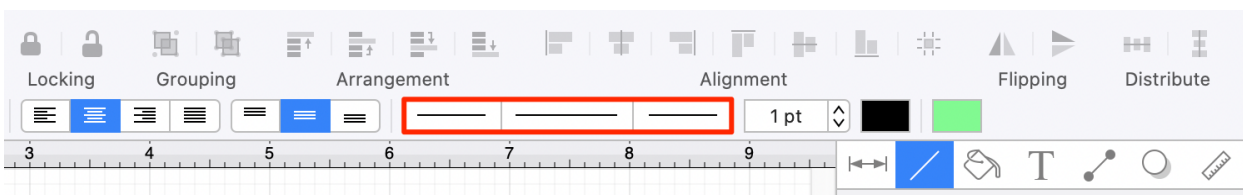
6.11.2. Stroke Style

The **Stroke Style** or line dash pattern and end decorations of a figure can be altered in one of the following ways:

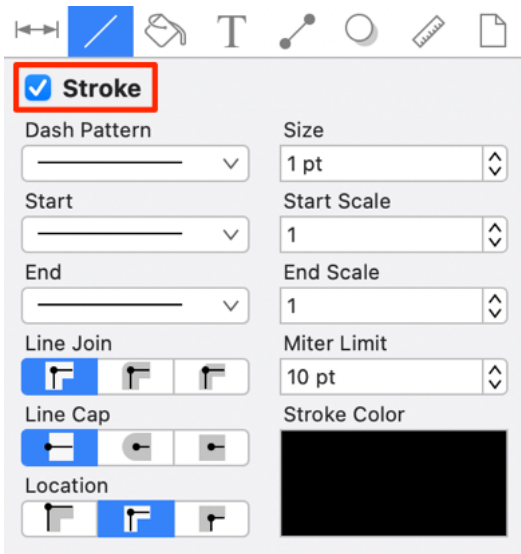
1. By clicking on the [Stroke Tab](#) in the [Sidebar](#), as shown below.



2. By using the **Stroke Style Buttons** in the [Format Bar](#).

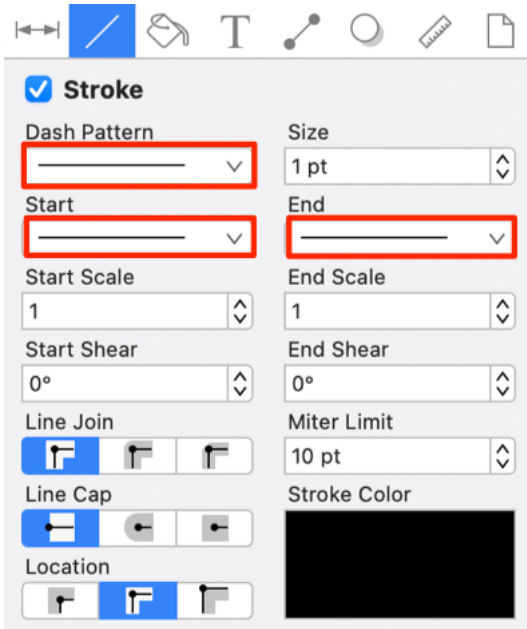


The [Stroke Visibility](#) option must be enabled for a **Stroke Style** change to appear in the [Drawing Canvas](#).

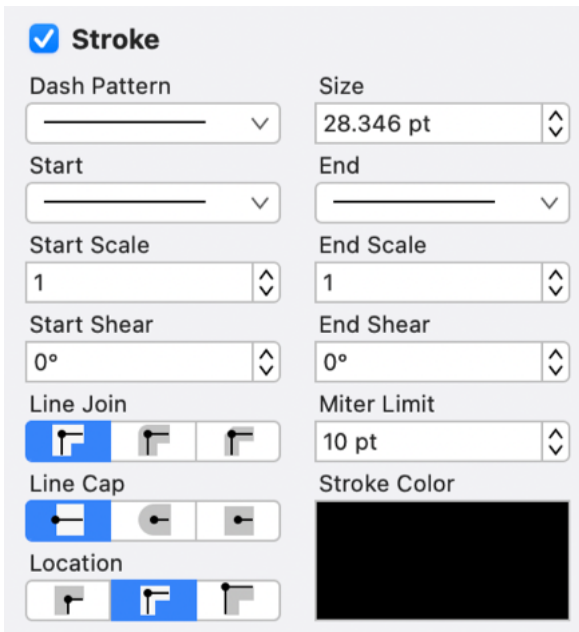


To alter the **Stroke Style** of a currently selected figure(s) or new figure(s):

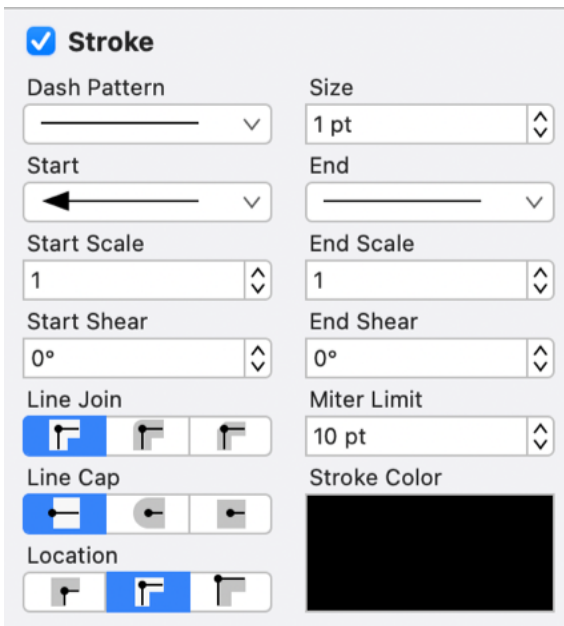
1. **Click** on the desired section (Dash Pattern, Start, or End) of the **Line Style** section in the **Stroke Tab**.



2. Select a style from the **Start**, **Line**, or **End** drop-down menus. In this example, the **Start Stroke Style** is altered.



3. The new selection will appear in the **Stroke Panel**.



4. For example, a **Line** with an arrowed **Start** and **End Style** and a **Stroke Size** of 3 would appear as shown below:

☒ **Stroke**

Dash Pattern

Start

Start Scale

Start Shear

Line Join
☒ ☐ ☐

Line Cap
☒ ☐ ☐

Location
☐ ☐ ☐

Size

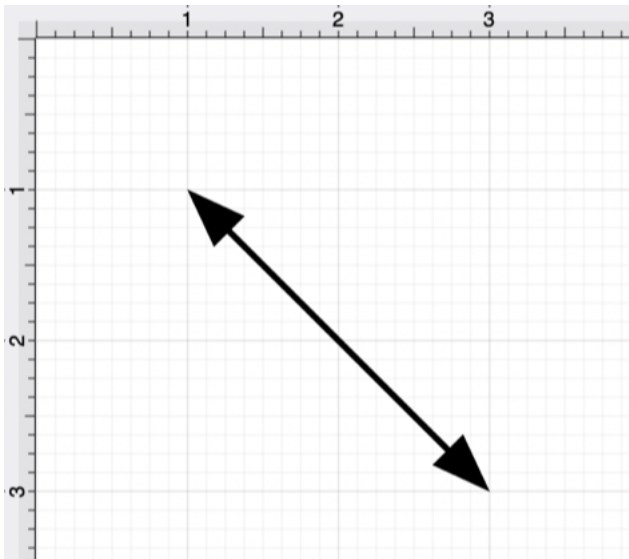
End

End Scale

End Shear

Miter Limit

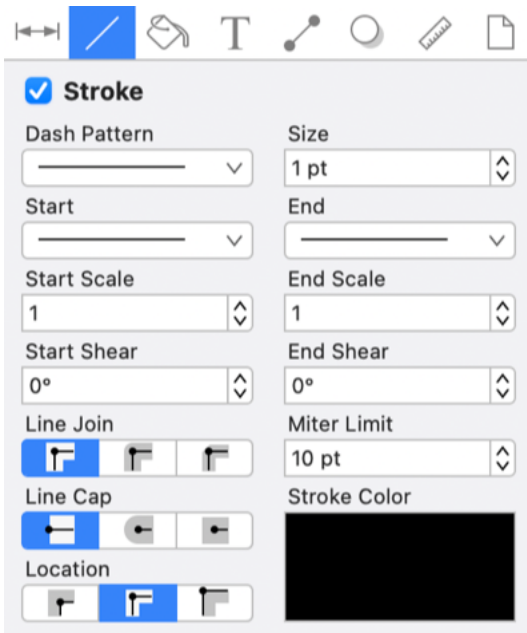
Stroke Color



6.11.3. Stroke Size

The **Stroke Size** of a figure (width of a stroke *in pixels*) can be altered in one of the following ways:

1. By selecting the [Stroke Tab](#) in the [Sidebar](#), as shown below.

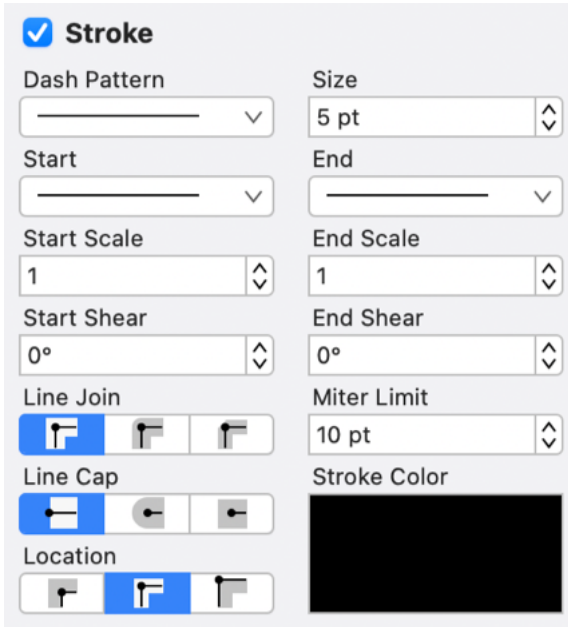
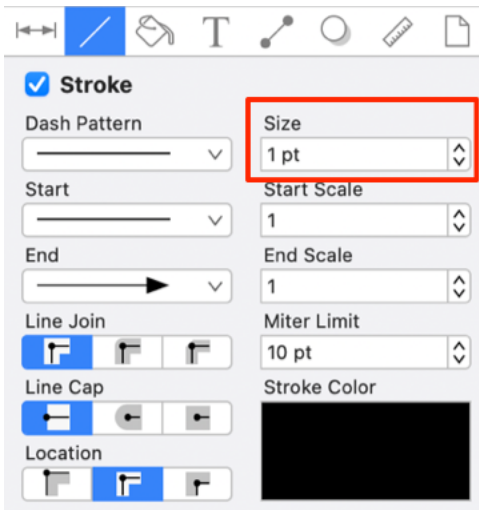


2. Altering the **Stroke Size** in the [Format Bar](#).



Note: The [Stroke Visibility](#) option must be enabled for a **Stroke Size** change to appear in the [Drawing Canvas](#).

To alter the **Stroke Size**, click on the "Up" or "Down" arrow buttons next to the text entry field to increase or decrease the size by increments of one or click on the text entry field to open the text editor and type in a value.



The **Stroke Size** attribute provides the ability to convert other measurements (Pixels, Millimeters, Centimeters, Inches, Feet, Meters, Kilometers, Yards, etc.) into points.

For example, if 1 centimeter (cm) is typed into this field, it will automatically be converted to its equivalent in points when the **Enter Key** is pressed or you click in another area of the application.

☒ **Stroke**

Dash Pattern

Start

Start Scale

Start Shear

Line Join ☒ ☐ ☐

Line Cap ☒ ☐ ☐

Location ☐ ☒ ☐

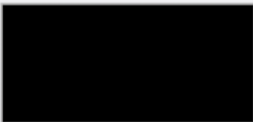
Size


End

End Scale

End Shear

Miter Limit

Stroke Color 



☒ **Stroke**

Dash Pattern

Start

End

Line Join ☒ ☐ ☐

Line Cap ☒ ☐ ☐


Location ☐ ☒ ☐

Size

Start Scale

End Scale

Miter Limit

Stroke Color 

If 25 millimeters (25 mm) is entered as the **Stroke Size**, it will be converted to 70.866 points.

☒ **Stroke**

Dash Pattern	Size
<input type="text" value=""/>	<input type="text" value="25 mm"/>
Start	End
<input type="text" value=""/>	<input type="text" value=""/>
Start Scale	End Scale
<input type="text" value="1"/>	<input type="text" value="1"/>
Start Shear	End Shear
<input type="text" value="0°"/>	<input type="text" value="0°"/>
Line Join	Miter Limit
<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="text" value="10 pt"/>
Line Cap	Stroke Color
<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="text" value=""/>
Location	
<input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	

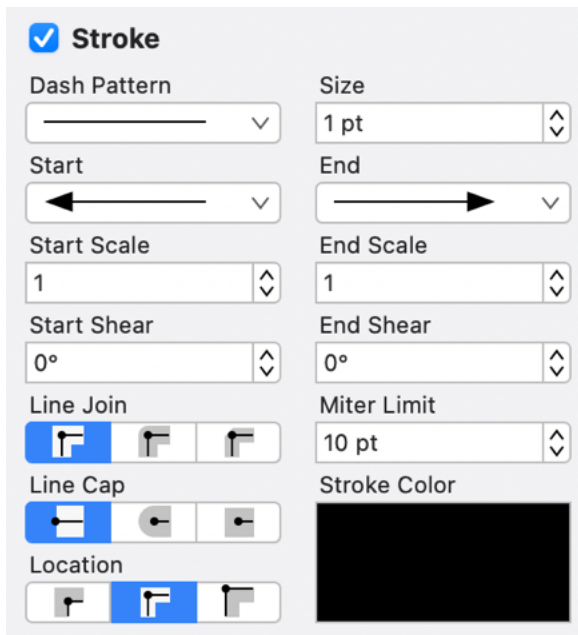
☒ **Stroke**

Dash Pattern	Size
<input type="text" value=""/>	<input type="text" value="70.866 pt"/>
Start	End
<input type="text" value=""/>	<input type="text" value=""/>
Start Scale	End Scale
<input type="text" value="1"/>	<input type="text" value="1"/>
Start Shear	End Shear
<input type="text" value="0°"/>	<input type="text" value="0°"/>
Line Join	Miter Limit
<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="text" value="10 pt"/>
Line Cap	Stroke Color
<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>	<input type="text" value=""/>
Location	
<input type="radio"/> <input checked="" type="radio"/> <input type="radio"/>	

Note: A size change will be seen instantaneously when a stroke figure is [selected](#). If no figures have been selected, the size change will apply to all subsequently created stroke figures.

6.11.4. Start/End Scale

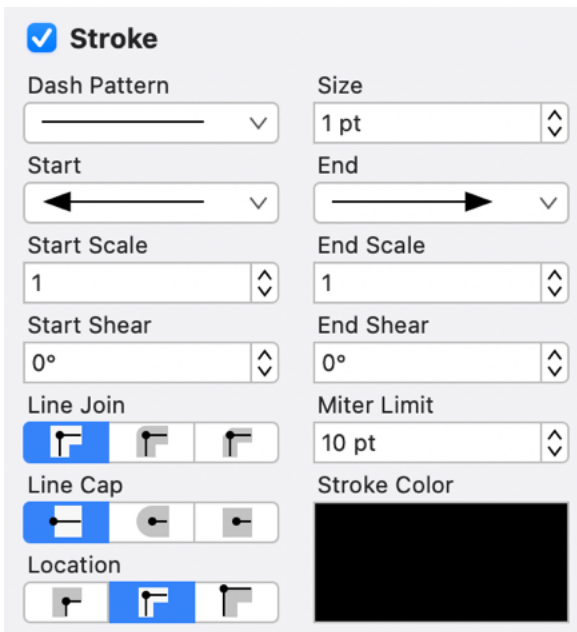
The **Start** or **End Scale** for the [Stroke Style](#) of a figure can be altered by clicking on the **Stroke Tab** in the [Sidebar](#), as shown below.



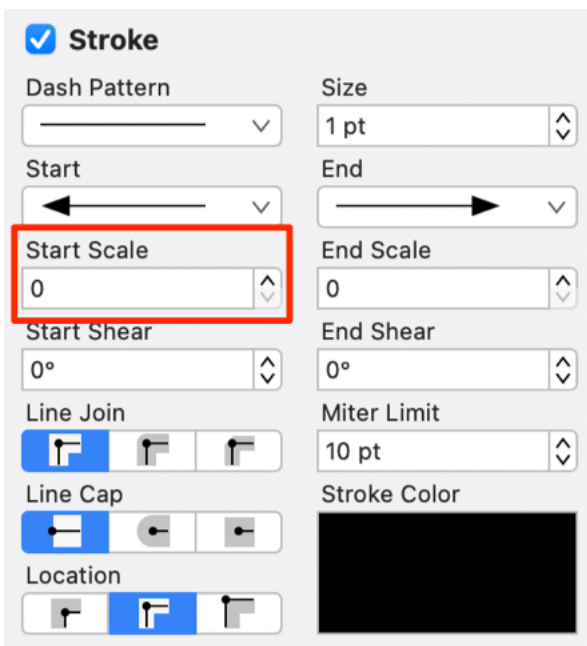
Note: The [Stroke Visibility](#) option must be enabled for a **Start/End Scale** change to appear in the [Drawing Canvas](#).

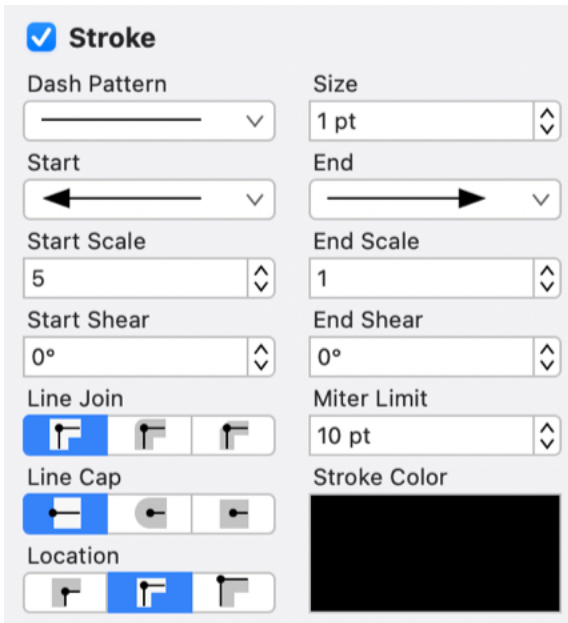
To alter the **Start/End Scale** of a currently selected figure(s) or new figure(s):

1. Click on the figure to make a selection and alter the start/end scale for a single figure or simply change the value within **Stroke Tab** to change it for all new figures within the drawing.

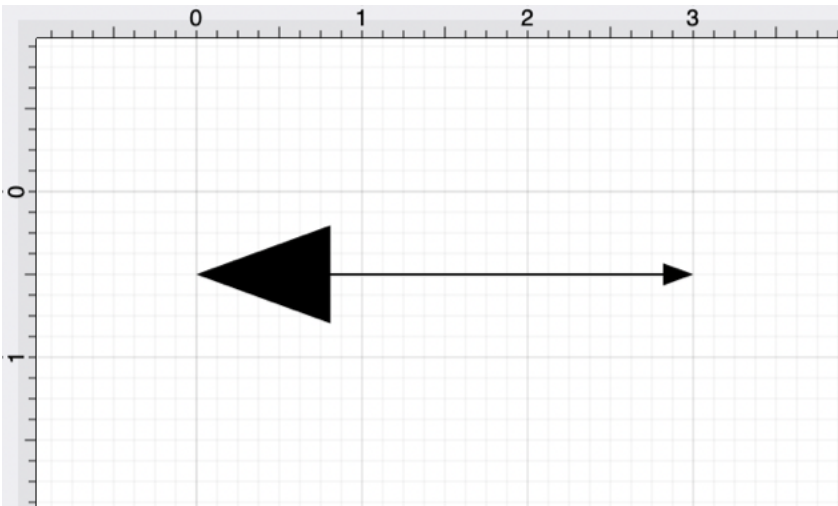


2. The **Start Scale** can be used to change the size of the **Start Line** for a figure. Click on the text field to type in a value or use the "Up" or "Down" Buttons to change the value by 1. In this example, the value has been changed to 5.

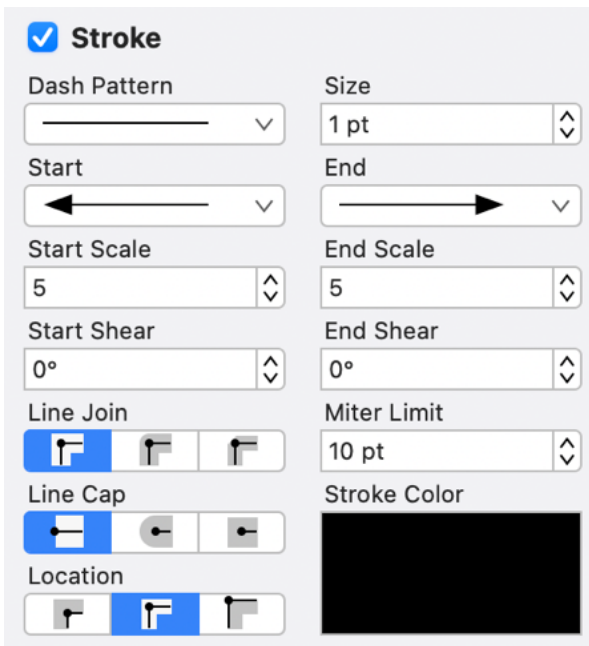
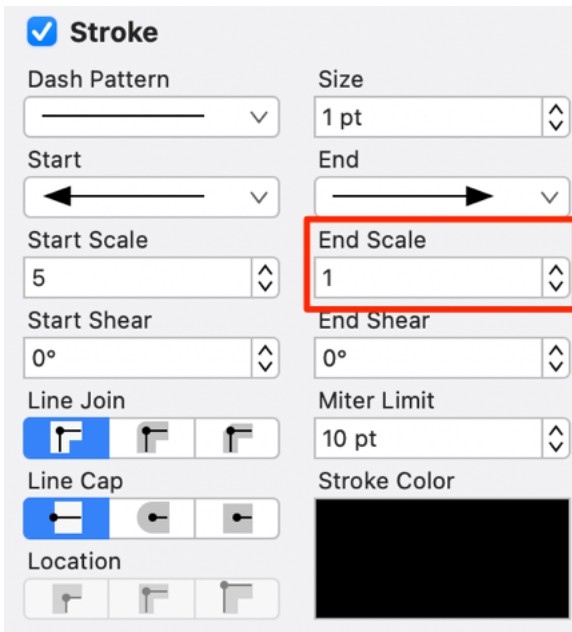




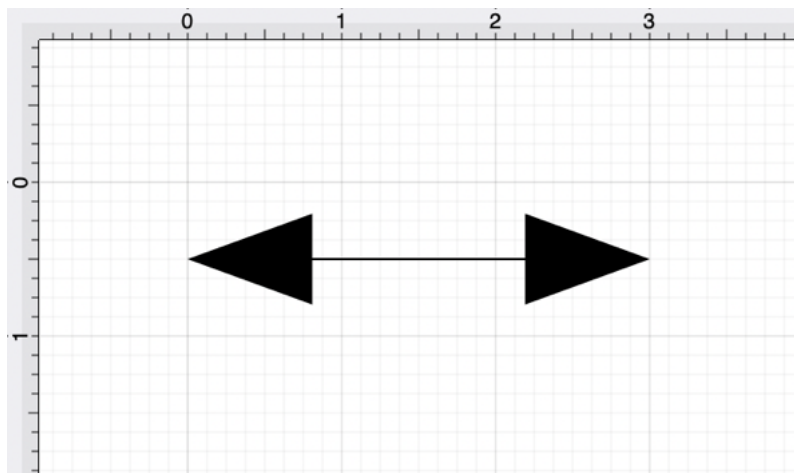
3. The figure will appear as shown below when the **Start Scale** has been altered.



4. The **End Scale** can be used to change the size of the **End Line** for a figure. Click on the text field to type in a value or use the "Up" or "Down" Buttons to change the value by 1. In this example, the value has been changed to 5.



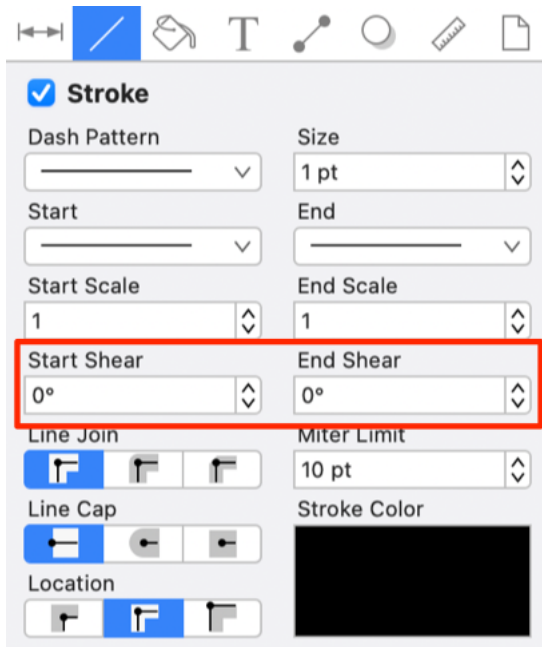
5. The figure will appear as shown below after both the **Start** and **End Scale** values have been changed.



6.11.5. Start/End Shear

The **Start Shear** and **End Shear** stroke style attributes can be used to shear (or skew) arrowheads on lines within a drawing. Values default to degrees and negative values may be entered.

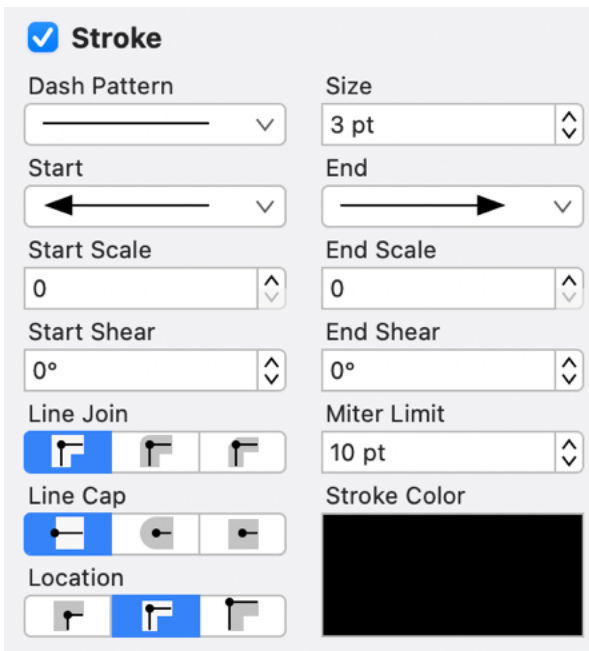
The **Start** or **End Shear** for the [Stroke Style](#) of a figure can be altered by clicking on the **Stroke Tab** in the [Sidebar](#), as shown below.



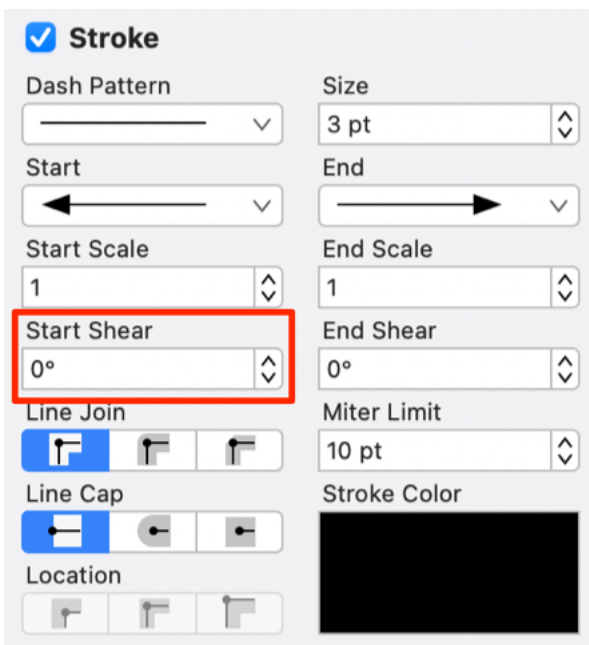
Note: The [Stroke Visibility](#) option must be enabled for a **Start/End Shear** change to appear in the [Drawing Canvas](#).

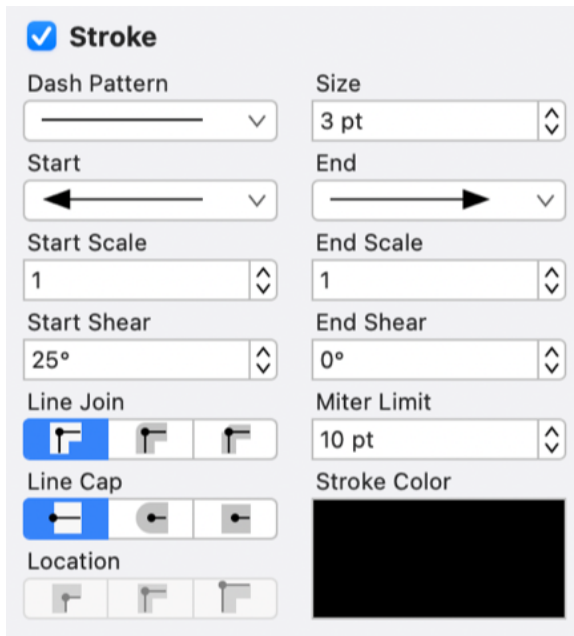
To alter the **Start/End Shear** of a currently selected figure(s) or new figure(s):

Step 1: Click on the figure to make a selection and alter the start/end shear for a single figure or simply change the value within **Stroke Tab** to change it for all new figures within the drawing.

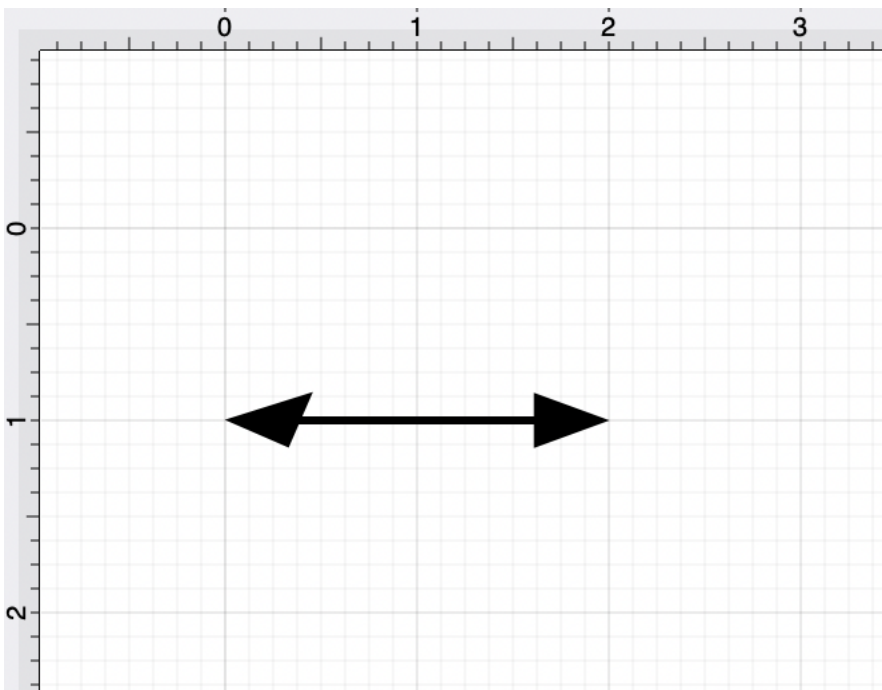


Step 2: The **Start Shear** can be used to shear the arrowhead of the **Start Line** for a line figure. Click on the text field to type in a value or use the "Up" or "Down" Buttons to change the value by 1. In this example, the value has been changed to 25 degrees.

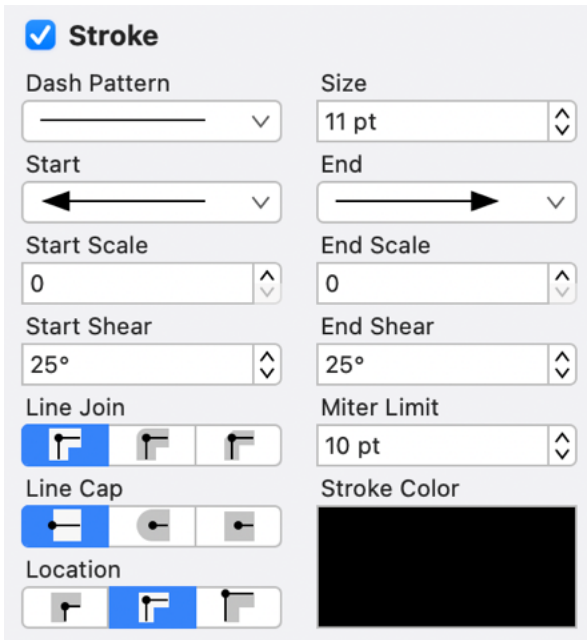
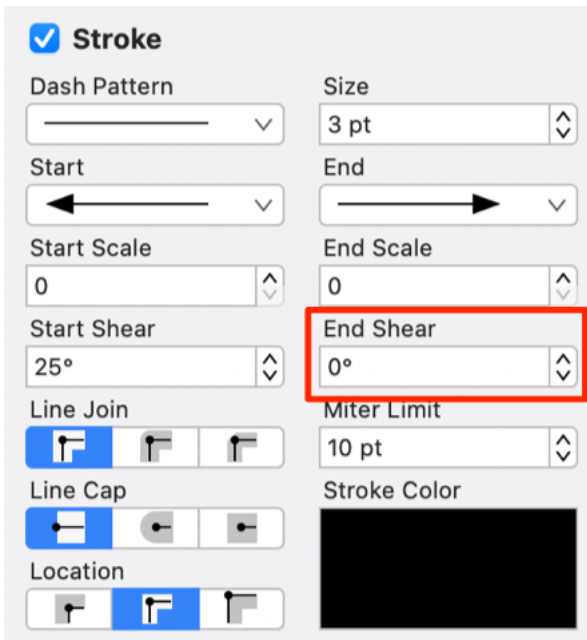




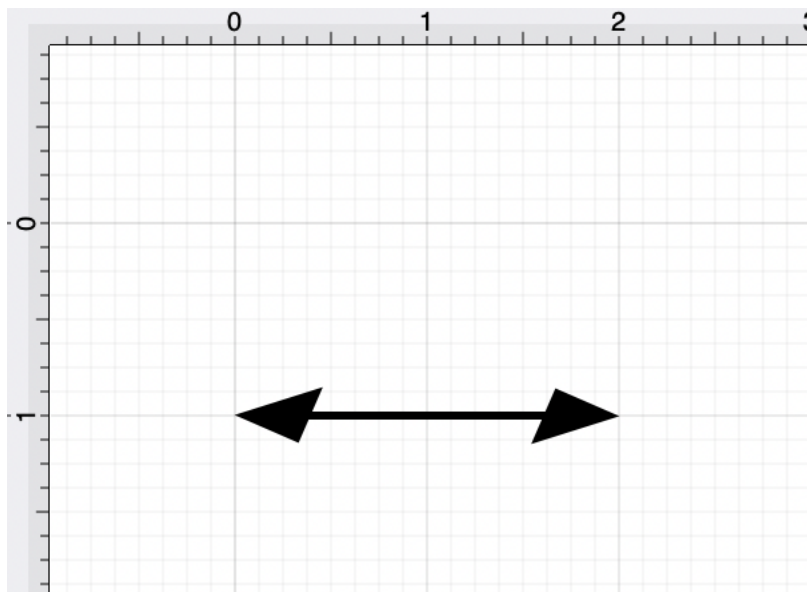
Step 3: The figure will appear as shown below when the **Start Shear** has been altered.



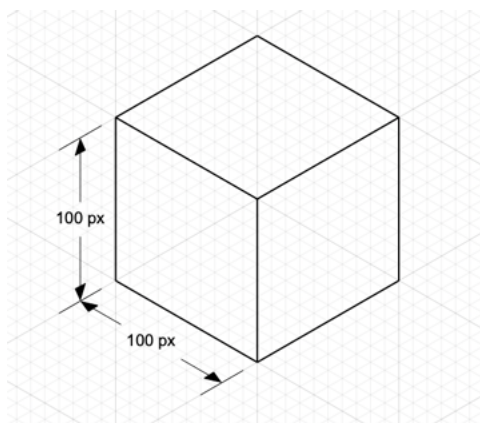
Step 4: The **End Shear** can be used to change the shear the arrowhead of the **End Line** for a line figure. Click on the text field to type in a value or use the "Up" or "Down" Buttons to change the value by 1. In this example, the value has been changed to 25 degrees.



The figure will appear as shown below after both the **Start** and **End Shear** values have been changed.

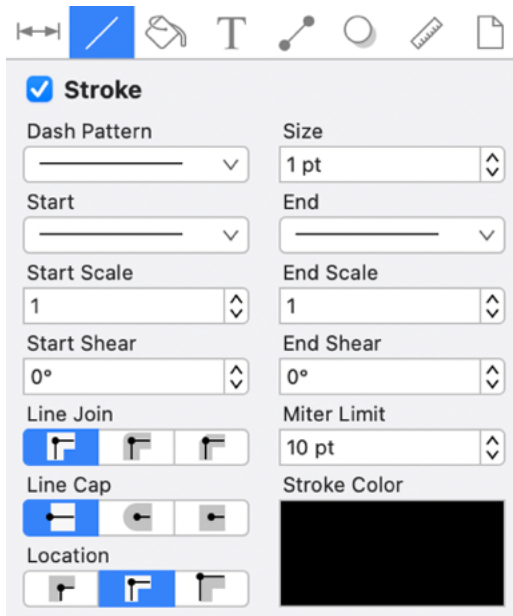


Below is an example of how the **Start** and **End Shear** options can be used within a drawing:



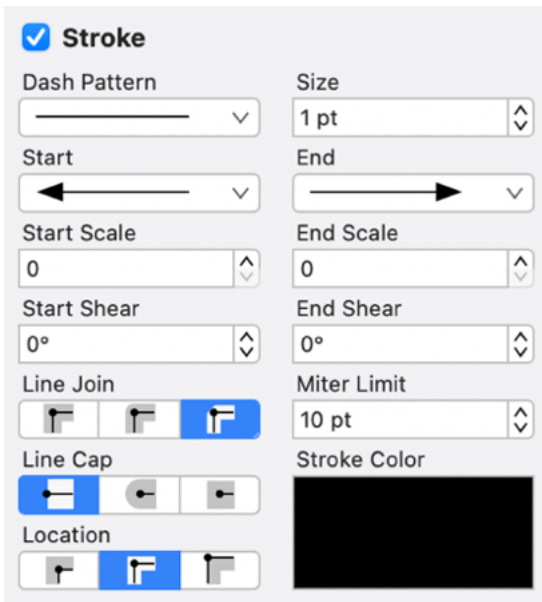
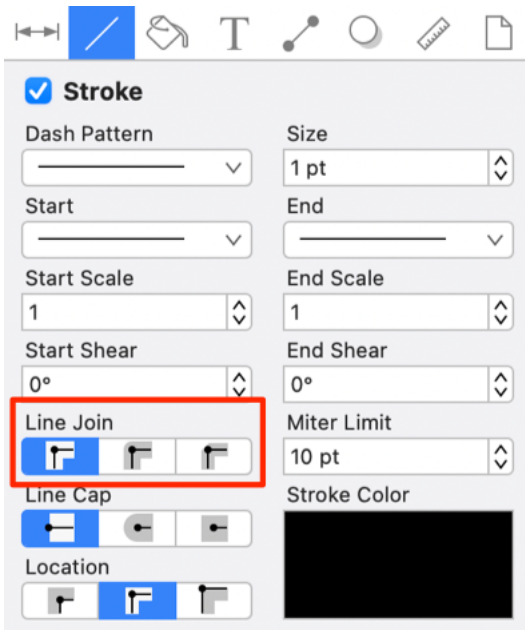
6.11.6. Line Join

The **Line Join** (Mitered, Rounded, or Bevelled) of a figure can be altered by clicking on the **Stroke Tab** in the [Sidebar](#), as shown below.

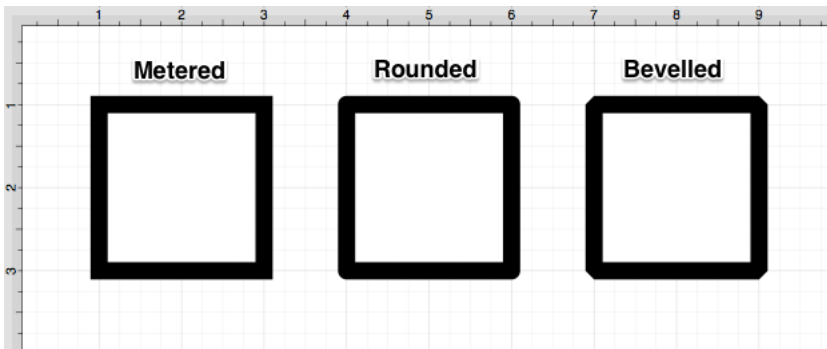


Note: The [Stroke Visibility](#) option must be enabled for a **Line Join** change to appear in the [Drawing Canvas](#).

To alter the **Line Join Type**, click on one of the choices (Mitered, Rounded, or Beveled) under the line join heading. The selection will appear in blue as a visual indicator of the currently active line join type.



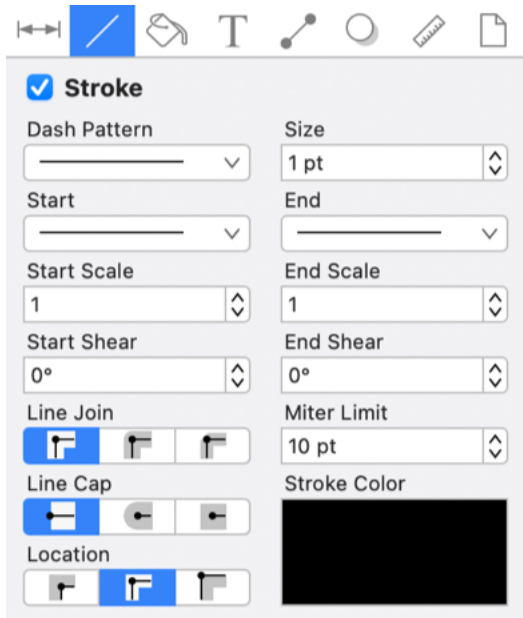
The image below shows what a [Square](#) would look like with a **Mitered**, **Rounded**, and **Beveled Line Join**.



Note: A line join change will be seen instantaneously when a stroke figure is [selected](#). If no figures have been selected, the line cap change will apply to all subsequently created stroke figures.

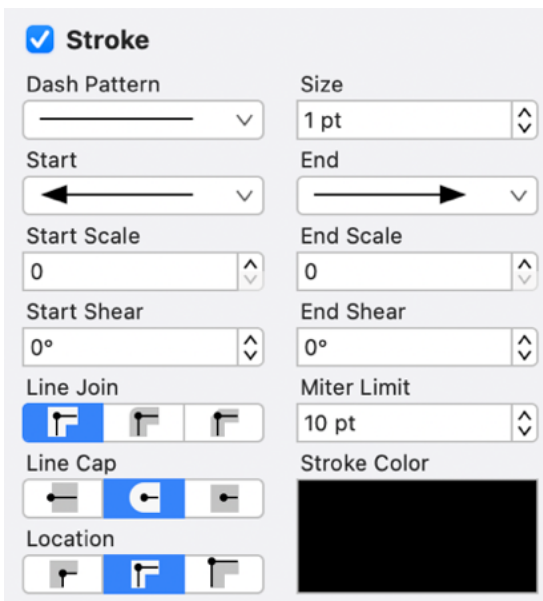
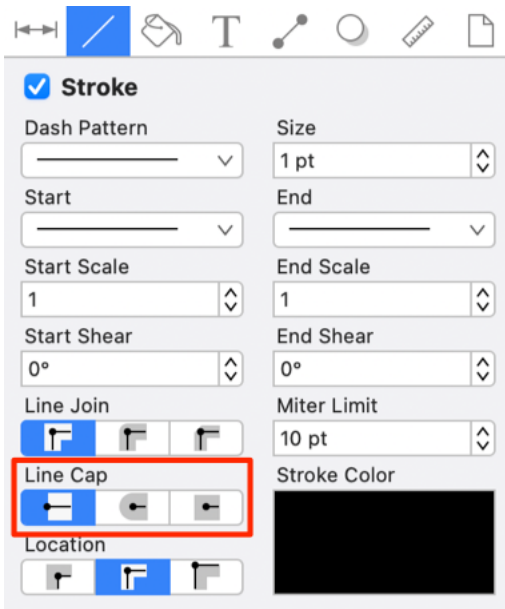
6.11.7. Line Cap

The **Line Cap** (Butt, Rounded, or Square) of a figure can be altered by clicking on the **Stroke Tab** in the [Sidebar](#), as shown below.

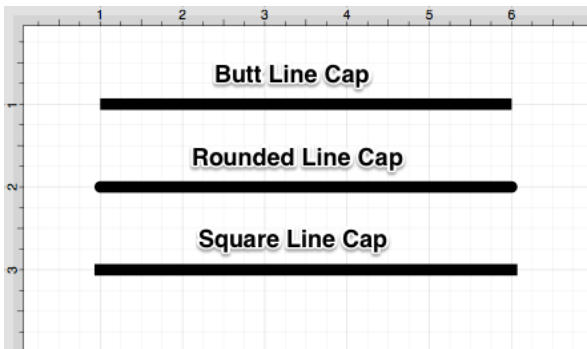


Note: The [Stroke Visibility](#) option must be enabled for a **Line Cap** change to appear in the [Drawing Canvas](#).

To alter the **Line Cap Type**, click on one of the choices (Butt, Rounded, or Square) under the line cap heading. The selection will appear in blue as a visual indicator of the currently active line cap type.



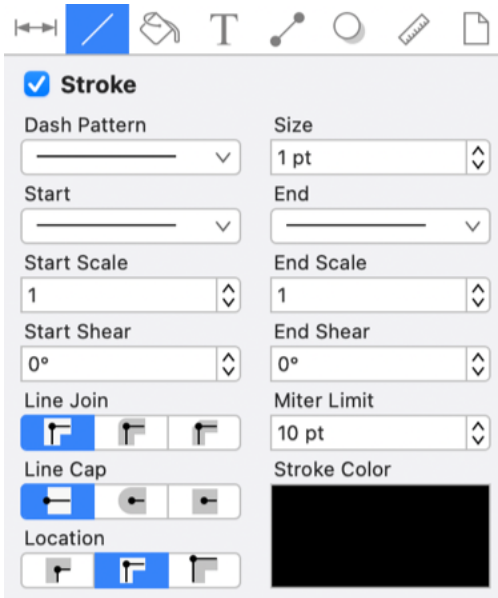
For example, the image below shows what a [Line](#) would look like with a **Butt**, **Rounded**, and **Square Line Cap**.



Note: A line cap change will be seen instantaneously when a stroke figure is [selected](#). If no figures have been selected, the line cap change will apply to all subsequently created stroke figures.

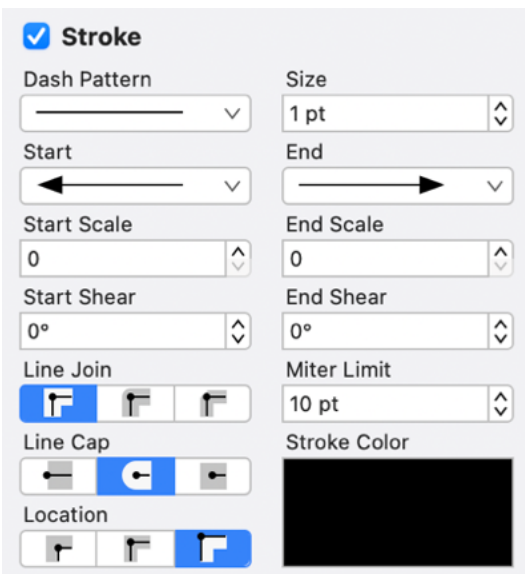
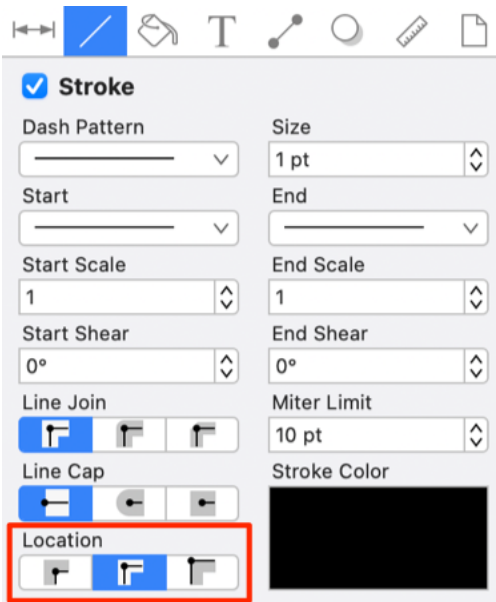
6.11.8. Line Location

The **Line Location** of a figure can be altered by clicking on the **Stroke Tab** in the [Sidebar](#), as shown below.

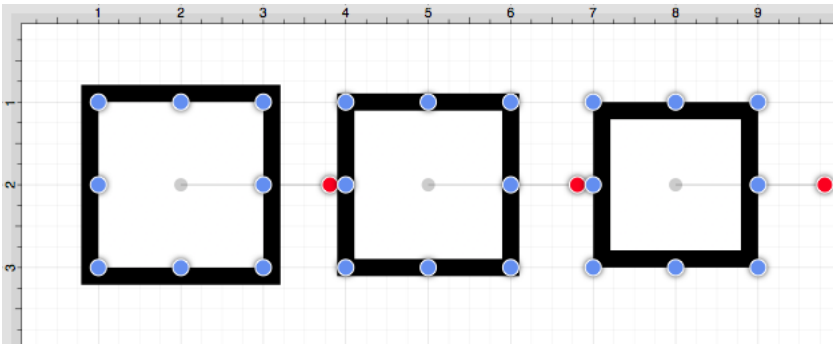


Note: The [Stroke Visibility](#) option must be enabled for a **Line Location** change to appear in the [Drawing Canvas](#).

To alter the **Line Location**, click on one of the choices under the line location heading. The selection will appear in blue as a visual indicator of the currently active line location setting.



The example below shows what a [Rectangle](#) looks like when each **Line Location** choice is selected: *Inside*, *Center*, and *Outside*.

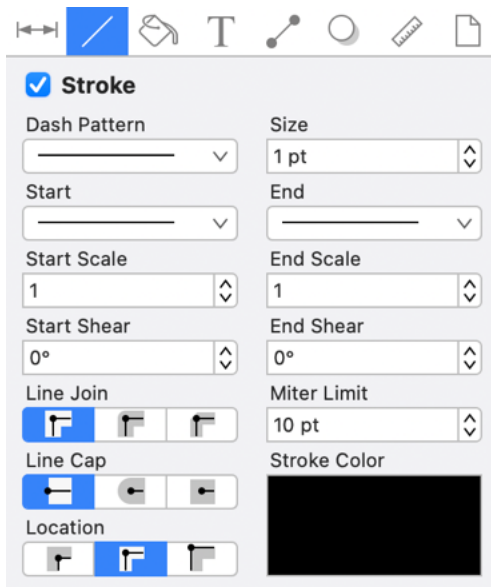


Note: A line location change will be seen instantaneously when a stroke figure is [selected](#). If no figures have been selected, the line join change will apply to all subsequently created stroke figures.

6.11.9. Miter Limit

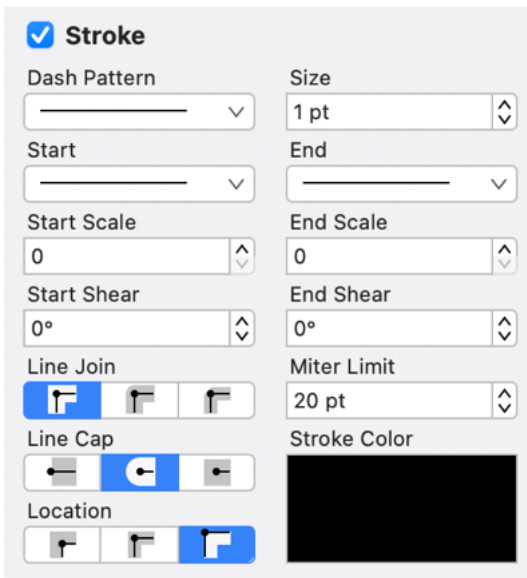
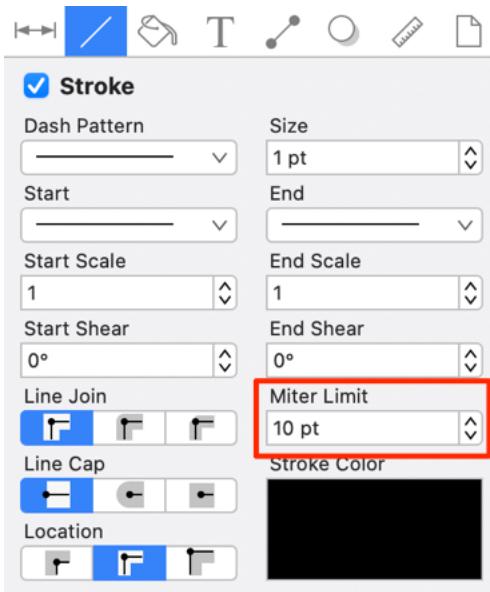
The **Miter Limit** attribute can be used to set the angle of connected line segments where they join. The join will be more jagged or sharp depending on the entered or selected value. Miter limits are relative to stroke size and become increasingly noticeable for line segments with increased thickness.

The **Miter Limit** of a stroke (or line) can be altered by selecting the **Stroke Tab** in the [Sidebar](#), as shown below.



Note: The [Stroke Visibility](#) option must be enabled for a **Miter Limit** change to appear in the drawing canvas.

To alter the **Miter Limit**, click on the "Up" or "Down" arrow buttons next to the text entry field to increase or decrease the miter limit by increments of one or click on the text entry field to open the text editor and type in a value.



The **Miter Limit** attribute provides the ability to convert other units of measurement (Pixels, Millimeters, Centimeters, Feet, Meters, Kilometers, Yards, etc.) into points.

For example, if 10 millimeters (mm) is typed into this field, it will automatically be converted to its equivalent in points when the **Enter Key** is pressed or you click in another area of the application.

