

**TouchDraw for iPad**

# Table of Contents

|   |    |
|---|----|
| 1. Introduction.....                          | 9  |
| 2. Preface.....                               | 11 |
| 2.1. Legal Notice .....                       | 12 |
| 2.2. Open Source .....                        | 13 |
| 2.2.1. Apache License v2.0 .....              | 14 |
| 2.2.2. Microsoft Public License (Ms-PL).....  | 18 |
| 2.2.3. MIT License .....                      | 20 |
| 2.2.4. Model Text CSS License.....            | 21 |
| 2.3. Acknowledgements .....                   | 22 |
| 3. Getting Started .....                      | 23 |
| 3.1. Launching TouchDraw .....                | 24 |
| 3.2. Uninstalling TouchDraw .....             | 25 |
| 3.3. Useful Links .....                       | 26 |
| 4. Drawing Chooser .....                      | 27 |
| 4.1. Drawing Chooser User Interface .....     | 29 |
| 4.1.1. Top Toolbar.....                       | 31 |
| 4.1.1.1. Global Settings Menu .....           | 32 |
| 4.1.1.1.1. Backup Options .....               | 33 |
| 4.1.1.1.2. Restore Bundled Files Options..... | 34 |
| 4.1.1.2. Feedback Menu.....                   | 37 |
| 4.1.2. List Panel.....                        | 39 |
| 4.1.3. Preview Panel.....                     | 42 |
| 4.1.4. Bottom Toolbar .....                   | 44 |
| 4.1.5. Share/Move Menu .....                  | 45 |
| 4.1.5.1. Send via Mail .....                  | 47 |
| 4.1.5.2. Send to Photos .....                 | 49 |
| 4.1.5.3. Send to iTunes.....                  | 50 |
| 4.1.5.4. Send to App.....                     | 51 |
| 4.1.5.5. Send to Cloud.....                   | 53 |
| 4.1.5.6. Print.....                           | 55 |
| 4.1.5.7. Move or Copy .....                   | 57 |
| 4.1.6. Import Menu.....                       | 59 |
| 4.1.7. Add/Duplicate Drawing Menu .....       | 60 |
| 4.2. File Management .....                    | 61 |
| 4.2.1. Creating a New Folder .....            | 62 |
| 4.2.2. Creating a New Drawing.....            | 66 |
| 4.2.3. Opening a Drawing .....                | 68 |
| 4.2.4. Selecting a Drawing .....              | 70 |
| 4.2.5. Renaming a Drawing (or Folder) .....   | 71 |
| 4.2.6. Duplicating a Drawing .....            | 75 |