☒ **Stroke**

Dash Pattern

Start

Start Scale

Start Shear

Line Join ☒ ☐ ☐

Line Cap ☐ ☒ ☐

Location ☐ ☐ ☒

Size

End

End Scale

End Shear

Miter Limit

Stroke Color

☒ **Stroke**

Dash Pattern

Start

Start Scale

Start Shear

Line Join ☒ ☐ ☐

Line Cap ☐ ☒ ☐

Location ☐ ☐ ☒

Size

End

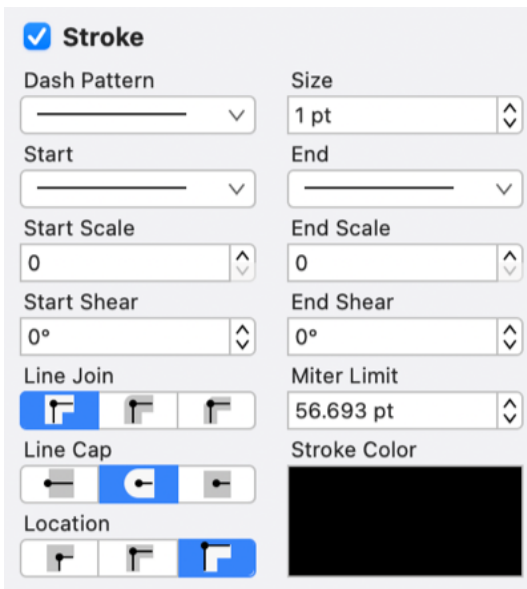
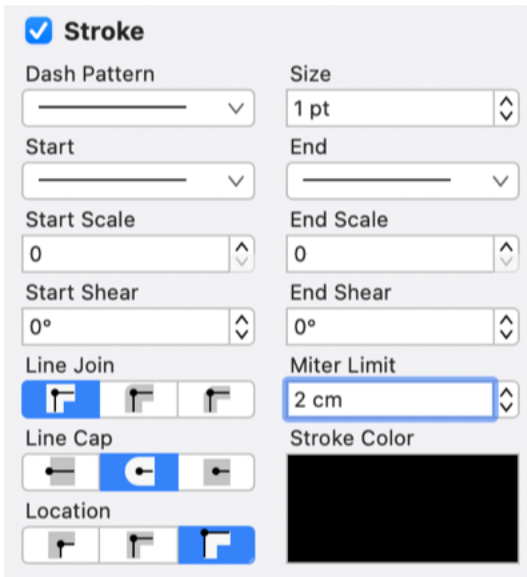
End Scale

End Shear

Miter Limit

Stroke Color

If 2 centimeters (2 cm) is entered as the **Miter Limit**, then it will be converted to 56.693 points.



Note: A miter limit change will be seen instantaneously when a stroke figure is [selected](#). If no figures have been selected, the line cap change will apply to all subsequently created stroke figures.

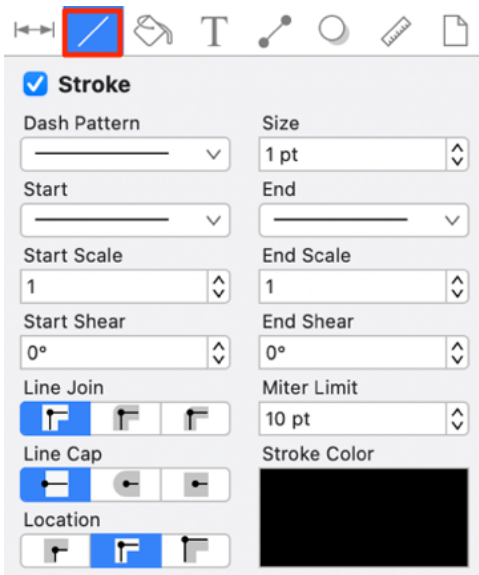
6.11.10. Line Color

The **Stroke Color** of a selected figure can be changed to meet a desired preference. It can be altered for a [selected](#) figure(s) or in instances where no figures have been selected.

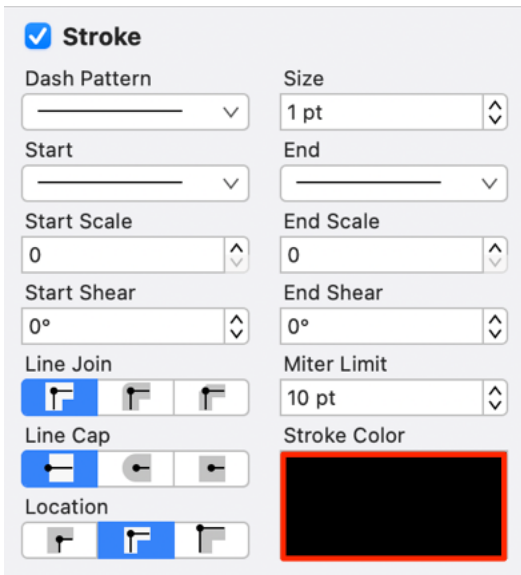
If a figure has not been selected, the color change applies to any figure added after the change. This attribute can be altered in one of two ways:

Method 1

Step 1: Click on the **Stroke Tab** in the [Sidebar](#).



Step 2: Click on the **Stroke Color** attribute.



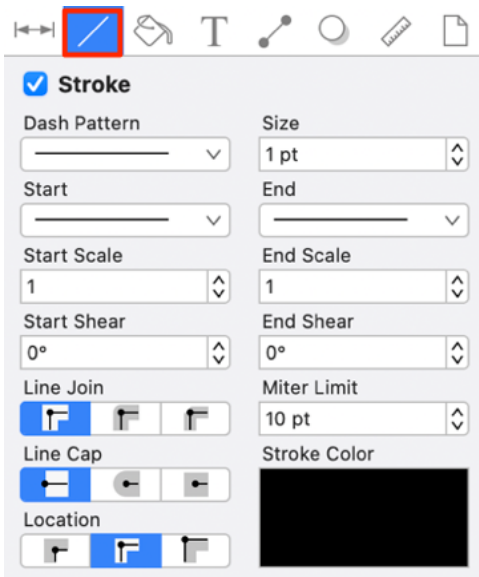
Method 2

Click on the **Stroke Color Button** in the [Format Bar](#).

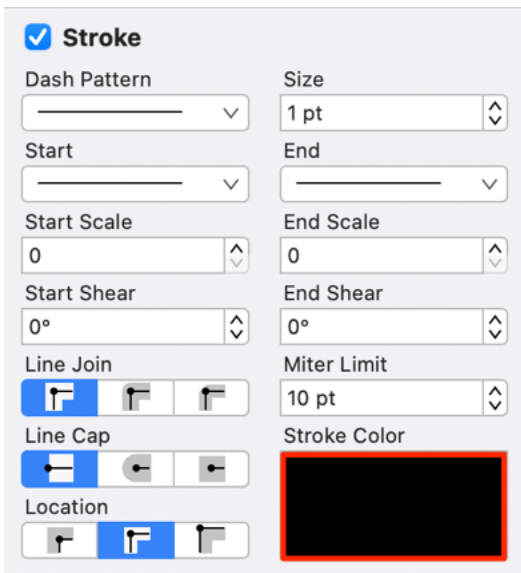


To alter the **Stroke Color**:

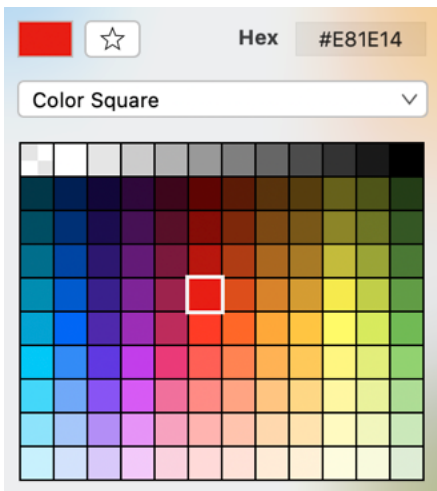
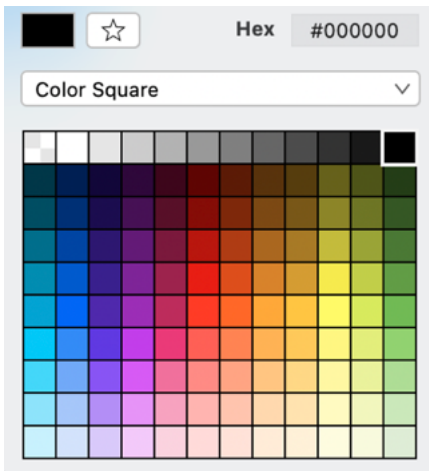
Step 1: Click on the **On/Off** toggle slider in upper right hand corner of the **Stroke Window** to turn on this option. The slider will appear with a green background when this option is enabled.



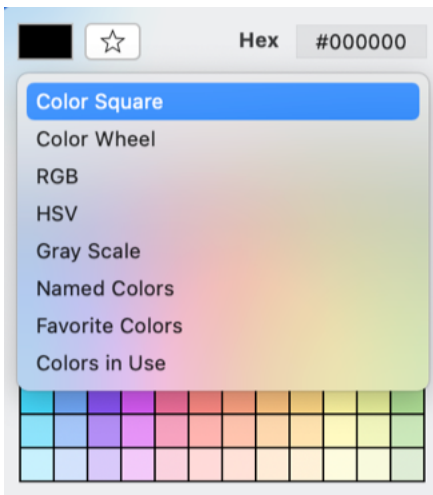
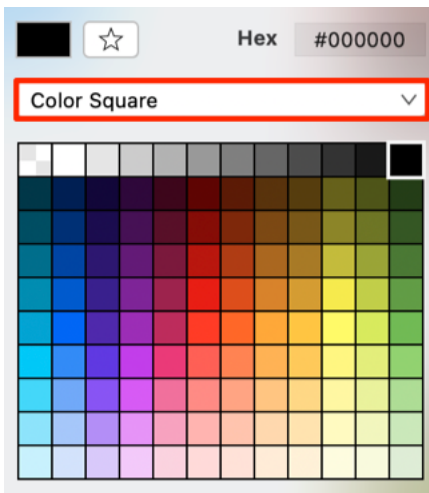
Step 2: Click on the **Stroke Color** attribute on the Stroke Tab.



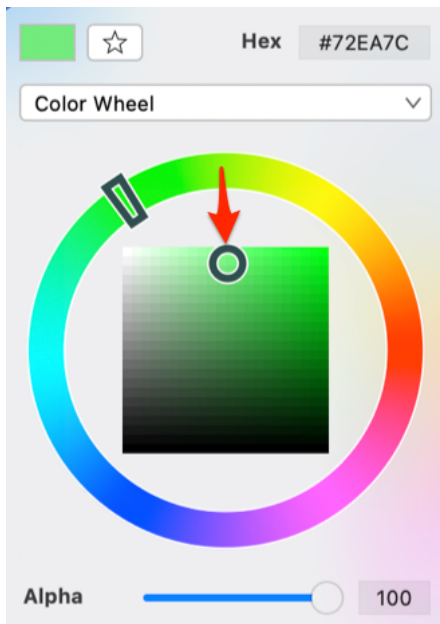
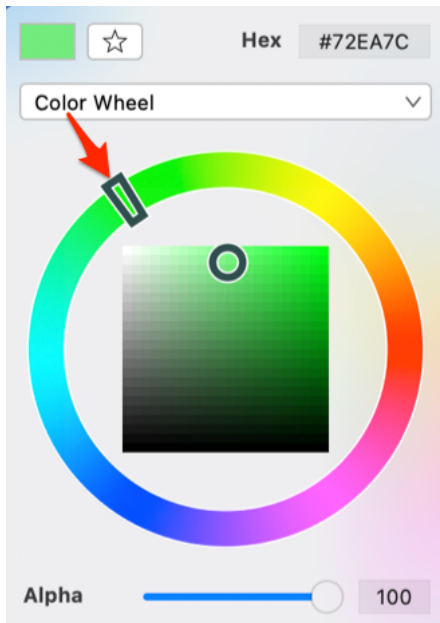
Step 3: To select a pre-defined color in the **Color Square**, simply click on the desired color.



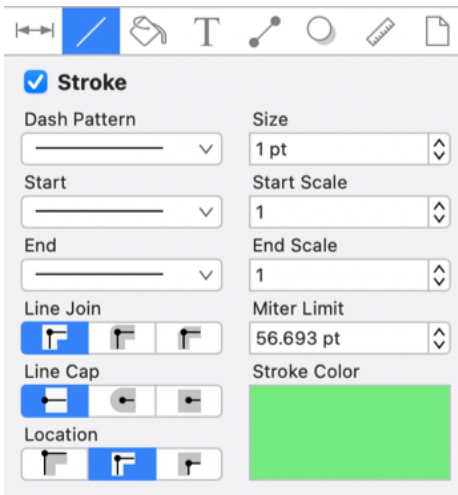
Step: 4 You may also configure a color by choosing an option from the **Color Selection Menu**: [Color Wheel](#), [RGB](#), [HSV](#), [Gray Scale](#), [Named Colors](#), [Favorite Colors](#), or [Colors in Use](#). To do so, click on the menu and then click on an option.



Step 5: If using the **Color Wheel**, first click on the desired color range within the outside of the wheel view. Then choose the desired lightness or darkness of the selected color in the center (saturation) square.

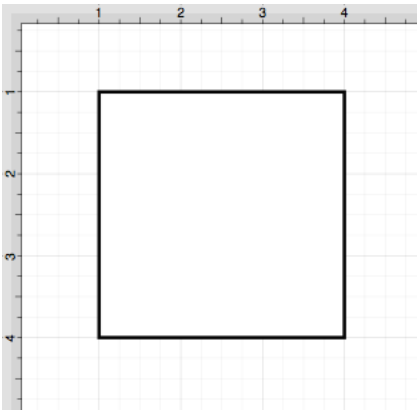


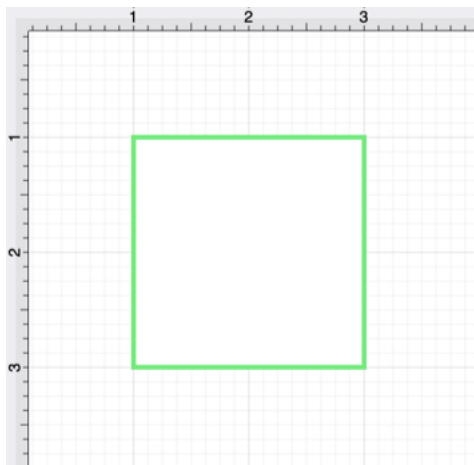
For more information about using the different color selection options, please see the [Color Picker](#) section.



Step 6: Alter the [Stroke Style](#) options (arrowhead, dashed, solid, etc.) by clicking on an option and then clicking on the desired selection in the **Stroke Window**. **Click** on additional options (opacity, line join, etc.) to make further attribute changes.

Step 7: Click anywhere within the [Drawing Canvas](#) to close the window.





Note: A color change will be seen instantaneously when a stroke figure is [selected](#). If no figures have been selected, the color change will apply to all subsequently created stroke figures.

6.12. Handling Text

TouchDraw provides multiple options for changing the text attributes of figures that are capable of displaying text. The [Text Tool](#) can be used to add a text box anywhere on the [Drawing Canvas](#). Text may also be added as part of these shapes:

- [Rectangles](#)
- [Rounded Rectangles](#)
- [Ovals](#)
- [Circles](#)
- [Polygons](#)
- [Closed Paths \(Custom Shapes\)](#)

The attributes for entered text can be changed to meet specific preferences and include:

- [Font Family](#)
- [Font Size](#)
- [Font Style](#)
- [Font Color](#)
- [Text Alignment](#)
- [Text Margin](#)

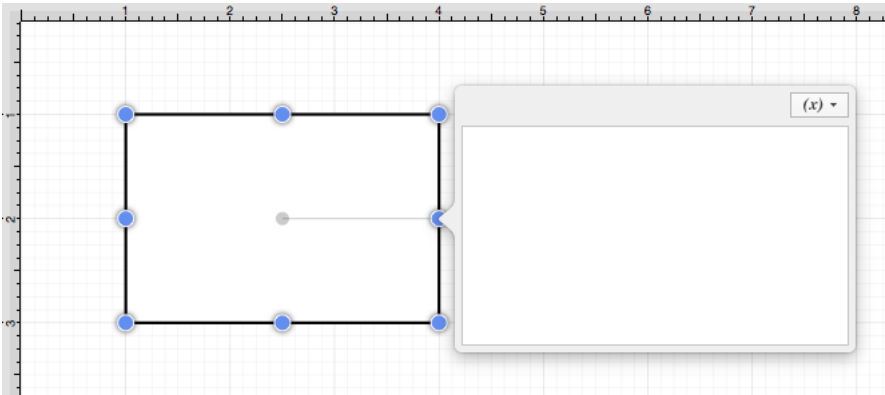
Additionally, the location and orientation for text attached to lines and paths can be altered:

- [Text Location](#)
- [Text Orientation](#)

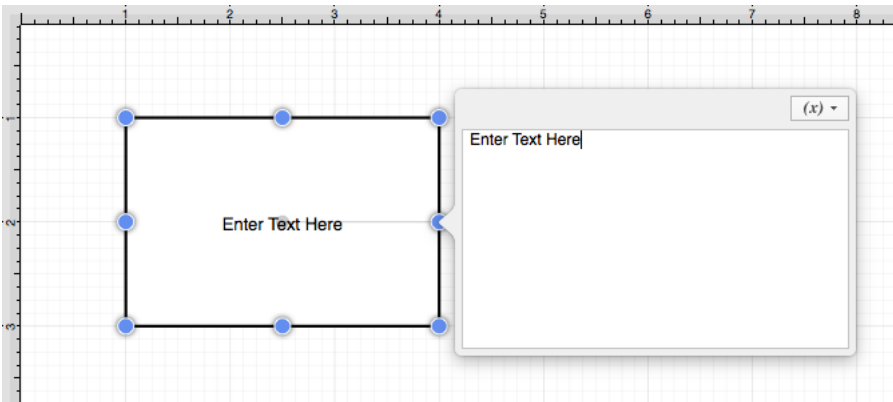
[Variables](#) may also be used to input a certain pre-formatted value as part of the displayed text within a figure.

6.12.1. Editing Text

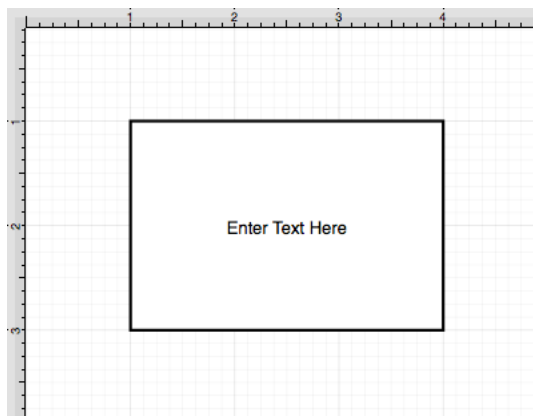
The **Text Editor Popover** must be opened to edit the text content of a [selected](#) figure. Double click on a figure to bring up the **Text Editor**.



Entered text will be reflected within the drawing view in realtime to provide instant feedback regarding how it will appear, wrap, etc.. within the figure.



Click in any location outside of the supplied popover to dismiss the editor.



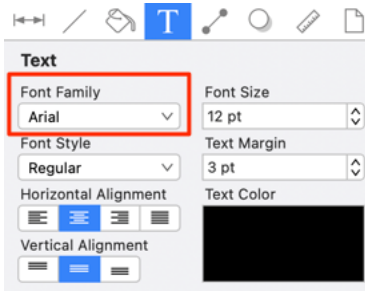
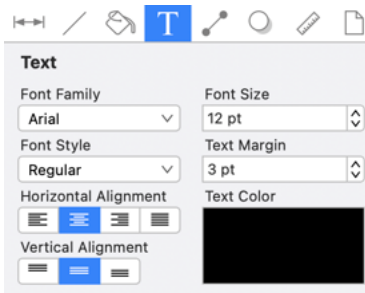
6.12.2. Font Family

A figure must be [selected](#) to alter the **Font Family** of entered text.

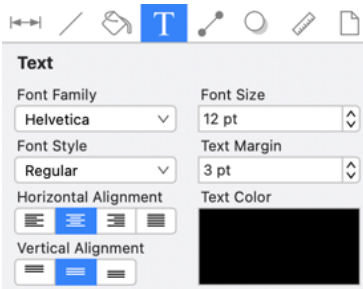
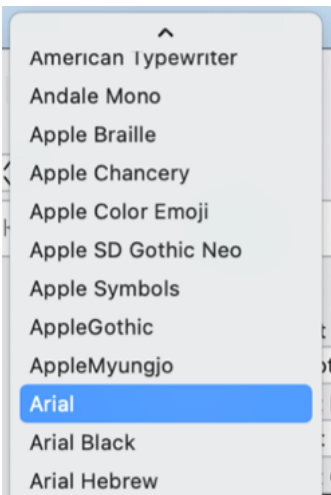
Use one of the following methods to change the font family for a selected figure(s):

Method 1

Step 1: Select the **Text Tab** located in the Info portion of the [Sidebar](#) and click on the **Font Family** drop down menu.



Click on a family name in the provided list to make a selection and the drop down menu will close automatically. The selection will appear in the **Font Family** section of the [Text Tab](#), as shown below.



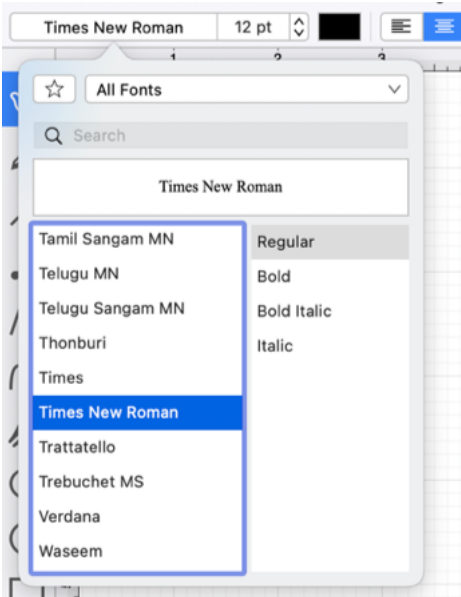
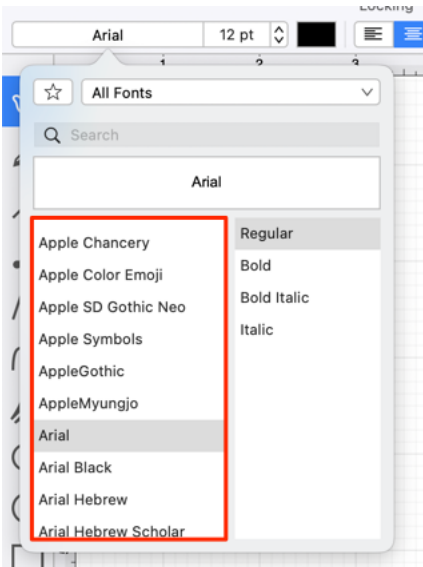
In the above example, the **Font Family** was changed from Arial to Helvetica.

Method 2

Step 2: Click on the **Font** option located in the [Format Bar](#).



Click on a family name in the provided list to make a selection and then click anywhere within the [Drawing Canvas](#) to close the selection window.



Note: The **Search Field** may also be used to quickly locate a specific font family. To use this feature, click on the field and then type part or all of a font family name.

The selection will appear in the **Font** section of the **Format Bar** and will be applied to the selected figures as well as new text additions.



In the above example, the **Font Family** was changed from *Arial* to *Times New Roman*.

Note: The currently applied **Font Family** will be highlighted in gray within the pop over window.

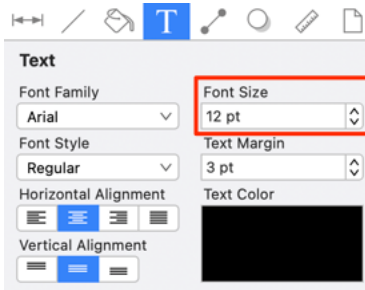
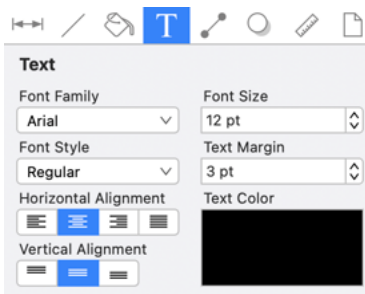
6.12.3. Font Size

A figure must be [selected](#) to alter the **Font Size** of entered text.

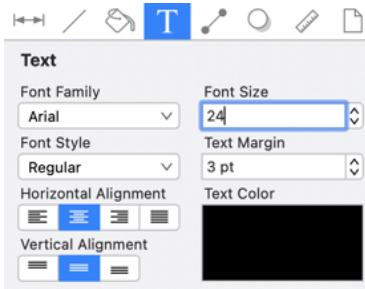
Use one of the following methods to change the font size for a selected figure(s):

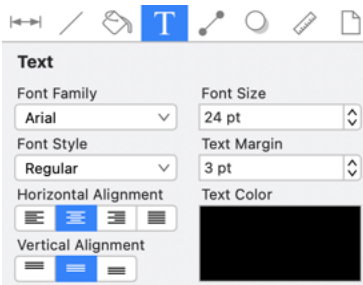
Method 1

Step 1: Click on the **Text Tab** located in the Info portion of the [Sidebar](#).



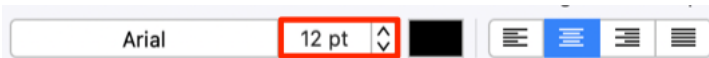
Step 2: Use the "up" or "down" selection buttons to alter the size or click on the actual field to make a keyboard entry.





Method 2

Click on the **Font Size** drop down menu located in the [Format Bar](#). Use the drop down size menu button or click on the actual field to make a keyboard entry.

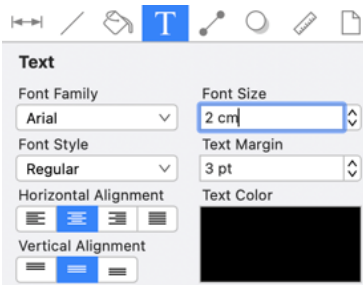


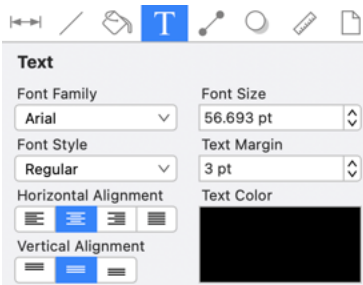
Measurement Conversions

The **Font Size** attribute provides the ability to convert a different unit of measurement (Pixels, Millimeters, Centimeters, Meters, Kilometers, Feet, etc.) into their equivalent measurement in points.

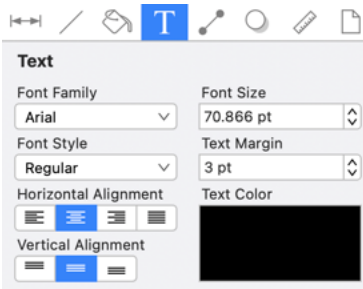
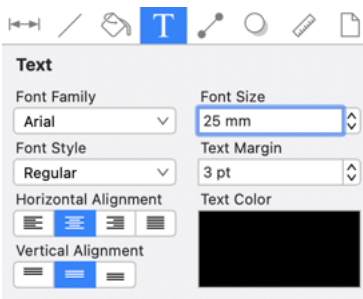
To use the conversion feature, simply type in the value for the unit of measurement and its abbreviation (px, mm, cm, m, km, ft, etc.) and then press the **Enter Key** or click in another area of the application.

In the example below, the **Font Size** value has been entered as 2 centimeters (cm), which is equivalent to 56.693 points.





If the **Font Size** is entered as 25 millimeters (25 mm), it is converted to 70.866 points.



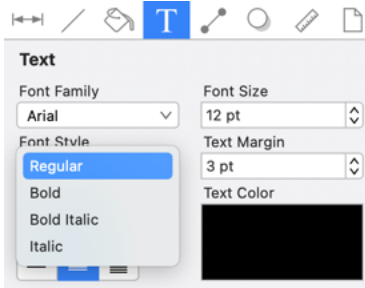
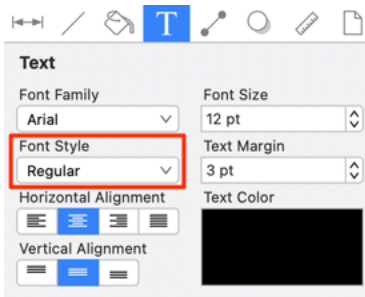
6.12.4. Font Styles

A figure must be [selected](#) to alter the **Font Style** of entered text.

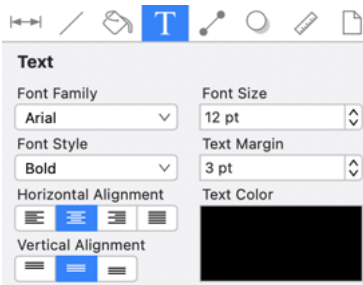
Use one of the following methods to change the font style for a selected figure(s):

Method 1

Step 1: Select the **Text Tab** located in the [Info](#) portion of the [Sidebar](#). Click on the **Font Style** selection drop down menu.



Click on a style to make a selection and the drop-down menu will close automatically. The selection will appear in the **Font Style** section of the [Text Tab](#). In the example below, the **Font Style** was changed from Regular to Bold.

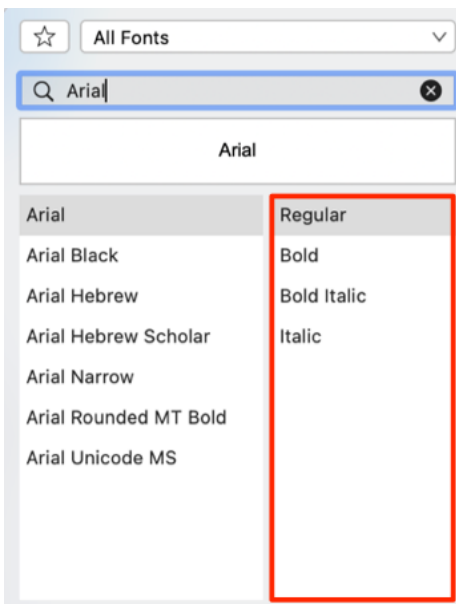


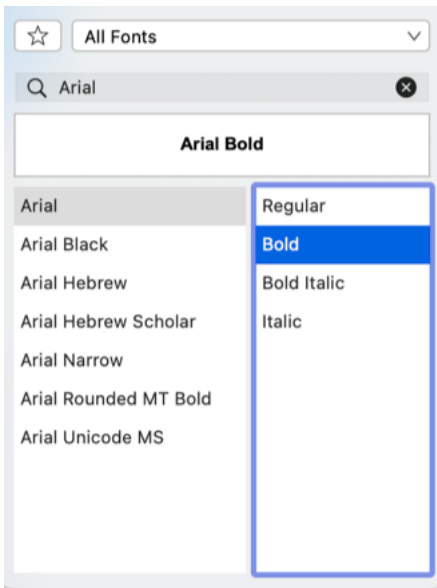
Method 2

Click on the **Font** option located in the [Format Bar](#).

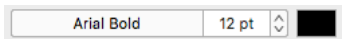


Then click on the desired style on the right side of the popover window.





The selection will appear in the **Font** section of the [Format Bar](#) and will be applied to the selected figures as well as new text additions. In this example, the **Font Style** was changed from *Regular* to *Bold*.

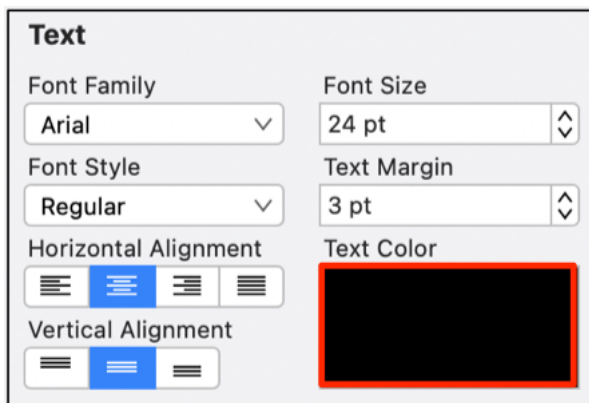


6.12.5. Font Color

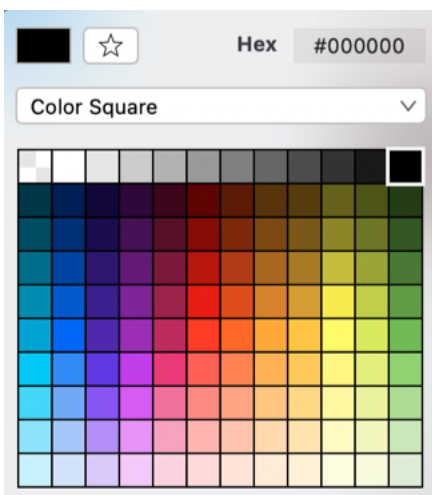
The **Font Color** of a selected figure can be changed to meet a desired preference. It can be altered for a [selected](#) figure(s) or in instances where no figures have been selected. If a figure has not been selected, the color change applies to any figure added after the change.

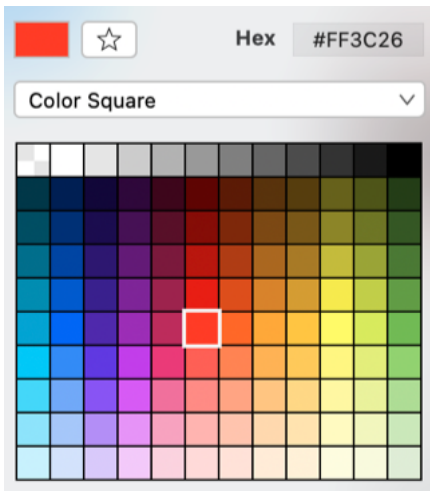
To alter the **Font Color**:

1. Click on the **Text Color** attribute in the Text Tab.

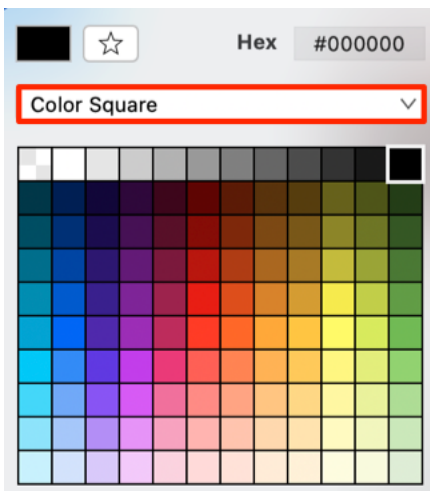


2. To select a pre-defined color in the **Color Square**, simply click on the desired color.



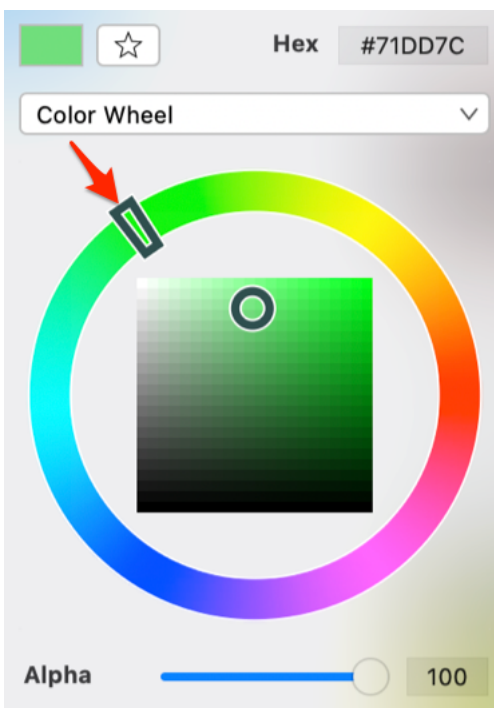


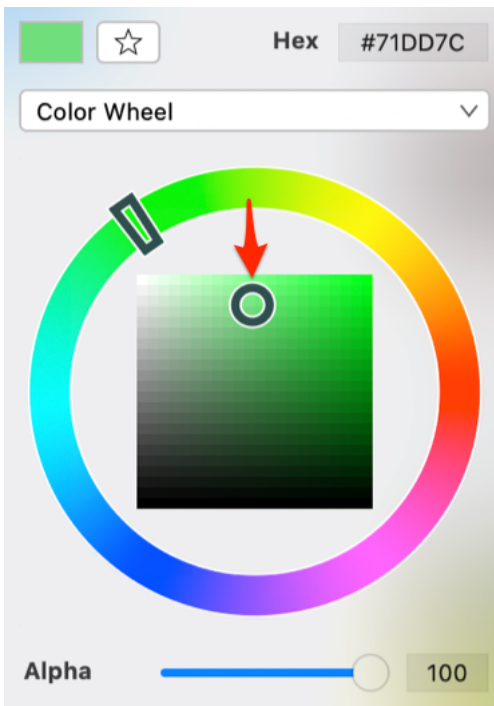
3. You may also configure a color by choosing an option from the **Color Selection Menu**: [Color Wheel](#), [RGB](#), [HSV](#), [Gray Scale](#), [Named Colors](#), [Favorite Colors](#), or [Colors in Use](#). To do so, click on the menu and then click on an option.



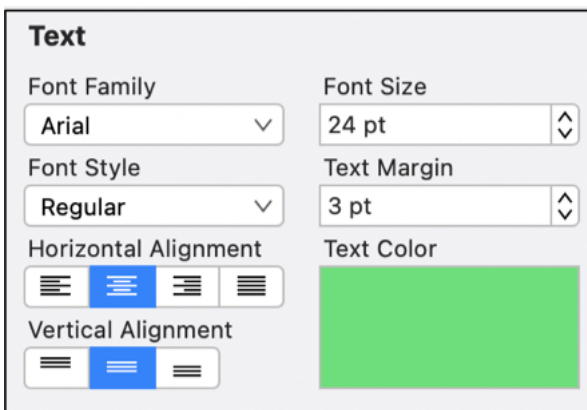


4. If using the **Color Wheel**, first click on the desired color range within the outside of the wheel view. Then choose the desired lightness or darkness of the selected color in the center (saturation) square.





5. Scroll through the [Font Family](#) and [Font Style](#) options by clicking and dragging in an upward or downward direction on the wheel to make a selection or **Click** on additional options (opacity slider, fill type, etc.) within the popover window to make further attribute changes.



6. Click anywhere within the [Drawing Canvas](#) to close the window. **Note:** A color change will be seen instantaneously when text is [selected](#). If text has not been selected, the color change will apply to all subsequent text entries.

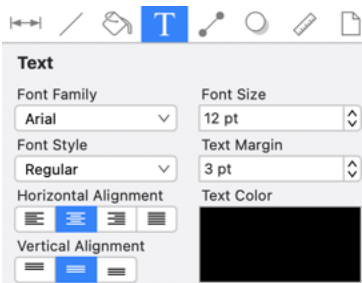
6.12.6. Text Alignment

The **Text Alignment** option alters the vertical and horizontal positioning of text within its bounding box. A figure must be [selected](#) to alter the alignment position of entered text.

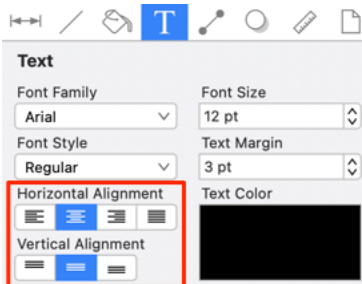
Use one of the following methods to change the text alignment position within a selected figure(s):

Method 1

Step 1: Select the **Text Tab** located in the Info portion of the [Sidebar](#).



Step 2: Click on a horizontal or vertical alignment button to make a selection.



Method 2

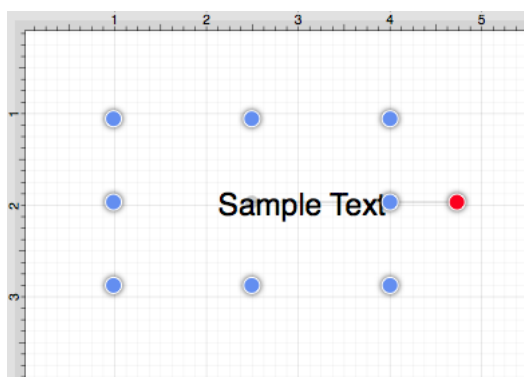
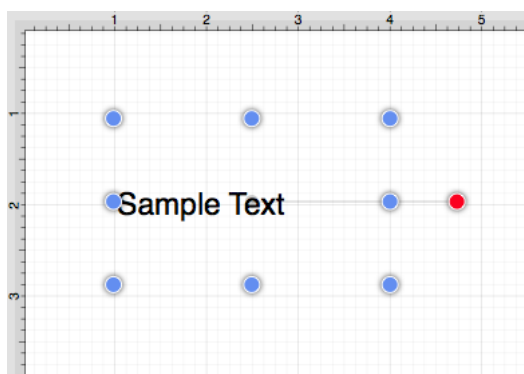
The alignment of text can also be changed by using the [Format Bar](#).



The currently selected horizontal and vertical alignment choices will appear blue, as shown below.



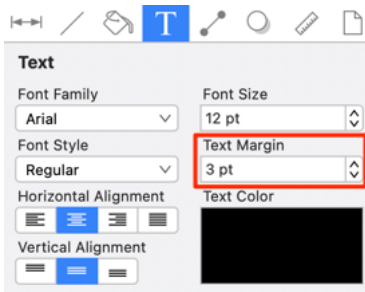
The following example shows the alteration of text within a figure from a left horizontal alignment to a right horizontal alignment.



6.12.7. Text Margin

A figure must be [selected](#) to alter the **Text Margin** of entered text.

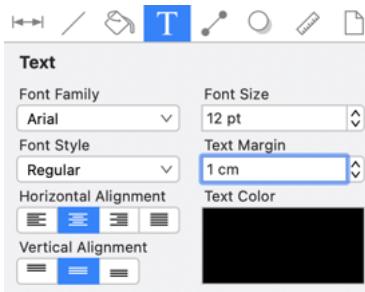
Click on the **Text Tab** located in the Info portion of the [Sidebar](#). Use the "up" or "down" selection buttons to alter the margin value or click on the actual field to make a keyboard entry.

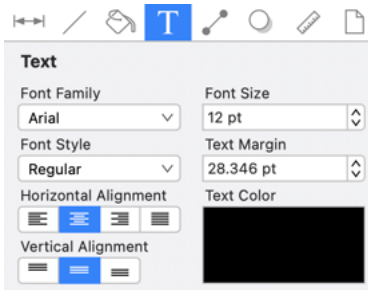


The **Text Margin** attribute provides the ability to convert alternative units of measurement (Pixels, Millimeters, Centimeters, Meters, Kilometers, Feet, etc.) into their equivalent measurement in points.

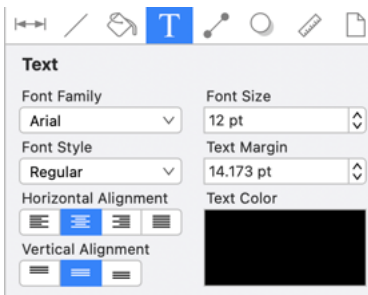
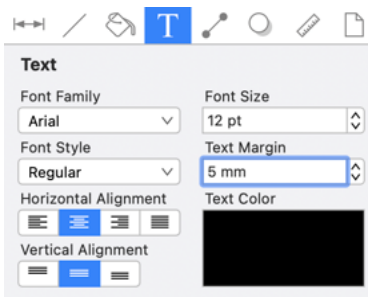
To use the conversion feature, simply type in a number value and the abbreviation for the desired unit of measurement (px, mm, cm, m, km, ft, etc.) and then press the **Enter Key** or click in another area of the application.

In the example below, the **Text Margin** value has been entered as 1 centimeter (1 cm), which is equivalent to 28.346 points.

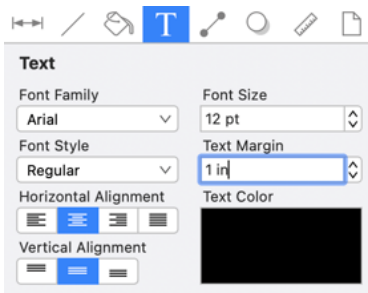


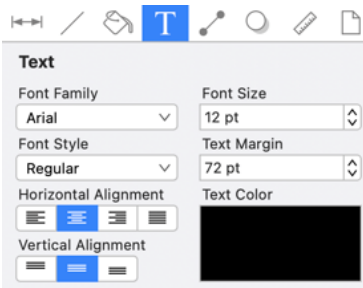


In this example, the **Text Margin** is entered as 5 millimeters (5 mm) and is converted to 14.173 points.



If you enter 1 inch (1 in) as the **Text Margin**, then it will be converted to 72 points (1 inch = 72 points).





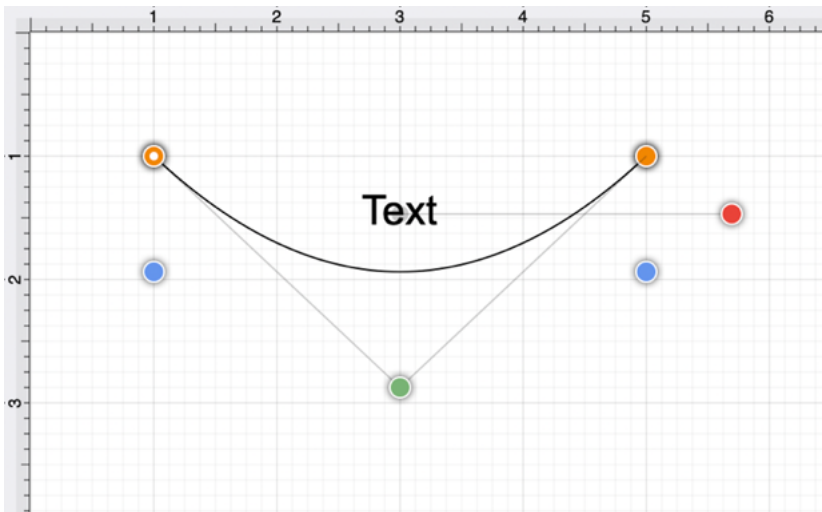
6.12.8. Text Location

The **Text Location** slider and percentage field can be used to change the location of text that is attached to a line or path.

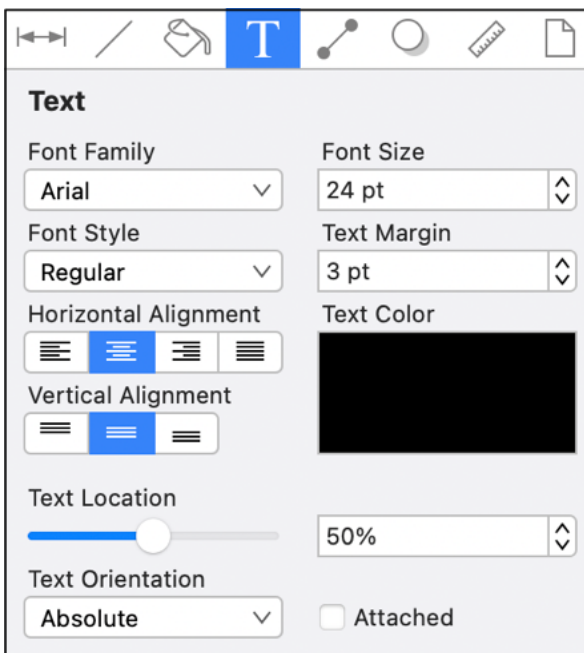


Complete the following steps to change the location of text attached to a line or path:

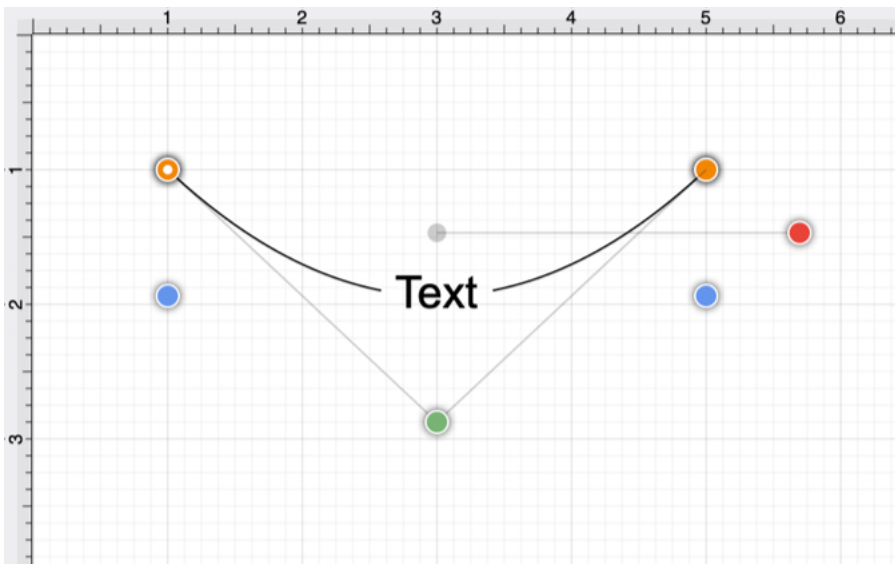
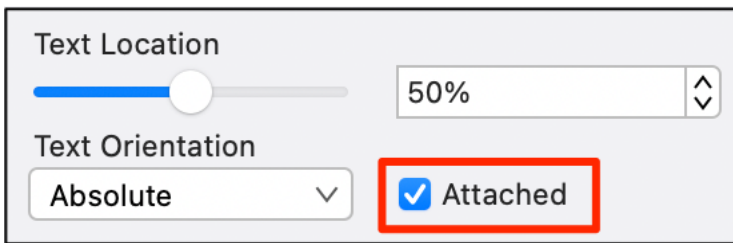
Step 1: Create a line or path and add text to the figure. In this example, a Path figure has been created within the drawing.



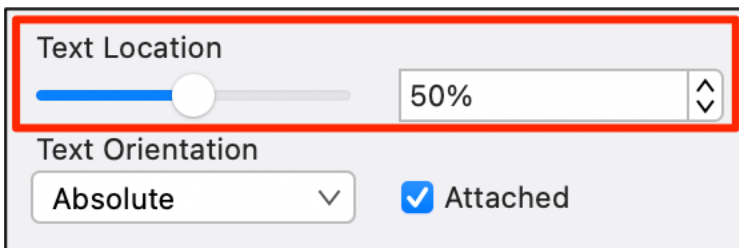
Step 2: Select the **Text Tab** located in the [Info](#) portion of the [Sidebar](#).



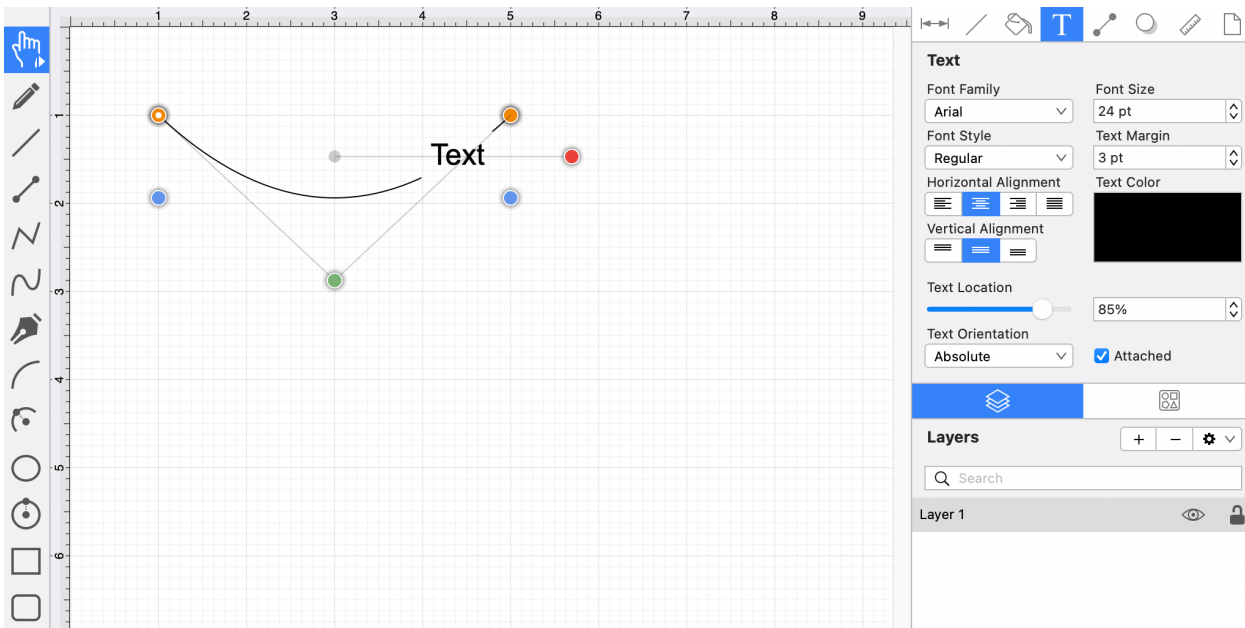
Step 3: Click on the **Attached** option to enable it.



Step 4: Use the **Slider** or **Plus (+)** and **Minus (-)** buttons to change the text location.

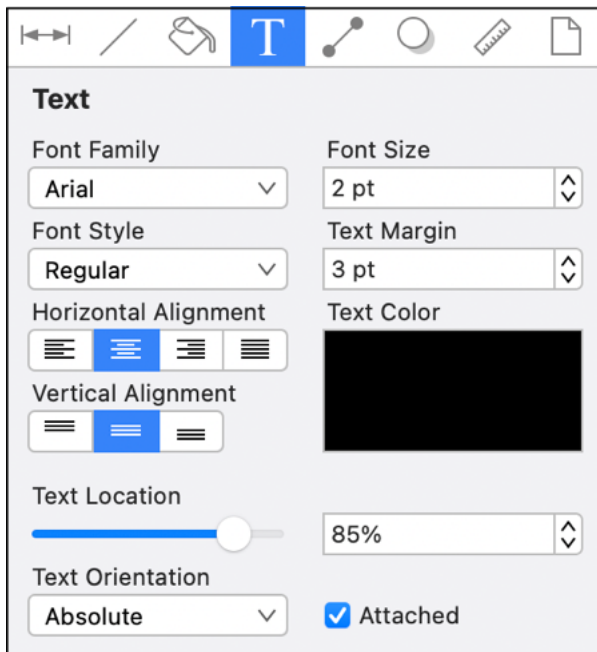


In the example below, the text location has been changed to 85%.



6.12.9. Text Orientation

The **Text Orientation** menu can be used to change the orientation of text that is attached to a line or path. Text Orientation can be **Absolute** or **Relative**. Absolute is selected by default.

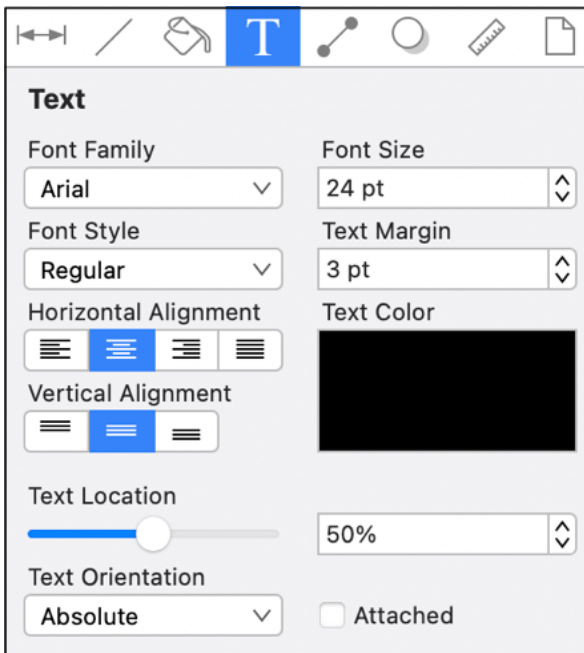


Note: Text Orientation can be changed for all lines and paths in a drawing or for one or more selected lines and paths.

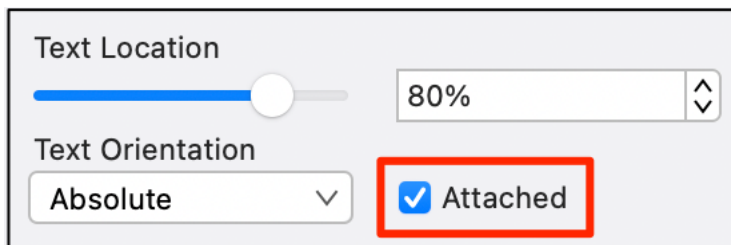
How to Change the Text Orientation

Complete the following steps to change the orientation of text attached to a line or path:

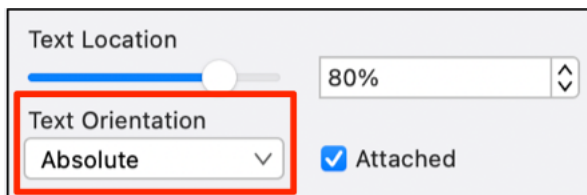
Step 1: Select the **Text Tab** located in the [Info](#) portion of the [Sidebar](#).



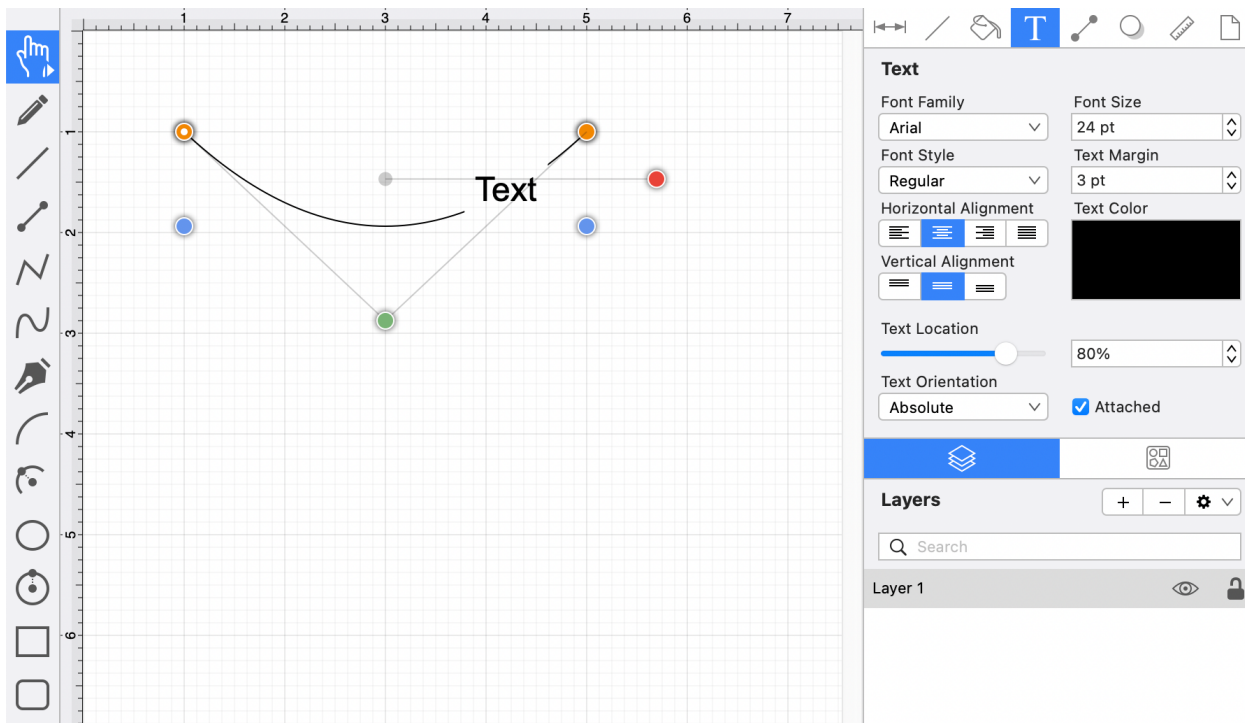
Step 2: If not already enabled, tap on the **Attached** option to enable it.



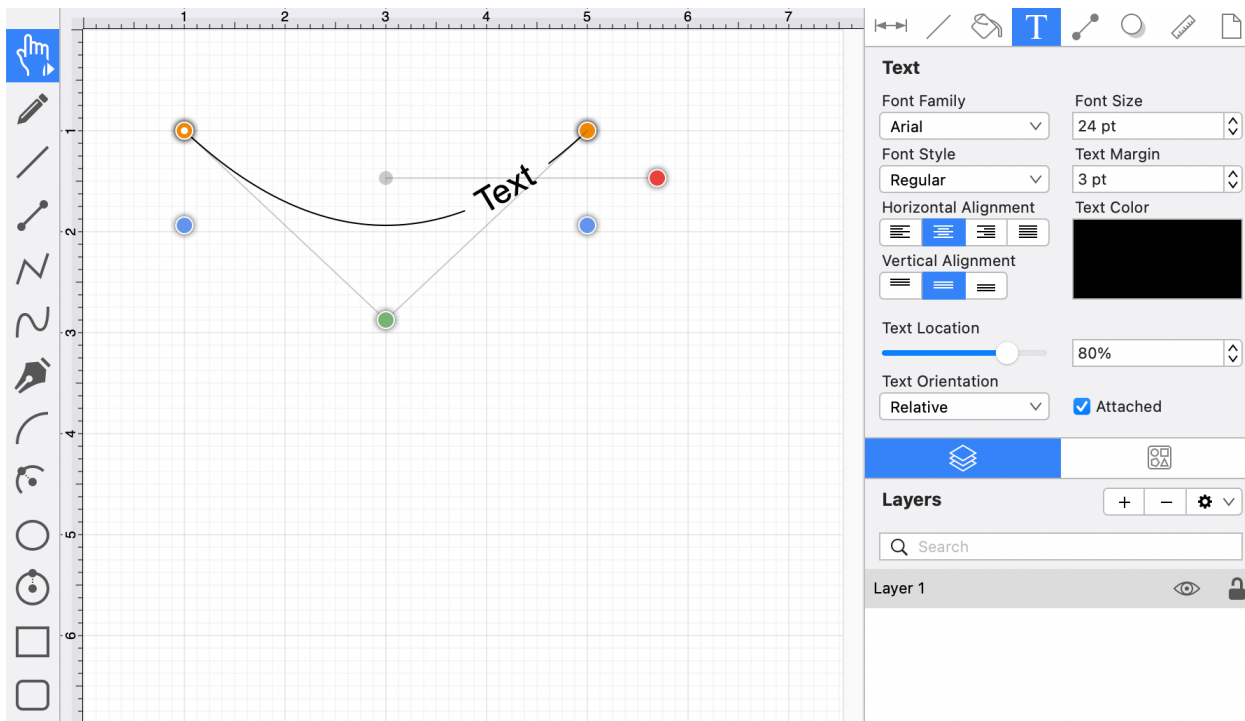
Step 3: Use the **Text Orientation** drop-down menu to select an option.



Path Figure with Absolute Text Orientation



Path Figure with Relative Text Orientation



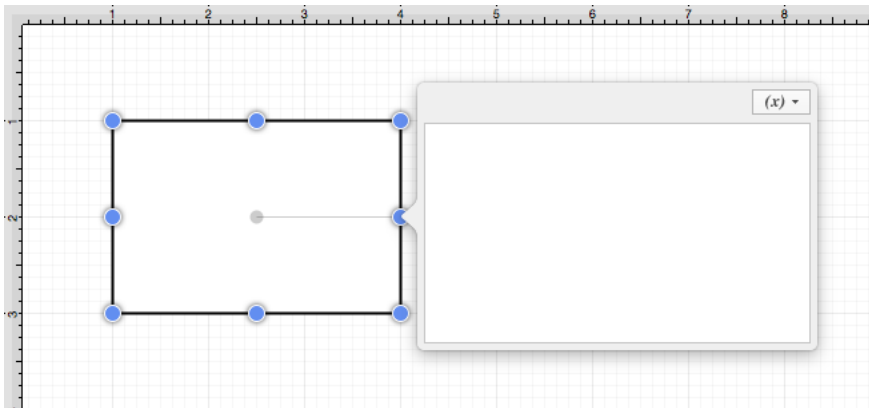
6.12.10. Adding Variables to Text

A **Variable** can be added to text within a figure through the **Text Editor Popup Window** by hand keying the desired variable as part of the text or completing an insertion with the **Variable Popup Menu**.

On a subsequent page, there is a [list of available variables](#).

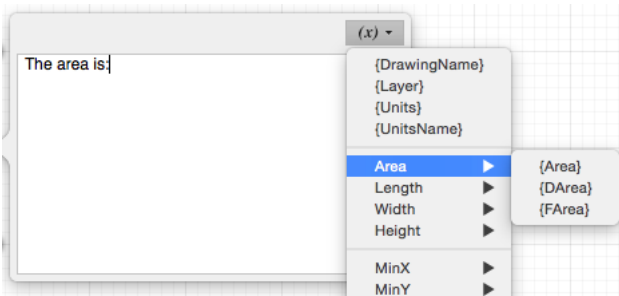
In the following example, the **Area** variable is included as part of the [selected](#) rectangle's text.

1. Double Click on a desired figure to open the **Text Editor**.

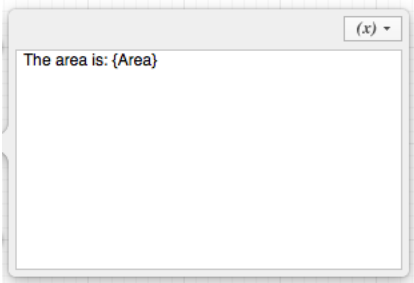


2. Begin entering text and then click on the **Variable Popup Menu** to select a currently [supported variable](#) from the provided list.

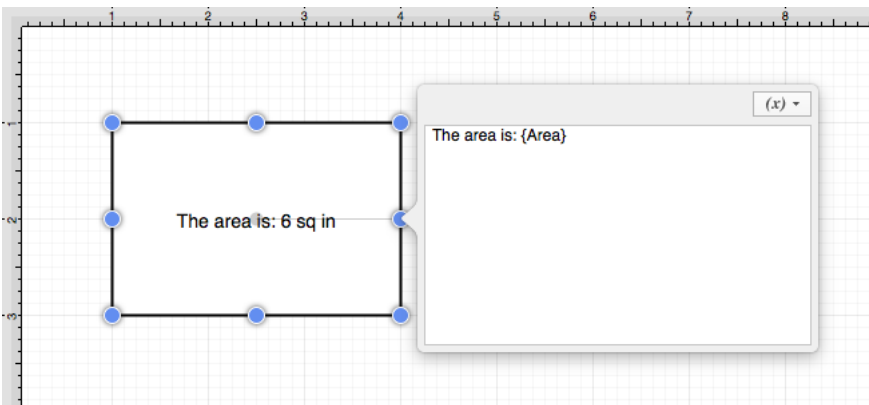




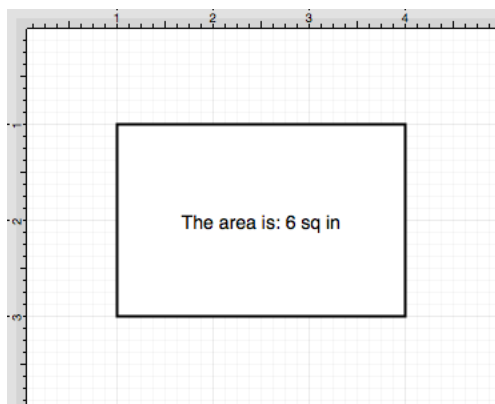
3. The variable will appear in the **Text Editor Popup Window** after it has been selected.



4. The selected variable shows as the actual value within the selected figure as it is entered.



5. The final text within the selected figure appears as shown below.



6.12.10.1. Available Variables

TouchDraw 2 supports inserting **Variables** into a text area. Entered variables are replaced with the actual value when the drawing is rendered. The table below provides a list of currently supported **Text Variables**:

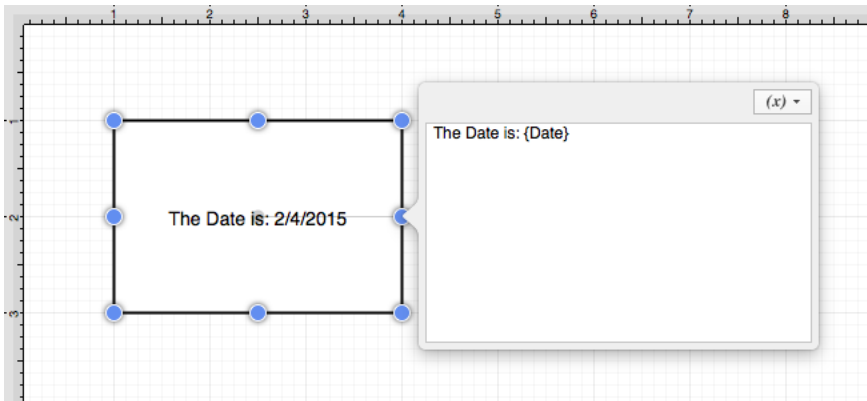
Variable Name	Variable Type	Description
{MinX}	Pre-formatted	The minimum X-axis position of the figure bounds + the units abbreviation.
{MaxX}	Pre-formatted	The maximum X-axis position of the figure bounds + the units abbreviation.
{MinY}	Pre-formatted	The minimum Y-axis position of the figure bounds + the units abbreviation.
{MaxY}	Pre-formatted	The maximum Y-axis position of the figure bounds + the units abbreviation.
{Length}	Pre-formatted	The length of the line (if the text is added to a line or line connection) + the units abbreviation.
{Width}	Pre-formatted	The width of the figure bounds + the units abbreviation.
{Height}	Pre-formatted	The height of the figure bounds + the units abbreviation.
{Area}	Pre-formatted	The area of the figure + the units abbreviation.
{Dxxxx}	Decimal	The decimal representation (to 4 decimal points) of one of the 7 variables above where xxxx is the name of the variable. For example, {DLength} would return the decimal value of a line length.
{Fxxxx}	Fractional	The fractional representation of one of the 7 variables above where xxxx is the name of the variable. For example, {FLength} would return the fractional value of a line length.
{DrawingName}	Pre-formatted	The name of the current drawing.
{Units}	Pre-formatted	The abbreviation of the unit of measure specified for the drawing.

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Variable Name	Variable Type	Description
{UnitsName}	Pre-formatted	The full name of the unit of measure specified for the drawing.
{Layer}	Pre-formatted	The name of the layer that the figure is currently in.
{Date}	Date	The current date.

6.12.10.2. Formatting Date Variables

By default, the {Date} variable will expand into a date formatted in the mm/dd/yyyy (or dd/mm/yyyy for non-US locales) format as shown in the screenshot below:



TouchDraw 2 allows the exact formatting style to be specified in scenarios where the date must be formatted differently than the default setting. Use one of the following {Date:format} options to insert a desired format. Refer to the sample table below:

Variable	Description	Examples
{Date:d}	Default - Short Date Formatting	6/15/2009 (US) 15/06/2009 (France) 2009/06/15 (Japan)
{Date:D}	Long Date Formatting	Monday, June 15, 2009 (US) 15 2009 . (Russia) Montag, 15. Juni 2009 (Germany)
{Date:f}	Full Date/Time (short time) Formatting	Monday, June 15, 2009 1:45 PM (US) den 15 juni 2009 13:45 (Sweden) , 15 2009 1:45 (Greece)
{Date:F}	Full Date/Time (long time) Formatting	Monday, June 15, 2009 1:45:30 PM (US) den 15 juni 2009 13:45:30 (Sweden) , 15 2009 1:45:30 (Greece)
{Date:g}	General Date/Time (short time) Formatting	6/15/2009 1:45 PM (US) 15/06/2009 13:45 (Spain) 2009/6/15 13:45 (China)

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Variable	Description	Examples
{Date:G}	General Date/Time (long time) Formatting	6/15/2009 1:45:30 PM (US) 15/06/2009 13:45:30 (Spain) 2009/6/15 13:45:30 (China)
{Date:m}	General Month/Day Formatting	June 15 (US) juni 15 (Denmark) Juni 15 (Indonesia)
{Date:M}	General Month/Day Formatting	June 15 (US) juni 15 (Denmark) Juni 15 (Indonesia)
{Date:o}	Round-Trip Date/Time Formatting	06-15T13:45:30.0900000
{Date:O}	Round-Trip Date/Time Formatting	06-15T13:45:30.0900000
{Date:r}	RFC1123 Formatting	15 Jun 2009 20:45:30 GMT
{Date:R}	RFC1123 Formatting	15 Jun 2009 20:45:30 GMT
{Date:s}	Sortable Date/Time Formatting	2009-06-15T13:45:30
{Date:t}	Short Time Formatting	1:45 PM (US) 13:45 (Croatia - Hrvatska) 01:45 (Egypt)
{Date:T}	Long Time Formatting	01:45:30 PM (US) 13:45:30 (Croatia - Hrvatska) 01:45:30 (Egypt)
{Date:u}	Universal Sortable Date/Time Formatting	2009-06-15 20:45:30Z

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Variable	Description	Examples
{Date:U}	Universal Full Date/Time Formatting	Monday, June 15, 2009 8:45:30 PM (US) den 15 juni 2009 20:45:30 (Sweden) , 15 2009 8:45:30 (Greece)
{Date:y}	Year Month Formatting	June, 2009 (US) juni 2009 (Denmark) Juni 2009 (Indonesia)
{Date:Y}	Year Month Formatting	June, 2009 (US) juni 2009 (Denmark) Juni 2009 (Indonesia)

In addition to the formatting variables above, you can also use the variable below to create your own custom date formats. For example, we could do something like the following

{Date:MM/dd/yy H:mm:ss}

which would create something like:

06/10/12 15:24:16

Variable	Description	Examples
{Date:d}	The day of the month, from 1 through 31.	6/1/2009 1:45:30 PM -> 1 6/15/2009 1:45:30 PM -> 15
{Date:dd}	The day of the month, from 01 through 31.	6/1/2009 1:45:30 PM -> 01 6/15/2009 1:45:30 PM -> 15
{Date:ddd}	The abbreviated name of the day of the week.	6/15/2009 1:45:30 PM -> Mon (US) 6/15/2009 1:45:30 PM -> (Russia) 6/15/2009 1:45:30 PM -> lun. (France)
{Date:dddd}	The full name of the day of the week.	6/15/2009 1:45:30 PM -> Monday (US) 6/15/2009 1:45:30 PM -> (Russia) 6/15/2009 1:45:30 PM -> lundi (France)
{Date:f}	The tenths of a second in a date and time value.	6/15/2009 13:45:30.617 -> 6 6/15/2009 13:45:30.050 -> 0

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Variable	Description	Examples
{Date:ff}	The hundredths of a second in a date and time value.	6/15/2009 13:45:30.617 -> 61 6/15/2009 13:45:30.005 -> 00
{Date:fff}	The milliseconds in a date and time value.	6/15/2009 13:45:30.617 -> 617 6/15/2009 13:45:30.0005 -> 000
{Date:ffff}	The ten thousandths of a second in a date and time value.	6/15/2009 13:45:30.6175 -> 6175 6/15/2009 13:45:30.00005 -> 0000
{Date:ffffff}	The hundred thousandths of a second in a date and time value.	6/15/2009 13:45:30.61754 -> 61754 6/15/2009 13:45:30.000005 -> 00000
{Date:fffffff}	The millionths of a second in a date and time value.	6/15/2009 13:45:30.617542 -> 617542 6/15/2009 13:45:30.0000005 -> 000000
{Date:fffffff}	The ten millionths of a second in a date and time value.	6/15/2009 13:45:30.6175425 -> 6175425 6/15/2009 13:45:30.0001150 -> 0001150
{Date:F}	If non-zero, the tenths of a second in a date and time value.	6/15/2009 13:45:30.617 -> 6 6/15/2009 13:45:30.050 -> (no output)
{Date:FF}	If non-zero, the hundredths of a second in a date and time value.	6/15/2009 13:45:30.617 -> 61 6/15/2009 13:45:30.005 -> (no output)
{Date:FFF}	If non-zero, the milliseconds in a date and time value.	6/15/2009 13:45:30.617 -> 617 6/15/2009 13:45:30.0005 -> (no output)
{Date:FFFF}	If non-zero, the ten thousandths of a second in a date and time value.	6/1/2009 13:45:30.5275 -> 5275 6/15/2009 13:45:30.00005 -> (no output)
{Date:FFFFF}	If non-zero, the hundred thousandths of a second in a date and time value.	6/15/2009 13:45:30.61754 -> 61754 6/15/2009 13:45:30.000005 -> (no output)
{Date:FFFFFF}	If non-zero, the millionths	6/15/2009 13:45:30.617542 -> 617542 6/15/2009

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Variable	Description	Examples
	of a second in a date and time value.	13:45:30.00000005 -> (no output)
{Date:FFFFFF}	If non-zero, the ten millionths of a second in a date and time value.	6/15/2009 13:45:30.6175425 -> 6175425 6/15/2009 13:45:30.0001150 -> 000115
{Date:g} , {Date:gg}	The period or era.	6/15/2009 1:45:30 PM -> A.D.
{Date:h}	The hour, using a 12-hour clock from 1 to 12.	6/15/2009 1:45:30 AM -> 1 6/15/2009 1:45:30 PM -> 1
{Date:hh}	The hour, using a 12-hour clock from 01 to 12.	6/15/2009 1:45:30 AM -> 01 6/15/2009 1:45:30 PM -> 01
{Date:H}	The hour, using a 24-hour clock from 0 to 23.	6/15/2009 1:45:30 AM -> 1 6/15/2009 1:45:30 PM -> 13
{Date:HH}	The hour, using a 24-hour clock from 00 to 23.	6/15/2009 1:45:30 AM -> 01 6/15/2009 1:45:30 PM -> 13
{Date:m}	The minute, from 0 through 59.	6/15/2009 1:09:30 AM -> 9 6/15/2009 1:09:30 PM -> 9
{Date:mm}	The minute, from 00 through 59.	6/15/2009 1:09:30 AM -> 09 6/15/2009 1:09:30 PM -> 09
{Date:M}	The month, from 1 through 12.	6/15/2009 1:45:30 PM -> 6
{Date:MM}	The month, from 01 through 12.	6/15/2009 1:45:30 PM -> 06
{Date:MMM}	The abbreviated name of the month.	6/15/2009 1:45:30 PM -> Jun (US) 6/15/2009 1:45:30 PM -> juin (France) 6/15/2009 1:45:30 PM -> Jun (South Africa)
{Date:MMMM}	The full name of the month.	6/15/2009 1:45:30 PM -> June (US) 6/15/2009 1:45:30 PM -> juni (Denmark) 6/15/2009 1:45:30 PM -> uJuni (South Africa)

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Variable	Description	Examples
{Date:s}	The second, from 0 through 59.	6/15/2009 1:45:09 PM -> 9
{Date:ss}	The second, from 00 through 59.	6/15/2009 1:45:09 PM -> 09
{Date:t}	The first character of the AM/PM designator.	6/15/2009 1:45:30 PM -> P (US) 6/15/2009 1:45:30 PM -> (Japan) 6/15/2009 1:45:30 PM -> (France)
{Date:tt}	The AM/PM designator.	6/15/2009 1:45:30 PM -> PM (US) 6/15/2009 1:45:30 PM -> (Japan) 6/15/2009 1:45:30 PM -> (France)
{Date:y}	The year, from 0 to 99.	1/1/0001 12:00:00 AM -> 1 1/1/0900 12:00:00 AM -> 0 1/1/1900 12:00:00 AM -> 0 6/15/2009 1:45:30 PM -> 9
{Date:yy}	The year, from 00 to 99.	1/1/0001 12:00:00 AM -> 01 1/1/0900 12:00:00 AM -> 00 1/1/1900 12:00:00 AM -> 00 6/15/2009 1:45:30 PM -> 09
{Date:yyy}	The year, with a minimum of three digits.	1/1/0001 12:00:00 AM -> 001 1/1/0900 12:00:00 AM -> 900 1/1/1900 12:00:00 AM -> 1900 6/15/2009 1:45:30 PM -> 2009
{Date:yyyy}	The year as a four-digit number.	1/1/0001 12:00:00 AM -> 0001 1/1/0900 12:00:00 AM -> 0900 1/1/1900 12:00:00 AM -> 1900 6/15/2009 1:45:30 PM -> 2009
{Date:yyyyy}	The year as a five-digit number.	1/1/0001 12:00:00 AM -> 00001 6/15/2009 1:45:30 PM -> 02009
{Date:z}	>Hours offset from UTC, with no leading zeros.	6/15/2009 1:45:30 PM -07:00 -> -7
{Date:zz}	Hours offset from UTC, with a leading zero for a single-digit value.	6/15/2009 1:45:30 PM -07:00 -> -07
{Date:zzz}	Hours and minutes offset from UTC.	6/15/2009 1:45:30 PM -07:00 -> -07:00

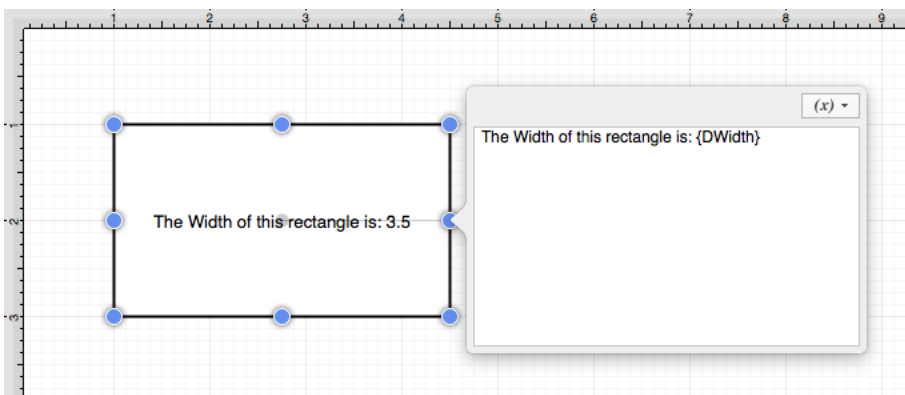
TouchDraw 2 for Mac

Variable	Description	Examples
{Date::}	The time separator.	6/15/2009 1:45:30 PM -> : (US) 6/15/2009 1:45:30 PM -> . (Italy) 6/15/2009 1:45:30 PM -> : (Japan)
{Date:/}	The date separator.	6/15/2009 1:45:30 PM -> / (US) 6/15/2009 1:45:30 PM -> - (Algeria)

6.12.10.3. Formatting Decimal Variables

The **Decimal Variable** can be inserted as part of entered text to show the value of another variable in decimal form within the text of a figure. Refer to the [Text Variable Table](#) for a list of all supported variables.

Any of the listed pre-formatted numerical variables can have a "D" placed in front of it (as long as they correspond with the type of selected figure) to insert the value as a decimal. The following screenshot shows an example of this:



By default, the decimal value will be presented with at most 4 digits after the decimal point. An alternative formatting style can be specified by using the `{Dxxxx:format}` pattern. The table below outlines the options for formatting the decimal value.

Format Specifier	Name	Description	Examples
0	Zero Placeholder	Replaces the zero with the corresponding digit if one is present, otherwise zero appears in the result.	Width = 1234.5678 Variable = Result = 01234 Width = 0.45678 Variable = Result = 0.46
#	Digit Placeholder	Replaces the pound sign with the corresponding digit if one is present; otherwise, no digit appears in the result	Width = 1234.5678 Variable =

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Format Specifier	Name	Description	Examples
		string.	{DWidth:#####} Result = 1234 Width = 0.45678 Variable = {DWidth:###} Result = .46
.	Decimal Point	Determines the location of the decimal separator in the result string.	Width = 0.45678 Variable = Result (US) = 0.46 Width = 0.45678 Variable = Result (Germany) = 0,46
,	Group Separator	Inserts a group separator character between each group.	2147483647 ("# #,#") = 2,147,483,647 (US) 2147483647 ("# #,#") = 2.147.483.647 (Estonia)
,	Number Scaling	Divides a number by 1000 for specified commas.	2147483647 ("#,#,") = 2,147 (US) 2147483647 ("#,#,") = 2.147 (Estonia)
%	Percent Placeholder	Multiplies a number by 100 and inserts a localized percentage symbol in the result string.	0.03697 ("%,#0.00") = %36.97 (US) 0.03697 ("%,#0.00") = %36,97 (Greece) 0.03697 ("# #.0%") = 37.0%

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Format Specifier	Name	Description	Examples
			(US) 0.03697 ("# #.0%") = 37,0% (Greece)
%o	Per Mille Placeholder	Multiplies a number by 1000 and inserts a localized per mille symbol in the result string.	0.03697 ("# 0.00%") = 36.97‰ (US) 0.03697 ("# 0.00%") = 36,97‰ (Russia)
EO, E+0, E-0, e0, e+0, e-0	Exponential Notation	<i>Zero</i> - Formats in exponential notation. <i>E/e</i> - Indicates case of the exponent symbol in the resulting string. <i>Plus Sign</i> - Indicates that the sign character precedes the exponent. <i>Minus Sign</i> - Indicates that a sign character precedes only negative exponents. The number of zeros following the E/e symbol determines the minimum number of digits in the exponent (Must have at least one zero).	987654 ("# 0.0e0") = 98.8e4 1503.92311 ("0.0 # # e +00") = 1.504e+03 18901385E-16 ("0.0e +00") = 1.9e-16
\	Escape Character	Next character interpreted as a literal rather than custom format specifier.	987654 ("\"# # # 00\"#") = #987654#
'string', "string"	Literal String Delimiter	Indicates that the enclosed characters should be copied to the result string without changes.	68 ("# ' degrees") = 68 degrees 68 ("# ' degrees") = 68 degrees
;	Section Separator	Defines sections using separate format strings for positive, negative, and zero numbers.	12.345 ("# 0.0#; (#0.0#); -\0-") = 12.35 0 ("# 0.0#; (#0.0#); -\0-") = -0- -12.345 ("# 0.0#; (#0.0#);

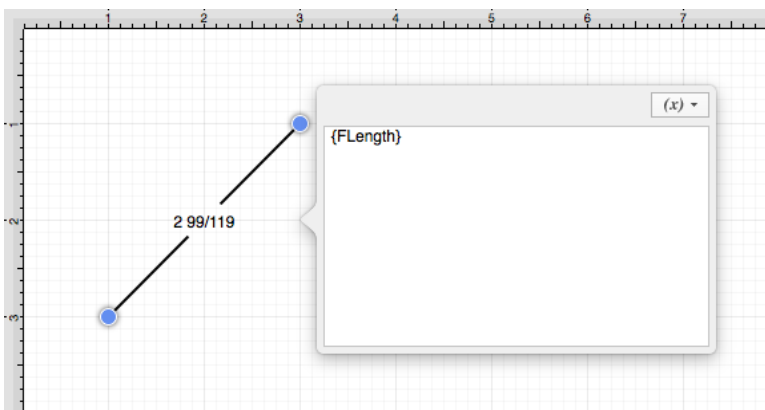
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Format Specifier	Name	Description	Examples
			$\backslash 0-$ = (12.35) 12.345 ("# 0.0#; (#0.0#)") = 12.35 0 ("# 0.0#; (#0.0#)") = 0.0 -12.345 ("# 0.0#; (#0.0#)") = (12.35)
Other	All Other Characters	The character is copied to the result string unchanged.	68 (" # °") = 68 °

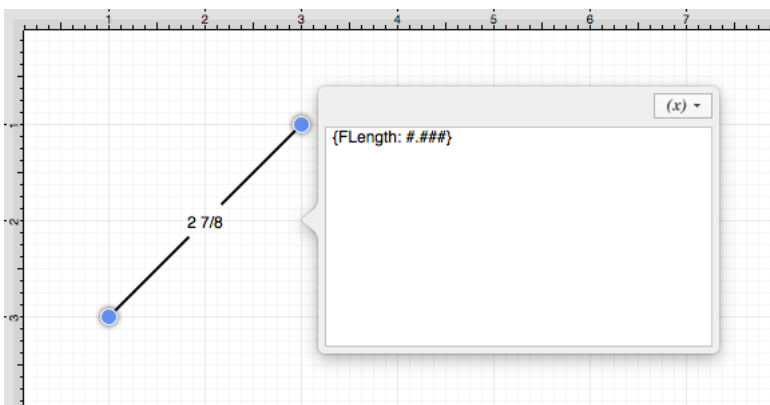
6.12.10.4. Formatting Fractional Variables

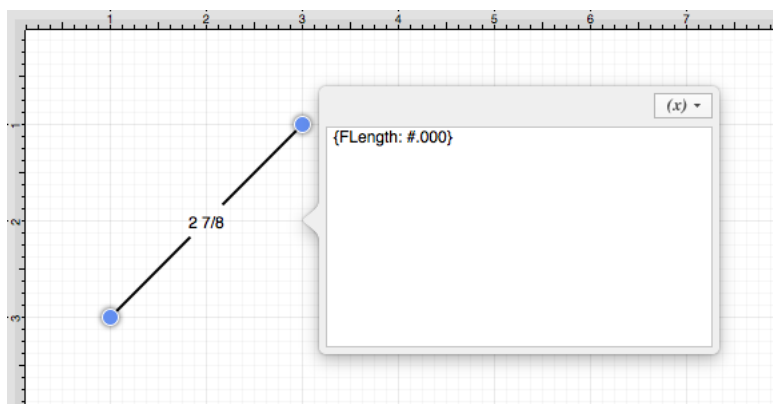
The **Fractional Variable** can be inserted as part of entered text to show the value of another variable in fractional form within the text of a figure. Refer to the [Text Variable Table](#) for a list of all supported variables.

Any of the listed pre-formatted numerical variables can have an "F" placed in front of it (as long as they correspond with the type of selected figure) to insert the value as a fraction. The following screenshot shows an example of this:



Additional format specifiers may be added at the end of the variable to alter the number of shown placeholders of a fractional value or to round the supplied value. Rounding is accomplished by placing a **semi-colon (;)** after the variable followed by either `####` or `.000`. The screenshots below are two examples of ways to round a fractional value in the [Text Editor](#).





Both the F and first letter of the entered variable must be capitalized for the value to appear in the selected figure.

By default, the numerator and denominator making up the fractional value will be presented with at most three digits. An alternative formatting style can be specified by using the `{Fxxxx:format}` pattern. The table below outlines the options for formatting the fractional value.

Format Specifier	Name	Description	Examples
0	Zero Placeholder	Replaces the zero with the corresponding digit if one is present, otherwise zero appears in the result.	Length = 4 148/249 Variable = <code>{FLength:00000}</code> Result = 5 Length = 4 148/249 Variable = <code>{FLength:0.00}</code> Result = 4 63/100
#	Digit Placeholder	Replaces the pound sign with the corresponding digit if one is present; otherwise, no digit appears in the result string.	Length = 4 148/249 Variable = <code>{FLength:\#\#\#\#\#}</code> Result = 5 Length = 4 148/249 Variable = <code>{FLength:\#.\#\#}</code> Result = 4 63/100
.	Decimal Point	Determines the location of the fractional separator in the result string.	Length = 4 148/249 Variable = <code>{FLength:0.00}</code> Result (US) = 4 63/100
Other	All Other Characters	The character is copied to the result string	68 (" # °") = 68 °

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Format Specifier	Name	Description	Examples
		unchanged.	

6.13. Handling Paths

TouchDraw 2 supplies multiple actions for altering handles or segments within a created path. A handle may be [inserted](#) or [deleted](#) at any point within the path and a figure can be [split](#) at a selected handle. Segments may be [removed](#) from a figure or converted to a [line](#), [quadratic curve](#), or [cubic curve](#) segment by adding or deleting corresponding control points. These additional actions are available for altering an existing figure:

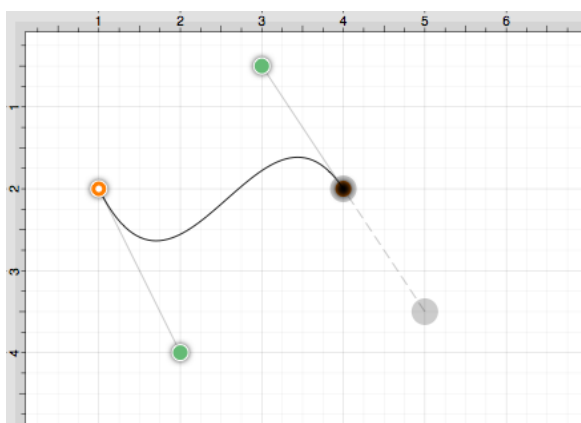
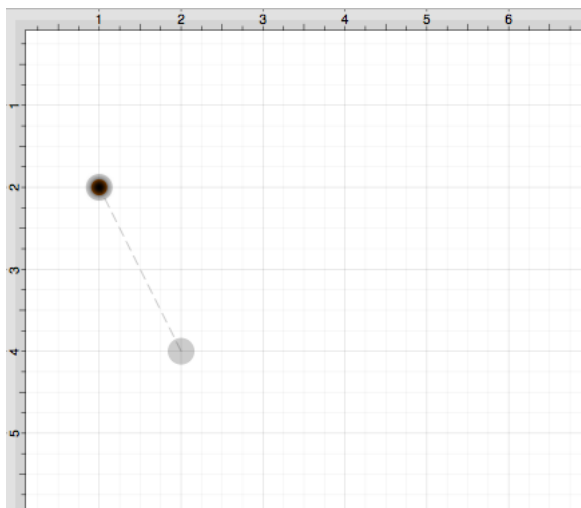
- [Opening a Path](#)
- [Closing a Path](#)
- [Joining Lines and Paths](#)
- [Trimming Lines and Paths](#)
- [Reversing Lines and Paths](#)
- [Splitting Segments](#)
- [Creating](#) and [Separating](#) Compound Paths
- Conversion of [Shape](#) or [Text](#) Figure(s) to Paths

A control point is displayed in gray when it has not been used and is referred to as a "phantom" control point. This characteristic provides a hint to the TouchDraw 2 application that it should function as a control point in scenarios where the next drawn segment is a curve.

A few basic actions can be used to alter the "phantom" control point position as a path is edited. Refer to the sections below to learn more about each available action.

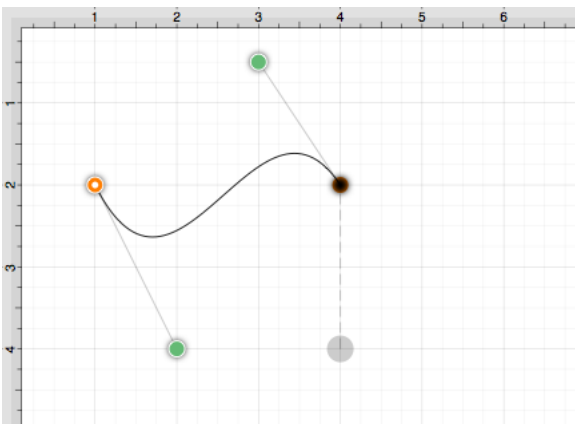
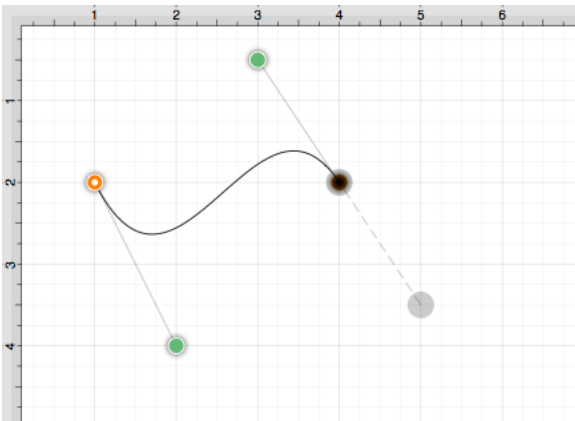
Click/Drag

A **Click/Drag** combination on any position in the drawing canvas creates the end handle of a curve segment in relevance to the current "phantom" control point position. The "phantom" control point is re-positioned in accordance to the newly created end handle while this action occurs.



Option/Click

An **Option/Click** combination allows the "phantom" control point position to be set to a desired location on the drawing canvas after a curve segment has been created.



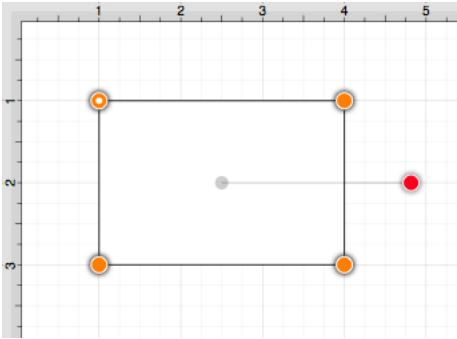
Option/Click/Drag

An **Option/Click/Drag** combination allows the "phantom" control point to be dragged to any point on the drawing canvas and changes a corner point back to a smooth curve after a curve segment has been created.

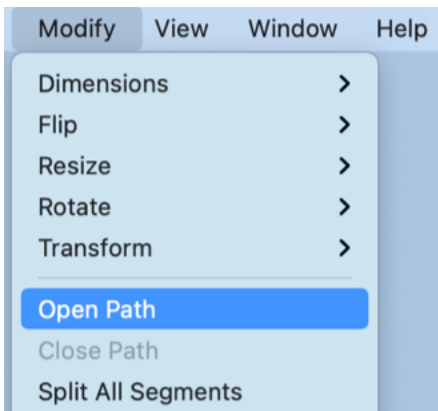
6.13.1. Opening a Path

TouchDraw 2 supplies options for opening and [closing](#) an existing path. A path can be opened to make individual alterations such as segment additions. Follow the steps below to open a currently closed path:

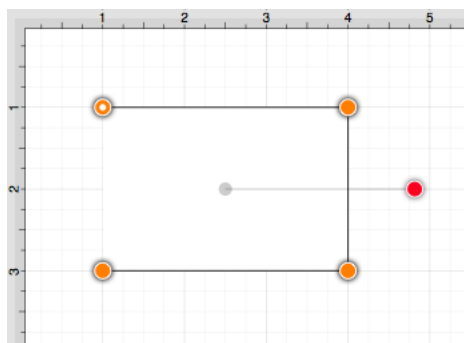
1. [Select](#) the path to be opened.



2. Select the [Modify Menu](#) and choose **Open Path**.



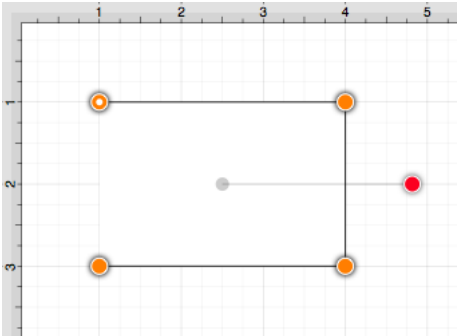
3. The end/start handle of the closed path is separated into two individual handles. Once a path has been opened, the connecting segments are treated as individual path segments. They can be moved or expanded to any point on the drawing canvas, have handles added, be converted to a quadratic or curve segment, and be combined with additional paths.



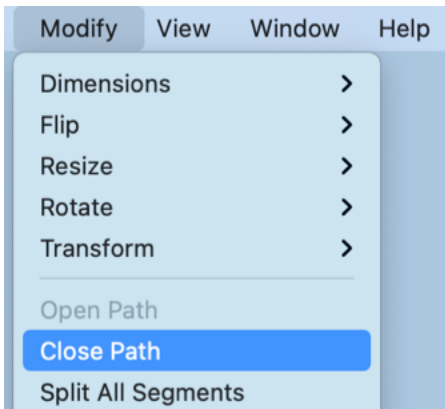
6.13.2. Closing a Path

The **Close Path** option draws a straight line segment from the last segment end handle to the path start handle to close an open path. Follow the steps below to close a currently open path:

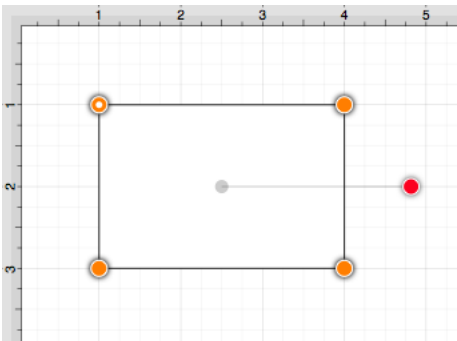
1. **Select** the path to be closed.



2. Select the **Modify Menu** and choose **Close Path**.



3. A straight line segment will be drawn from the last segment end point to the start handle of the chosen path.

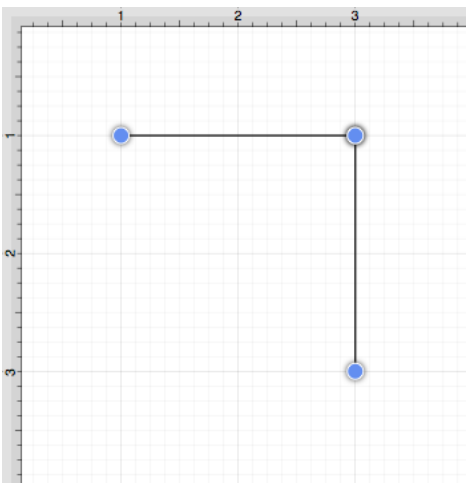
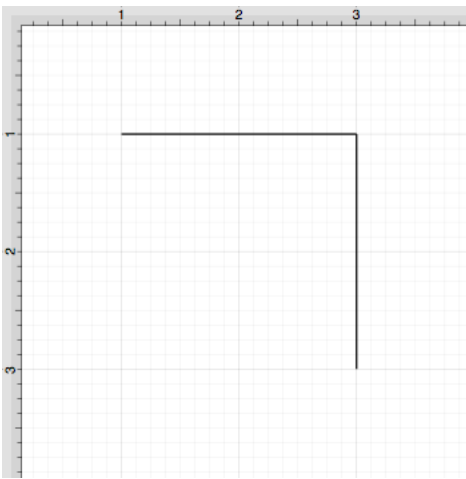


6.13.3. Joining Lines and Paths

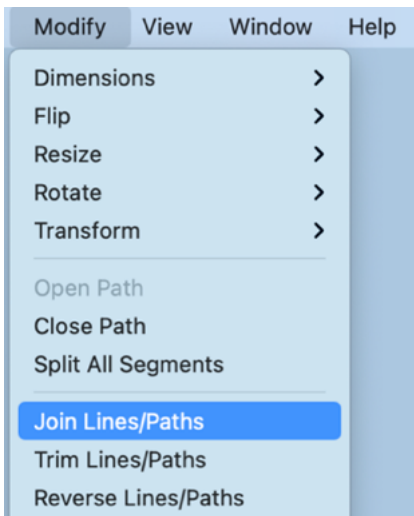
The **Join Lines/Paths** option allows the intersecting end points of two or more selected lines or paths to be joined to form a single path. A minimum of two intersecting lines or paths must be [selected](#) for a join to occur.

Follow the steps below to join two line end points:

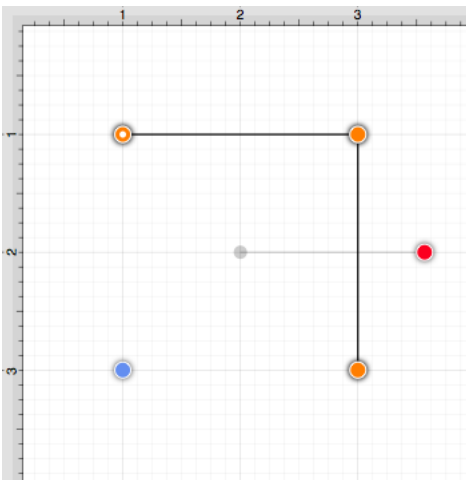
1. Create two lines on the drawing canvas using the [Line Tool](#) and then select both line figures by holding down the **Shift Key** while clicking.



2. Select the [Modify Menu](#) and choose **Join Lines/Paths**.

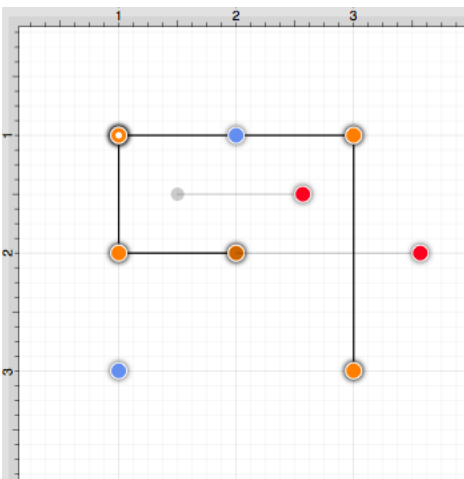
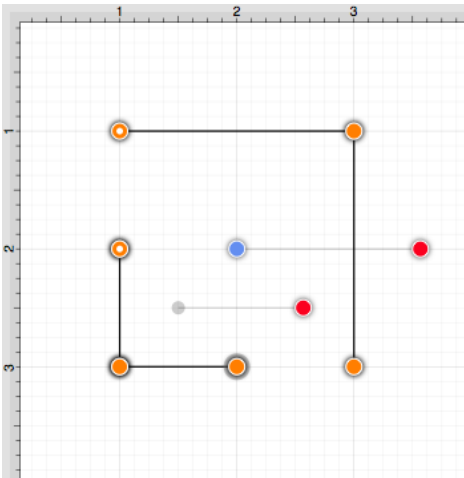


3. The line end points are joined to create two path segments with corresponding end points (orange), a start handle (orange circle with white center), and a rotation handle (red). To learn more about the types of handles used within TouchDraw, refer to the [handles reference table](#).

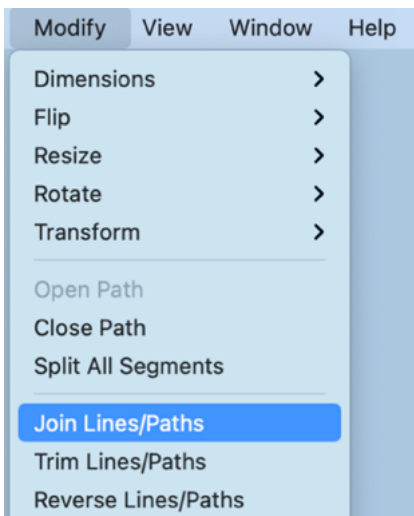


Two or more path end points may also be combined with the **Join Lines/Paths** menu option. Follow the steps below to join two path end points:

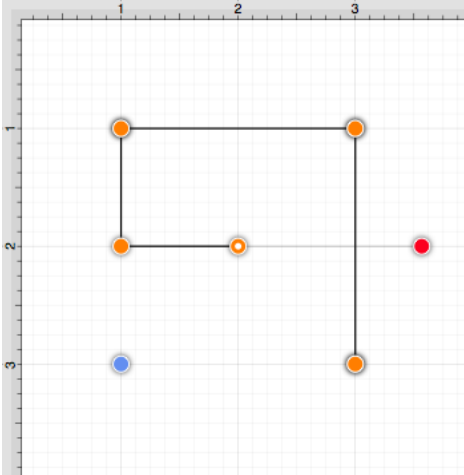
1. Create two paths with at least one shared segment end point on the drawing canvas using the [Path Tool](#) and then select both paths by holding down the **Shift Key** while clicking.



2. Select the [Modify Menu](#) and choose **Join Lines/Paths**.



3. As shown below, the intersecting end points are joined to form a single segment end point (orange) and a new start point handle (orange with white dot) is added to the beginning of the first selected path to visually indicate the formation of a single path. To learn more about the types of handles used within TouchDraw, refer to the [handles reference table](#).

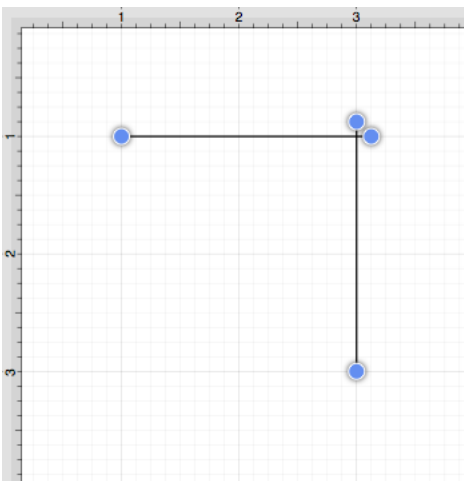
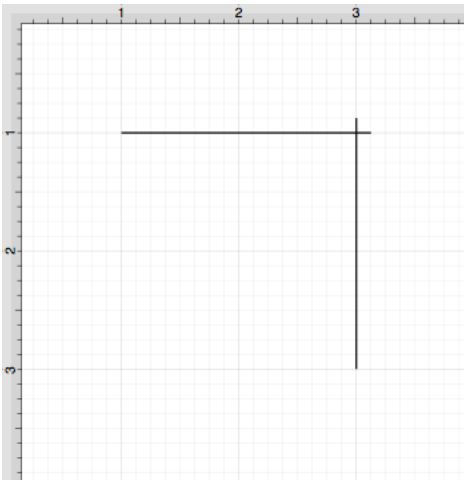


6.13.4. Trimming Lines and Paths

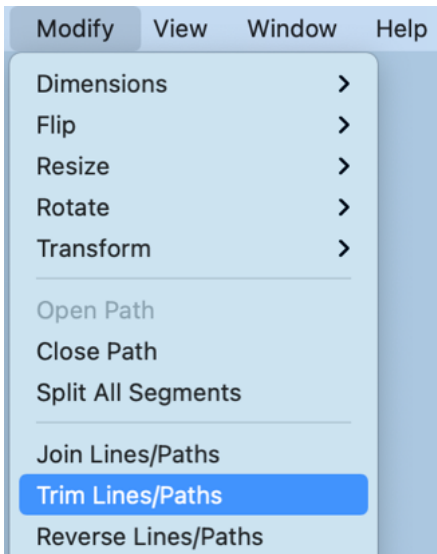
The **Trim Lines/Paths** option trims a line or path when it intersects near it's end with another shape or line. TouchDraw 2 considers "near" to be when an intersection is within the first or last eighth ($1/8$ th) of the line. If the intersection is within the middle $6/8$ ths, then the line is not trimmed.

Follow the steps below to trim the ends of intersecting lines or paths:

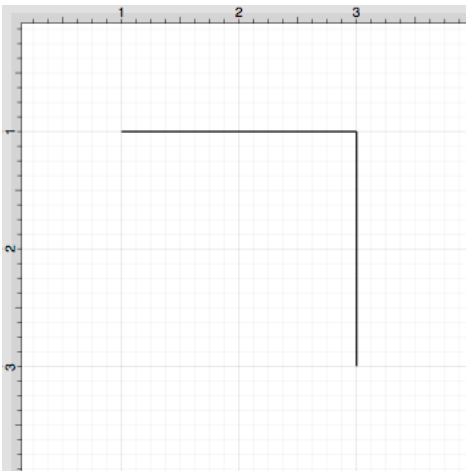
1. [Select](#) the items to be trimmed.



2. Select the [Modify Menu](#) and choose **Trim Lines/Paths**.



3. All lines or paths intersecting within the last 1/8th are trimmed. In this example, the additional portions of the path extending past the straight line are trimmed.

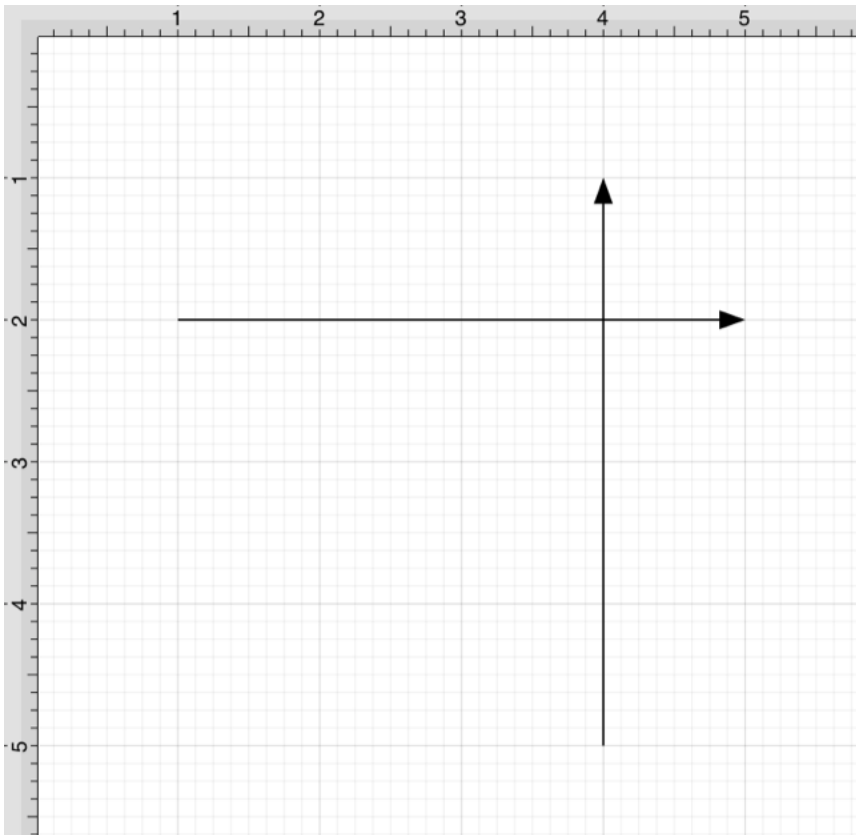


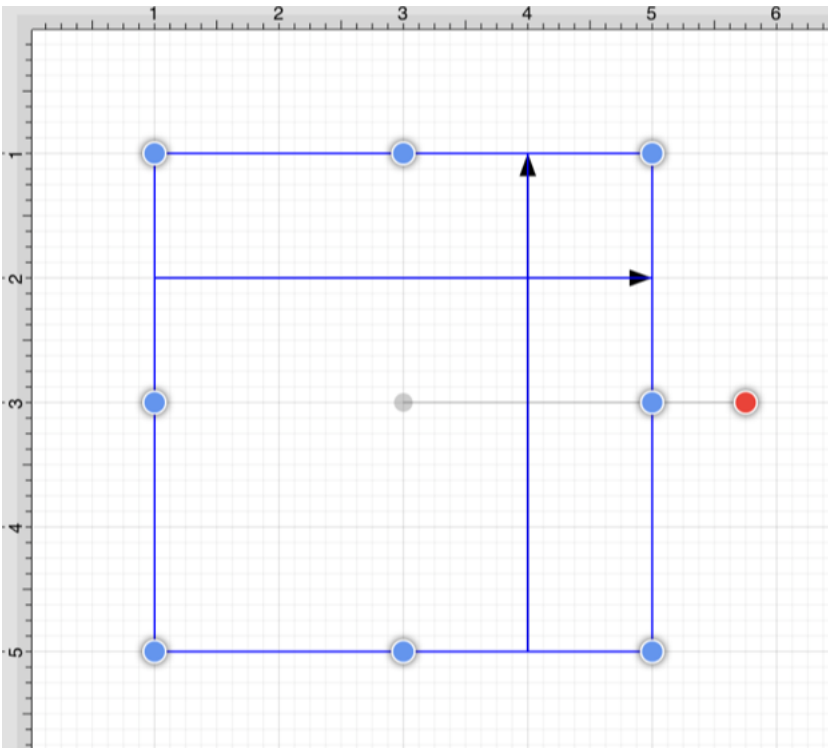
6.13.5. Reversing Lines and Paths

The **Reverse Lines/Paths** menu item flips or reverses the direction of the decorations (arrowhead, diamond, square, etc.) within selected lines and/or paths.

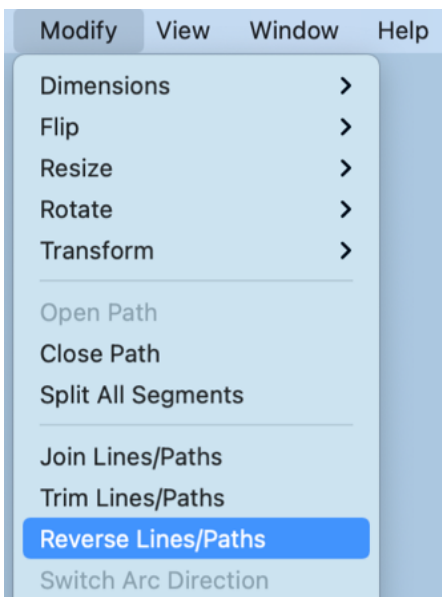
Follow the steps below to reverse the ends of lines and/or paths:

Step 1: [Select](#) the lines and/or paths to be reversed.

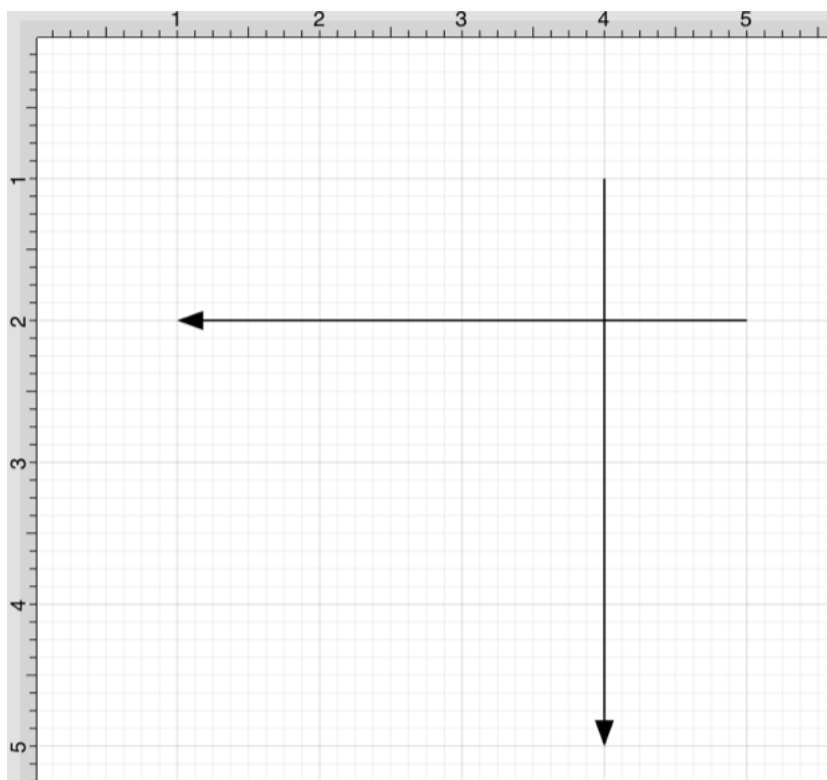
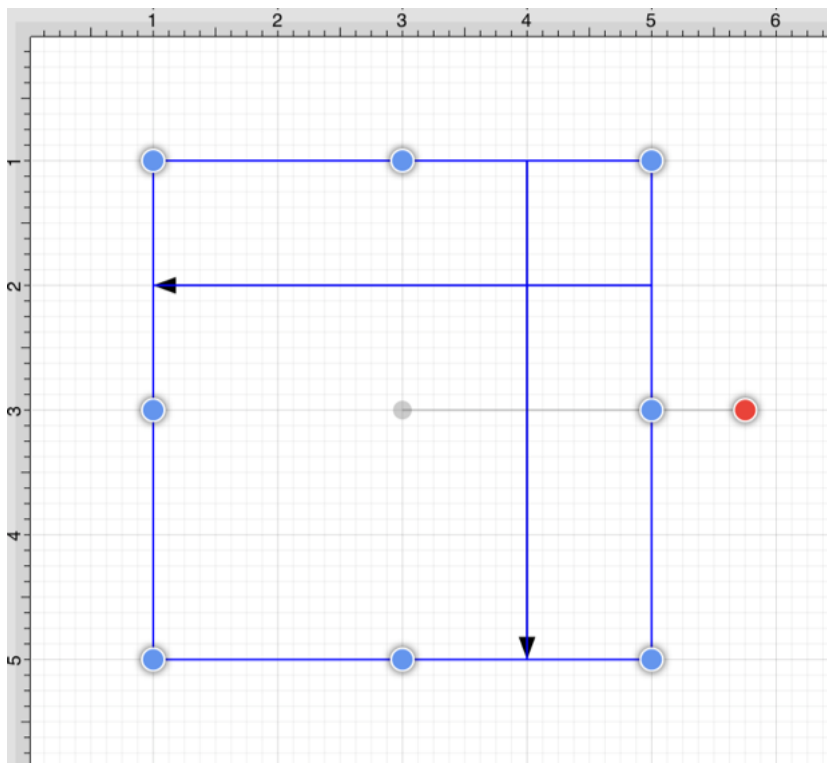




Step 2: Select the [Modify Menu](#) and choose **Reverse Lines/Paths**.



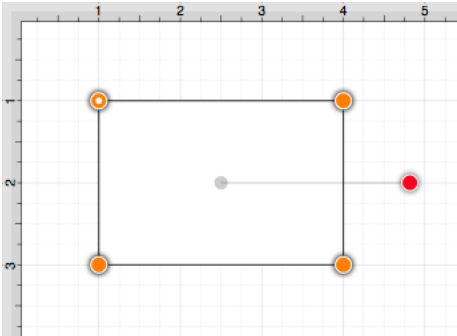
Step 3: All decorations for the selected lines and/or paths will be reversed.



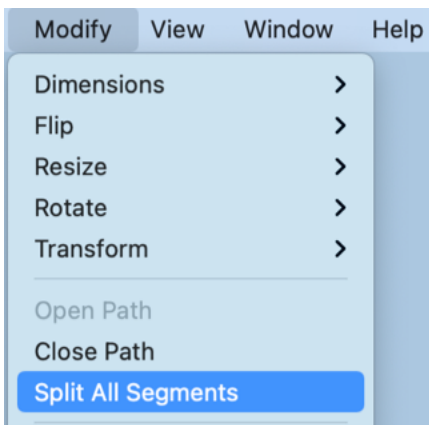
6.13.6. Splitting Segments

The segments of a path can be split into individual segments. Follow the steps below to **Split All Segments** within a [selected](#) path(s):

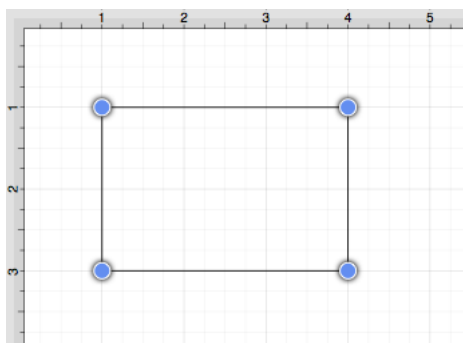
1. Click on the path to be split.



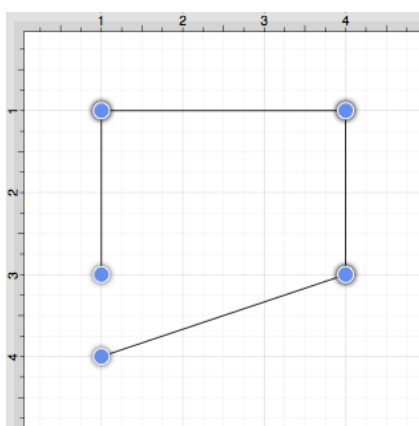
2. Select the [Modify Menu](#) and choose **Split All Segments**.



3. As shown below, specific visual indicators are changed to show that all segments have been separated within a path and are able to be moved or altered as individual objects. Segment end point handles (orange) are changed to a bounds handle (blue) The start handle (orange with white center) remains at one end of each split segment since they are still considered by the application to be a path and the control points (green) are left untouched to allow for alterations to existing quadratic or cubic curve segments. To learn more about handles, refer to the [handles reference table](#).



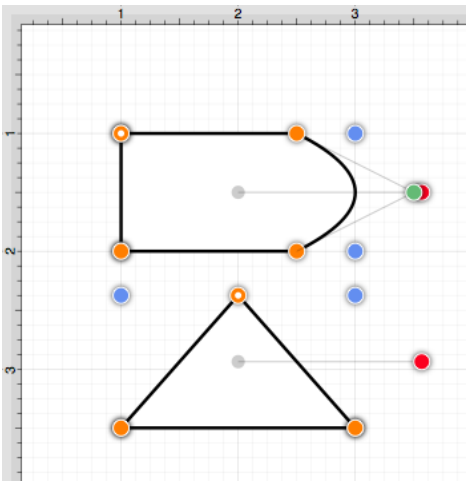
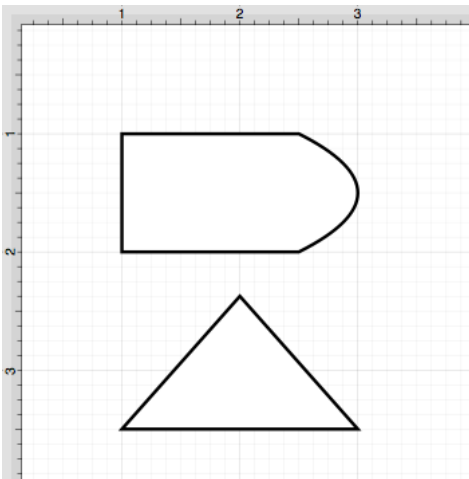
4. Click on a bounds handle (blue) to move or resize a segment. Attribute alterations are made just as with any other created figure on the drawing canvas.



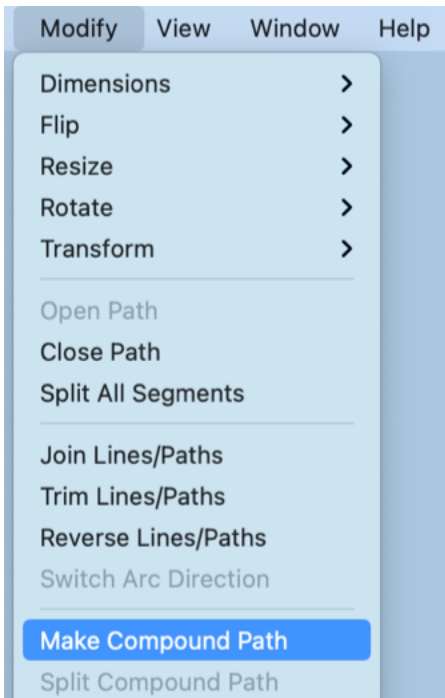
6.13.7. Creating a Compound Path

The **Make Compound Path** option can be used to combine two or more paths into one figure (compound path) that shares the same attributes and is treated as one object. At least two paths must be [selected](#) for this option to be available. Follow the steps below to create a compound path:

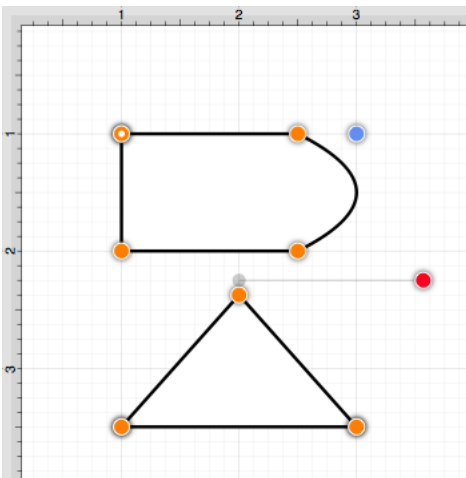
1. Select the paths to be combined.

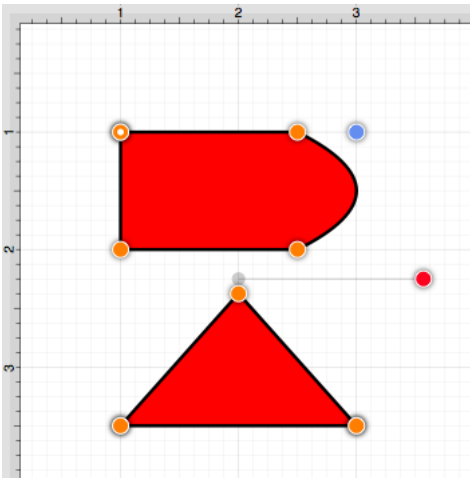


2. Select the [Modify Menu](#) and choose **Make Compound Path**.

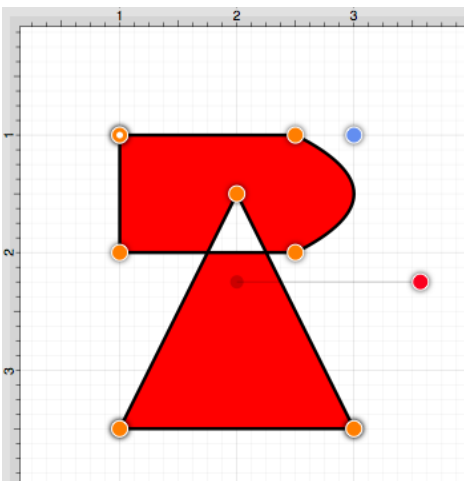


3. The two paths are combined to form a compound path with shared bounds handles (blue) and a shared rotation handle (red). Attribute changes now affect both paths as if they were a single path. For example, if the fill color is changed to red, all paths included in the compound path are altered to have this attribute. Refer to the images below:

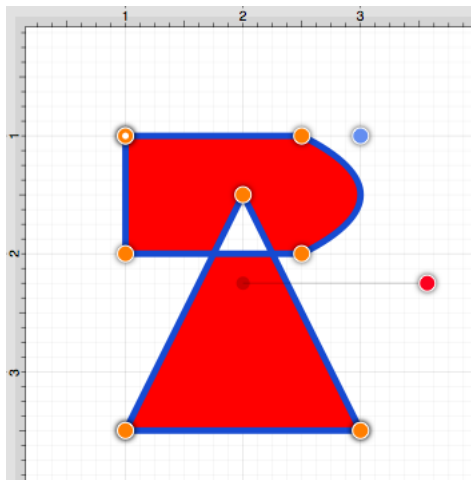




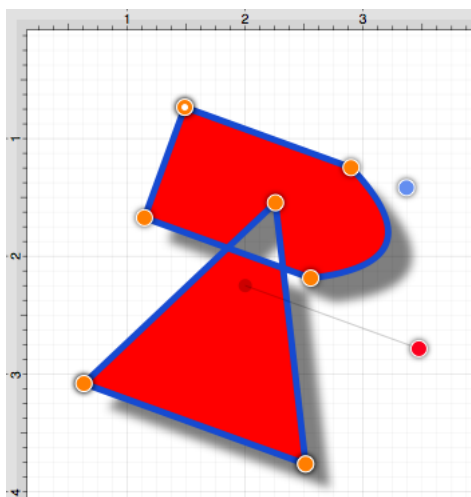
4. If the top handle of the triangle is dragged into the other compound figure, the intersecting portion of these two paths will appear in white.



5. An attribute change of stroke color to blue with a stroke size increase alters the attribute for every segment in the compound path.



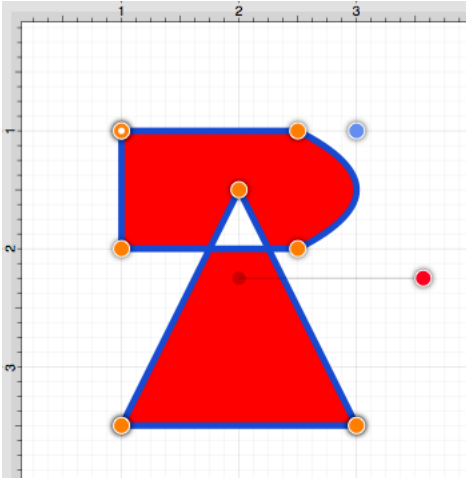
6. The addition of a shadow with a rotation angle of twenty degrees would result in the image below.



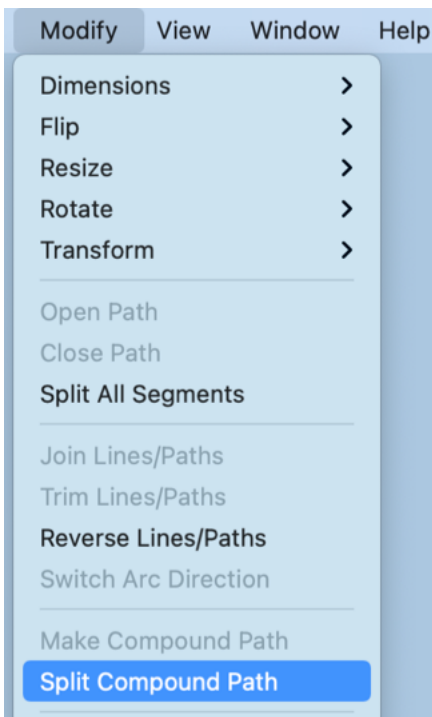
6.13.8. Separating a Compound Path

The **Separate Compound Path** option separates a compound path into its individual paths. Follow the steps below to separate a compound path:

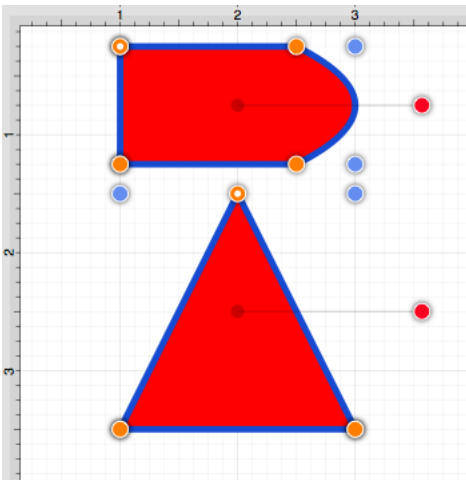
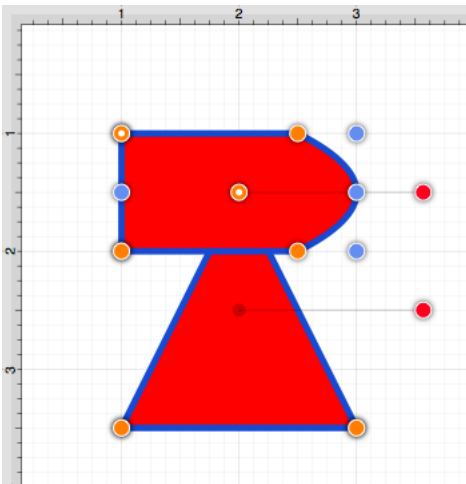
1. [Select](#) the compound path.



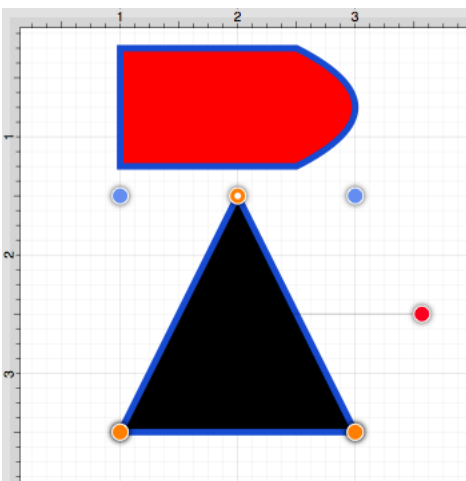
2. Select the [Modify Menu](#) and choose **Split Compound Path**.



3. The previously combined paths are now two individual paths, which can be altered separately.



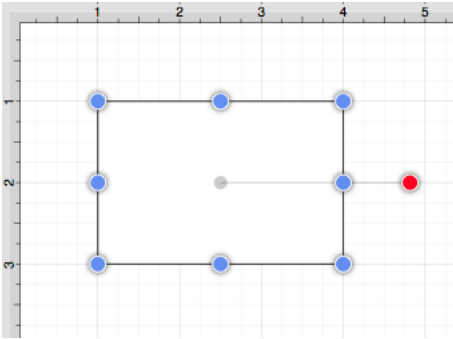
4. Attribute changes will be applied to the selected path only rather than both paths. For example, if the fill color of the bottom path is changed to black, the upper path remains red. Refer to the image below:



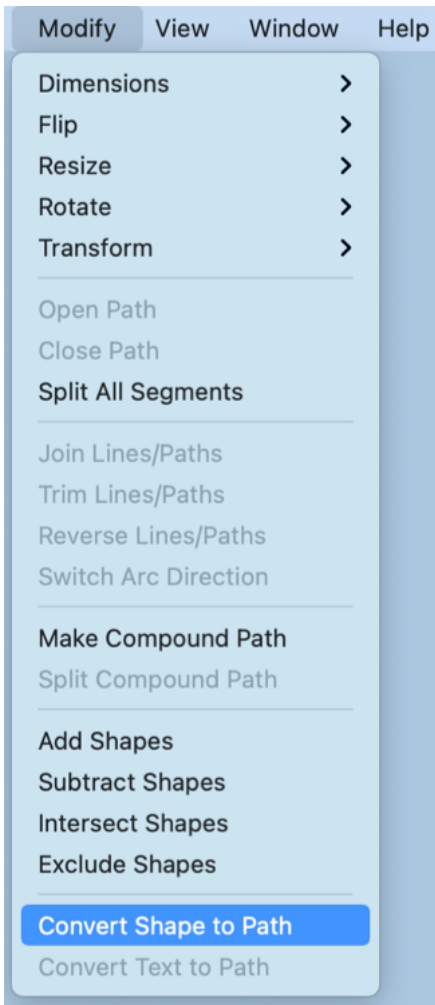
6.13.9. Converting Shapes to Paths

The **Convert Shape to Path** option allows a [selected](#) shape(s) on the drawing canvas to be converted into a path figure. Follow the steps below to convert a shape to a path:

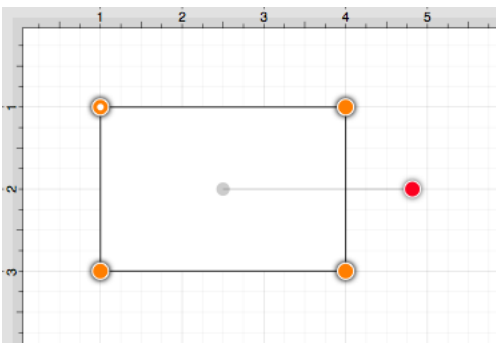
1. Select the shape to be converted.



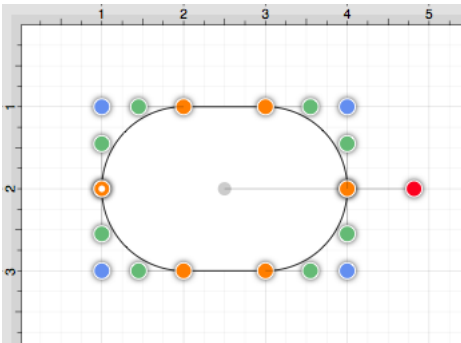
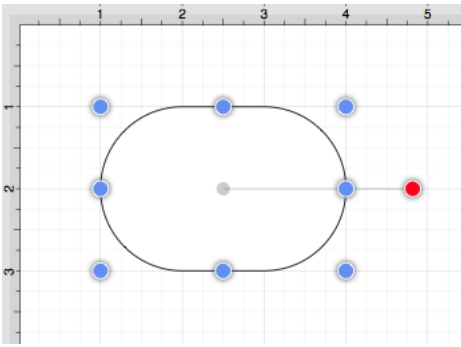
2. Select the [Modify Menu](#) and choose **Convert Shape to Path**.



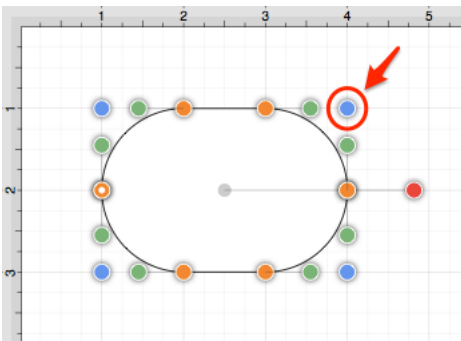
3. Each individual segment used to create the shape will be converted into a path segment with corresponding segment end point handles (orange). A start handle (orange with white dot) shows the initial starting point of the path.

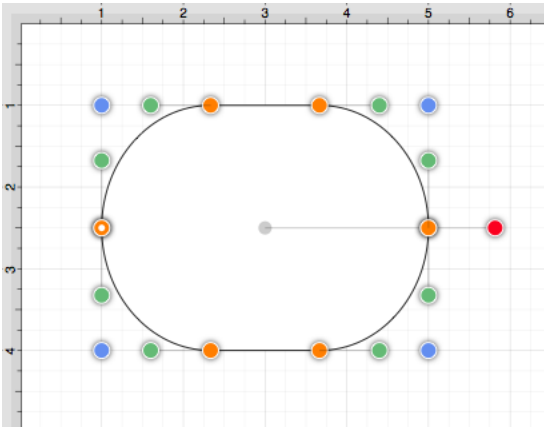


4. If the converted shape contained curved angles such as a Rounded Rectangle, then new bounds handles (blue) are assigned in relation to the created path and control point handles (green) are added to each curved segment. In the example below, a rounded rectangle with a corner radius of 1 inch has been converted.

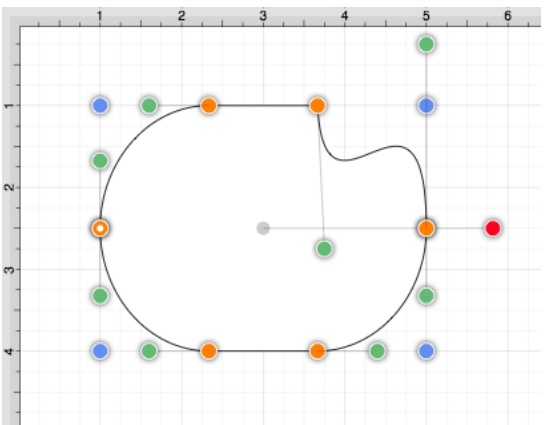
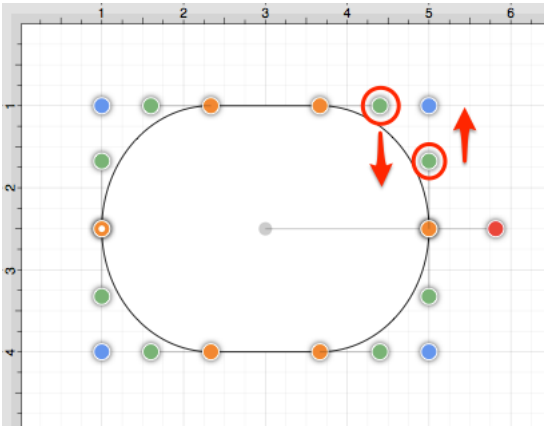


5. Any attribute changes available for a path can be performed on the converted object. For example if you perform a **Click/Drag** combination on one of the bounds handles (blue), the size of the path will be altered.

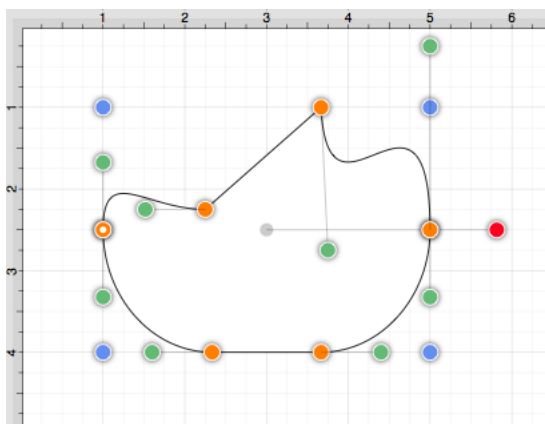
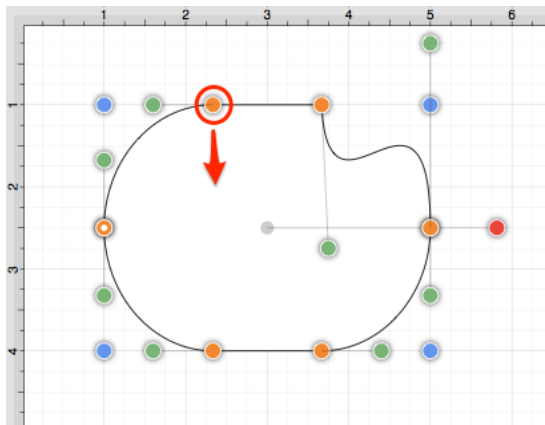




6. The upper right curve of the rounded rectangle can also be dragged to another location to alter its size or shape. In the image below, one control point is moved upward and the other is moved to the right to alter the path figure.



7. Perform a **Click/Drag** combination on a segment end point handle (orange) to alter the size of individual path segments. In the image below the circled segment end point handle is dragged to the left and downward within the path object to create the shown change.

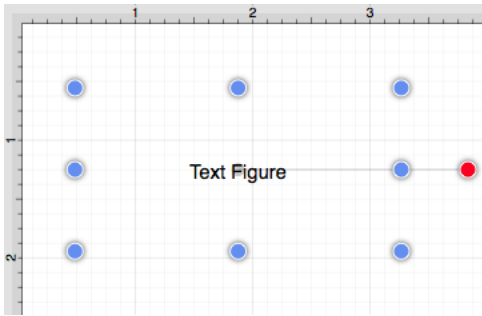


6.13.10. Converting Text to a Path

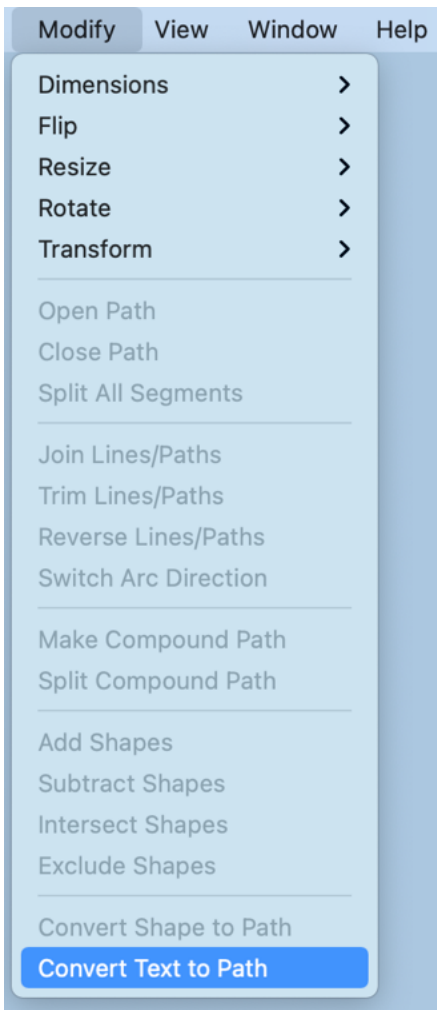
The **Convert Text to Path** option converts a [selected](#) text figure(s) to a path. Size, color, rotation, scaling, and moving alterations are performed as a path rather than by using the traditional text figure selection methods.

Follow the steps below to convert a text figure to a path:

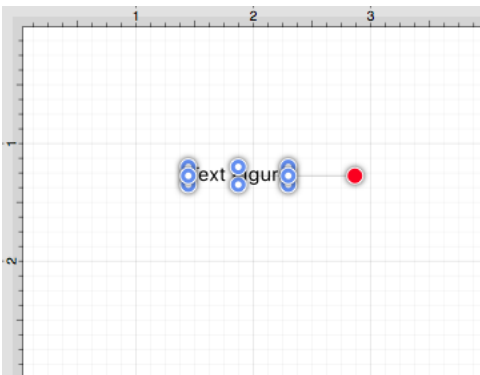
1. Select the text figure to be converted.



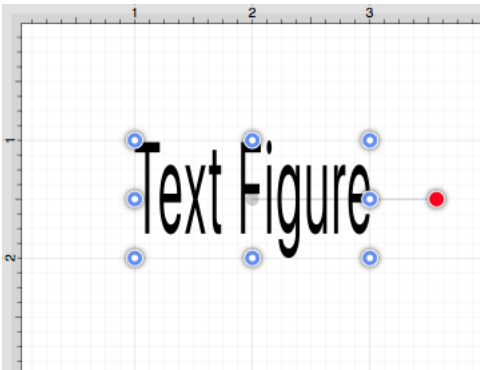
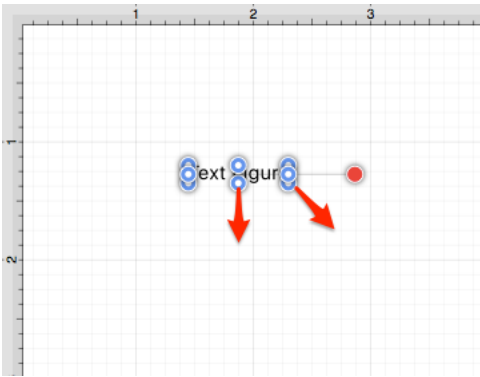
2. Select the [Modify Menu](#) and choose **Convert Text to Path**.



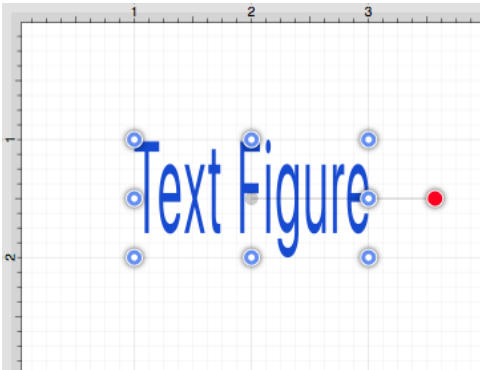
3. The selected text figure is converted to a path figure.



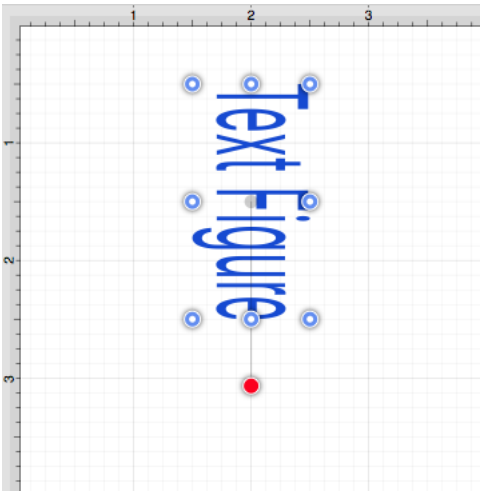
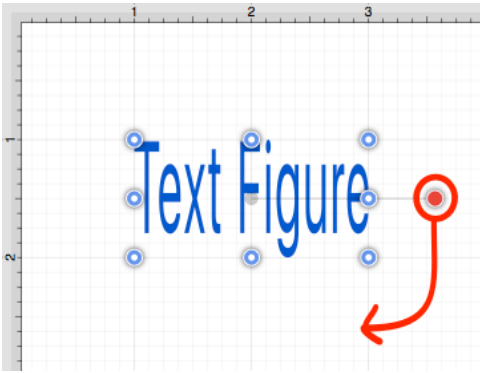
4. Perform a **Click/Drag** combination on a bounds handle (blue) to alter path size. In the images below, the bottom bounds handle is dragged downward to increase the height of the path.



5. Attribute changes are performed in the same manner as figures created with the [path tool](#). For example, a fill color change to blue would result in the following image.



6. The added rotation handle (red) can be dragged clockwise or counterclockwise with a **Click/Drag** combination to change the angle of the newly created path.



7. A converted path can be moved to any location on the drawing canvas or [scaled](#) to a specific size.
8. Adjustment, Stroke, and Shadow attributes may also be altered to change the look of the path. In the example below, the stroke cap, stroke location, and shadow characteristics have been altered.

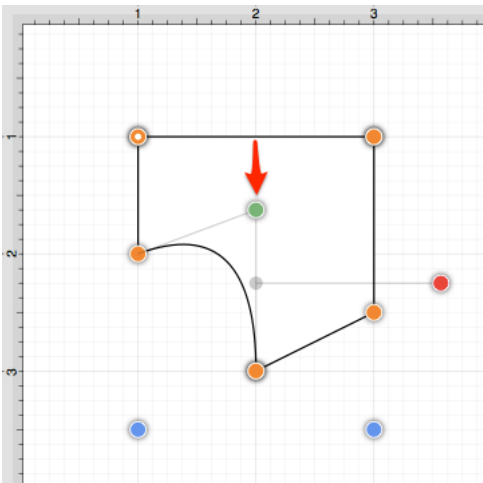
6.13.11. Delete Handle

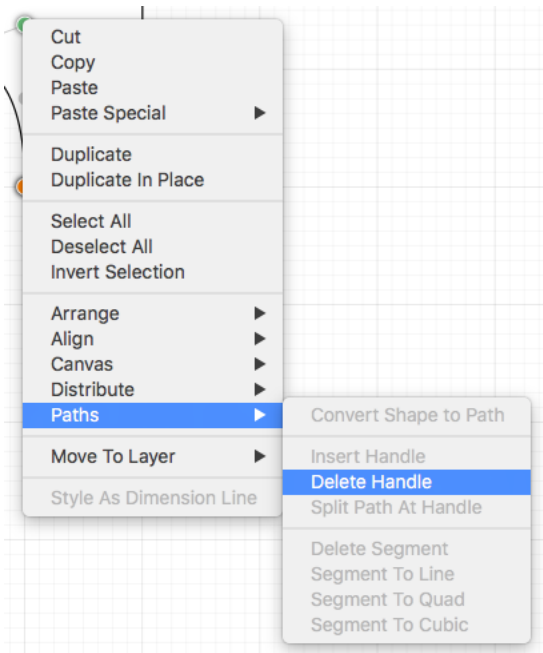
TouchDraw supports the [insertion](#) and deletion of handles or segments from an existing path. A different behavior is received depending on the type of handle chosen for deletion:

- **Cubic Curve Control Point Handle** - Segment is converted to a quadratic curve segment upon deletion.
- **Quadratic Curve Control Point Handle** - Segment is converted to a line segment upon deletion.
- **Segment End Point** - The entire segment is removed including the control points (cubic or quadratic curves).

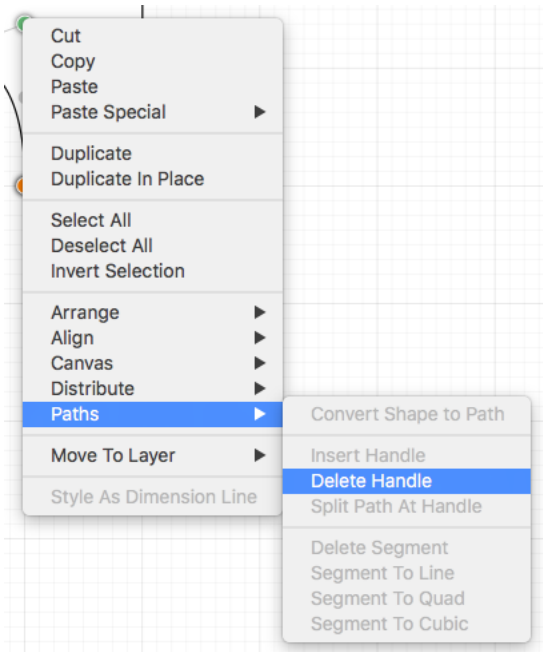
Follow the steps below to delete a **Path Handle**:

1. **Click** on the desired handle to [select](#) it and then **Right Click** (Control-Click) to open the [contextual menu](#). In this example, the **Quadratic Curve Control Point Handle** (indicated by the color green) is being removed from the path.

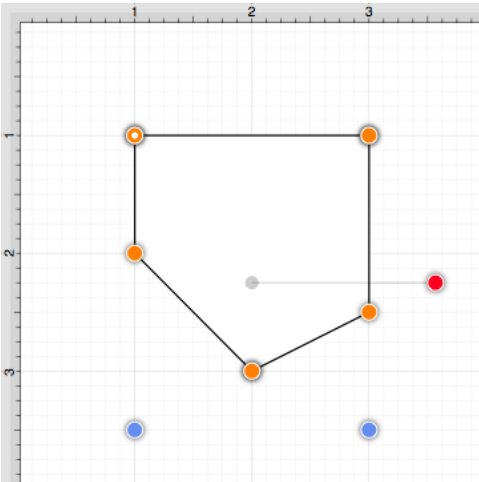




2. Select the **Paths Submenu** and then choose **Delete Handle**.

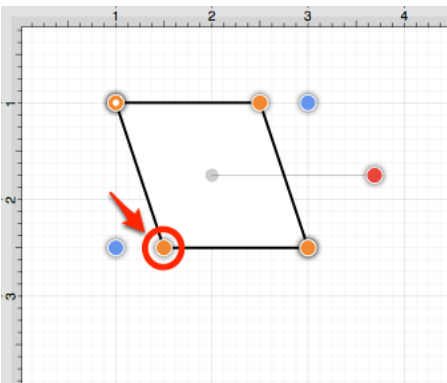


3. The selected **Quadratic Curve Control Point Handle** is removed and the segment is converted into a **Line Segment**.

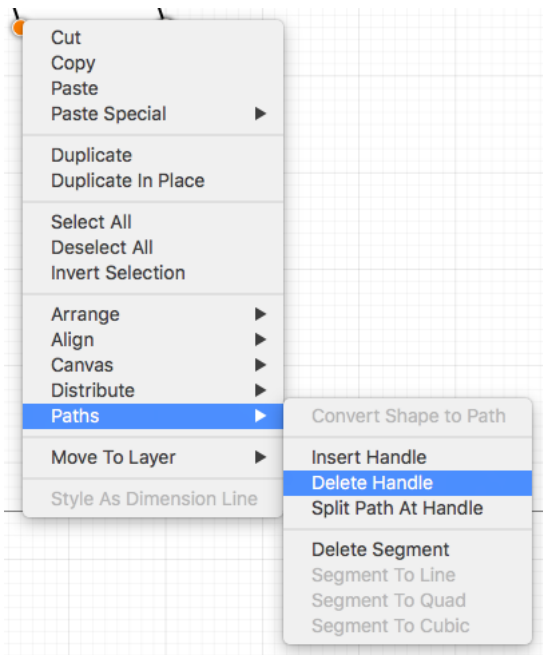


Follow the steps below to delete a **Path Segment**:

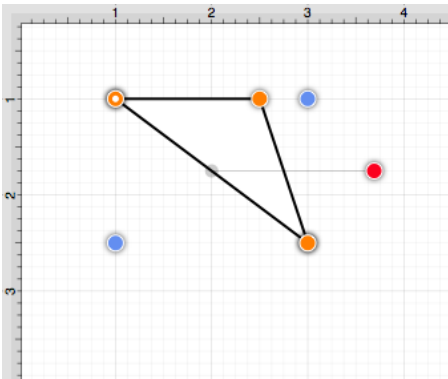
1. **Right Click** (Control-Click) on the desired **Segment End Point** to open the [contextual menu](#). In this example, the bottom left **Segment End Point** is chosen for deletion.



2. Select the **Path Submenu** and then choose **Delete Handle**.



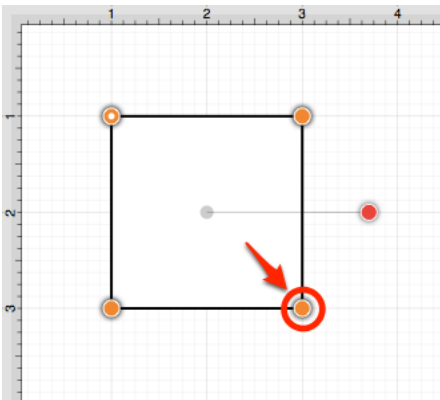
3. The selected handle and segment are removed, as shown below.



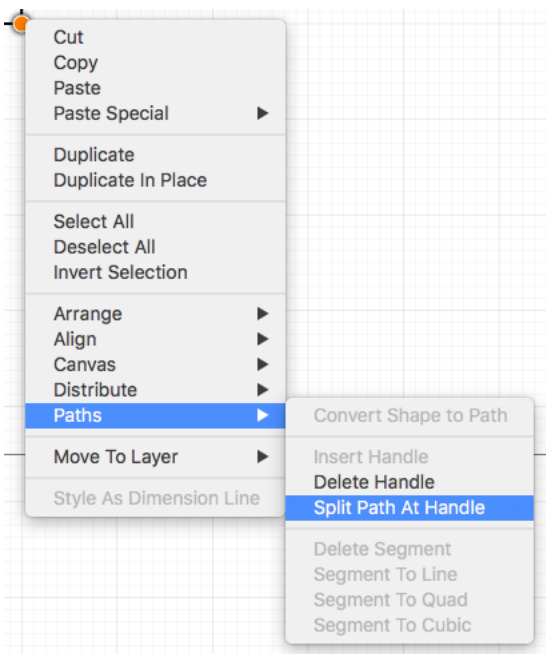
6.13.12. Split at Handle

The **Split at Handle** action divides a path into two separate sections at the chosen handle and allows each section to be altered as an individual figure. In the following example, the **End Point Handle** located at the bottom right of the path is chosen.

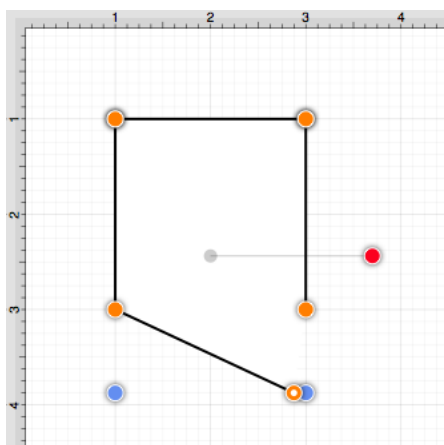
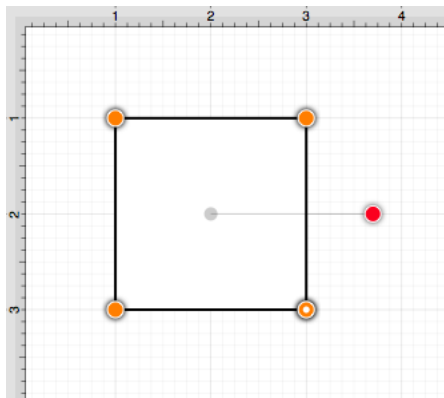
1. **Click** on the desired **End Point Handle** to **select** it and then **Right Click** (Control-Click) to open the **contextual menu**.



2. Select the **Paths Submenu** and then choose **Split at Handle**.



3. The path is now separated at the chosen **End Point Handle**, as shown below.



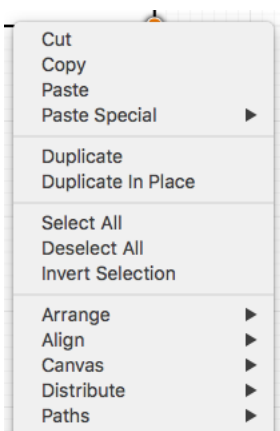
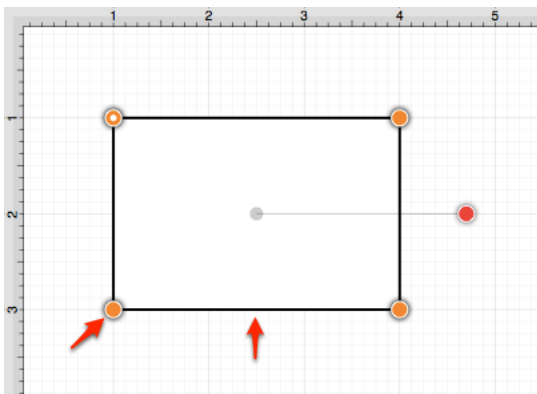
6.13.13. Insert Handle

TouchDraw supports the insertion and [deletion](#) of handles or segments from an existing path. A different behavior is received depending on the type of segment chosen for handle insertion:

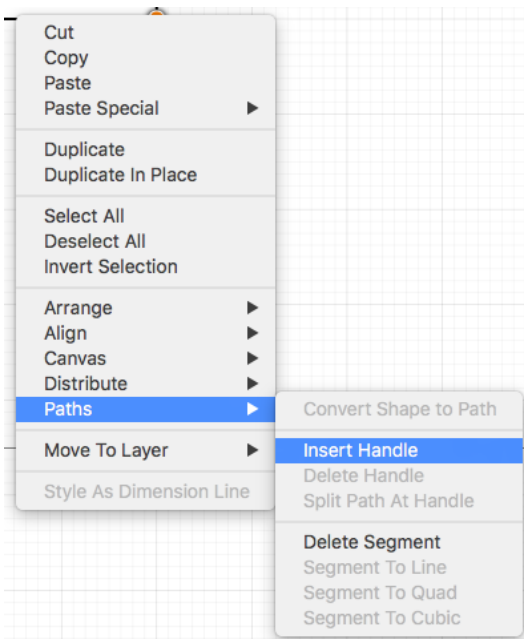
- **Line Segment** - The inserted handle splits the line segment into two connected lines.
- **Quadratic Curve Segment** - The inserted handle splits the quadratic curve into two quadratic curves and the shape of the original curve is maintained.
- **Cubic Curve Segment** - The inserted handle splits the cubic curve into two cubic curves and the shape of the original curve is maintained.

A new handle can be inserted into a segment or at the same location as an existing handle. In the provided example, the bottom line segment is chosen for a handle addition. Follow the steps below to insert a handle or segment into a path:

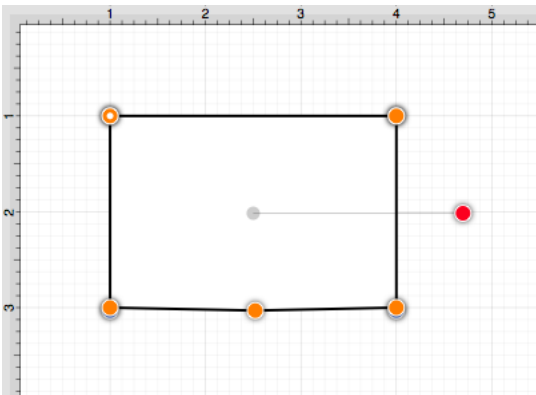
1. **Click** on the desired handle or segment to [select](#) it and then **Right Click** (Control-Click) where a new handle will be inserted to bring up the [contextual menu](#).

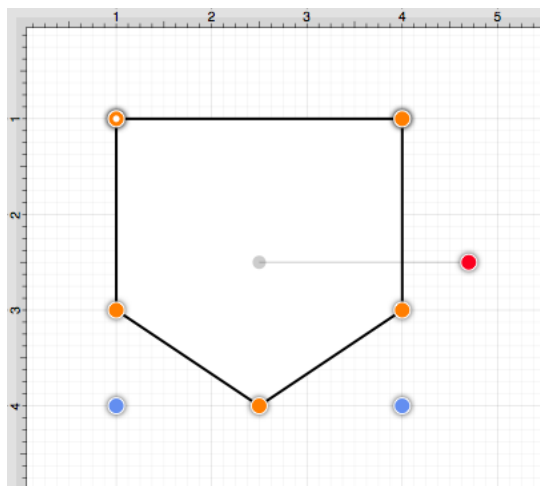


2. Select the **Paths Submenu** and then choose **Insert Handle**.



3. A new **Segment End Point Handle** appears in the center of the selected line segment and can be used to alter the path.





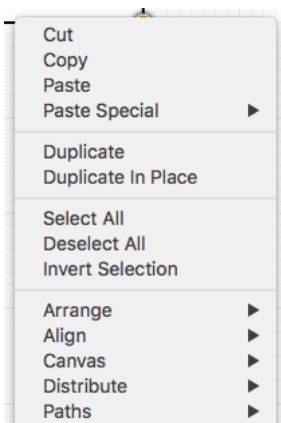
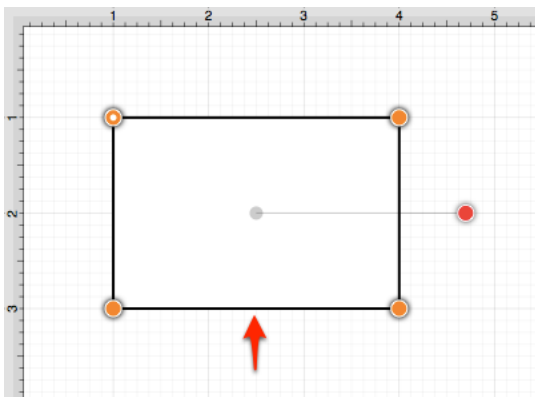
6.13.14. Delete Segment

The **Delete Segment** action removes a selected segment from an existing path. A different behavior is received depending on the type of segment chosen for handle insertion:

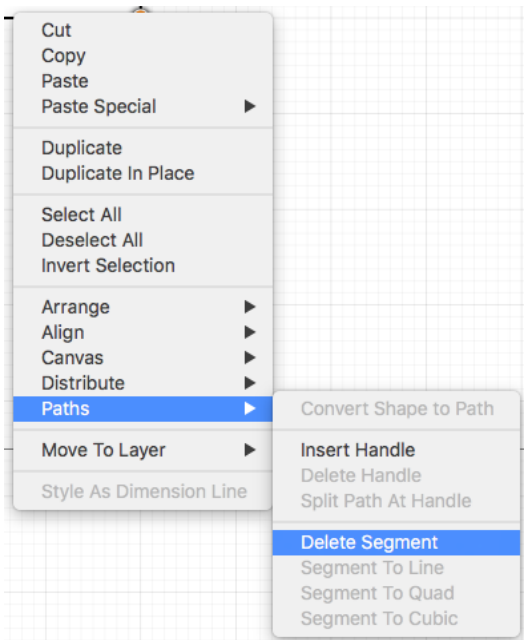
- **Line Segment** - The entire segment is removed.
- **Quadratic Curve Segment** - The entire segment and corresponding quadratic control point are removed.
- **Cubic Curve Segment** - The entire segment and all cubic curve control points are removed.

In the provided example, the bottom **Line Segment** of the figure is chosen. Follow the steps below to delete a segment:

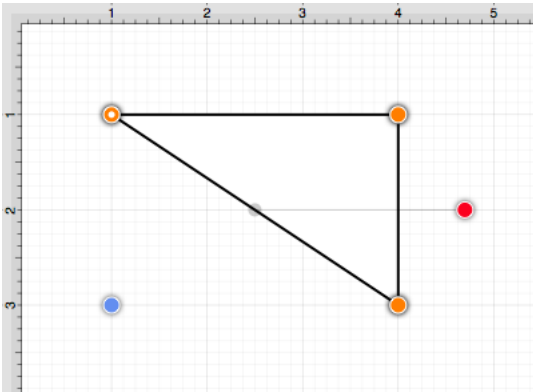
1. **Click** on the desired segment to **select** it and then **Right Click** (Control-Click) to open the **contextual menu**.



2. Select the **Paths Submenu** and choose **Delete Segment**.



3. The **Line Segment** and corresponding end point (orange) are removed. The remaining segment end points are joined.



The following screenshots show the resulting control point and segment changes when a **Cubic Curve Segment** is deleted from a figure. In this example, the top cubic curve is chosen for deletion. The selected segment and both control points are removed.

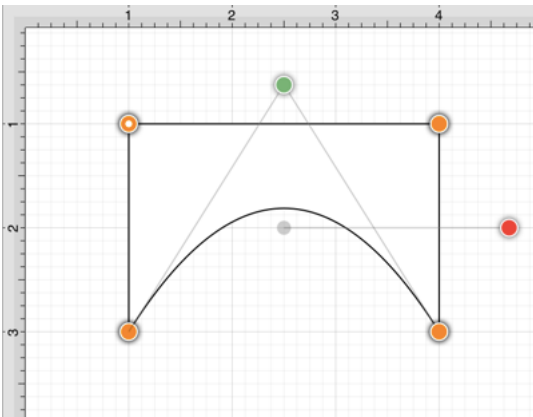
Note: Refer to the [Handles Reference](#) section of this documentation to learn more about each handle.

6.13.15. Segment to Line

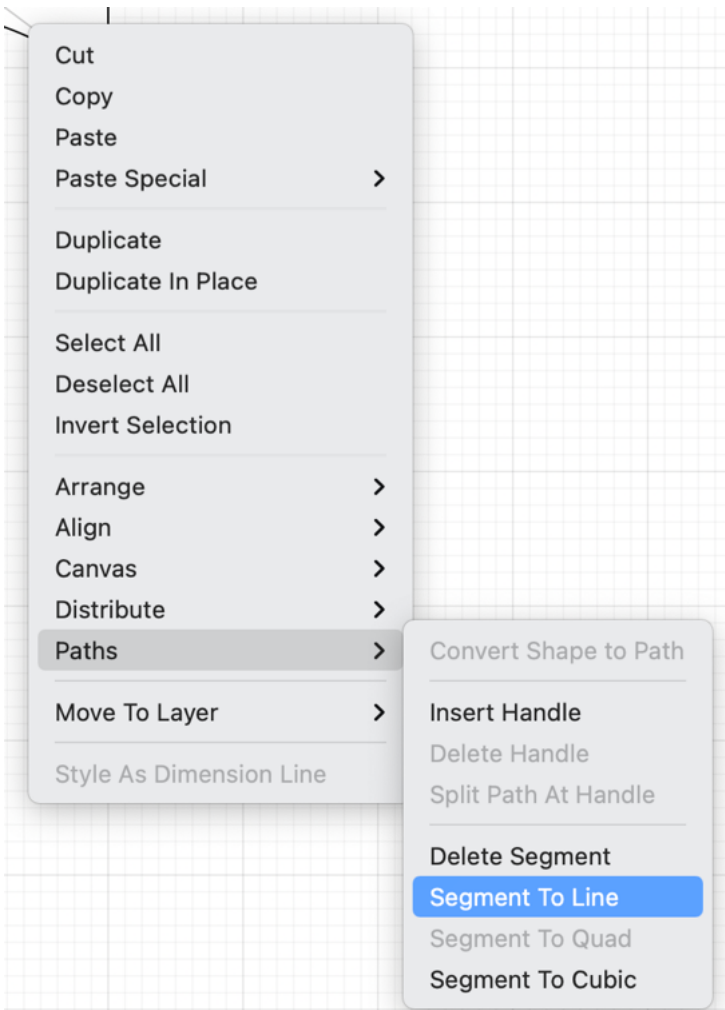
The **Segment To Line** action will convert either a quadratic or a cubic curve segment into a straight line segment. Essentially, it discards the control points of the curve.

In the provided example, a **Quadratic Curve Segment** is changed to a **Line Segment**. Follow the steps below:

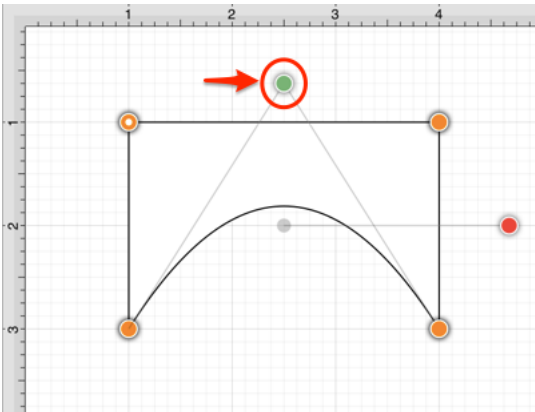
Step 1: Click on the desired segment to [select](#) it and then **Right Click** (Control-Click) to open the [contextual menu](#).

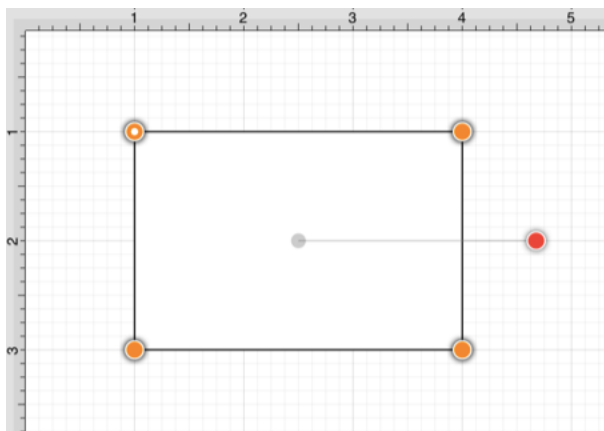


Step 2: Select the **Path Submenu** and then choose **Segment to Line**.

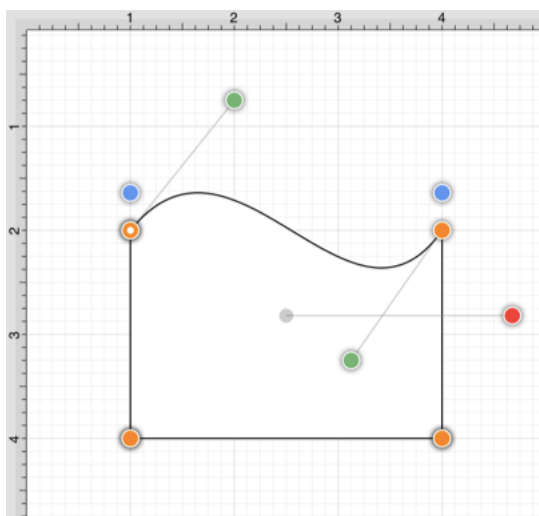


Step 3: The control point (green) of the **Quadratic Curve Segment** is removed and the segment is changed to a **Line Segment** to create a rectangle, as shown below.





The following screenshots show the resulting line when the **Segment to Line** action is performed on a **Cubic Curve Segment**.



Note: Refer to the [Handles Reference](#) section of this documentation to learn more about each handle.

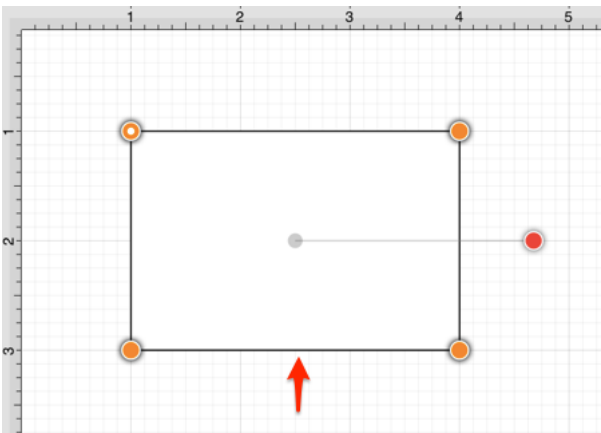
6.13.16. Segment to Quad

The **Segment to Quad** action will convert either a line segment or cubic curve to a quadratic curve segment. A different behavior is received when the handle is inserted depending on the chosen segment type:

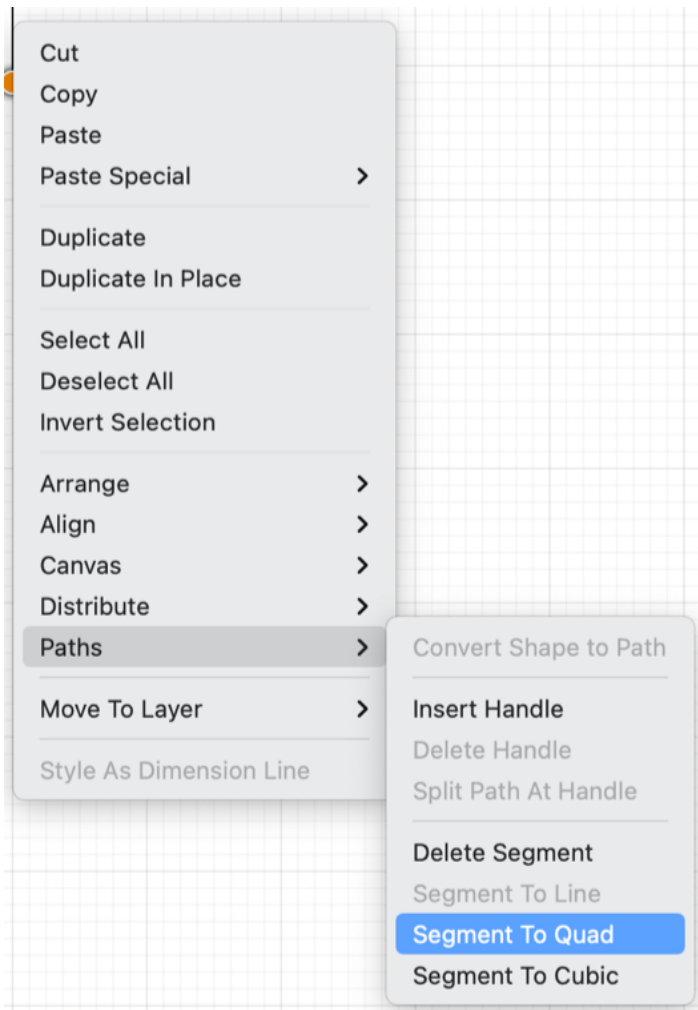
- **Line Segment** - A curve control point will be inserted at the center point of the line and can be used to create the exact desired quadratic.
- **Cubic Curve Segment** - The two control points of the cubic curve segment will be averaged to create a new control point for the quadratic curve, which is replacing the cubic curve.

In the provided example, the **Line Segment** located on the right side of the figure is converted into a **Quadratic Curve Segment**. Follow the steps below:

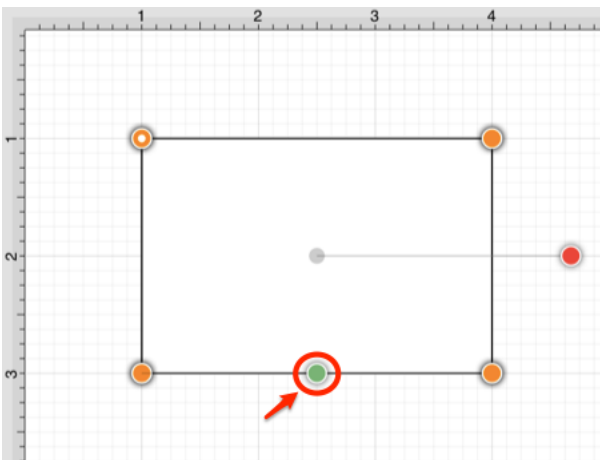
Step 1: Click on the desired segment to [select](#) it and then **Right Click** (Control-Click) to open the [contextual menu](#).



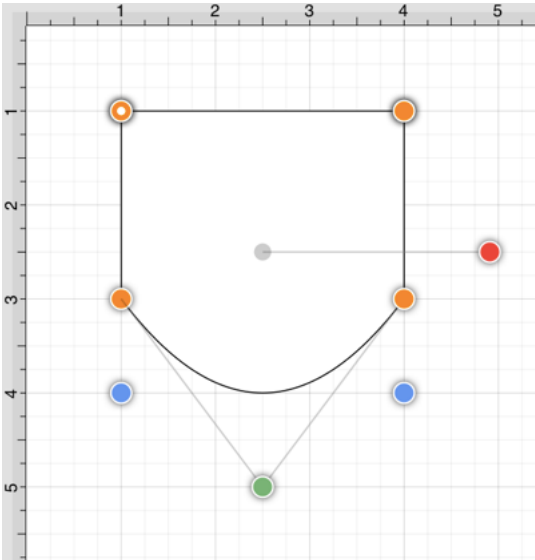
Step 2: Select the **Path Submenu** and then choose **Segment to Quad**.



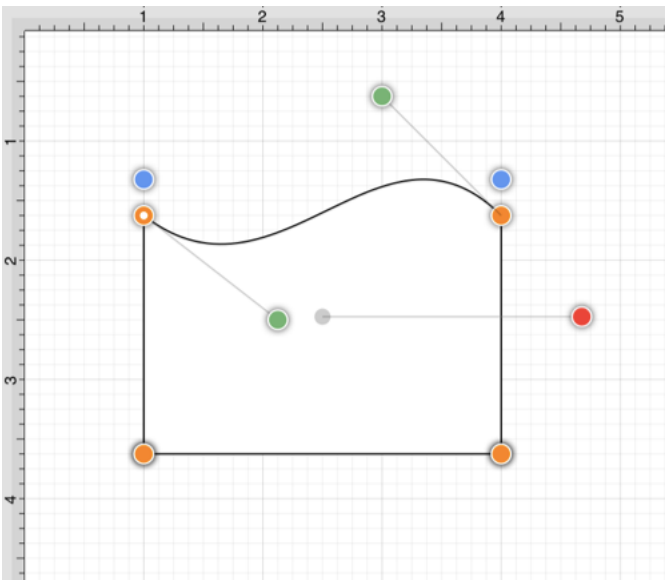
Step 3: A **Quadratic Curve Control Point** (green) is added to the center of the selected segment.

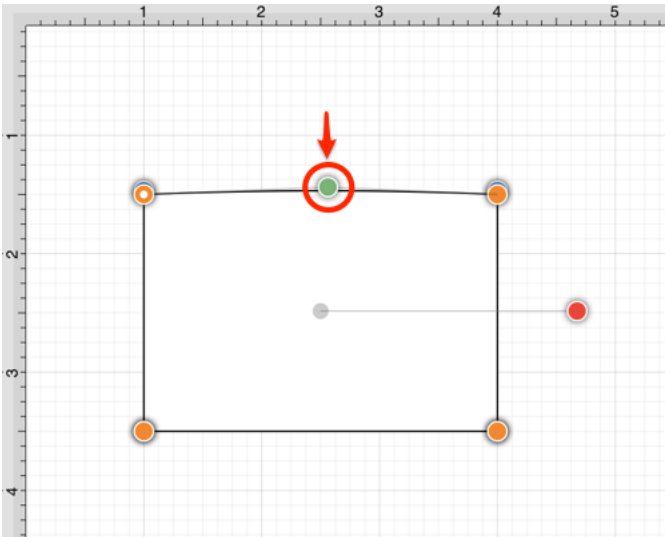


Step 4: Perform a **Click/Drag** combination on the **Quadratic Curve Control Point** to create the desired curve segment. In this example, the control point is dragged in a downward direction.

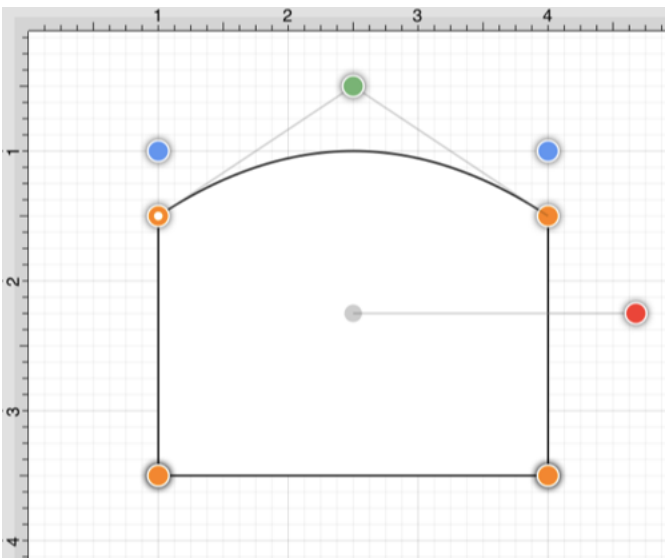


The following screenshots show the resulting control point and line changes when a **Cubic Curve Segment** is converted to a **Quadratic Curve Segment**. In this example, the top cubic curve is chosen for conversion. The two existing **Cubic Curve Control Points** (green) are averaged to generate a single **Quadratic Curve Control Point**.





The provided **Quadratic Curve Control Point** can be moved in any direction by performing a **Click/Drag** combination. In this example, the new control point is dragged upward.



Note: Refer to the [Handles Reference](#) section of this documentation to learn more about each handle.

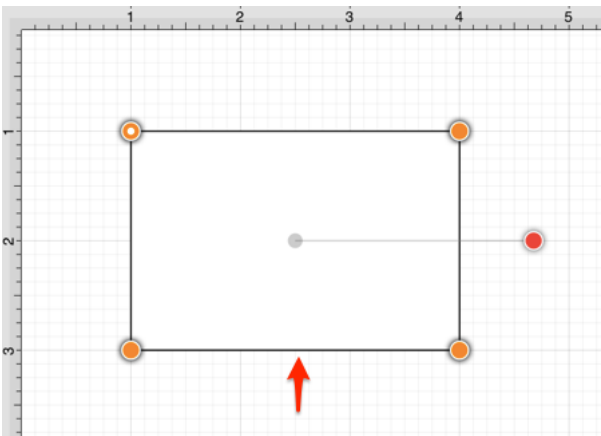
6.13.17. Segment to Cubic

The **Segment to Cubic** action will convert either a line or quadratic curve into a cubic curve segment. A different behavior is received depending on the type of segment chosen for handle insertion:

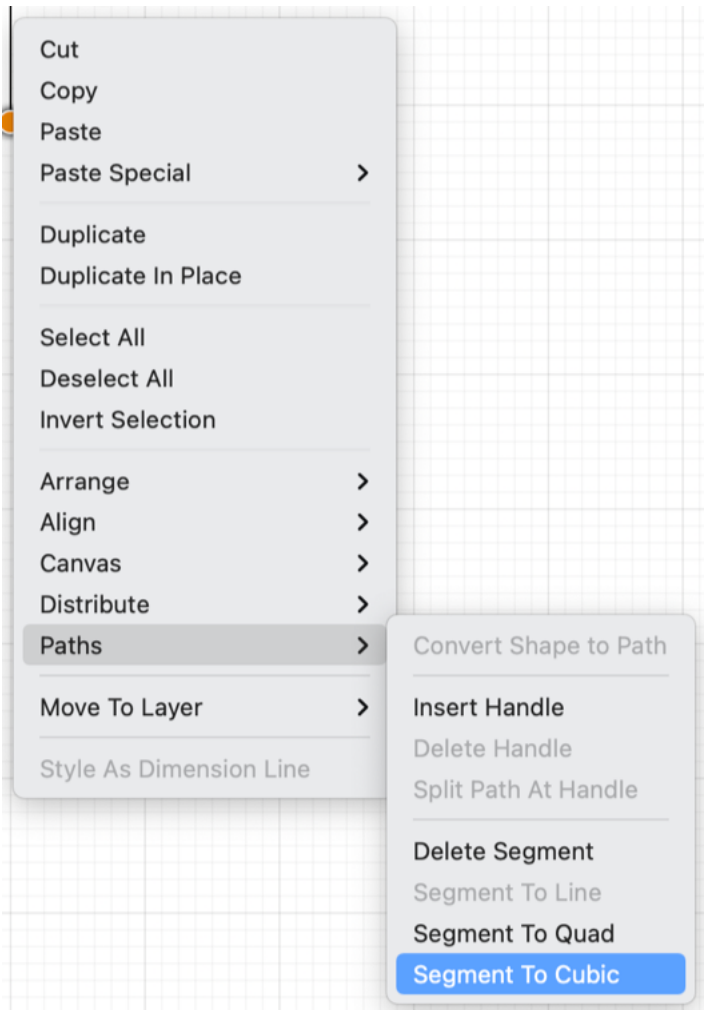
- **Line Segment** - Two curve control points will be inserted at the 40% and 60% locations along the line and can be used to create the exact desired cubic curve.
- **Quadratic Curve Segment** - The shape of the quadratic curve will be approximated with a new cubic curve segment.

In the provided example, the **Line Segment** located on the left side of the figure is converted into a **Cubic Curve Segment**. Follow the steps below:

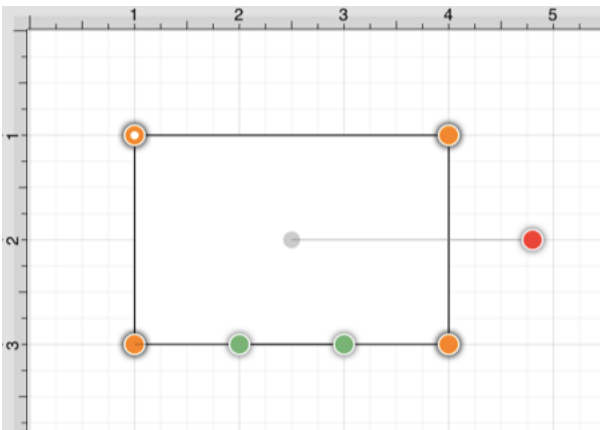
Step 1: Click on the desired segment to [select](#) it and then **Right Click** (Control-Click) to open the [contextual menu](#).



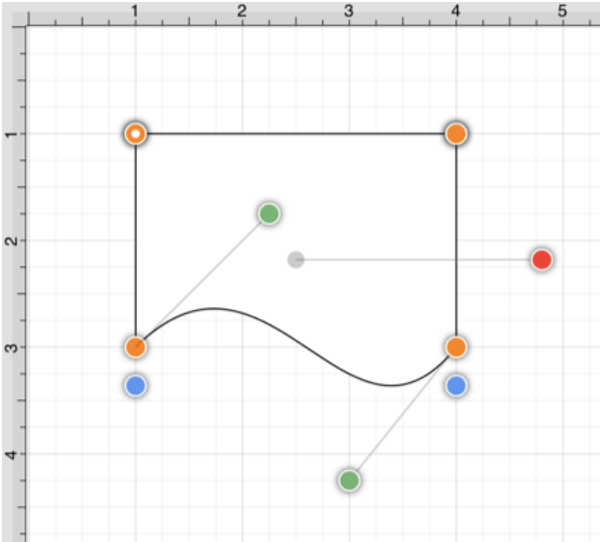
Step 2: Select the **Path Submenu** and then choose **Segment to Quad**.



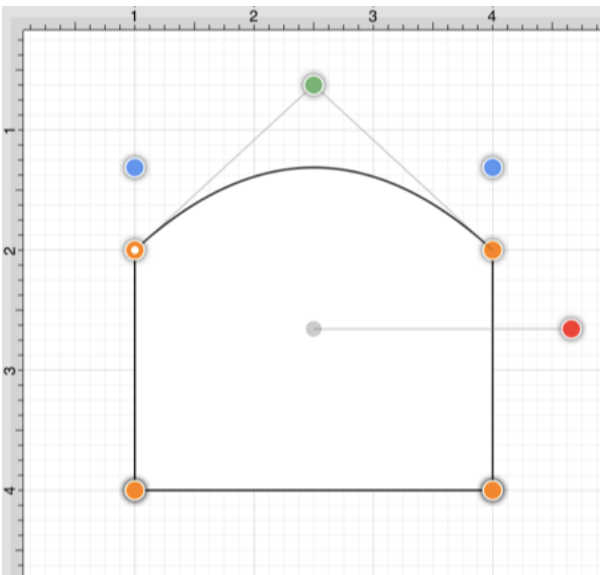
Step 3: Two **Cubic Curve Control Points** (green) are inserted at the 40% and 60% locations on the chosen **Line Segment**.



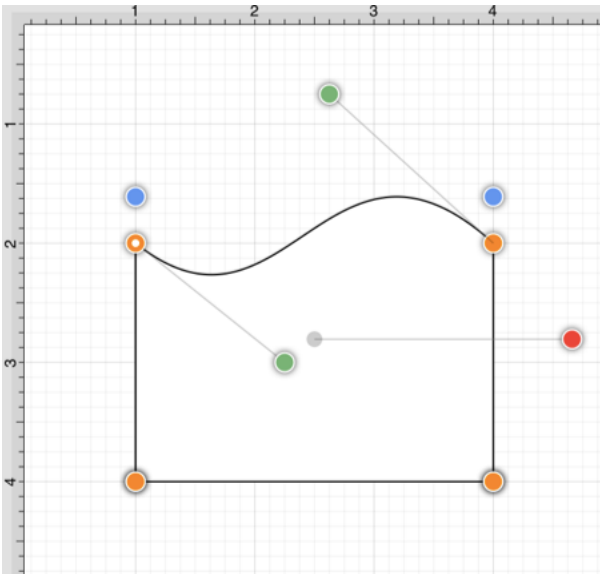
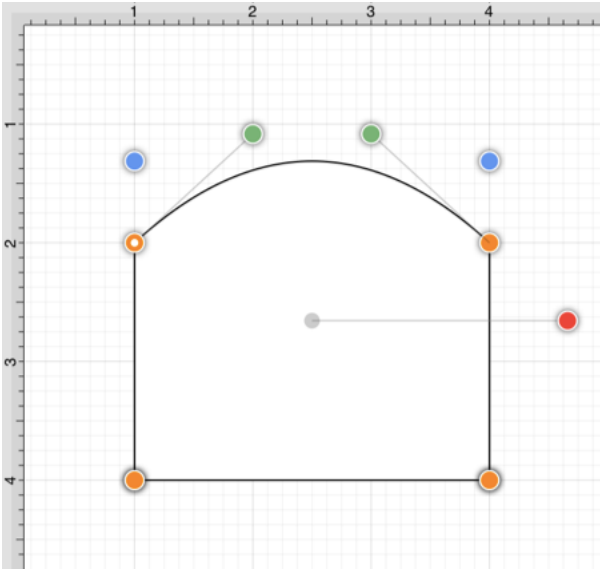
Step 4: Perform a **Click/Drag** combination to move either **Cubic Curve Control Point** in any direction. In this example, the left control point is dragged upward and the right control point is dragged downward. Refer to the image below:



The following screenshots show the resulting control point and line changes when a **Quadratic Curve Segment** is converted to a **Cubic Curve Segment**. In this example, the top cubic curve is chosen for conversion. The **Quadratic Curve Control Point** (green) is approximated to create two **Cubic Curve Control Points** and the associated segment.



The provided **Cubic Curve Control Points** can be moved in any direction by performing a **Click/Drag** combination. In this example, the left control point is dragged downward and to the right. The right control point is dragged upward and to the left to create the desired **Cubic Curve**.

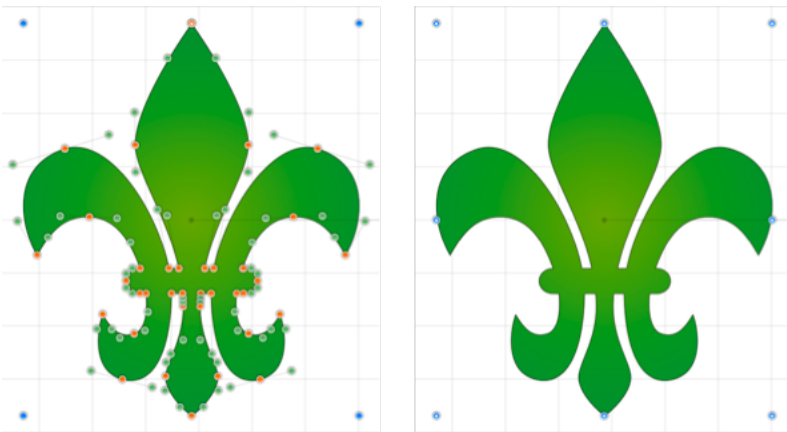


Note: Refer to the [Handles Reference](#) section of this documentation to learn more about each handle.

6.13.18. Grouping a Path

Once a complex path has been created and all control points are in their appropriate place, it is recommended to group the path using the [Group](#) function available under the [Arrange Menu](#).

This will allow the path or path figure to be [stretched](#), [resized](#) and [moved](#) without having to worry about changing the points. The following screenshots show a before and after for the Fleur de Lis example drawing included with TouchDraw 2.

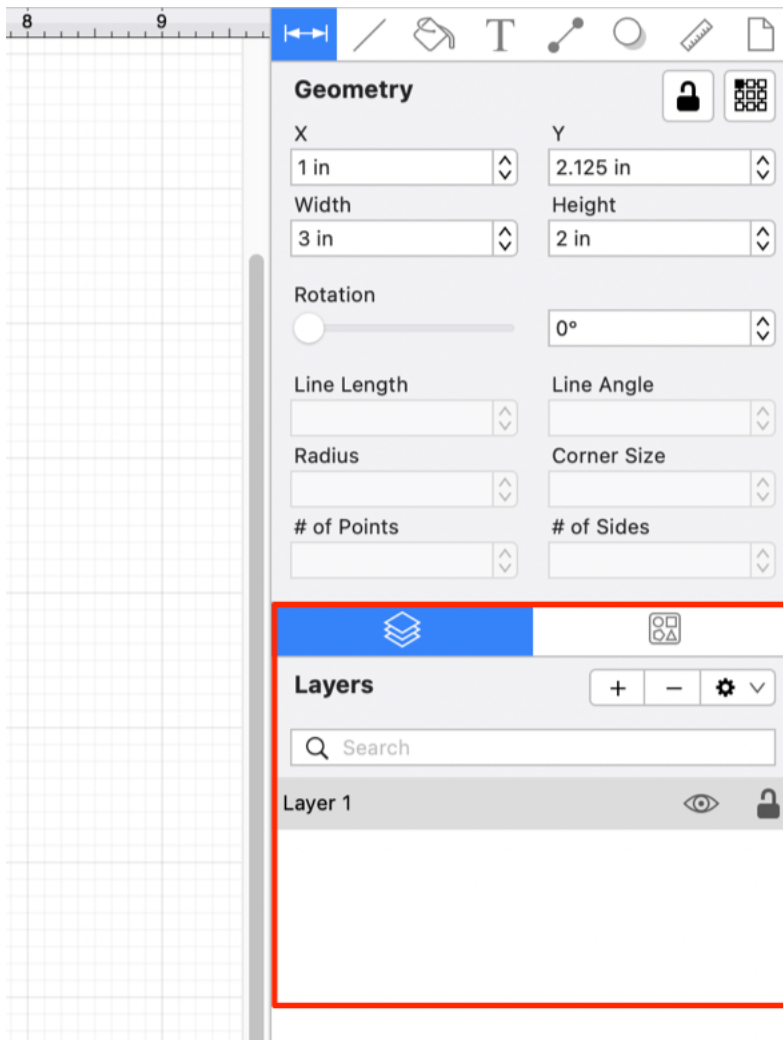


The path figure is the only figure that is allowed to be grouped by itself. Normally, one or more figures must be [selected](#) before a [Group](#) can be created.

6.14. Handling Layers

Layers provide the capability to incorporate more than one level of objects into a drawing. Each added layer builds on top of the previous created layer to create a multi-dimensional drawing.

They are managed and controlled through the [Sidebar](#) as shown below.

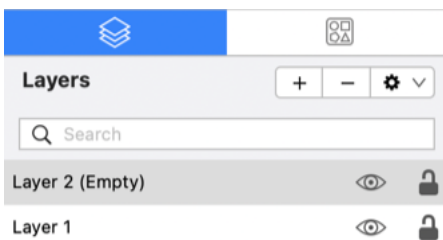
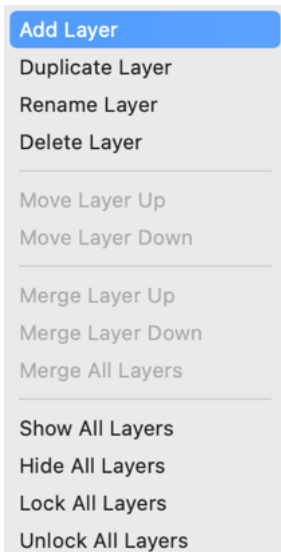
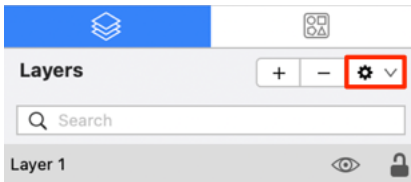


Layers can be [added](#), [renamed](#), [merged](#), [duplicated](#), [deleted](#), [sorted](#), [locked](#), and [hidden](#) within the TouchDraw 2 application.

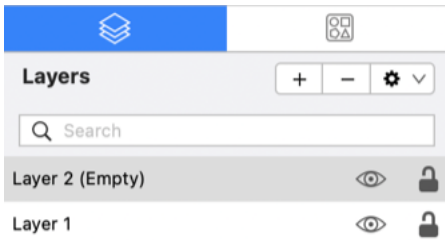
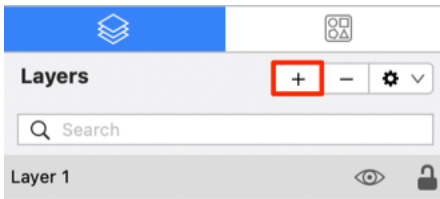
6.14.1. Adding a Layer

A **Layer** can be added in one of two ways:

1. **Click** on the [Layers Tab](#) and then **Click** on the [Layers Settings Menu](#).



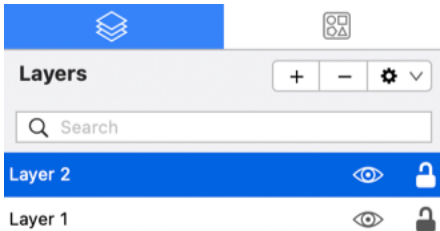
2. **Click** on the **Add Button** located at the top left of the **Layers Sidebar** section.



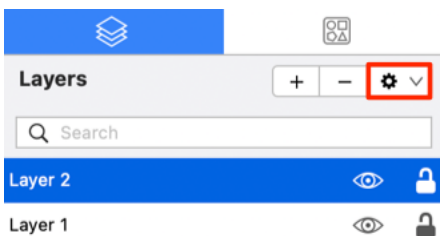
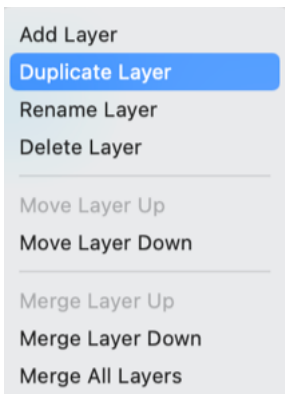
6.14.2. Duplicating a Layer

A **Layer** can be duplicated to create another layer with the same objects and properties. Follow the steps below to duplicate a selected layer:

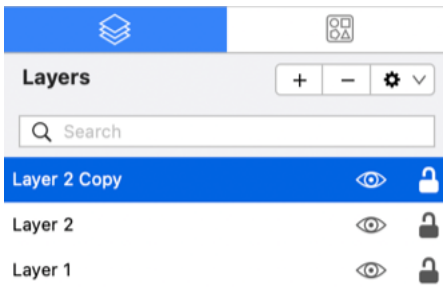
1. Perform a **Click** action to select a layer within the Layers List.



2. Click on the [Layers Settings Menu](#) menu and then choose **Duplicate Layer**.



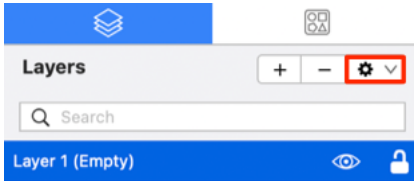
3. The duplicated layer will appear above the original and can be renamed, re-ordered, merged, or deleted.



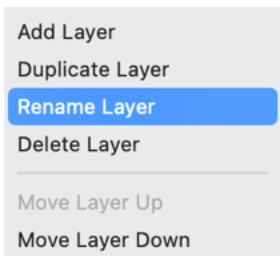
6.14.3. Renaming a Layer

A **Layer** can be renamed by following the steps below:

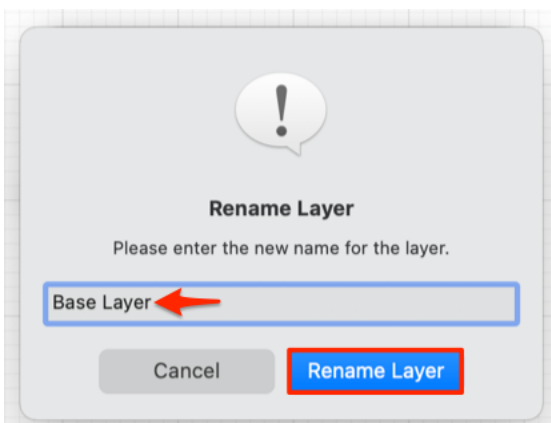
Step 1: Perform a **Click** action to select a layer within the Layers List.



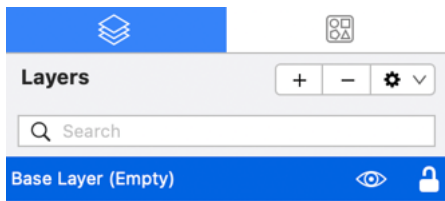
Step 2: Click on the [Layers Settings Menu](#) menu and then choose **Duplicate Layer**.



Step 3: Enter a new name for the layer and then click on **Rename Layer** to finish.



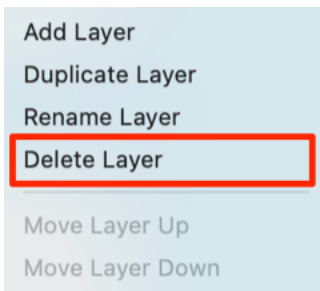
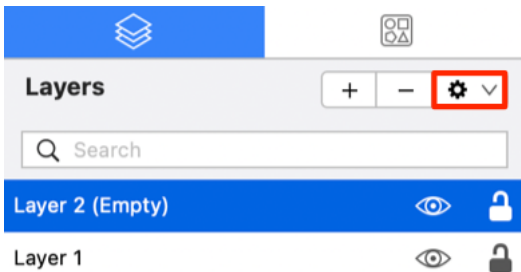
The new name will appear in the **Layers Sidebar** as shown below:



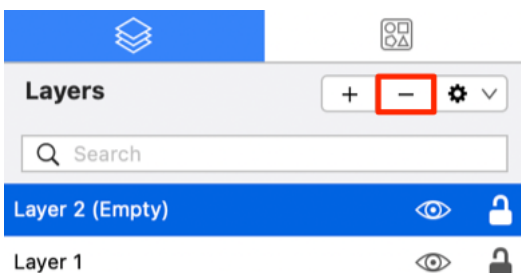
6.14.4. Deleting a Layer

A **Layer** can be deleted in two ways:

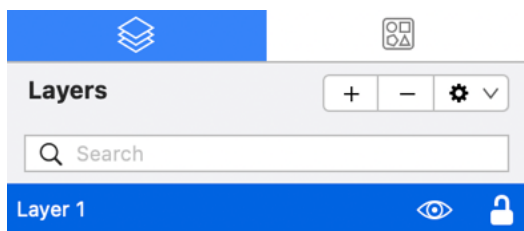
1. Perform a **Click** action to select the desired layer and then click on the [Layers Settings Menu](#) menu to choose the **Delete Layer** option.



2. Perform a **Click** action to select the desired layer and then click on the **Delete Button** located at the top left of the Layers Sidebar section.

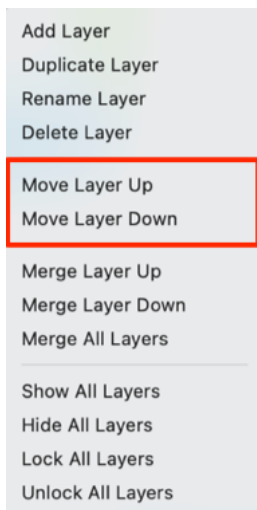
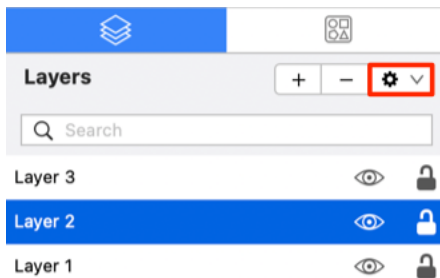


3. The layer will no longer appear in the [Sidebar](#), as shown below:



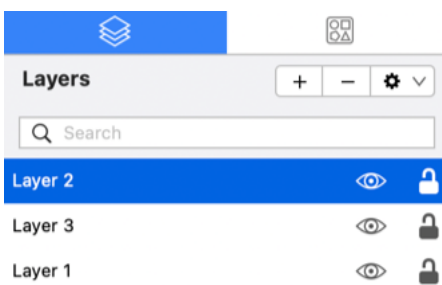
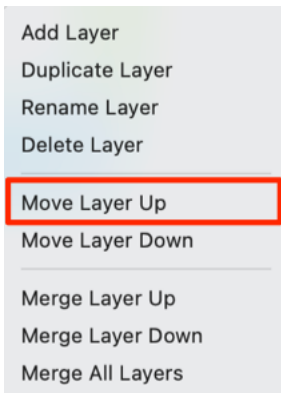
6.14.5. Re-ordering Layers

Perform a **Click** action to select the desired layer and then **Click** on the [Layers Settings Menu](#) menu to choose from available re-ordering functions. The **Layers Settings** menu will appear as shown below.

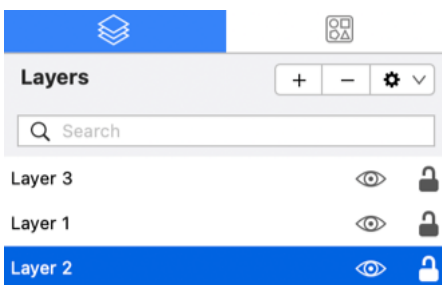
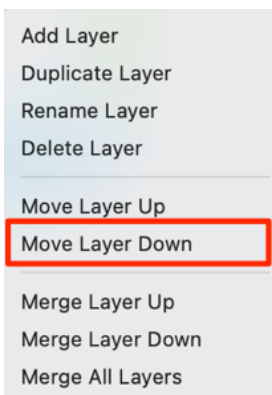


A **Layer** can be moved up or down in the Sidebar list and this action will alter the layering positions in the drawing canvas. Layers can be re-ordered by using a **Click/Drag** combination to another location or by using one of the methods shown below.

Use the **Move Layer Up** menu option to move the selected layer up by one in the Layers List.



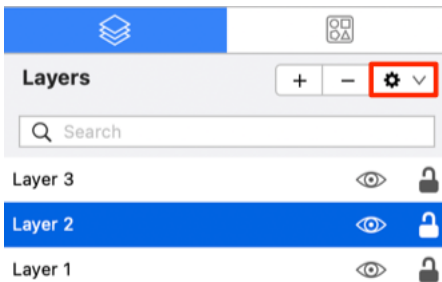
Use the **Move Layer Down** option to move the selected layer down by one in the Layers List.



Note: The **Move Layer Up** option will only be enabled when a layer resides above the selected one in the Layers List. The **Move Layer Down** menu option will only be enabled when a layer resides below the selected one in the Layers List.

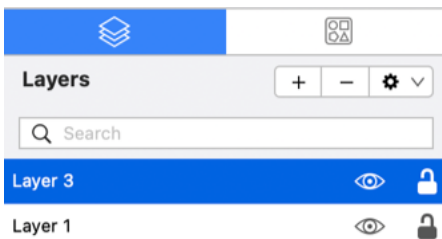
6.14.6. Merging Layers

Perform a **Click** action to select the desired layer and then **Click** on the [Layers Settings Menu](#) menu to choose from available merging functions. The **Layers Settings** menu will appear as shown below.



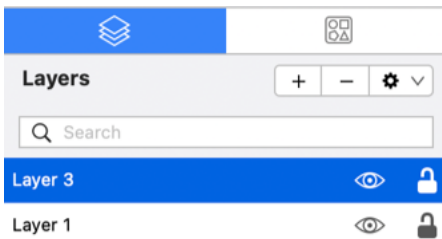
A **Layer** can be merged up or down in the Sidebar list and this action will combine the drawing canvas contents and properties of the selected layer with the one above or below it depending on the made selection. An additional option is available for merging all layers in a drawing.

Use the **Merge Layer Up** menu option to merge the selected layer with the one residing above it in the Layers List.

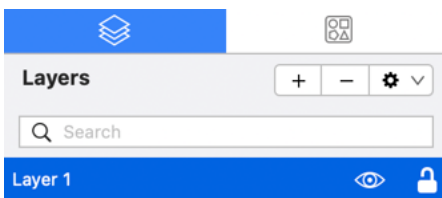
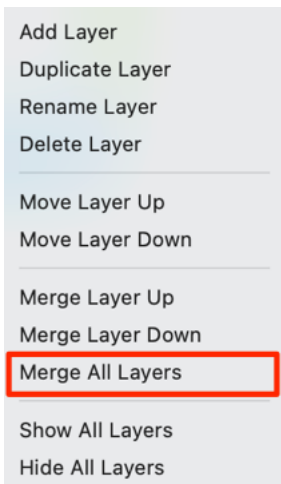


Use the **Merge Layer Down** option to merge the selected layer with the one residing below it in the Layers List.





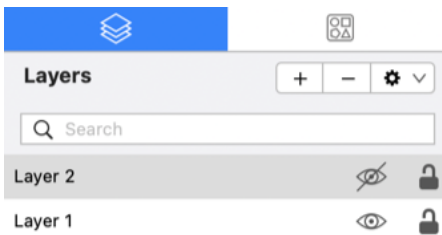
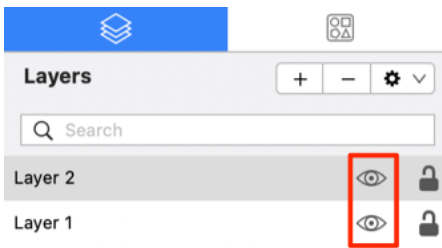
The **Merge All Layers** function combines every layer of a drawing showing in the **Layers** list.



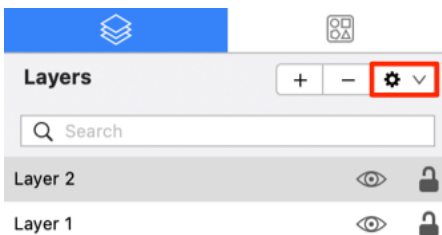
Note: The **Merge Layer Up** and **Merge Layer Down** menu choices are only enabled when a layer resides above or below the selected one. More than one layer must be present in the Layer list for the **Merge All Layers** menu choice to be enabled.

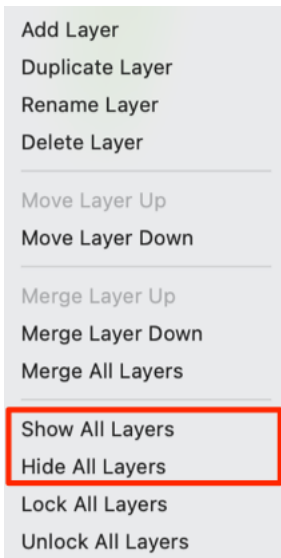
6.14.7. Layer Visibility

The **Visibility** option is an "On/Off" toggle button for setting the visibility of each created layer. It appears to the right of each layer name in the list as an "eye" icon and indicates the visibility of the layer. To hide (or show) a layer, simply **Click** on the eye icon of the layer to be toggled. An eye icon with a line through it indicates that a particular layer is not visible, whereas an eye with no line indicates a layer is visible.

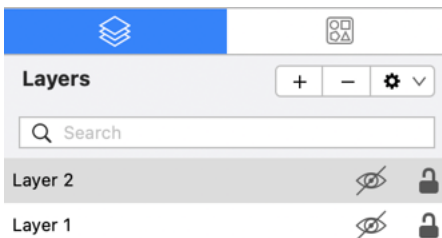
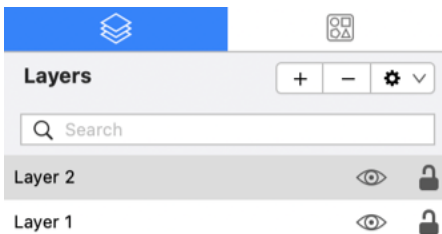


The [Layers Settings Menu](#) provides additional options for changing the visibility of all layers residing within a drawing. To access these options, click on the **Layers Settings Menu** in the [Sidebar](#) and then choose **Show All Layers** or **Hide All Layers** from the provided drop down menu.



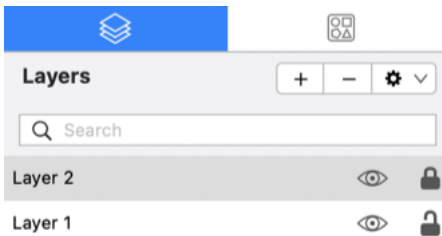
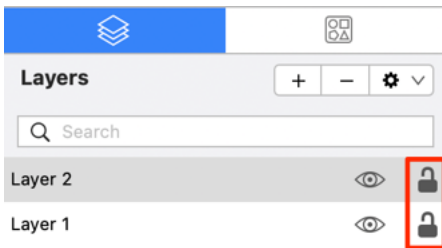


All layers will be made visible or hidden within the currently open drawing depending on the chosen option. The "eye" icon serves as a visual indicator and will appear differently after a selection has been made as shown in the screenshots below.

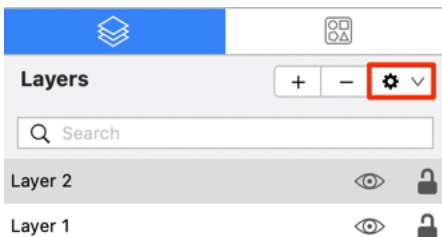


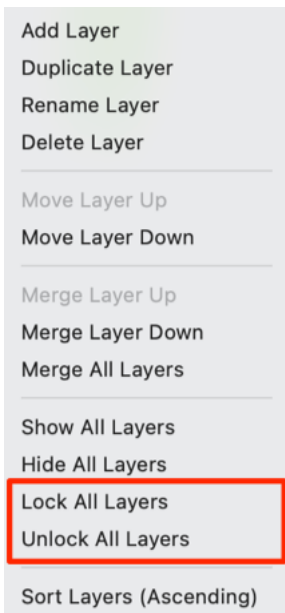
6.14.8. Locking Layers

The **Lock** option is an "On/Off" toggle button for locking or unlocking a layer. It is located to the right of the visibility icon and indicates whether or not a layer is locked. To lock (or unlock) a layer, simply **Click** on the lock icon of the layer to be toggled. A closed lock icon indicates that the layer is locked and an open lock icon indicates a layer is unlocked.

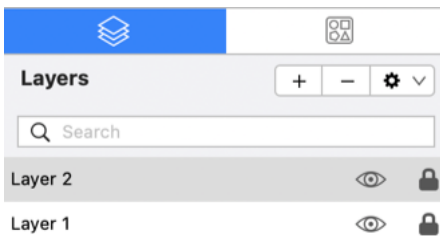
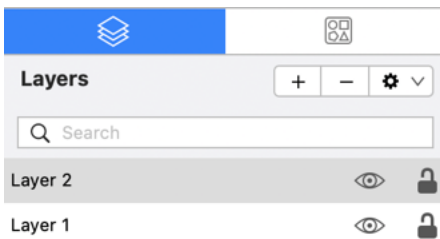


The [Layers Settings Menu](#) provides additional options for locking or unlocking all layers residing within a drawing. To access these options, click on the **Layers Settings Menu** in the [Sidebar](#) and then choose **Lock All Layers** or **Unlock All Layers** from the provided drop down menu.





All layers will be locked or unlocked within the currently open drawing depending on the chosen option. The "lock" icon serves as a visual indicator and will appear differently after a selection has been made as shown in the screenshots below.

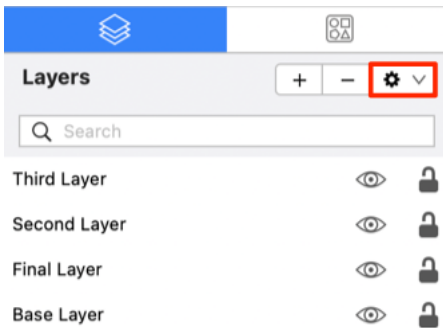


6.14.9. Sorting Layers

Layers within a drawing can be sorted in ascending or descending order alphabetically by name.

Sort Layers in Ascending Order Alphabetically by Name

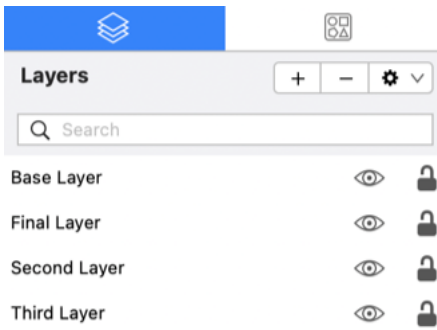
Step 1: Click on the [Layers Settings Menu](#).



Step 2: Click on the **Sort Layers (Ascending)** option within the menu.

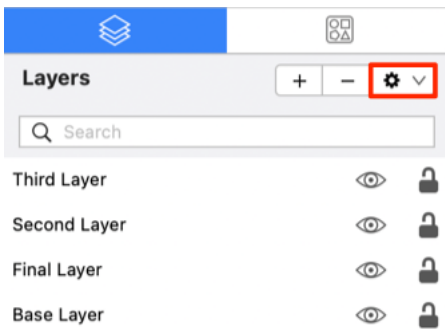


The layers within the drawing are now sorted in ascending order alphabetically by name.



Sort Layers in Descending Order Alphabetically by Name

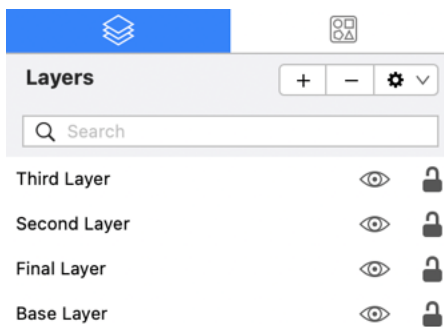
Step 1: Click on the [Layers Settings Menu](#).



Step 2: Click on the **Sort Layers (Descending)** option within the menu.



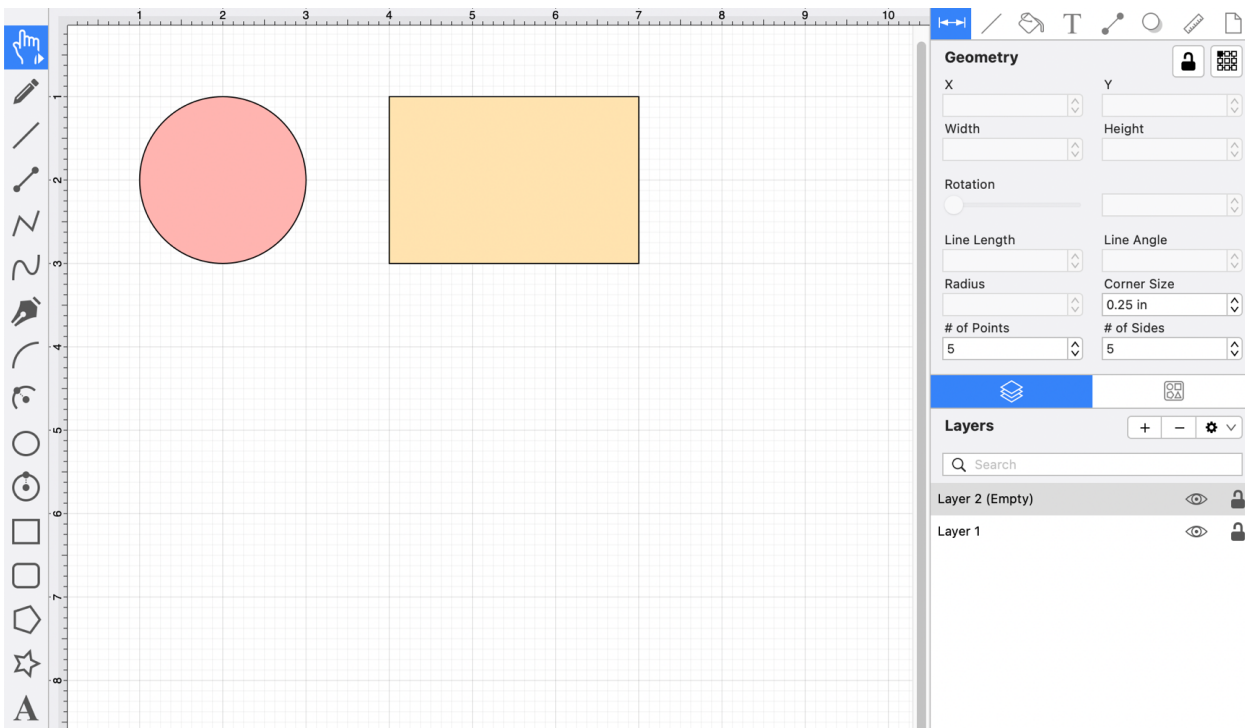
The layers within the drawing are now sorted in descending order alphabetically by name.



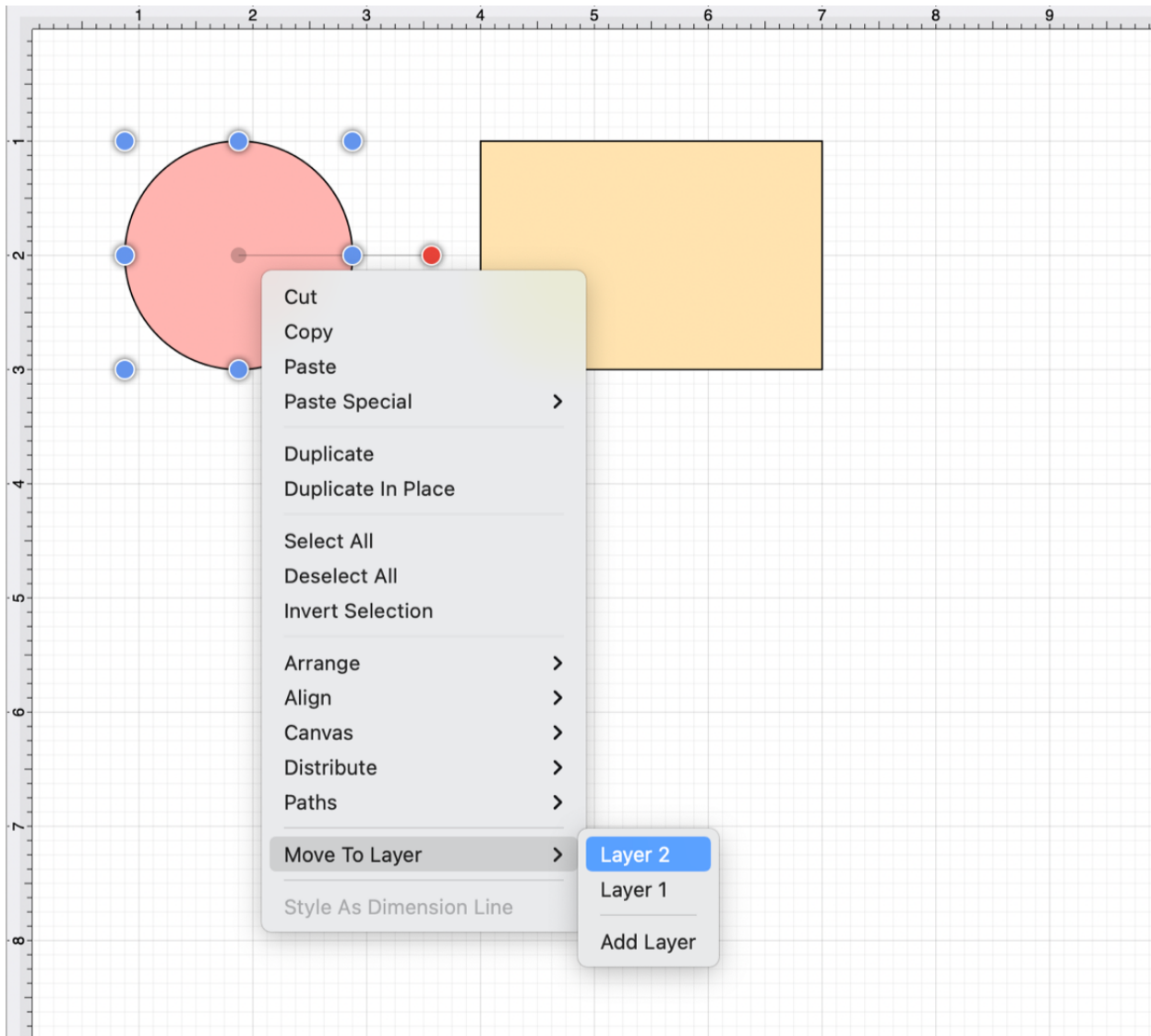
6.14.10. Moving Figures to Layers

TouchDraw 2 provides a simple method for moving a [selected](#) figure(s) from one layer to another. The **Move To Layer** option in the [Contextual Menu](#) may be used to complete this action. Follow the steps below to move a figure to a different layer within a drawing:

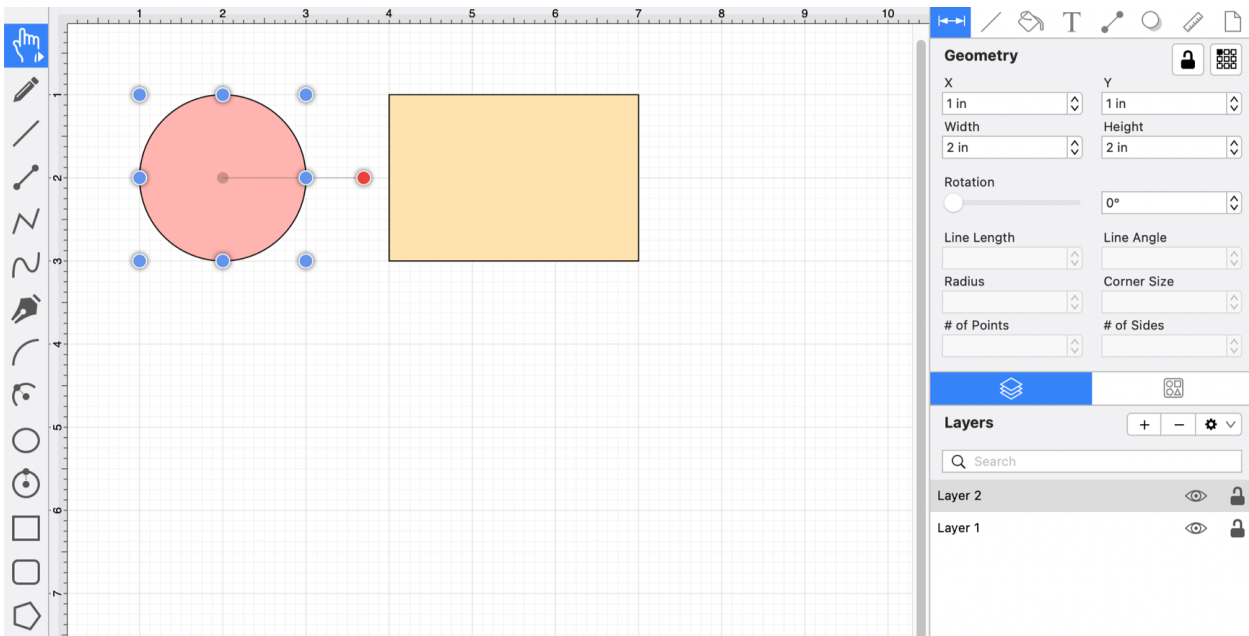
1. [Select](#) the figure(s) to be moved. In the shown example, both the circle and rounded rectangle are part of the first layer (Layer 1) and the blue rectangle is part of the second layer (Layer 2). The circle is being moved to Layer 2.



2. Perform a right-click on the [Drawing Canvas](#) for ~1 second. Then **click** on the [Move To Layer Submenu](#).
3. **Click** on the **Layer** where the selected figure(s) should be moved.



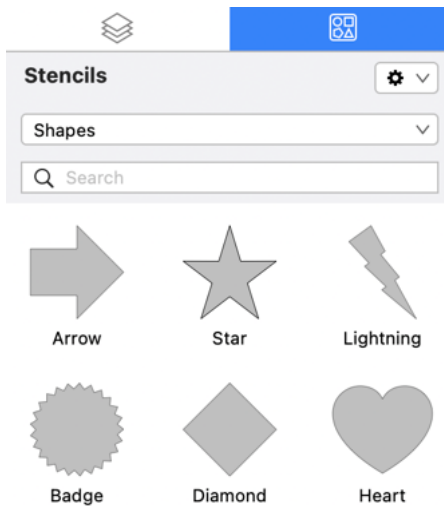
4. The circle is now part of Layer 2.



6.15. Handling Libraries

Libraries are used to add and manage [Stencils](#) stored within the application and for adding these objects to a drawing. They are managed and controlled through the **Stencils Tab**.

The [Stencils Tab](#) can be accessed in the lower portion of the [Sidebar](#), as shown below:



To learn more about how to work with **Libraries and Stencils** in TouchDraw 2, please see the following documentation sections:

- [Library Functions](#)
- [Stencils Functions](#)

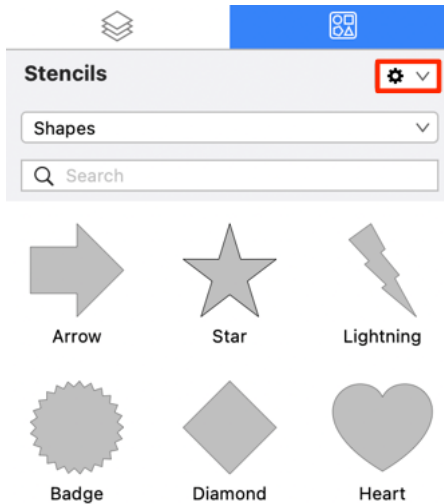
6.15.1. Library Functions

The **Library Functions** can be accessed through the [Libraries Settings Menu](#) and provide the ability to:

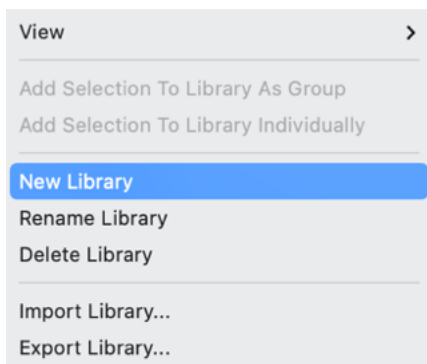
- [Add a Library](#)
- [Rename a Library](#)
- [Delete a Library](#)
- [Import a Library](#)
- [Export a Library](#)

6.15.1.1. Adding a Library

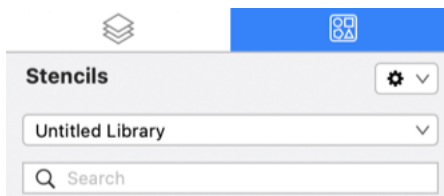
A **Library** is added by clicking on the [Libraries Settings Menu](#).



Then choosing the **New Library** option.



The new library will appear in the **Library Selection Menu** with the name "Untitled Library".

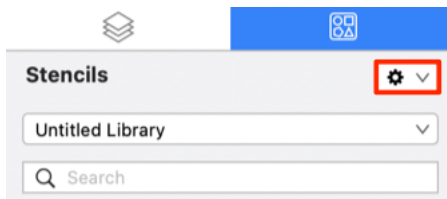


Note: An **Untitled Library** can be renamed with the 'Rename Library...' option.

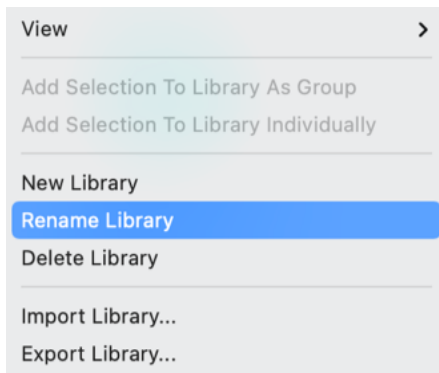
6.15.1.2. Renaming a Library

A Library is renamed by selecting a desired library and then choosing the **Rename Library...** option in the [Libraries Settings Menu](#). Follow the steps below to rename a library:

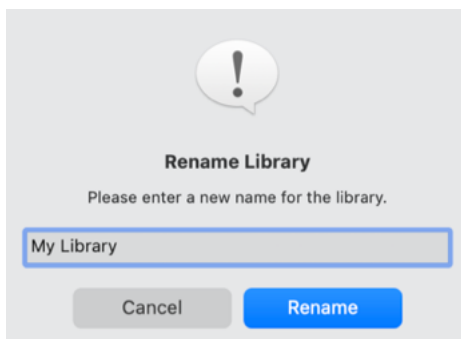
Use the [Library Selection Menu](#) to select the library to be renamed.



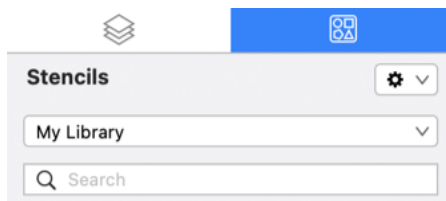
Click on the **Libraries Settings Menu** and choose **Rename Library...**



Enter a new name in the **Rename Library** prompt and click on **Rename**.



The entered name will appear in the **Library Selection Menu**.

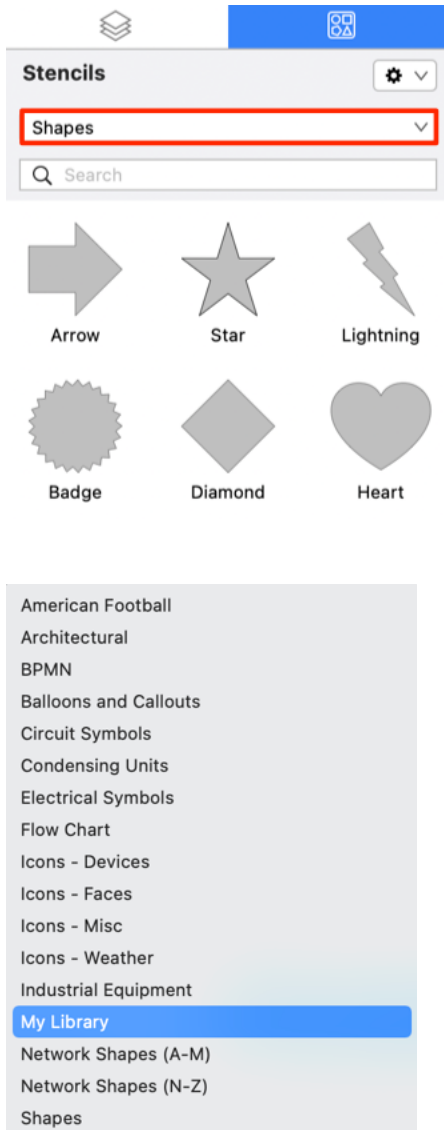


Note: A rename is not possible if the entered name has already been used.

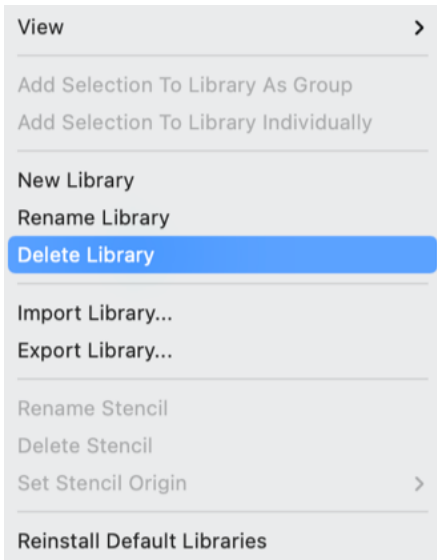
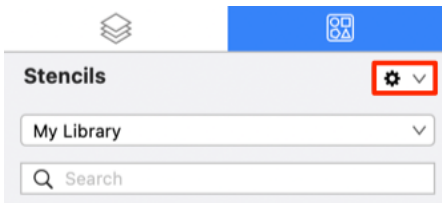
6.15.1.3. Deleting a Library

A Library is deleted by selecting a desired library and then choosing the **Delete Library** option in the [Libraries Settings Menu](#). Follow the steps below to delete a library:

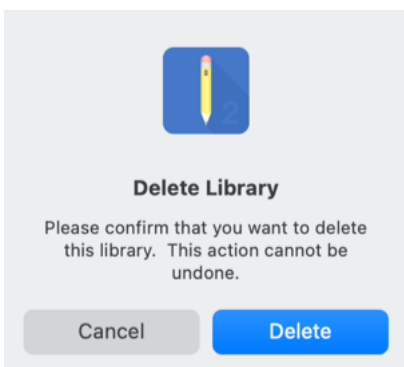
1. Use the **Library Selection Menu** to select the library to be deleted.



2. Click on the [Libraries Settings Menu](#) and choose **Delete Library**.



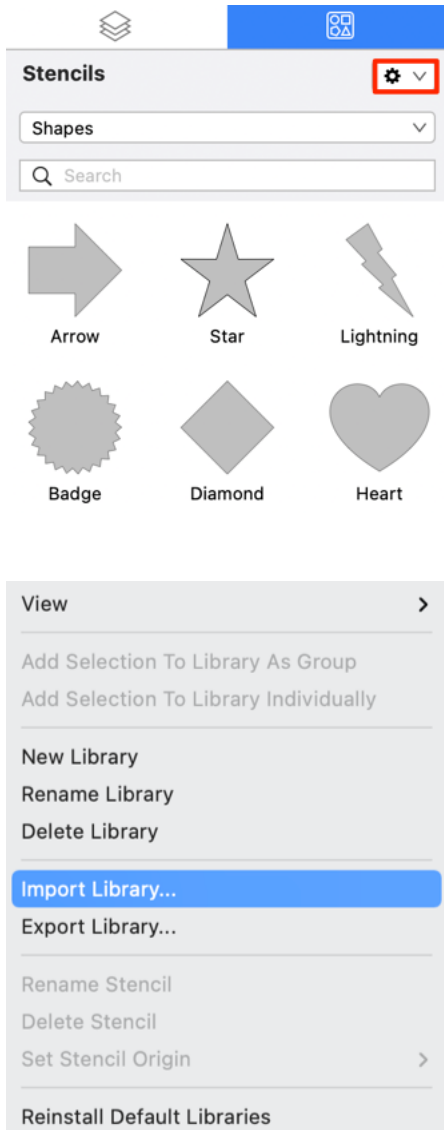
3. The **Confirm Deletion** prompt will appear. Choose **Confirm** to delete the library or **Cancel** to back out of this process.



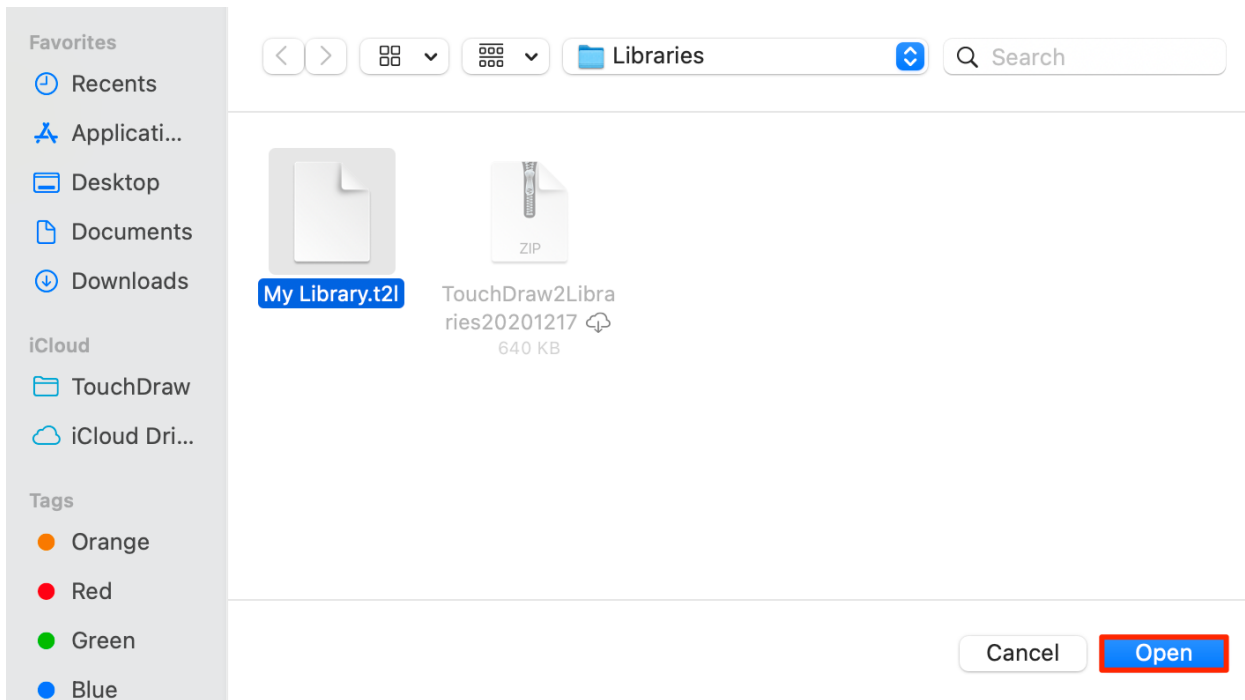
6.15.1.4. Importing a Library

A library can be imported into TouchDraw 2 for use during drawing creation and manipulation. Follow the steps below to **Import a Library**:

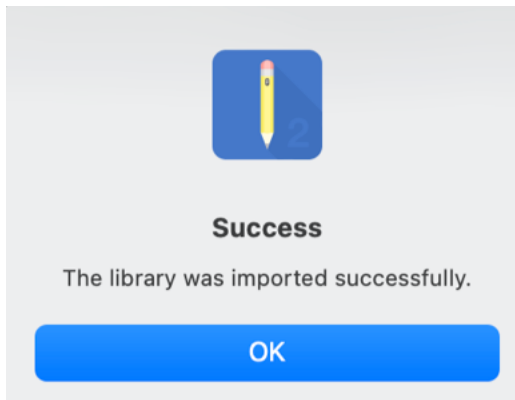
1. Click on the [Libraries Settings Menu](#) and choose **Import Library...**



2. Browse to the appropriate file directory and click **Open**.



3. A confirmation popup window will appear if the library is imported successfully. Click **Okay** to close the confirmation window.



4. Use the **Library Selection Menu** to locate and view the imported library within TouchDraw 2:



Stencils



My Library



Search

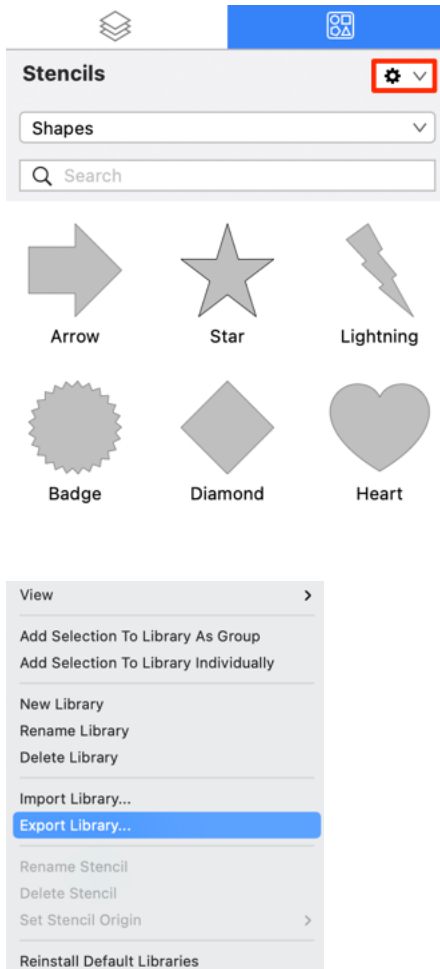


Circle

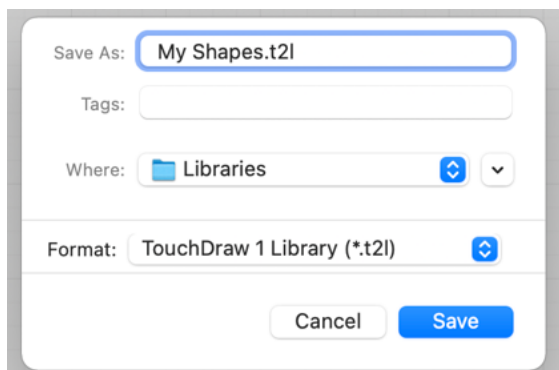
6.15.1.5. Exporting a Library

An existing library can be exported as a .t2l file for use within another application or to be imported for a later drawing. Follow the steps below to **Export a Library**:

1. Click on the [Libraries Settings Menu](#) and choose **Export Library...**



2. Enter a different name (i.e.name.t2l) for the library if desired and choose a save directory. Then click on **Save** to finish exporting the TouchDraw library to the chosen directory.



6.15.2. Stencil Functions

The following links provide additional information for managing stencils in TouchDraw 2. Click on a link to learn more:

- [Adding a Stencil](#)
- [Renaming a Stencil](#)
- [Deleting a Stencil](#)

Stencils may also be inserted into a drawing. To learn more, please see [Inserting a Stencil into a Drawing](#).

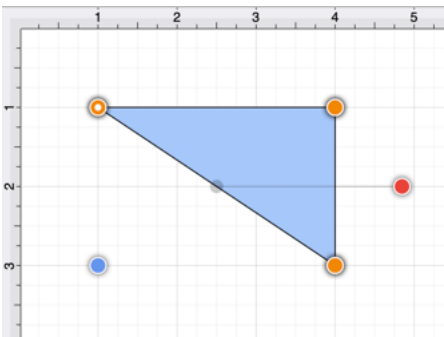
6.15.2.1. Adding a Stencil

An **Stencil** may be added as by choosing the **Add Selection To Library Individually** or **Add Selection to Library as Group** options in the [Libraries Settings Menu](#).

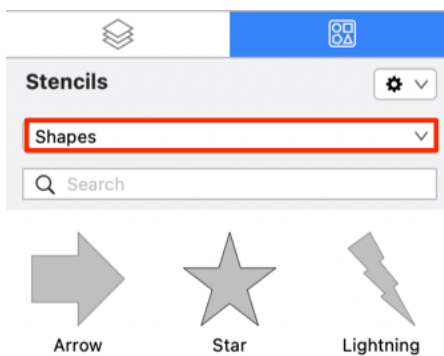
Adding Stencils Individually

To add a new stencil individually to a library:

1. First, draw the figure(s) within the drawing editor. Then [select](#) the figure (or figures) being made into a stencil.

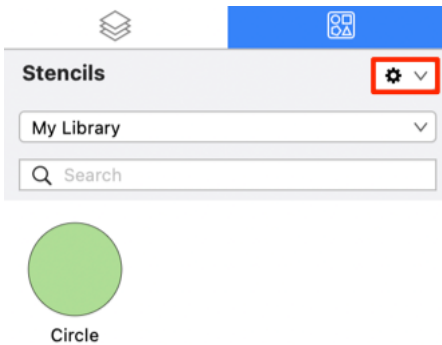


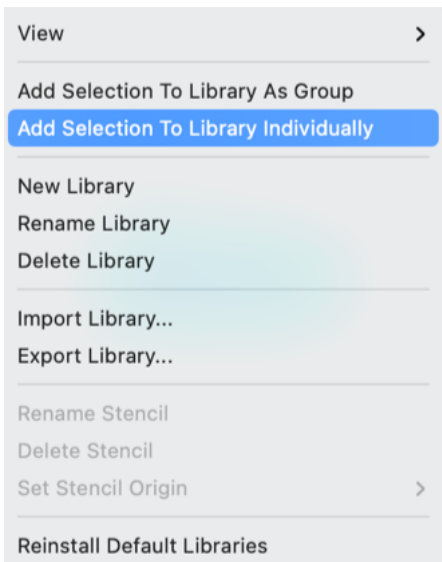
2. Open the **Library Selection Menu** and navigate to the desired insertion library.



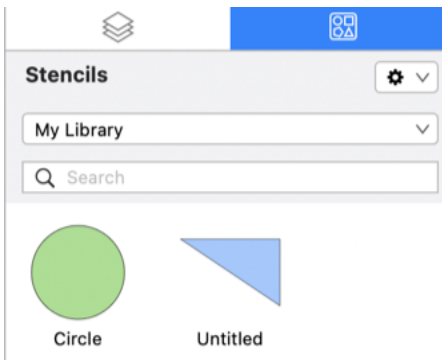
- American Football
- Architectural
- BPMN
- Balloons and Callouts
- Circuit Symbols
- Condensing Units
- Electrical Symbols
- Flow Chart
- Icons - Devices
- Icons - Faces
- Icons - Misc
- Icons - Weather
- Industrial Equipment
- My Library**
- Network Shapes (A-M)
- Network Shapes (N-Z)
- Shapes

3. Select the [Libraries Settings Menu](#) and choose the **Add Selection To Library Individually** option.





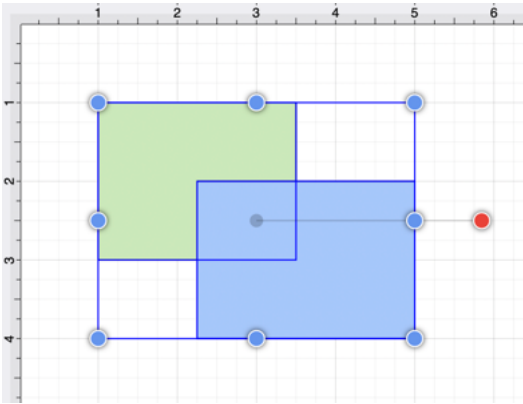
4. The stencil will appear in the selected library as shown below and can be renamed after the addition is complete.



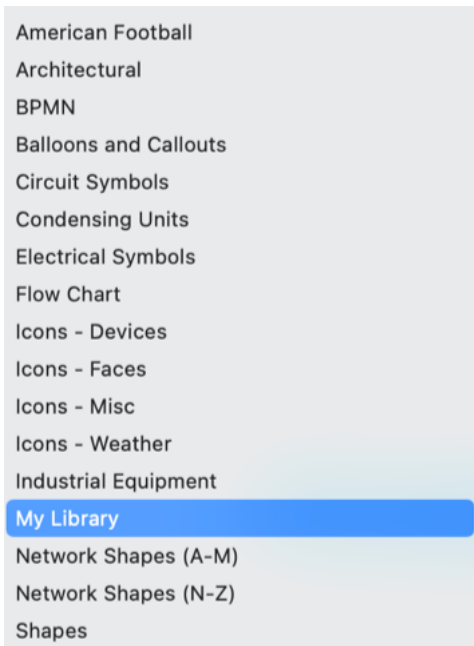
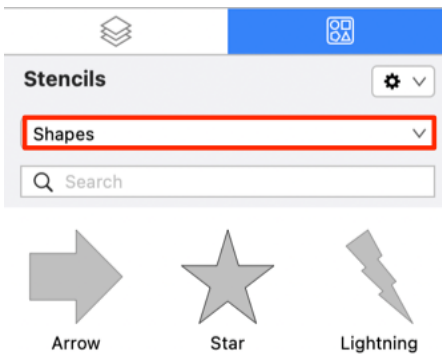
Adding Stencils as a Group

To add a group of selected objects to a library as a stencil:

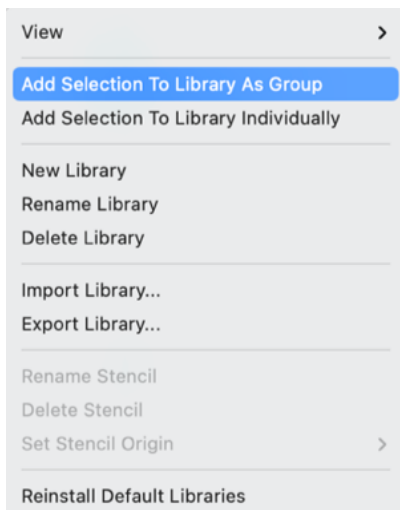
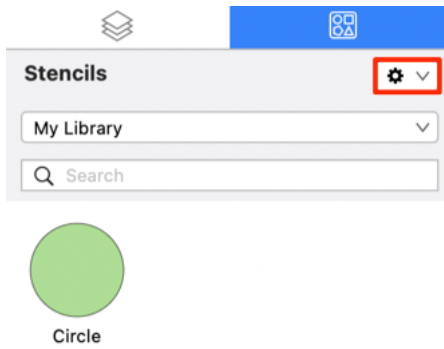
1. First, draw the figures within the drawing editor. Then **select** the figure (or figures) being made into a stencil.



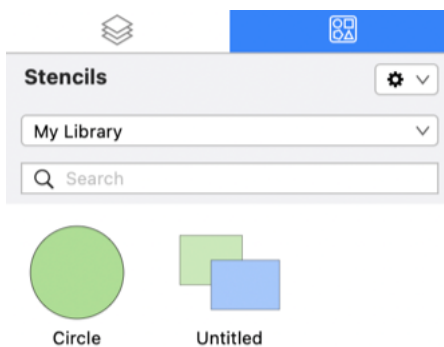
2. Open the **Library Selection Menu** and navigate to the desired insertion library.



3. Select the **Libraries Settings Menu** and choose the **Add Selection To Library as Group** option.



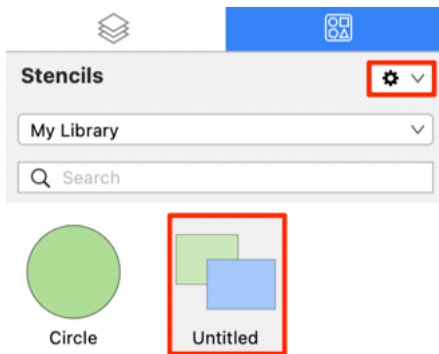
4. The stencil will appear in the selected library as shown below and can be renamed after the addition is complete.



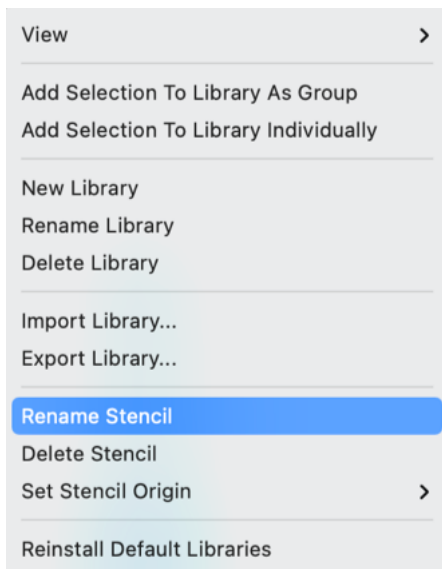
6.15.2.2. Renaming a Stencil

The selected stencil must be in "edit" mode to be renamed. This is accomplished by:

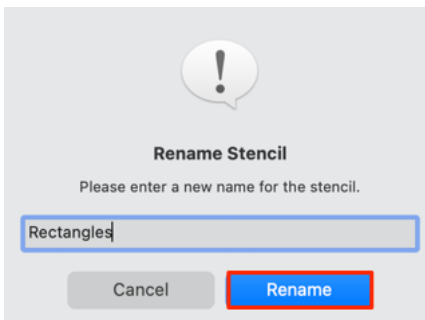
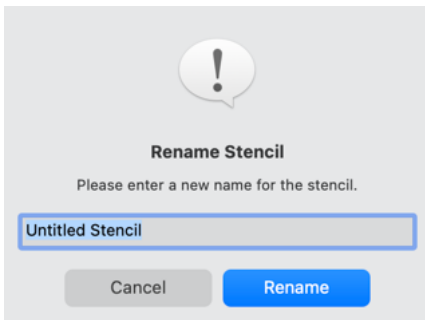
1. Selecting the desired stencil in the library and then clicking on the [Libraries Settings Menu](#).



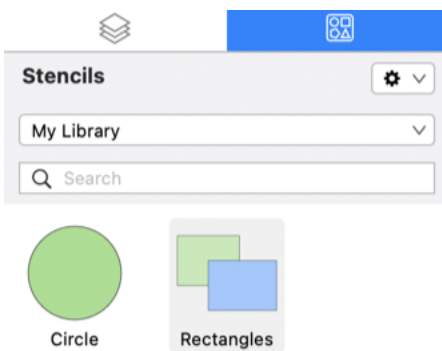
2. Next, click on the **Rename Stencil** option within the [Libraries Settings Menu](#).



3. Enter a name for the stencil and then click on **Rename**.



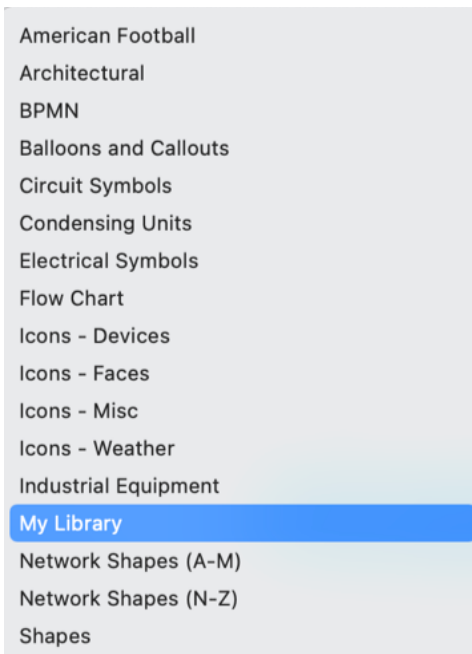
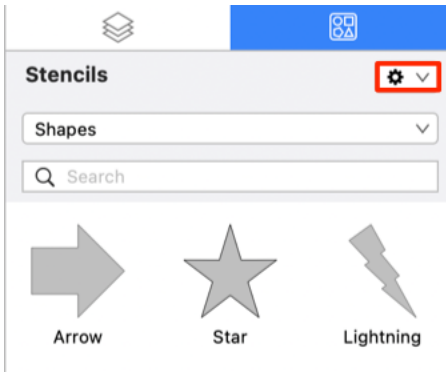
4. The stencil selected in the [Sidebar](#) list will look as shown below after it has been renamed:



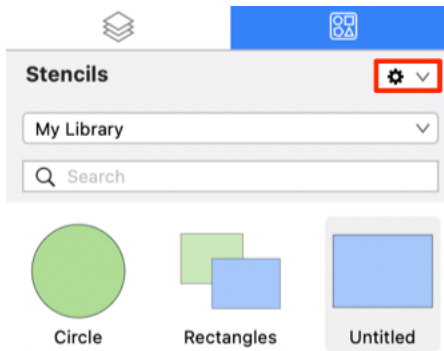
6.15.2.3. Deleting a Stencil

A **Stencil** is deleted from a library by selecting the desired stencil and then choosing the **Delete Stencil From Library** option in the [Libraries Settings Menu](#). Follow the steps below to delete a stencil:

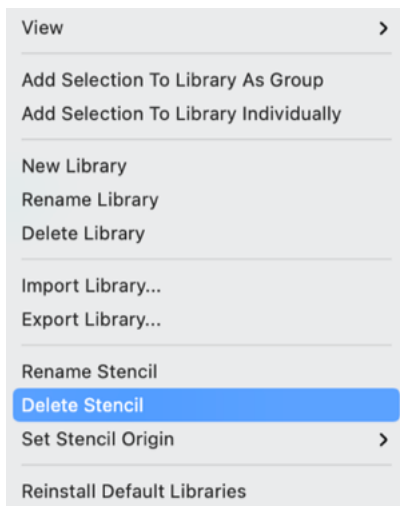
1. Use the **Library Selection Menu** to select the library where the stencil is saved.



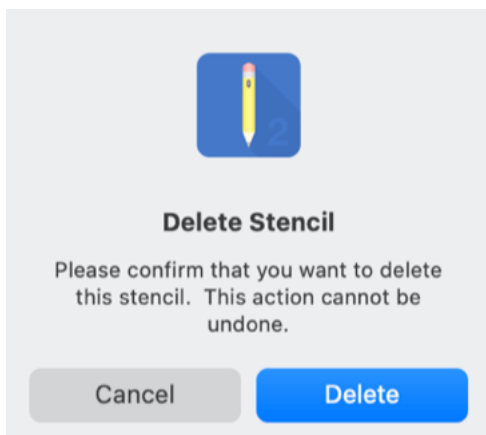
2. Perform a **Click** on the stencil to be deleted and then click on the [Libraries Settings Menu](#).



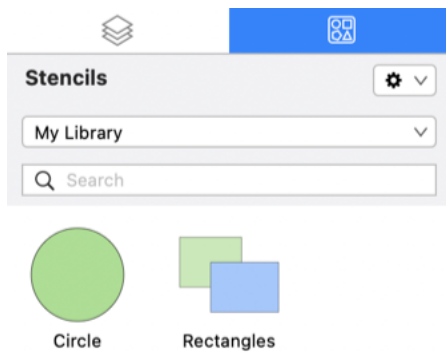
3. Choose **Delete Stencil**.



4. In the confirmation message, click on **Delete** to finish removing the stencil or **Cancel** to exit without removing it.



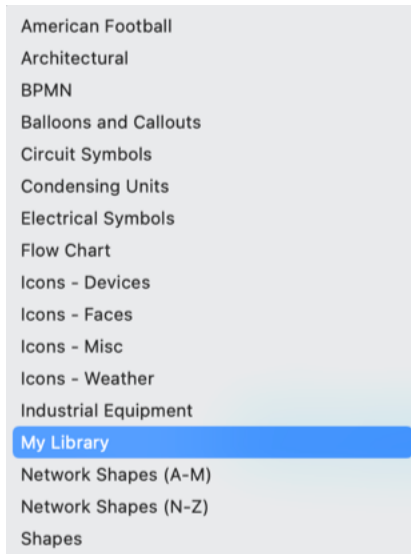
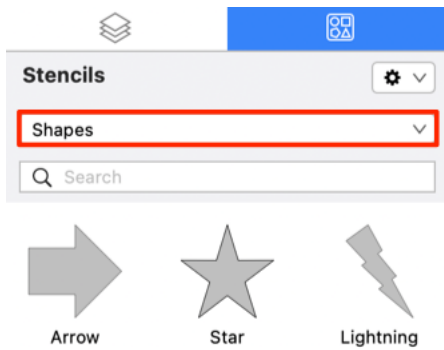
5. The stencil will automatically be removed from the library, as shown below:



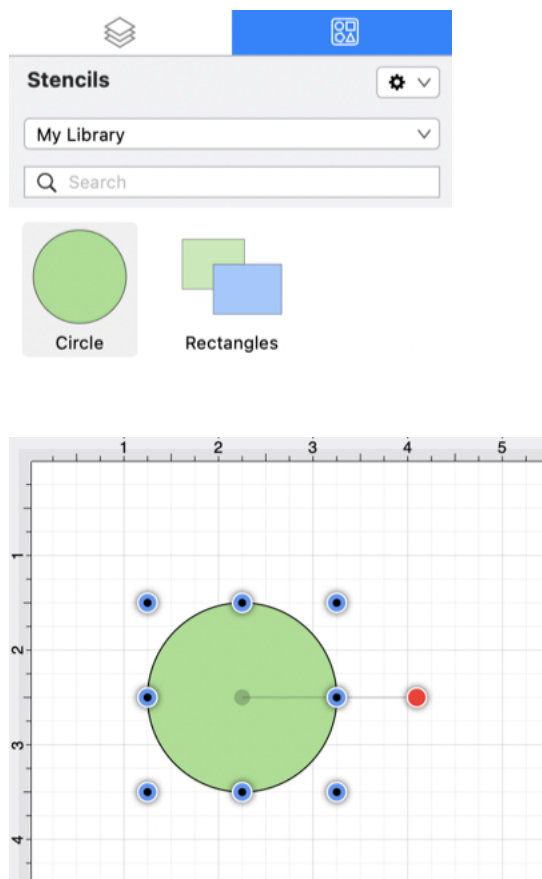
6.15.2.4. Inserting a Stencil into a Drawing

To insert a stencil into a drawing:

1. Select the appropriate library in the **Library Selection Menu**.



2. Perform a **Click/Drag** combination from a selected stencil to the Drawing Canvas.



6.16. Calculations

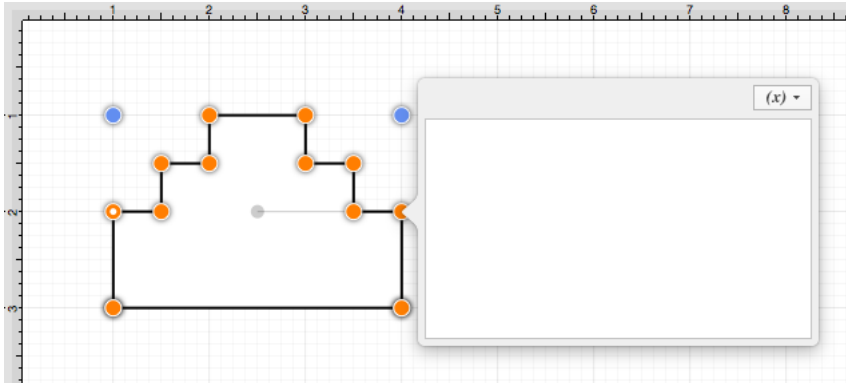
TouchDraw 2 provides an easy method for calculating the [area](#) and [dimensions](#) of a [selected](#) figure(s) by entering variables within the Text Editor Popup Window.

Note: Refer to the [Available Variables](#) table to find out more about what can be obtained as part of the text of a figure.

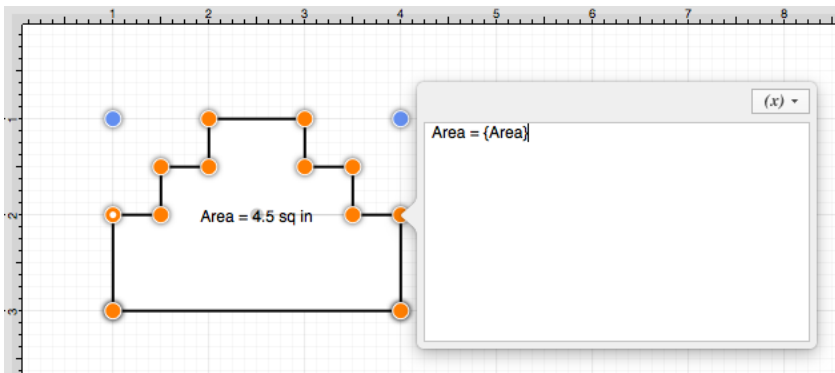
6.16.1. Calculating Area

TouchDraw 2 supplies the ability to enter variables into the text editor for a figure(s). The calculated area of a figure can be obtained and included within the figure's text by:

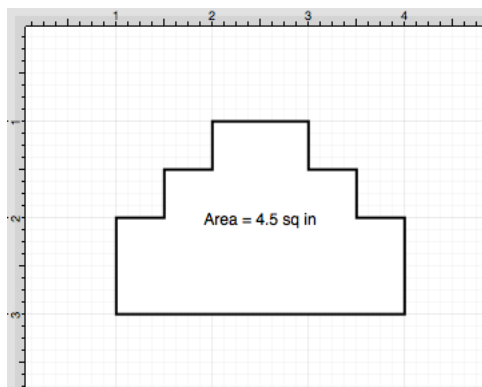
1. **Double Clicking** on a figure to open the Text Editor Popup Window.



2. Entering {Area} as part of the text within the **Text Editor Popup Window**. The value will appear within the selected figure in real time.

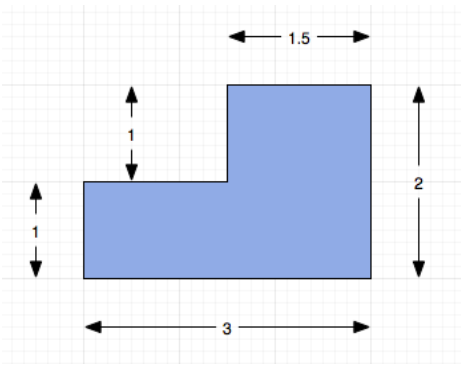


3. The figure will appear as shown below:



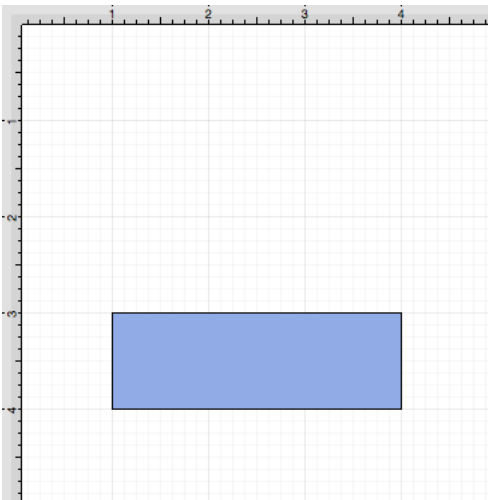
6.16.2. Dimensioning

TouchDraw provides variables for determining the dimensions of a selected figure(s). The MinX, MaxX, MinY, MaxY, Width, and Height can be entered as part of the displayed text within a figure. Refer to the available variables table to learn more about what variables can be inserted. These values can be applied to show the dimensions of a drawn object, as shown below:

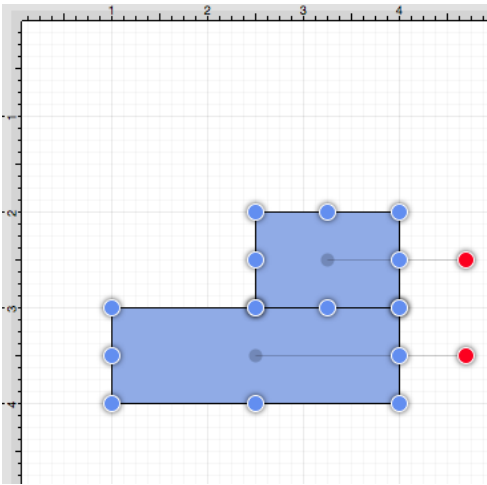
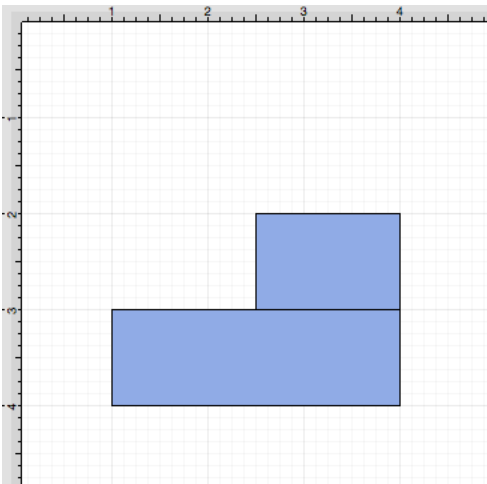


Follow the steps below to create the images shown above:

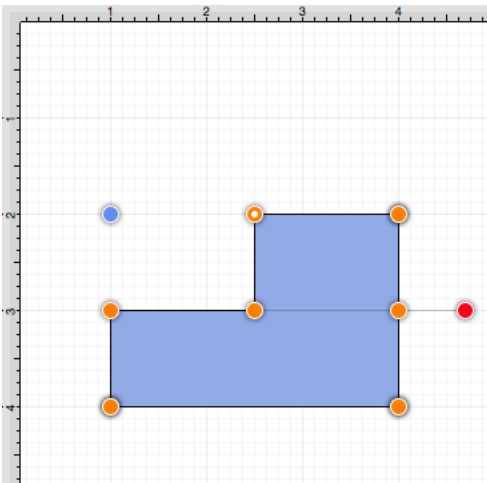
1. Select the [Rectangle Tool](#) and draw a rectangle.



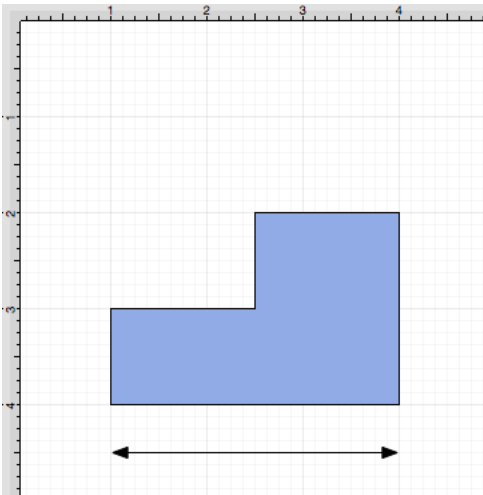
2. Select the **Rectangle Tool** again and draw a square on top of the right half of the rectangle. Use a **Shift/Click** combination to select both figures.



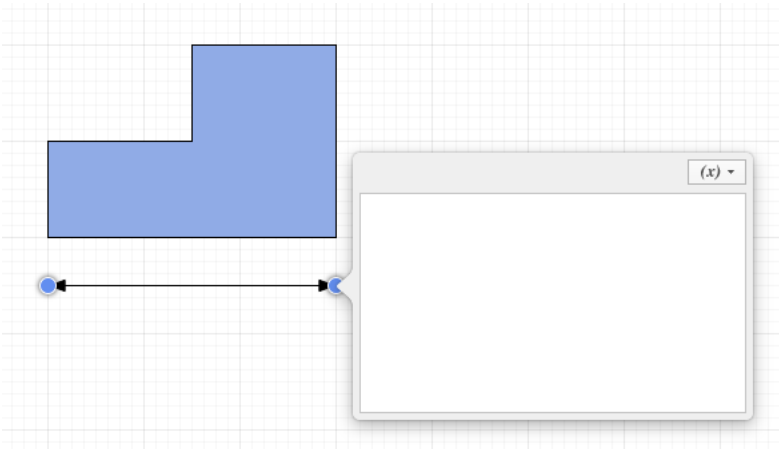
3. Select the [Modify Menu](#) and choose **Add Shapes** to combine the two shapes.



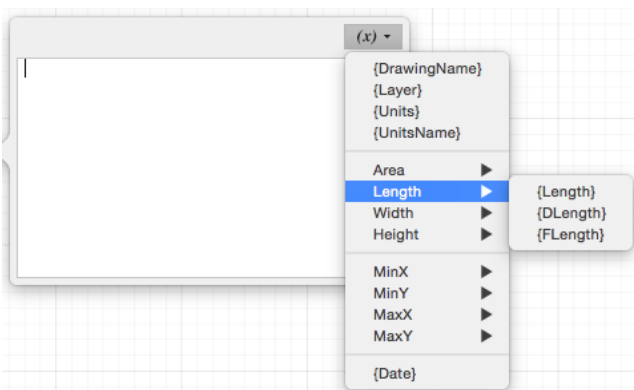
4. Select the [Line Tool](#) and create a line with two black arrow end points along the bottom of the rectangle.

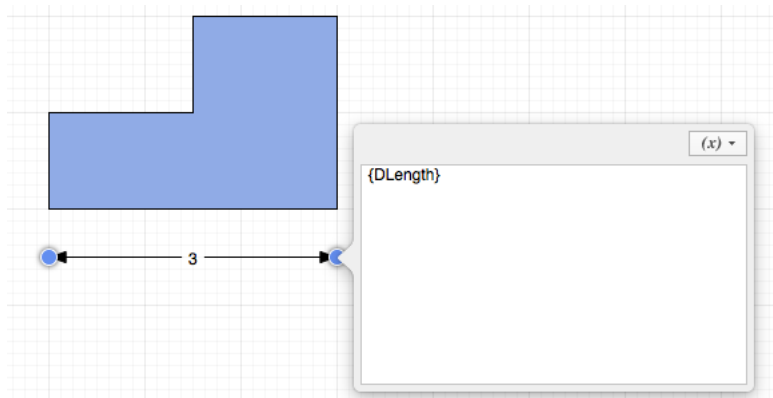


5. **Double Click** on the figure to open the Text Editor Popup Window.

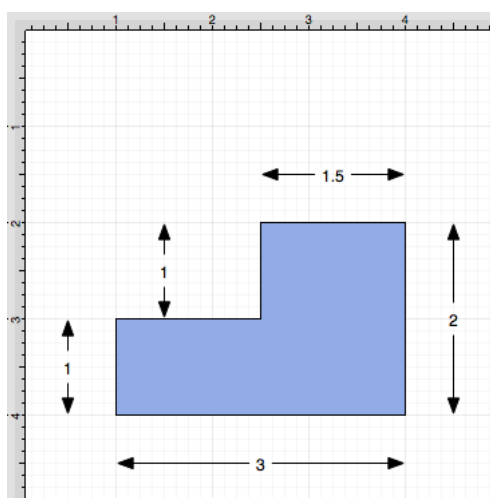


6. Click on the **Variable** drop down menu, choose **Length**, and then choose {Length}. The value will be entered into the **Text Editor Popup Window** and be updated on the line in real time.





7. Follow steps 4 through 6 to create a dimension line for each side. The figure below shows the completed dimensions for the drawn shape.



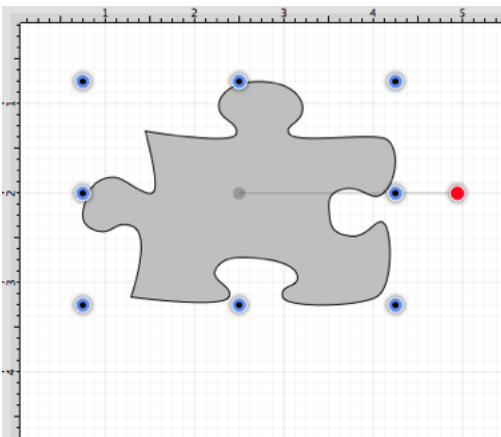
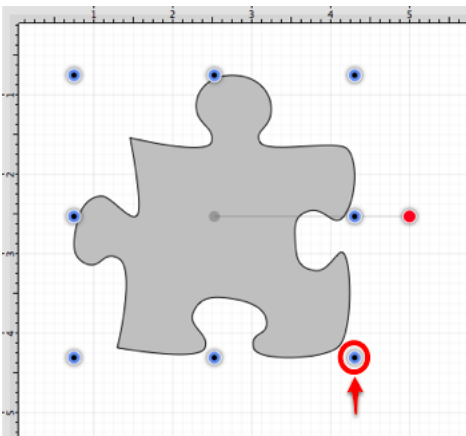
7. Tips and Techniques

This section provides information on how to perform specific actions within TouchDraw 2 and can be used to master the basic features of the application. Listed below are links to several quick tips designed to help you become more familiar with TouchDraw 2.

7.1. Resizing a Figure Proportionally

TouchDraw 2 provides several features for resizing shapes when you are working with figures in a drawing. If a bounds handle is dragged to a location within the [Drawing Canvas](#) without using application features for constraining proportions, the shape is resized to that specific location. The **Shift Key** on your keyboard may be used to constrain proportions as you drag to ensure the original shape is maintained.

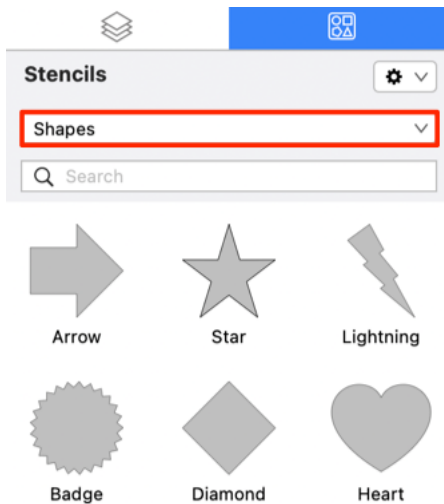
For example, a simple drag of the bounds handle without this feature enabled can result in a perfect square becoming a rectangle or a circle becoming an oval, but by using this feature, the shape will remain as a square or circle and only change in size, not proportions. The example below shows what the puzzle piece from the [Stencil Library](#) would look like if the bottom right bounds handle is moved upward without using the **Shift Key**.



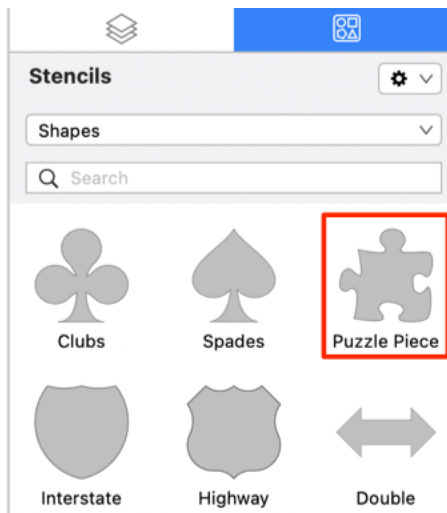
This tutorial will show you how to use the **Shift Key** to alter the size of a figure while constraining its

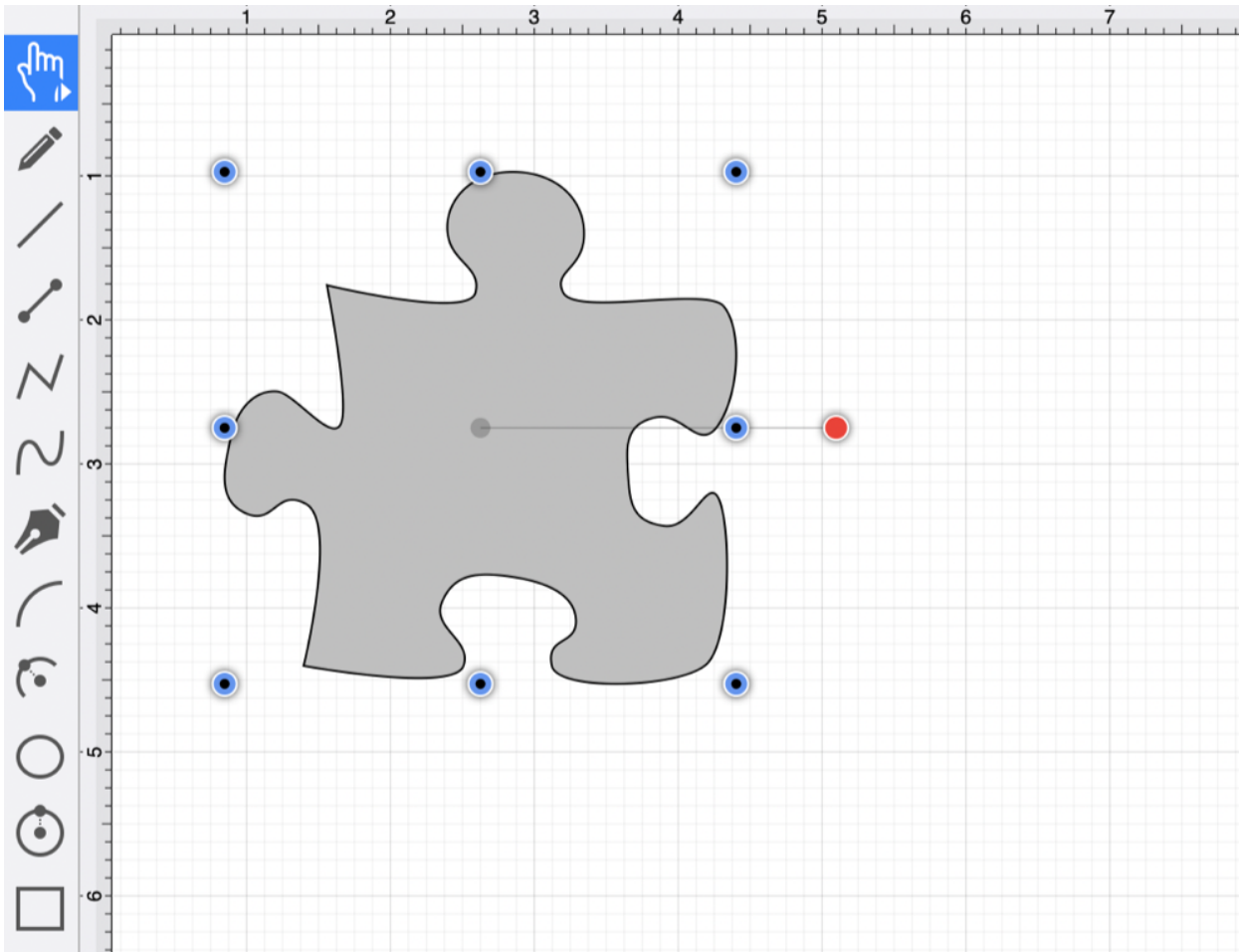
proportions to maintain the original shape. We will be using the **Puzzle Piece** (as in the above example) from the [Stencil Library](#) to demonstrate how this feature can be used to easily constrain proportions when resizing shapes in a drawing.

View the [Libraries](#) section of the [Sidebar](#) and then select the Shapes category in the library menu to locate this stencil.



You will see the puzzle piece as an available selection. Click on the stencil and drag it into your drawing. The stencil will appear as shown below once it has been inserted into a drawing.



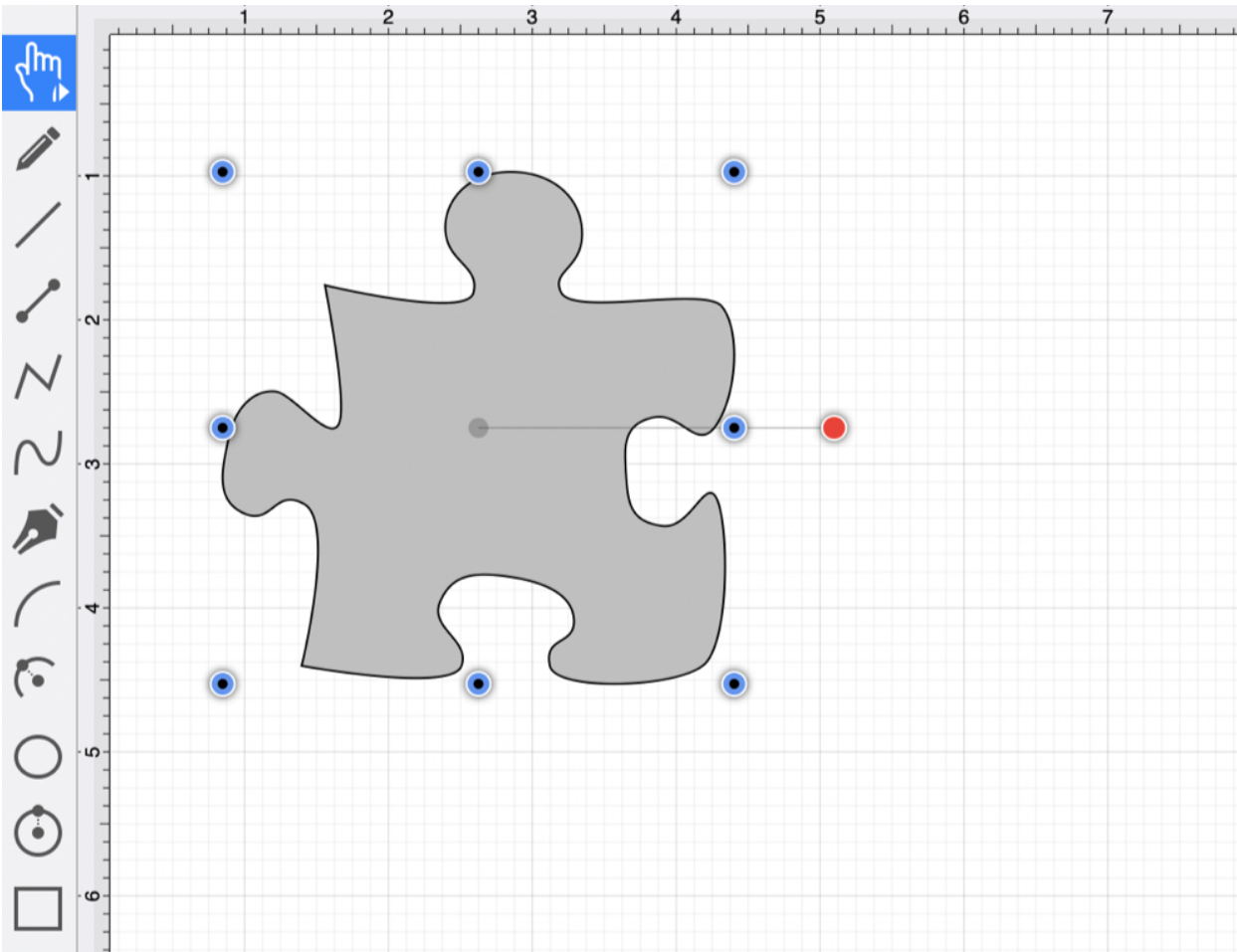


Proportions are not constrained for a resized shape when the **Shift Key** is not used. When the **Shift Key** is pressed during figure drawing, TouchDraw 2 makes certain that the proportions are constrained during shape resizing to maintain the original shape.

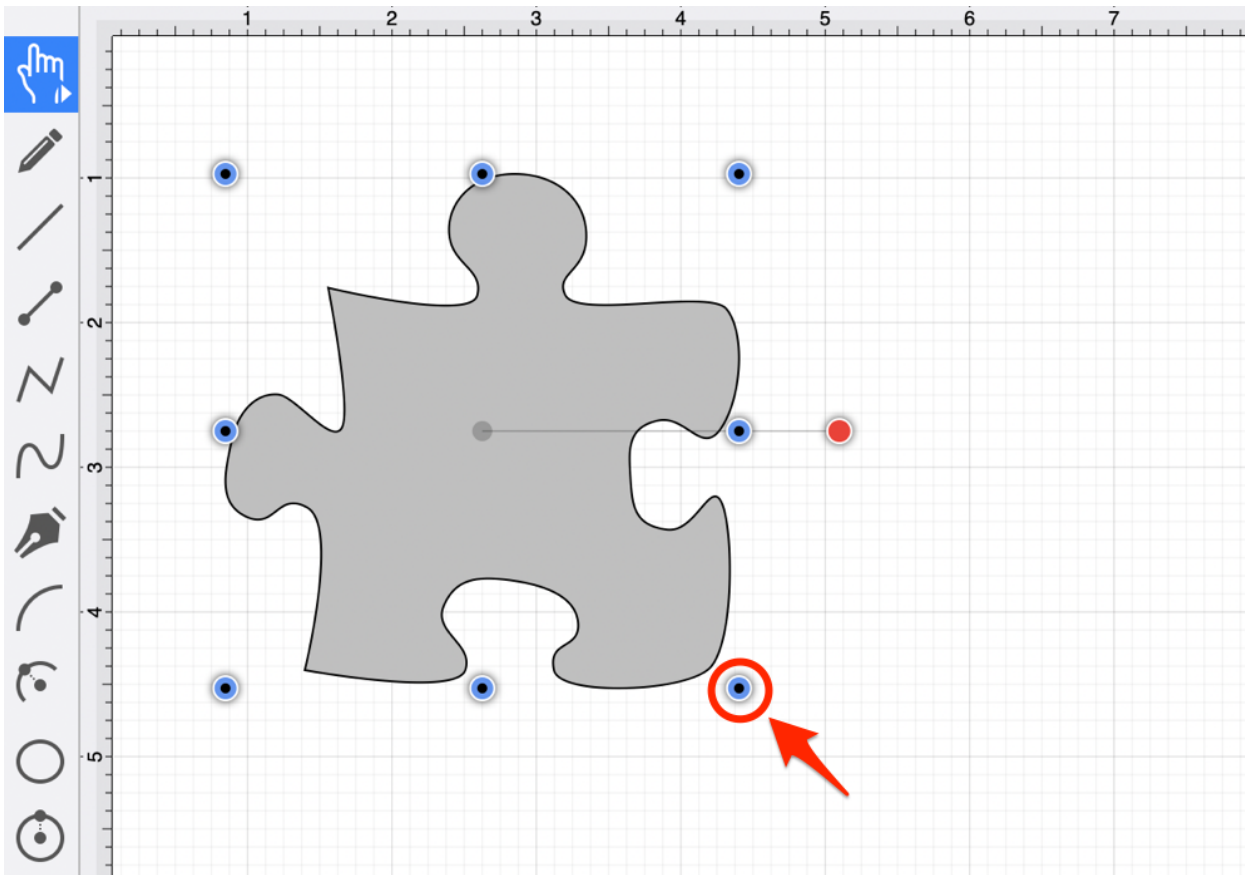
For example, the puzzle piece will remain as a puzzle piece as a [bounds handle](#) is dragged and only change in size. This feature can be used for any of a shapes bounds handles.

Follow the steps below to learn how to use the **Shift Key** to constrain proportions while resizing a shape.

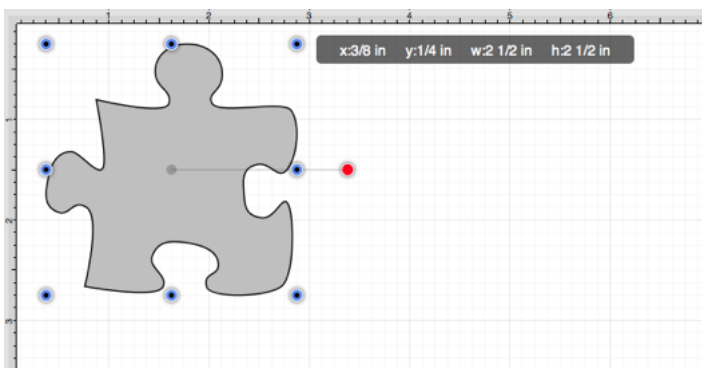
Step 1: Select the shape in your drawing by clicking on the figure. [Bounds handles](#) will appear around the chosen figure once it has been selected.



Step 2: Next, you will need to hold down the **Shift Key** on your keyboard to constrain proportions during shape resizing. **Click and Drag (without releasing the Shift Key)** on a bounds handle to begin resizing the shape. In this example, the bottom right bounds handle is selected and drug inward toward the shape.



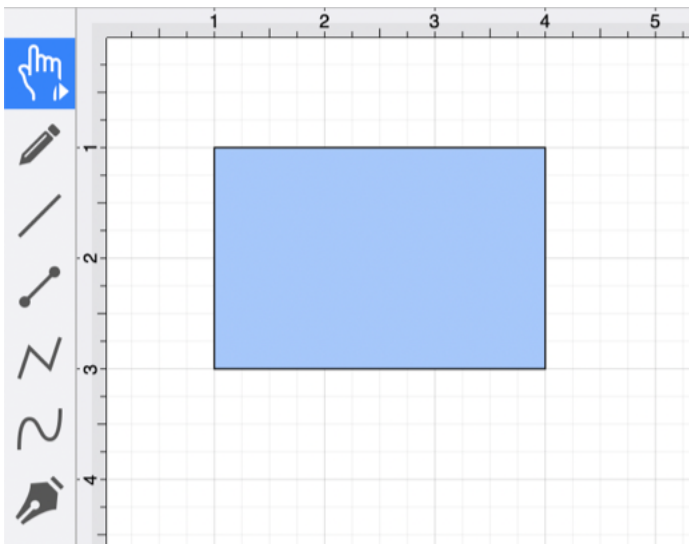
Step 3: The puzzle piece becomes smaller in size, but retains its shape as its proportions are constrained. Release the **Shift Key** once resizing is completed

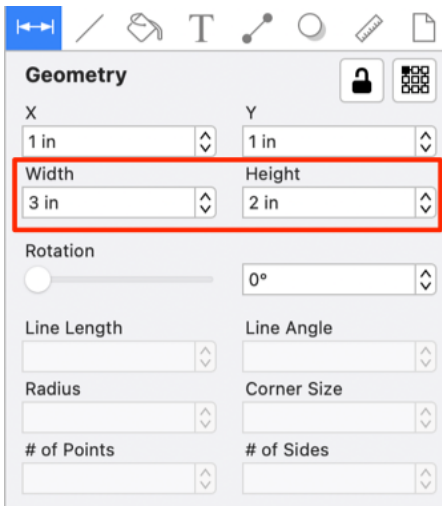


7.2. Creating Proportional Shapes

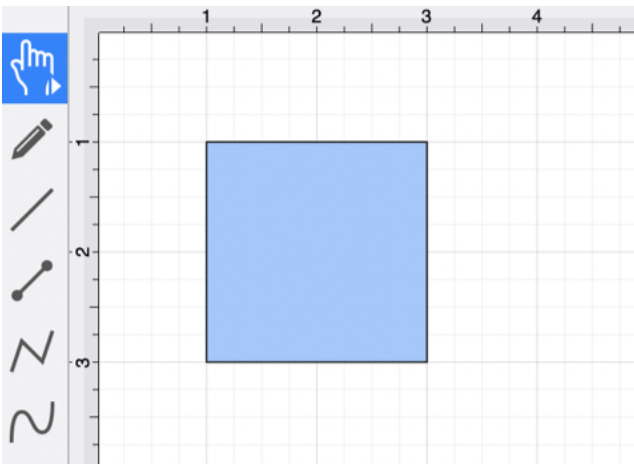
TouchDraw 2 offers a great amount of flexibility when creating shapes or figures in a drawing. A click and drag action in combination with a selected drawing tool results in the addition of rectangles, squares, circles, ovals, and additional shapes of any size and/or proportion to a drawing. The **Shift Key** can be used when adding a shape such as a circle or square to your drawing to make certain it retains its proportions and only changes in size. This prevents the shape from becoming a rectangle or oval.

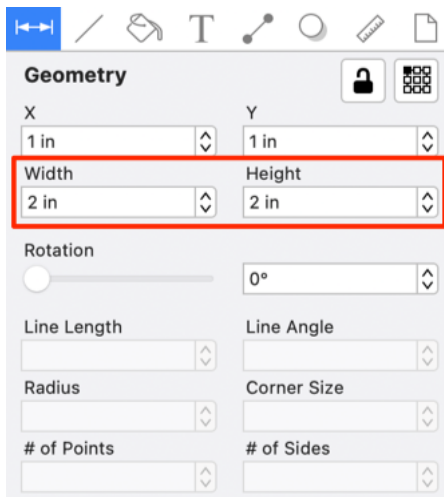
For example, if you select the [Rectangle Tool](#) and insert the shape into your drawing, it can either be a square or rectangle depending on where you click and drag on the [Drawing Canvas](#). Dragging toward the bottom right results in a rectangle with non-proportional **Width** and **Height** measurements, as shown below.





By holding down the **Shift Key** as you click and drag, you can create a proportional shape. In the example above, a perfect square would be created when this feature is enabled and the same click/drag action is performed. As shown in the [Info Sidebar](#), the **Width** and **Height** of the square are proportionally the same.

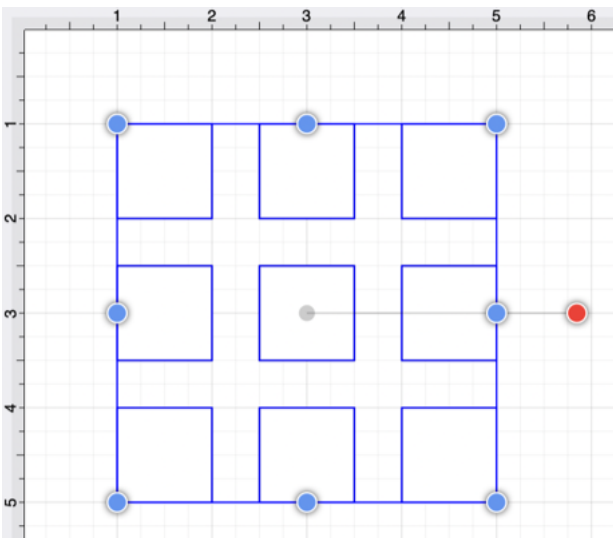
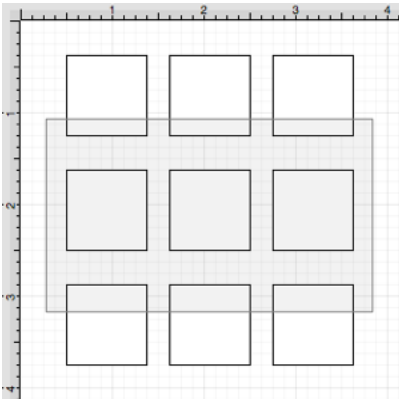




7.3. Using the Selection Rectangle

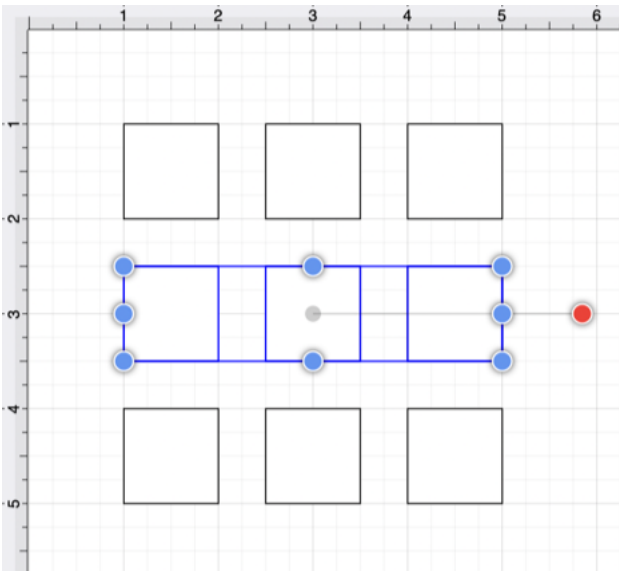
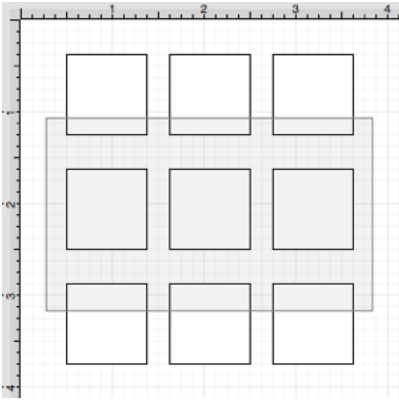
The **Selection Rectangle** provides an easy method for selecting multiple figures within a drawing. Click and drag from left to right or right to left on any point in the [Drawing Canvas](#) and then release the click action once the **Selection Rectangle** resides over the desired area. Figure selection will vary depending on the direction the mouse is dragged.

If you drag the **Selection Rectangle** from left to right, it will select all figures within its bounds as well as any figures it intersects.



While this approach is a great choice for making a quick selection in a defined area, it does not offer the amount of control that is sometimes needed during figure selection.

You can drag the **Selection Rectangle** from right to left to select figures residing in its bounds without selecting intersecting figures. This provides finer control for using the **Selection Rectangle** to select multiple figures in a specified area of the [Drawing Canvas](#).



For more information about selecting figures within a drawing, please refer to the [Selecting a Figure](#) page of the documentation.

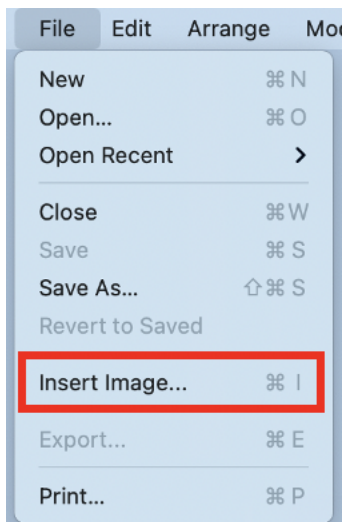
7.4. How to Resize an Image to Scale

The linear, horizontal distance, and vertical distance dimension tools can be used to add a dimension line to a floor plan or other image and scale that image based on an entered value. Once scaled, the opacity can be changed to perform tracing on the floor plan image.

The step-by-step example is shown below:

Step 1: Insert the Floor Plan Image into the Drawing

To insert the floor plan image into your drawing, click on the [File Menu](#). Then click on one of the provided **Insert** options.



The floor plan image has been inserted into the drawing and is shown below:



Note: For step-by-step instructions, please see: [Inserting Images into Drawings](#).

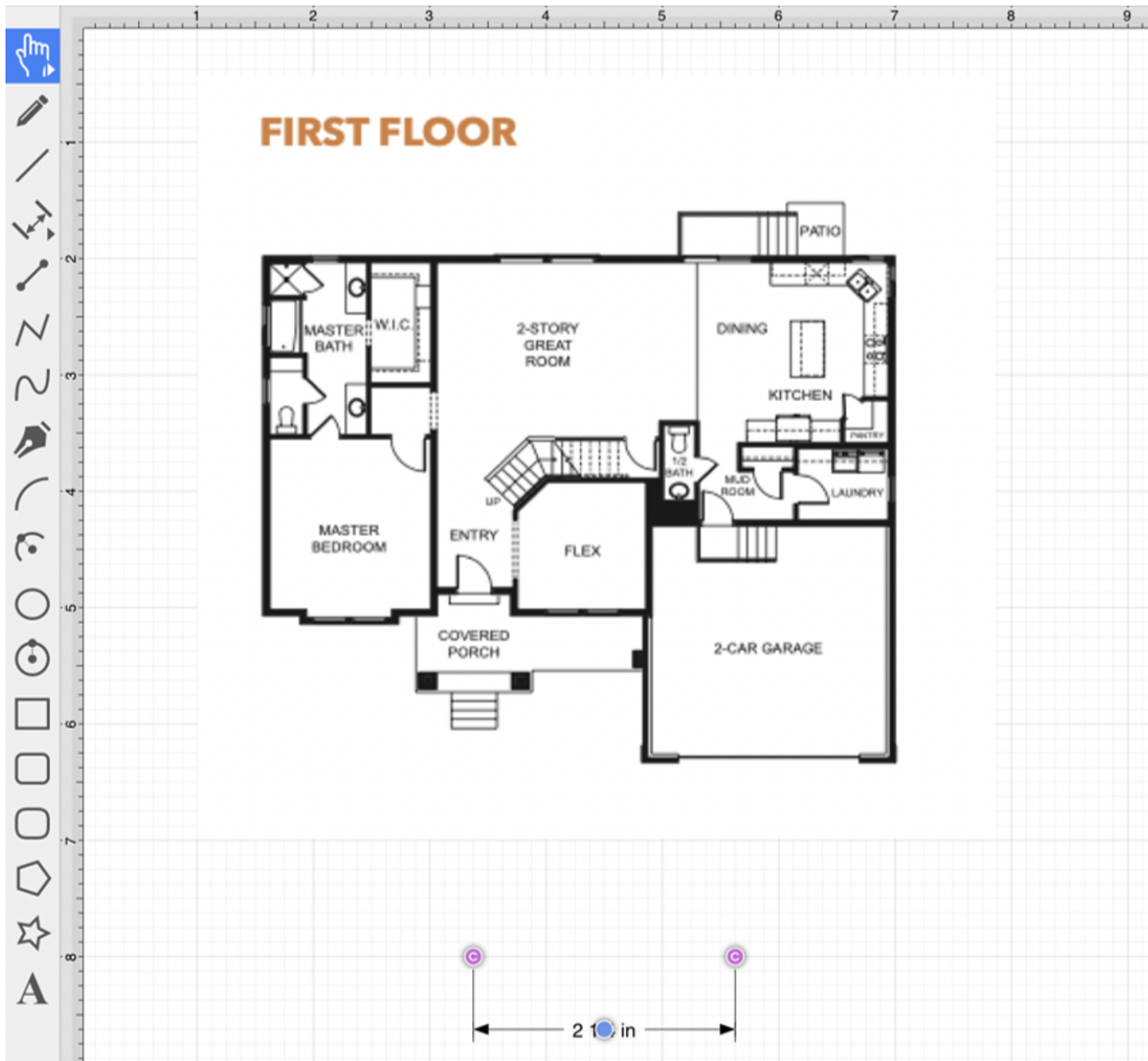
Step 2: Draw a Dimension Line

Next, draw a dimension line within the drawing. For this example, the [Linear Dimension Tool](#) will be used.

Click within the [Drawing Toolbar](#) to select the **Linear Dimension Tool**.



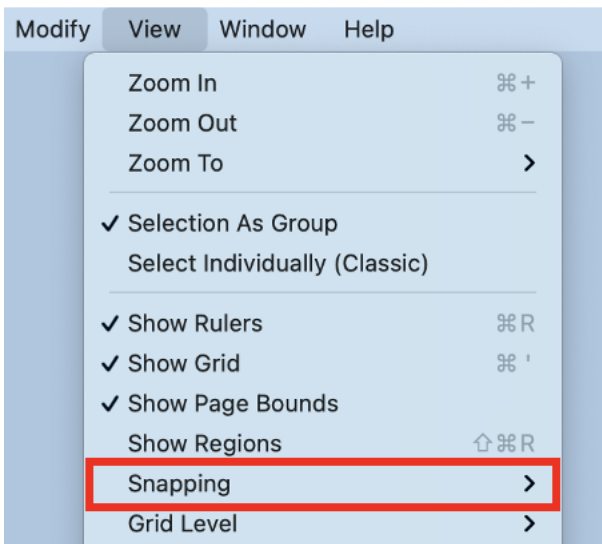
Next, draw a dimension line below the floor plan image.



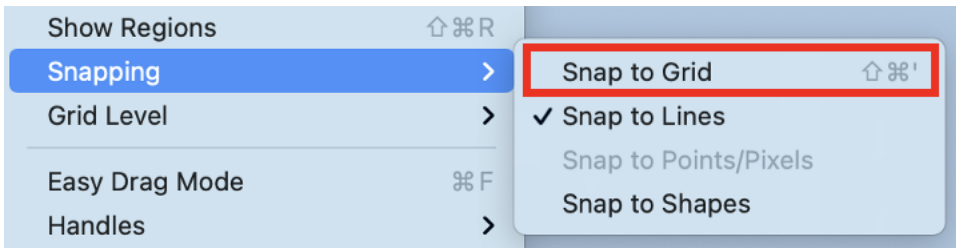
Step 3: Disable the “Snap to Grid” Option

This option will need to be disabled so that the connection points for the dimension line can be dragged to a desired location within the floor plan image.

To disable this option, click on the [View Menu](#) and then click on the **Snapping Submenu**.



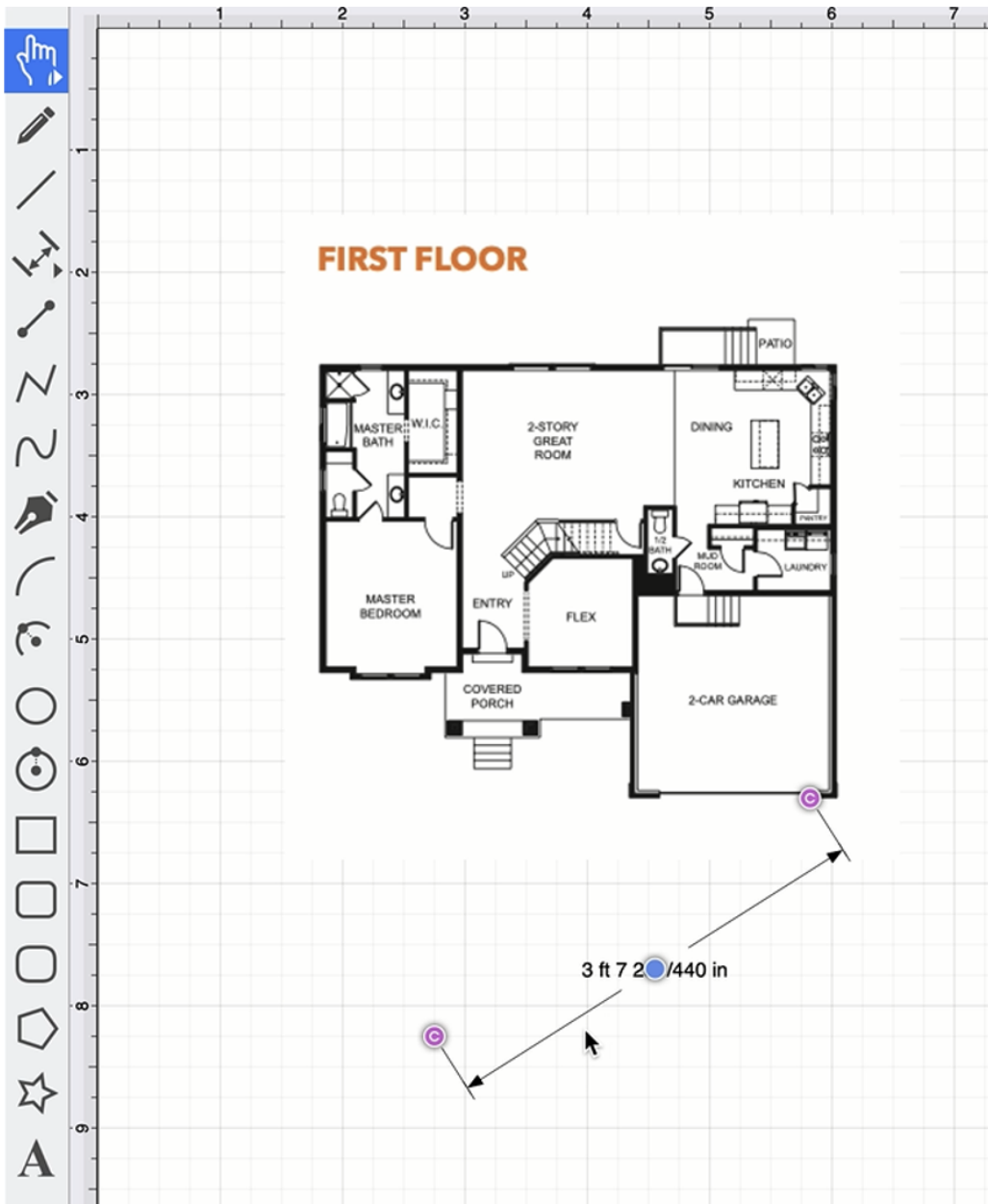
Next, click on the **Snap to Grid** to disable the option. It will not have a checkmark when disabled.



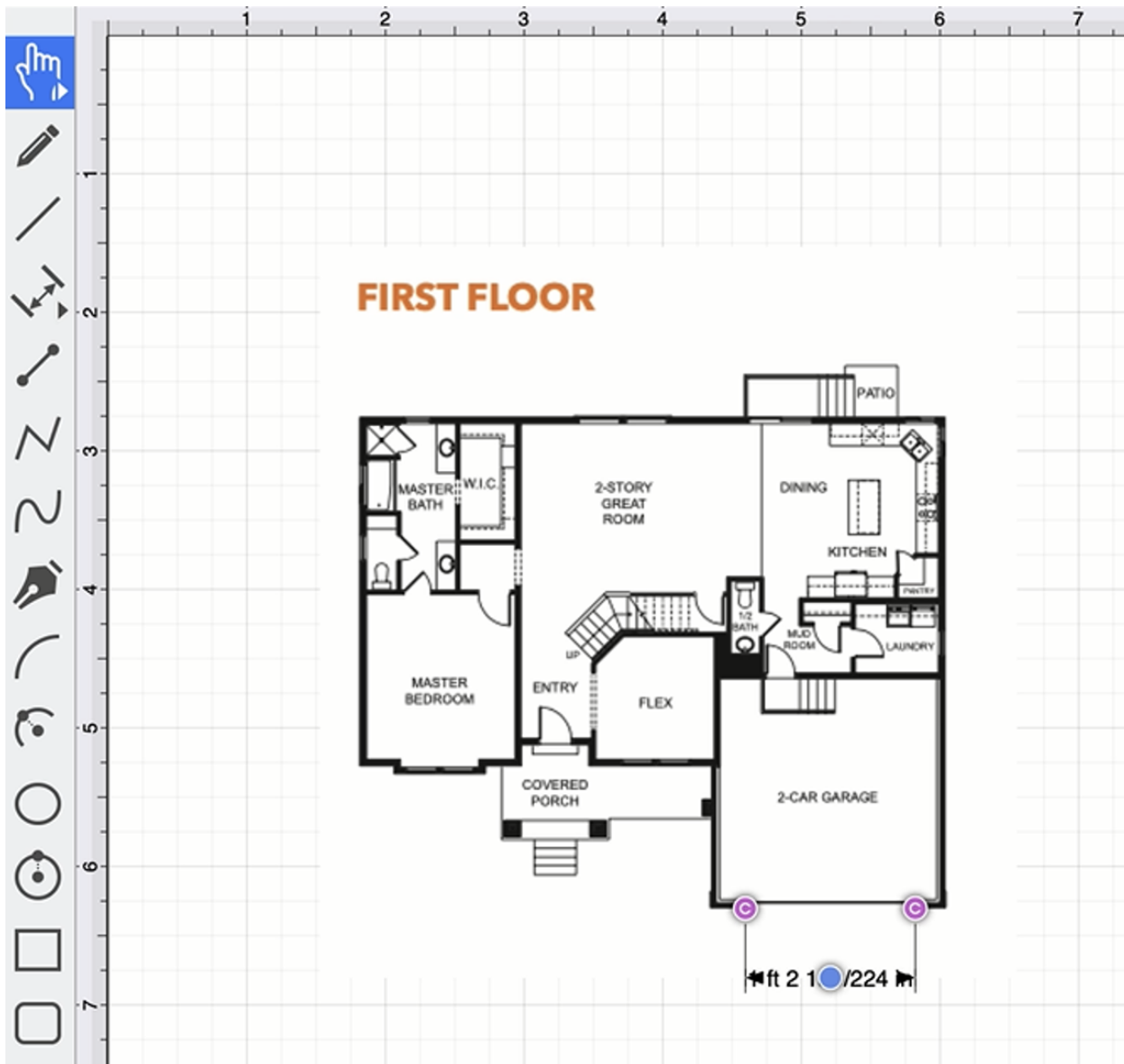
Step 4: Drag the Connection Points to a Specific Location within the Floor Plan

After the **Snap to Grid** option has been disabled, you will be able to drag each connection point on the dimension line to a desired location within the floor plan.

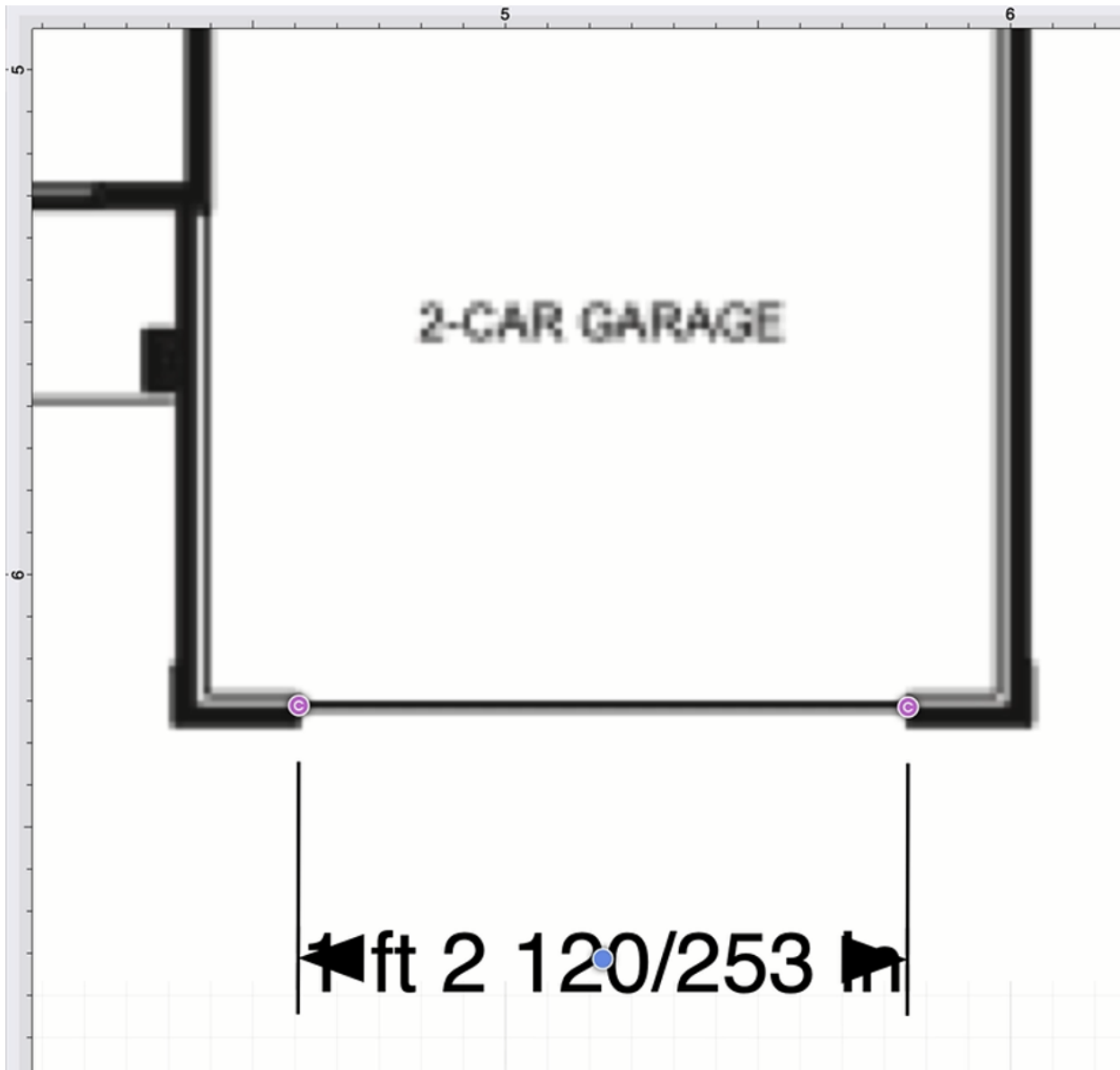
For the first connection point, use the **Shift Key** and a click/drag action to move it to the desired location on the floor plan.



For the second connection point, use the **Shift Key** and a click/drag action again to move it to the desired location on the floor plan.



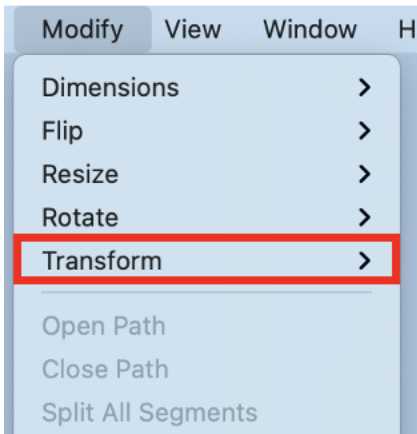
Tip: You can zoom in on a specific location within the floor plan to be more precise when changing the dimension line connection point locations.



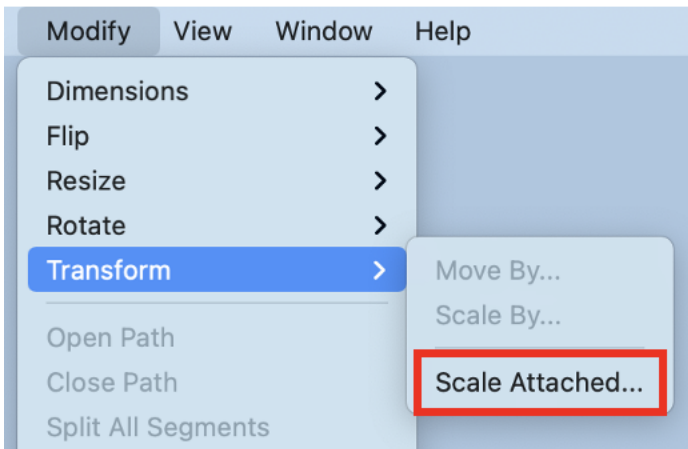
Step 5: Use the Scale Attached Option

The **Scale Attached** option can be used to scale the drawing based on an entered scale value (e.g., 10 ft).

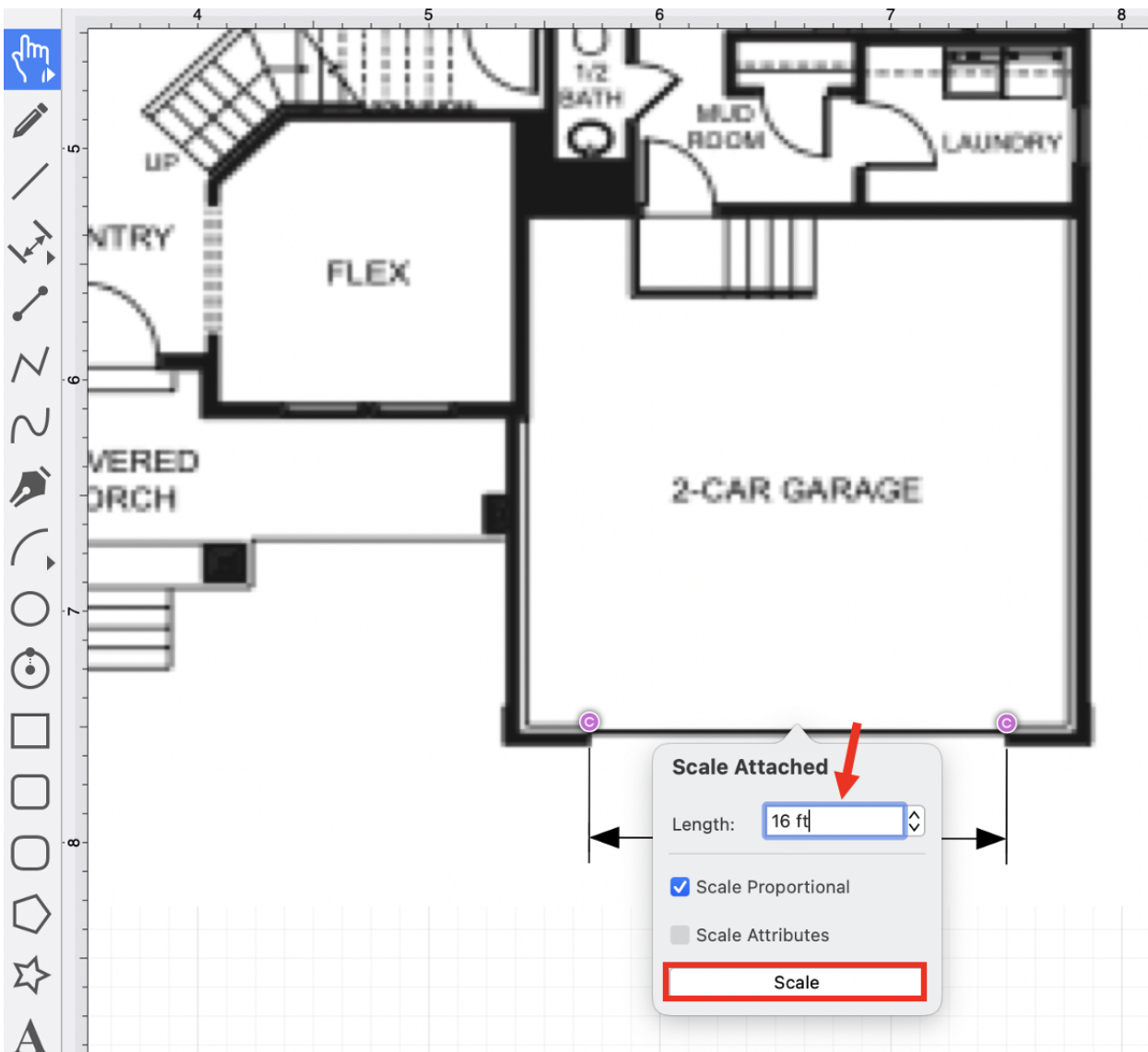
Click on the [Modify Menu](#) and click on the **Transform Submenu**.



Next, click on the **Scale Attached...** option.

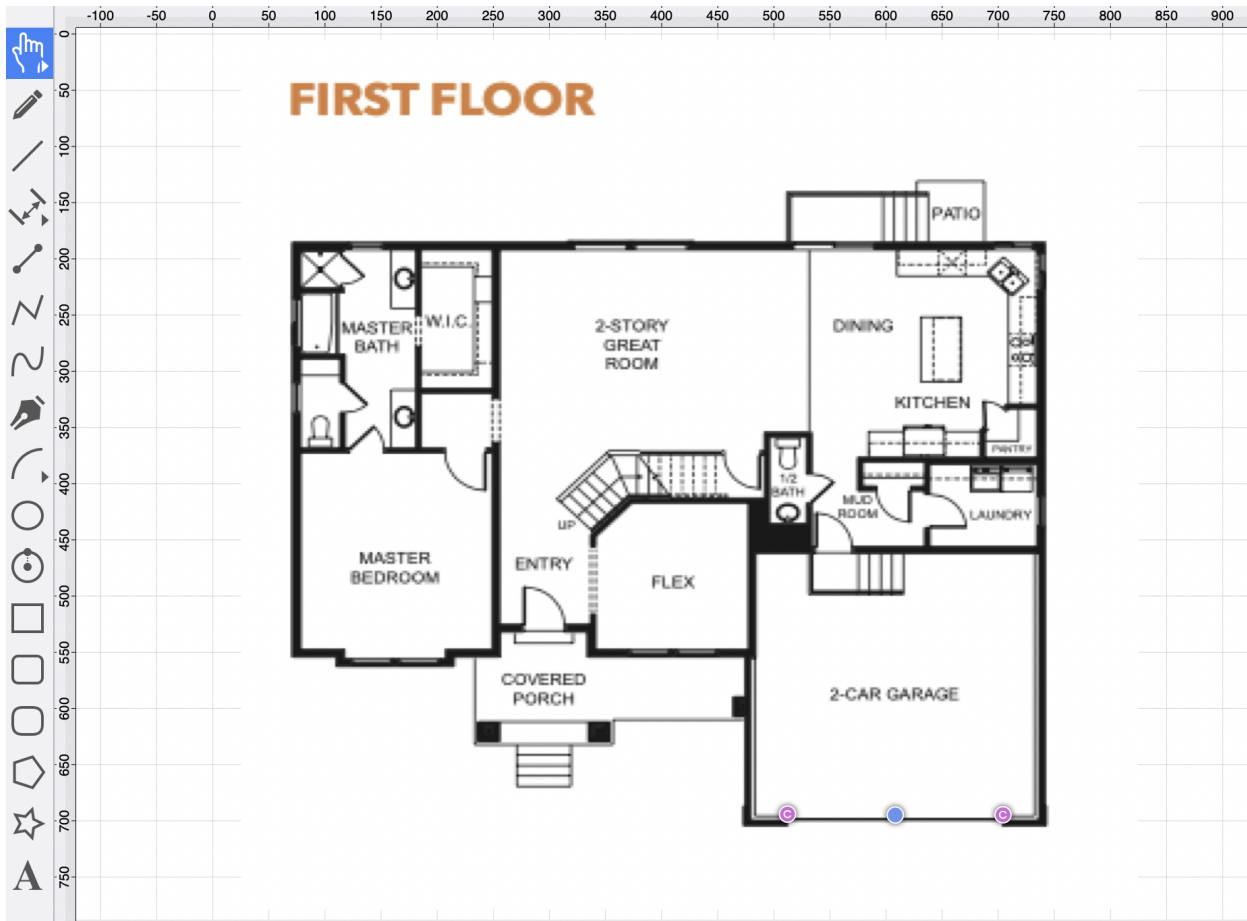


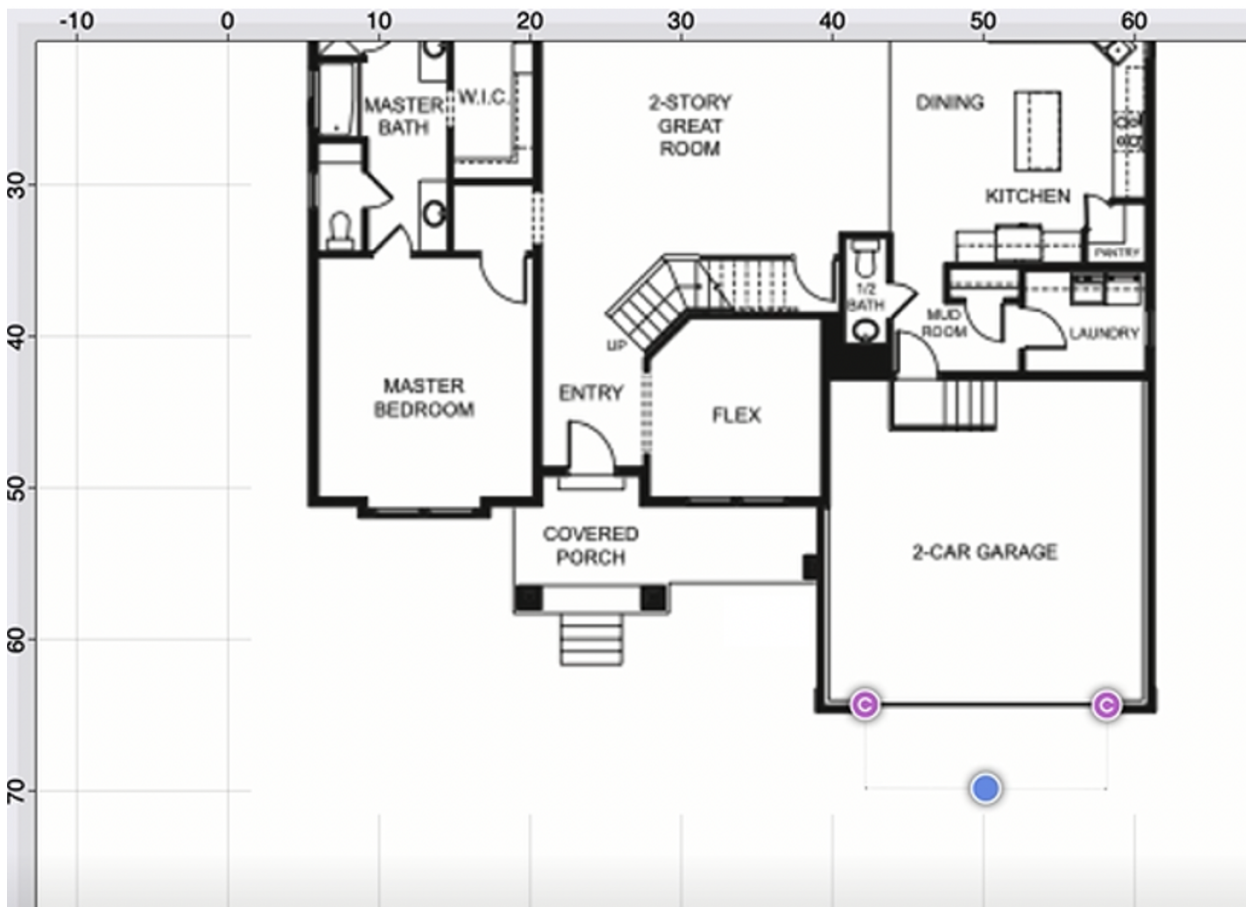
Enter a new **Length** value. For this example, “16 ft” will be entered. The image will scale based on the entered length value.



Step 6: Change the Dimension Line Font Size

Select the **Dimension Line** and then click and drag on the bounds handle to drag the handle downward.

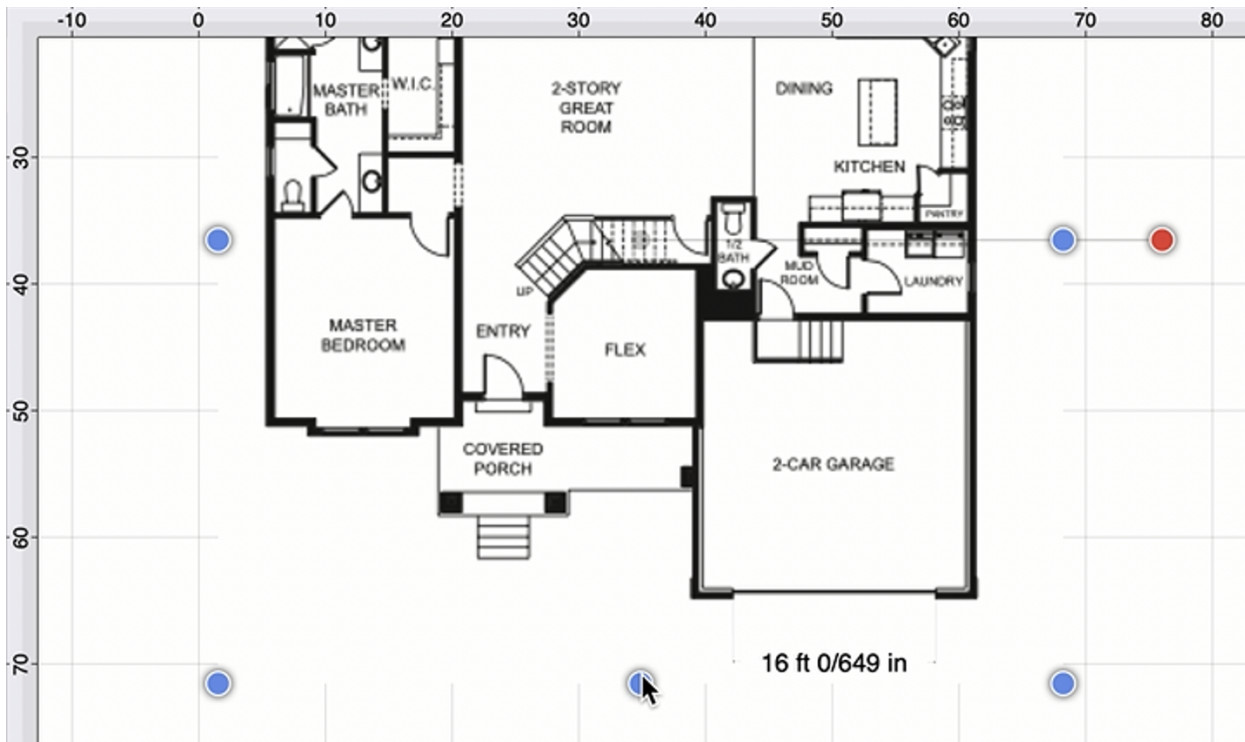




Increase the font size so that the dimension information is viewable for the location the dimension line represents.

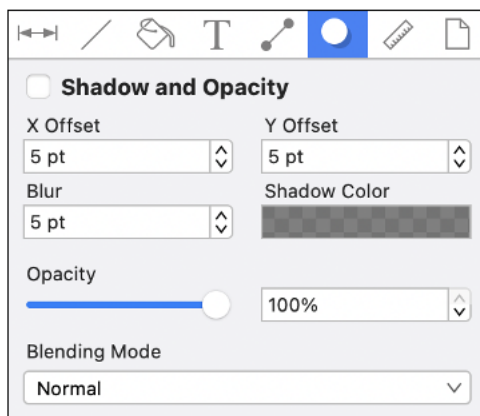


After the font size has been changed, the dimension information will be more visible, as shown below:

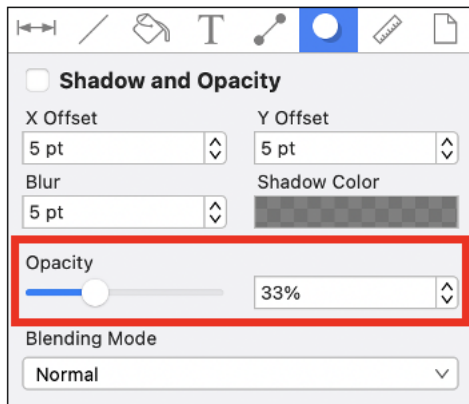


Step 7: Change the Opacity for Tracing

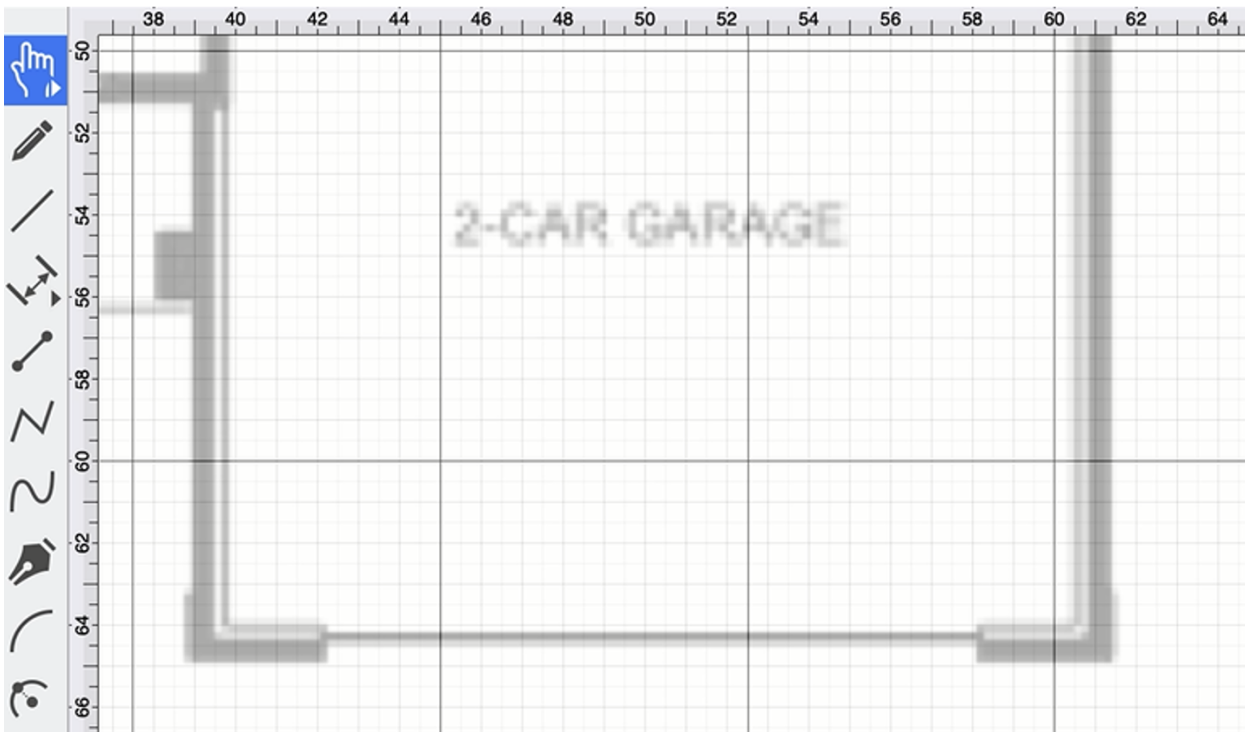
Select the image and select the **Shadow and Opacity Tab** in the [Sidebar](#).



Click and drag on the opacity slider or use the "up" and "down" buttons to change the opacity value.

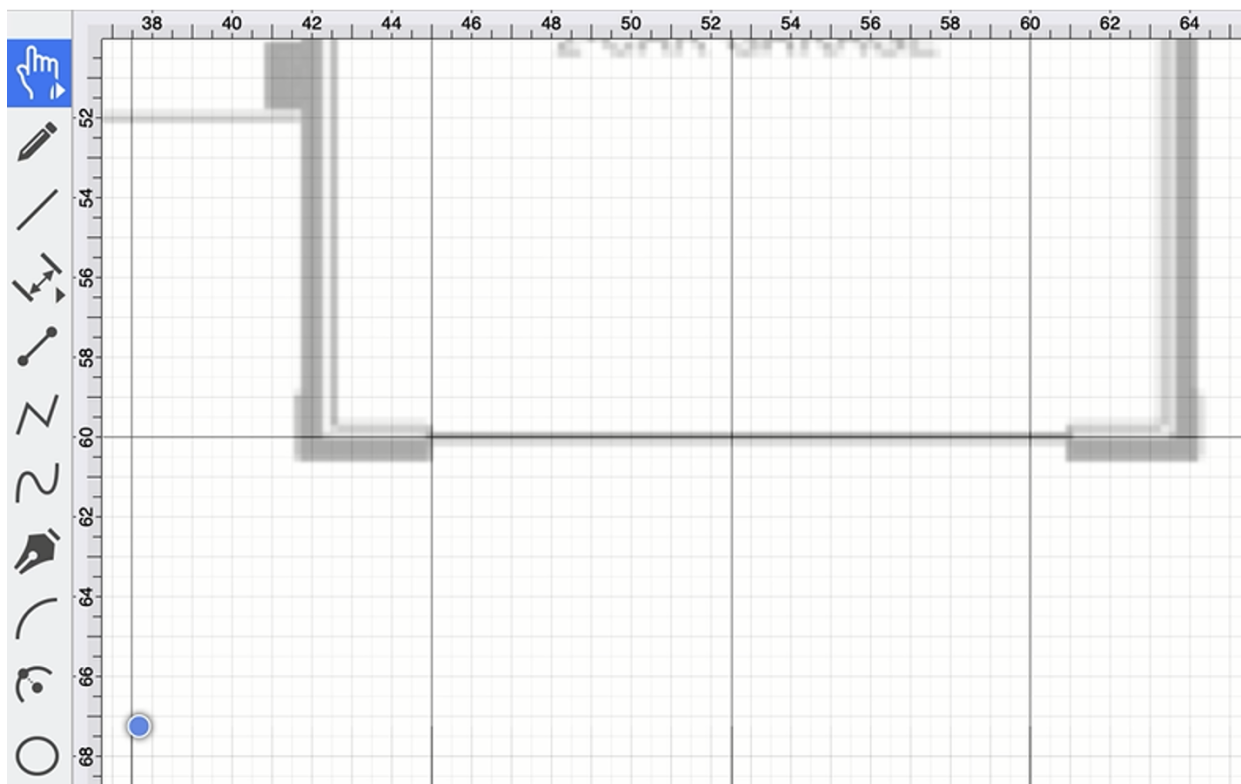


The image will appear as shown below:

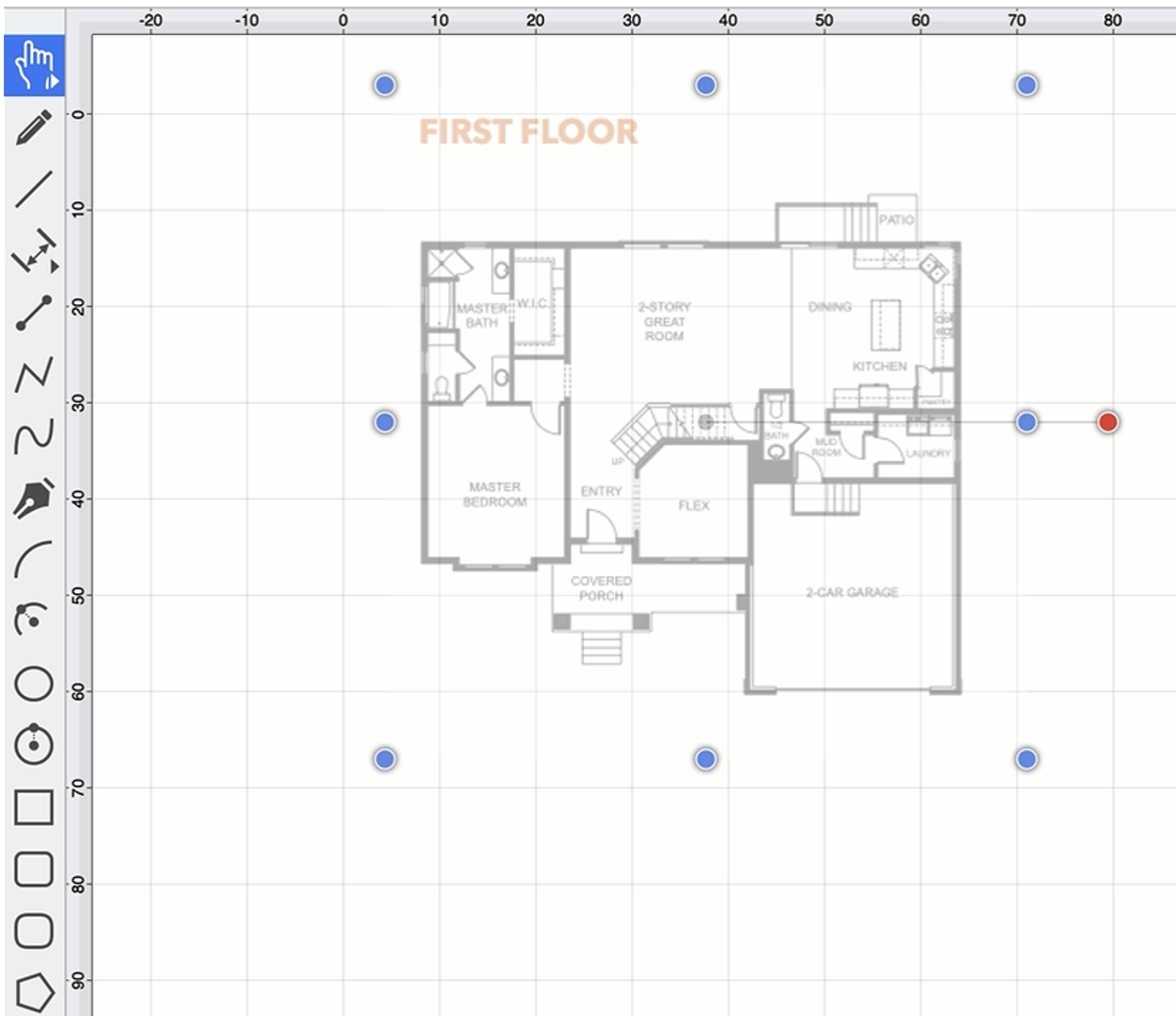


Completed Example

The floor plan can optionally be lined up to specific points on the gridline, as shown in the image below:



Once finished, zoom out to see the entire floor plan and perform any needed tracing activities.



8. Miscellaneous

TouchDraw 2 supports specific file formats for importing or exporting and provides options for setting application preferences. The following documentation sections supply information regarding:

8.1. File Format Support

Images or drawings from outside applications can be imported for editing within TouchDraw 2. A created drawing in TouchDraw 2 can also be exported into an alternative file format.

See the [Importers](#) and [Exporters](#) tables for additional information about supported file formats. Known issues during exporting or importing of specific formats are noted in the the following documentation pages.

8.1.1. Importers

Importer Type	Supported Import Methods
Image Importer	TouchDraw 2 supports inserting or pasting bitmap images into a drawing.
SVG (Scalable Vector Graphics)	TouchDraw 2 supports converting SVG files into a drawing.
VSD, VSDX, VDX (Visio Drawings)	TouchDraw 2 supports converting Visio files into a drawing.
EMF (Enhanced Metafile)	TouchDraw 2 supports converting EMF files into a drawing.
WMF (Windows Metafile)	TouchDraw 2 supports converting WMF files into a drawing.
iDraw (Graphic Drawings)	TouchDraw 2 supports converting iDraw files into a drawing.

8.1.1.1. Image Importer Notes

TouchDraw 2 for iPad supports importing the following bitmap image formats.

- PNG
- JPEG
- GIF
- BMP
- TIFF
- HEIF

Limitations

- None Known

Known Issues

- None Known

8.1.1.2. SVG Importer Notes

TouchDraw 2 supports importing Scalable Vector Graphics (SVG) files. This page documents the known issues and limitations of the importer.

Limitations

Not every SVG feature is supported by the importer. When an SVG feature has no equal within TouchDraw 2, the original SVG command is ignored. As SVG is large and complex specification, the following is a non-exhaustive list of limitations we are aware of:

- Elliptical gradients cannot be imported.
- Clipping regions are not imported.

Known Issues

- None Known

8.1.1.3. VDX Importer Notes

TouchDraw 2 supports converting Microsoft Visio in the VSD, VSDX and VDX formats. This page documents the known issues and limitations of the importer. **Limitations**

Not every Visio feature is supported by the importer as TouchDraw 2 does not have every feature that Visio does, nor does Visio have every feature TouchDraw 2 does. When a feature has no equal within TouchDraw 2, the original command and/or data is ignored. As the Visio file format is very extensive, the following is a non-exhaustive list of limitations we are aware of:

- Only visual information (the look/layout of the drawing) is imported. Any semantic information (associated metadata) stored in the Visio file will be lost.

Known Issues

- None Known

8.1.1.4. EMF Importer Notes

TouchDraw 2 supports converting Enhanced Metafile (EMF) files mainly for the purpose of importing embedded stencil file in Visio documents. This page documents the known issues and limitations of the importer.

Limitations

- None known

Known Issues

- None Known

8.1.1.5. WMF Importer Notes

TouchDraw 2 supports importing Windows Metafile (WMF) files mainly for the purpose of importing embedded stencil file in Visio documents. This page documents the known issues and limitations of the importer.

Limitations

- None known

Known Issues

- None Known

8.1.1.6. iDraw Importer Notes

TouchDraw 2 supports converting drawings created with Graphic (iDraw) files.

Limitations

- None known

Known Issues

- None Known

8.1.2. Exporters

File Formats	Options
Image Exporter	TouchDraw 2 supports the exporting of a drawing in the form of a bitmap image (PNG/JPEG). Refer to the Image Exporter Notes section of the documentation to learn more about this exporting option.
Scalable Vector Graphics (SVG)	TouchDraw 2 supports the exporting of a drawing as a Scalable Vector Graphics (SVG). No additional options are associated with this choice. Refer to the SVG Exporter Notes section of the documentation to learn more about this exporting option.
Portable Document Format (PDF)	TouchDraw 2 supports the exporting of a drawing as a Portable Document Format (PDF). Refer to the PDF Exporter Notes section of the documentation to learn more about this exporting option.
Microsoft Visio (VSDX, VDX)	TouchDraw 2 supports exporting a drawing as a Microsoft Visio (VSDX, VDX) file. No additional options are associated with this choice. Refer to the Visio Exporter Notes section of the documentation to learn more about this exporting option.

Note Refer to the [Exporting Drawings](#) section of the documentation to learn more about exporting a drawing from TouchDraw 2.

8.1.2.1. Image Exporter Notes

TouchDraw 2 supports exporting drawings in the following bitmap image formats:

- PNG
- JPEG
- GIF
- BMP
- TIFF

Limitations

- None Known

Known Issues

- None Known

8.1.2.2. SVG Exporter Notes

TouchDraw 2 supports exporting drawing files to the Scalable Vector Graphics (SVG) file format. The following page outlines the known issues and limitations of the exporter.

Limitations

- Only the visual information will be exported as SVG does not support some TouchDraw 2 features such as connections.

Known Issues

- None known

Notes

- Many SVG viewers and/or editors do not support all of the features of SVG that TouchDraw 2 may possibly use to export your drawing. Specifically, many SVG views do not correctly render shadows. The Elevenworks team recommends using the Google Chrome web browser to view and validate that your drawing was exported as expected. In our testing, Chrome has been found to have the most full feature (freely available) SVG rendering support.

8.1.2.3. PDF Exporter Notes

TouchDraw 2 supports exporting drawing files to the Portable Document Format (PDF) file format. The following page outlines the known issues and limitations of the exporter.

Limitations

- None known

Known Issues

- None known

8.1.2.4. VDX Exporter Notes

TouchDraw 2 supports exporting drawing files to Microsoft Visio VSDX and VDX file formats. The following page outlines the known issues and limitations of the exporter.

Limitations

- Font, font color and font size are the only font (text) attributes currently exported.
- Exporting of the drawing background color is not supported.

Known Issues

- None

8.2. Keyboard Shortcuts

The **Keyboard Shortcuts** within TouchDraw 2 are available to provide fast access to application, file, editing, etc... functions. Refer to the table below to learn more about each available shortcut:

Keyboard Shortcut	Option Name	Description
Command-Comma	Preferences	The Preferences... shortcut can be used to change general, handle, and performance options for the application.
Command-H	Hide TouchDraw 2	The Hide TouchDraw 2 shortcut hides all of the open TouchDraw 2 related windows.
Option-Command-H	Hide Others	The Hide Others shortcut hides all of the open windows from other applications while leaving the windows for TouchDraw 2 open.
Command-Q	Quit TouchDraw 2	The Quit TouchDraw 2 shortcut closes the application.
Command-N	New	The New shortcut can be used to create a new drawing.
Command-O	Open	The Open shortcut can be used to open an existing TouchDraw 2 document or it can be used to import a drawing or image in one of the 3rd party file formats that TouchDraw 2 supports.
Command-W	Close	The Close shortcut closes the current drawing.
Command-S	Save	The Save shortcut saves the current drawing.
Shift-Command-S	Save As...	The Save As shortcut saves the current drawing under a different name.
Command-I	Insert Image...	The Insert Image shortcut can be used to import a bitmap image stored on the local file system into the current drawing.
Command-E	Export	The Export shortcut can be use to export the currently active drawing.
Command-P	Print	The Print shortcut can be used to print single or multiple pages of a drawing.
Command-Z	Undo	The Undo shortcut removes drawing changes in the order they

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Keyboard Shortcut	Option Name	Description
		were applied starting with the most recent.
Shift-Command-Z	Redo	The Redo shortcut reapplies drawing changes in the order they were removed starting with the most recent.
Command-X	Cut	The Cut shortcut removes the currently selected item from the active drawing and places it in the clipboard.
Command-C	Copy	The Copy shortcut places a copy of the currently selected item into the clipboard.
Command-V	Paste	The Paste shortcut adds the most current item residing in the clipboard to the active drawing.
Shift-Command-V	Paste in Place...	The Paste in Place shortcut copies the current clipboard item into the exact location of the original.
Control-Command-V	Paste Multiple	The Paste Multiple... shortcut can be used to paste multiple copies of a clipboard item at specific offsets.
Option-Command-V	Paste Style	The Paste Style shortcut applies the formatting properties of one object to the currently selected object.
Delete Key	Delete	The Delete shortcut permanently removes a selected item from the active drawing.
Command-D	Duplicate	The Duplicate shortcut creates a copy of a selected item in the active drawing.
Shift-Command-D	Duplicate in Place	The Duplicate in Place shortcut creates a copy of a selected item and places it in the same location as the original.
Command-A	Select All	The Select All shortcut selects all items residing in the currently active drawing.
Shift-Command-A	Deselect All	The Deselect All shortcut deselects all items residing in the currently active drawing.
Control-Command-A	Invert Selection	The Invert Selection shortcut inverts (reverses) the currently selected figures within the Drawing Canvas .
Control-Command-Space	Emoji & Symbols	The Emoji & Symbols shortcut opens a popup window for selecting emoji's and symbols made available on a Mac

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Keyboard Shortcut	Option Name	Description
		computer.
Command-G	Group	The Group shortcut combines selected shapes residing on the drawing canvas into a group to manipulate and treat them as a single figure. It is enabled when two or more groupable figures are selected in the Drawing Canvas .
Shift-Command-G	Ungroup	The Ungroup shortcut removes the grouping characteristic for individual shape manipulations. It is enabled when one or more grouped figures are selected in the Drawing Canvas .
Command-L	Lock	The Lock shortcut prevents a selected figure(s) from being moved or resized until it has been unlocked. Attributes such as stroke, fill, shadow, etc... can still be manipulated on a locked figure. It is enabled when one or more unlocked (and lockable) figures are selected in the Drawing Canvas .
Shift-Command-L	Unlock	The UnLock shortcut removes a previously set lock on a selected figure(s) or group of figures to allow for moving and resizing. It is enabled when one or more locked figures are selected in the drawing canvas.
Shift-Command-Closing Bracket	Bring to Front	The Bring to Front shortcut moves a currently selected figure(s) to the front of all figures residing in the same layer. It is enabled when one ore more figures are selected in the Drawing Canvas .
Command-Closing Bracket	Bring Forward	The Bring Forward shortcut moves a currently selected figure(s) one step closer to the top of the stack within the layer they reside in. It is enabled when one ore more figures are selected in the Drawing Canvas .
Command-Opening Bracket	Send Backward	The Send Backward shortcut moves a currently selected figure(s) one step closer to the bottom of a stack within their residing layer. It is enabled when one ore more figures are selected in the Drawing Canvas .
Shift-Command-Opening Bracket	Send to Back	The Send to Back shortcut moves a currently selected figure(s) behind all other figures residing within the same layer. It is

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Keyboard Shortcut	Option Name	Description
		enabled when one ore more figures are selected in the Drawing Canvas .
Command-Right Facing Arrow	Rotate 90° Right	The Rotate 90° Right shortcut rotates the selected figures to the right by 90°.
Command-Left Facing Arrow	Rotate 90° Left	The Rotate 90° Left shortcut rotates the selected figures to the left by 90°.
Shift-Command-Right Facing Arrow	Rotate 180°	The Rotate 180° shortcut rotates the selected figures by 180° in a counter clockwise direction.
Command-Plus Symbol	Zoom In	The Zoom In shortcut increases the magnification level of the drawing canvas to allow for working on the drawing in more detail.
Command-Minus Symbol	Zoom Out	The Zoom Out shortcut decreases the magnification level of the drawing canvas make a larger portion of the drawing viewable in the window at once.
Command-1	Zoom to Fit Contents	The Zoom To Fit Contents shortcut can be used to zoom in and fit th drawing figures so that they are shown within the window.
Command-2	Zoom to Fit Page	The Zoom To Fit Page shortcut can be used to fit the entire page within the window.
Command-3	Zoom to Fit Selection	The Zoom to Fit Selection shortcut can be used to zoom in on the drawing so that the selected figures are shown within the window.
Command-4	Zoom to Fit Actual Size	The Zoom to Fit Actual Size shortcut can be used to 100% drawing size based on the page size (8 1/2 by 11, etc.)
Command-5	Zoom to Origin	The Zoom to Origin shortcut returns a drawing back to it's normal magnification level (100%) and resets the visible portion of the drawing canvas so that the coordinates 0,0 are in the upper left hand corner.
Command-R	Show Rulers	The Show Rulers shortcut can be used to remove the left and top rulers from the main application window. Select this menu

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Keyboard Shortcut	Option Name	Description
		option again for the rulers to reappear.
Command-Apostrophe	Show Grid	The Show Grid shortcut toggles the visibility of the grid within the drawing canvas.
Shift-Command-R	Show Regions	The Show Regions shortcut toggles the visibility of regions within the drawing canvas.
Shift-Command-Apostrophe	Snap to Grid	The Snap to Grid shortcut toggles whether or not figures are aligned to the grid for more precise drawing.
Command-F	Easy Drag Mode	The Easy Drag Mode shortcut enables/disable easy drag mode within the drawing canvas. Easy drag mode makes it simpler to move and select figures without having to worry about touching one of the handles (which could lead to an unwanted resize).
Command-B	Show Format Bar	The Show Format Bar shortcut removes the formatting bar from the TouchDraw 2 application window. Select this menu option again for the formatting bar to reappear.
Shift-Command-B	Show Side Bar	The Show Side Bar shortcut removes the side bar from the TouchDraw 2 application window. Select the menu option again for the side bar to reappear.
Shift-Command-T	Show Toolbar	The Show Toolbar shortcut removes the main toolbar from the TouchDraw 2 application window. Select the menu option again for the Toolbar to reappear.
Command-M	Minimize	The Minimize shortcut minimizes the main application window.
Left Arrow Key	Nudge Figure to Left	The Left Arrow Key nudges a selected figure to the left on the drawing canvas.
Right Arrow Key	Nudge Figure to Right	The Right Arrow Key nudges a selected figure to the right on the drawing canvas.
Up Arrow Key	Nudge Figure Upward	The Up Arrow Key nudges a selected figure upward on the drawing canvas.
Down Arrow Key	Nudge Figure Downward	The Down Arrow Key nudges a selected figure downward on the drawing canvas.

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Keyboard Shortcut	Option Name	Description
S	Selection Tool	The S key activates the selection tool for selecting objects within the drawing canvas.
M	Move and Zoom Tool	The M key activates the Move and Zoom Tool for panning or zooming within the drawing canvas.
F	Freehand Tool	The F key activates the Freehand Tool (Pen Tool) for drawing freehand objects within a drawing.
L	Line Tool	The L key activates the Line Tool for creating line objects within a drawing.
1	Line Connection Tool	The 1 key activates the Line Connection Tool for creating connection objects within a drawing.
2	East/West Connection Tool	The 2 key activates the East/West Connection Tool to draw connection lines that originate from the side (either west/left or east/right) of the source figure and connect to the side (either west/left or east/right) of the target figure.
3	North/South Connection Tool	The 3 key activates the North/South Connection Tool to draw connection lines that originate from the side (either north/top or south/bottom) of the source figure and connect to the side (either north/top or south/bottom) of the target figure.
4	Horizontal/Vertical Connection Tool	The 4 key activates the Horizontal/Vertical Connection Tool to draw connection lines that originate horizontally from the right or left side of the source figure and connect vertically to the side (top) of the target figure.
5	Vertical/Horizontal Connection Tool	The 5 key activates the Vertical/Horizontal Connection Tool to draw connection lines that originate vertically from the side (either top or bottom) of the source figure and connect to the side (either left or right) of the target figure.
6	Path Connection Tool	The 6 key activates the Path Connection Tool for creating a path connection that connects two shapes.
7	Hub Connection Tool	The 7 key activates the Hub Connection Tool to create connection lines that are able to receive connections. The

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Keyboard Shortcut	Option Name	Description
		connection line can originate from any side of the source figure and connects to any side of the target figure or to another hub connection line.
O	Oval Tool	The O key activates the Oval Tool for creating ovals or circles within a drawing.
C	Circle Tool	The C key activates the Circle Tool for creating perfect circles where the radius increases in increments as the size of the shape increases.
R	Rectangle Tool	The R key activates the Rectangle Tool for creating rectangles or squares within a drawing.
RR	Rounded Rectangle Tool	An RR key combination activates the Rounded Rectangle Tool for creating rounded rectangles or rounded squares within a drawing.
H	Polygon Tool	The H key activates the Polygon Tool for creating regular polygons within a drawing.
P	Path Tool	The P key activates the Path Tool for creating complex curves and shapes with detailed control on every aspect of the shapes appearance.
T	Text Tool	The T key activates the Text Tool for creating text areas within a drawing.
+	Zoom In	The + key can be used to zoom in on the drawing canvas.
-	Zoom Out	The - key can be used to zoom out on the drawing canvas.

8.3. Handles Reference

TouchDraw 2 uses color and decoration attributes to differentiate the varying functions of handles to allow for quick identification regarding what a handle does. The following table lists the different handles and their individual function:

Image	Handle Name	Handle Description
	Bounds Handle	The Bounds Handle is used to change the width and height of a shape.
	Group Bounds Handle	The Group Bounds Handle is used to change the width and height of a group. The white center dot is provided to show that a group of figures has been selected, as opposed to a single figure.
	Path Start Handle	The Path Start Handle indicates which point or a path is the starting point.
	Path End Point Handle	The Path End Point Handle indicates which point is an end (or start) point of a line or curve segment within a path.
	Path Control Point Handle	The Path Control Point Handle indicates which points of a path are control points. Control points are used to alter the shape of a Quadratic or Cubic curve segment to be altered.
	Phantom Path Control Handle	The Phantom Path Control Handle is a control handle displayed in gray to indicate that it has not been used. This characteristic provides a hint to the TouchDraw 2 application that the handle should function as a control handle in scenarios where the next drawn segment is a curve.
	Rotation Handle	The Rotation Handle is displayed on shapes (or groups) which can be rotated around their center point. This handle can be rotated in increments of 15° when the Shift Key is held in conjunction with the Click/Drag action.
	Center of Rotation Handle	The Center of Rotation Handle indicates where the current center of rotation point lies in a selected shape(s) or group of

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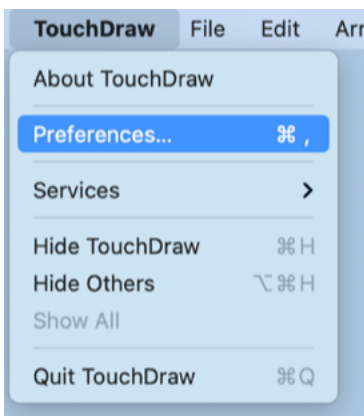
Image	Handle Name	Handle Description
		shapes. The Center of Rotation option must be selected in the Handle Settings popup menu for this handle to be visible.
	Lock Handle	The Lock Handle indicates that the selected figure (or group) is currently locked, which means it cannot be resized or moved. The white center dot is provided to show that the figure (or group) cannot be altered.
	Connection Handle	The Connection Handle indicates that the selected line can be used to connect to figures.
	Gradient Location Handle	The Gradient Location Handle indicates the current center location of a gradient fill within a figure(s) or group of figures. The Gradient Location option must be selected in the Handle Settings popup menu for this handle to be visible.

8.4. Application Preferences

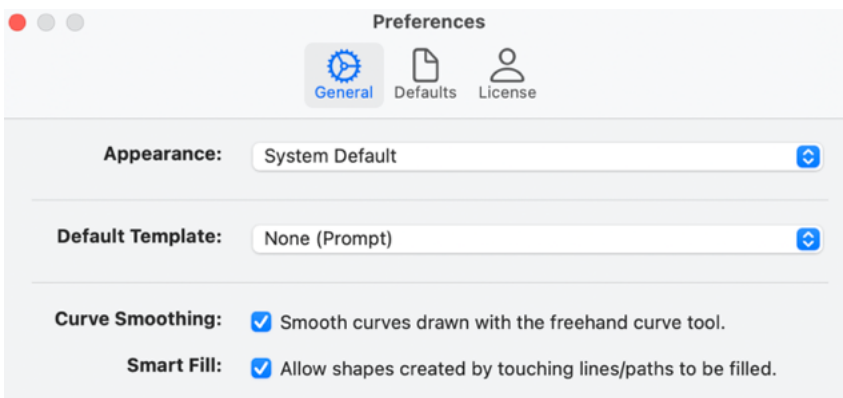
TouchDraw 2 provides a preferences popup window for setting [general](#), [defaults](#), and [license](#) preferences within the application.

Use one of the following methods to open **Application Preferences**:

Method 1: Click on the [Application Menu](#) and choose **Preferences**.

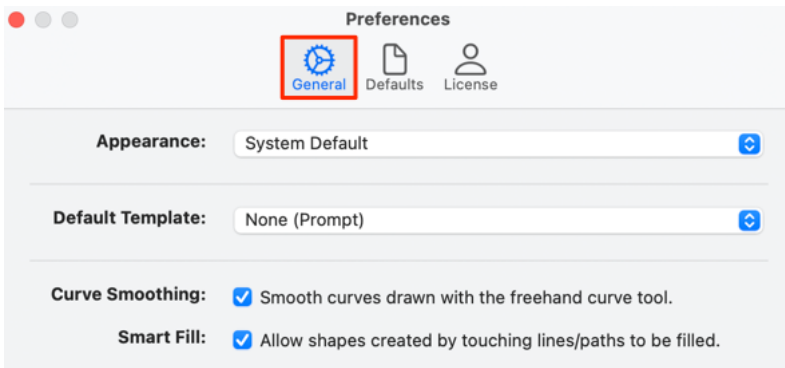


Method 2: Use the **Command-Comma** keyboard shortcut.



8.4.1. General Options

General Preferences can be used to set general settings within the application. They are located in the **General** section of the [Application Preferences](#) popup window, as shown below.



Enabled preferences have a check mark in their associated box.

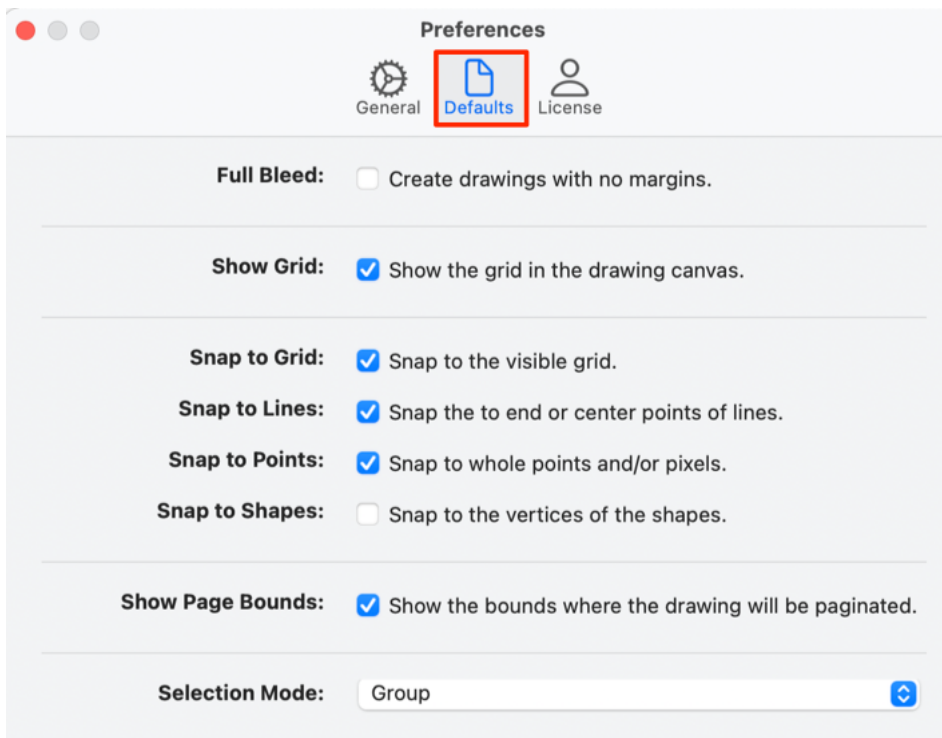
General Preferences

Preference Name	Description
Appearance	The Appearance preference can be used to switch between light and dark mode.
Default Template	The Default Template preference can be used to configure the default template that will be used for new drawings.
Curve Smoothing	The Curve Smoothing preference, when enabled, smooths curves drawn with the freehand curve tool.
Smart Fill	The Smart Fill preference allows shapes created by touching lines/paths to be filled.

8.4.2. Defaults

The **Defaults Preferences** are used for setting the default configuration for showing the grid, snapping objects to the grid, lines or points, showing page bounds, and the selection mode within new drawings.

Enabled **Defaults** preferences have a check mark in their associated box.



Defaults Preferences

Preference Name	Description
Full Bleed	The Full Bleed preference can be enabled to create drawings with no margins. It is disabled by default.
Show Grid	The Show Grid preference toggles the visibility of the grid. The grid visibility is an application level preference. It will remember what you have selected through the application restart and will apply to all drawings that you edit/view.
Snap to Grid	The Snap to Grid preference aligns objects to the grid for more precise drawing

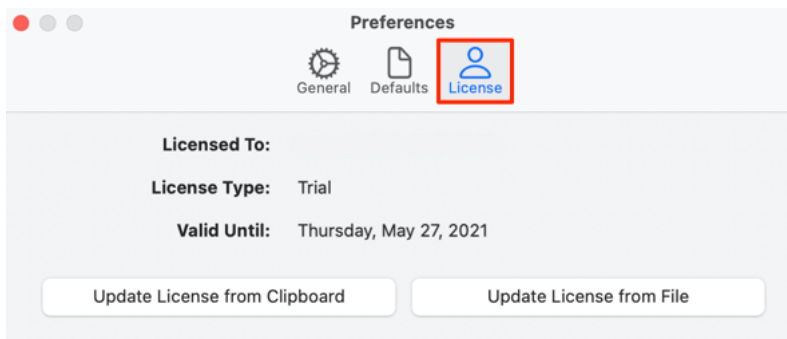
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Preference Name	Description
	modifications.
Snap to Lines	The Snap to Lines preference aligns objects with the nearest lines.
Snap to Points	The Snap to Points preference aligns objects to whole pixel numbers or points for simplified object modification and increased accuracy.
Snap to Shapes	The Snap to Shapes preference snaps a figure to a selected shape vertex or center point. It is disabled by default as an application preference.
Show Page Bounds	The Show Page Bounds preference toggles the visibility of bounds of a page within the drawing canvas. Any figure surpassing this line will appear on another page when printing.
Selection Mode	The Selection Mode preference can be used to set the default selection mode for shapes and figures within the Drawing Canvas . The default selection is Group.

8.4.3. License

The **License Preferences** are used to view your TouchDraw 2 license information include who the application has been licensed to, the license type, and the valid until date. These preferences can also be used to update your TouchDraw 2 License.

Licensing information is located in the **License** section of the [Application Preferences](#) popup window, as shown below.



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