|   |     |
|---|-----|
| 4.2.7. Moving or Copying a Drawing .....                          | 77  |
| 4.2.8. Deleting a Drawing (or Folder) .....                       | 82  |
| 4.2.9. Printing a Drawing .....                                   | 86  |
| 4.2.10. Sharing a Drawing .....                                   | 89  |
| 4.2.10.1. Sharing via Email .....                                 | 90  |
| 4.2.10.2. Exporting to the iPads Photo Library .....              | 94  |
| 4.2.10.3. Exporting to iTunes .....                               | 96  |
| 4.2.10.4. Exporting to an Application .....                       | 99  |
| 4.2.10.5. Exporting to a Cloud Services Provider .....            | 102 |
| 4.2.11. Importing a Drawing .....                                 | 105 |
| 4.2.11.1. Importing within TouchDraw .....                        | 106 |
| 4.2.11.2. Importing Using iTunes .....                            | 109 |
| 4.2.11.3. Importing Using Mail (or other local application) ..... | 110 |
| 4.2.12. Configuring Cloud Storage .....                           | 111 |
| 4.2.13. Backing Up and Restoring Data .....                       | 114 |
| 4.2.13.1. Creating a Backup File .....                            | 116 |
| 4.2.13.2. Restoring a Backup File .....                           | 121 |
| 4.2.13.3. Restoring Bundled Files .....                           | 126 |
| 5. Drawing Editor .....   | 129 |
| 5.1. User Interface .....   | 130 |
| 5.1.1. Toolbar .....  | 131 |
| 5.1.1.1. Contextual Menu .....                                    | 133 |
| 5.1.1.1.1. Copy Submenu .....                                     | 135 |
| 5.1.1.1.2. Paste Submenu .....                                    | 136 |
| 5.1.1.1.3. Paste Multiple Copies Submenu .....                    | 137 |
| 5.1.1.1.4. Select All Submenu .....                               | 138 |
| 5.1.1.1.5. Duplicate Submenu .....                                | 139 |
| 5.1.1.1.6. Move To Layer Submenu .....                            | 140 |
| 5.1.1.2. Layers .....   | 142 |
| 5.1.1.3. Info .....   | 144 |
| 5.1.1.3.1. Shadow Submenu .....                                   | 145 |
| 5.1.1.3.2. Blending Mode Submenu .....                            | 146 |
| 5.1.1.3.3. Units and Rulers Submenu .....                         | 147 |
| 5.1.1.4. Arrangement .....  | 150 |
| 5.1.1.5. Adjustment .....   | 153 |
| 5.1.1.6. Settings .....   | 157 |
| 5.1.1.6.1. Handles Submenu .....                                  | 159 |
| 5.1.1.6.2. Usability Submenu .....                                | 159 |
| 5.1.1.6.3. Performance Submenu .....                              | 161 |
| 5.1.1.7. Export .....   | 164 |
| 5.1.1.7.1. Send via Mail Submenu .....                            | 165 |
| 5.1.1.7.2. Send to Photos Submenu .....                           | 167 |
| 5.1.1.7.3. Send to iTunes Submenu .....                           | 168 |

|   |     |
|---|-----|
| 5.1.1.7.4. Send to App Submenu .....                | 171 |
| 5.1.1.7.5. Send to Cloud Submenu .....              | 173 |
| 5.1.1.7.6. Print Submenu .....                      | 175 |
| 5.1.2. Drawing Toolbar .....                        | 177 |
| 5.1.2.1. Drawing Toolbar Options .....              | 180 |
| 5.1.2.2. Move, Zoom, and Selection Tool .....       | 182 |
| 5.1.2.3. Move and Zoom Tool .....                   | 185 |
| 5.1.2.4. Zoom Rectangle Tool .....                  | 186 |
| 5.1.2.5. Pen Tool .....                             | 188 |
| 5.1.2.6. Line Tool .....                            | 190 |
| 5.1.2.7. Connection Tool .....                      | 192 |
| 5.1.2.8. Connection Tool Options .....              | 195 |
| 5.1.2.9. Changing Connector Types .....             | 197 |
| 5.1.2.10. Line Connection Tool .....                | 200 |
| 5.1.2.11. North-South Connection Tool .....         | 203 |
| 5.1.2.12. East-West Connection Tool .....           | 207 |
| 5.1.2.13. Horizontal-Vertical Connection Tool ..... | 211 |
| 5.1.2.14. Vertical-Horizontal Connection Tool ..... | 215 |
| 5.1.2.15. Path Connection Tool .....                | 219 |
| 5.1.2.16. Hub Connection Tool .....                 | 227 |
| 5.1.2.17. Oval Tool .....                           | 230 |
| 5.1.2.18. Circle Tool .....                         | 232 |
| 5.1.2.19. Rectangle Tool .....                      | 235 |
| 5.1.2.20. Rounded Rectangle Tool .....              | 236 |
| 5.1.2.21. Polygon Tool .....                        | 239 |
| 5.1.2.22. Star Tool .....                           | 242 |
| 5.1.2.23. Path Tool .....                           | 246 |
| 5.1.2.23.1. Adding Straight Line Segments .....     | 248 |
| 5.1.2.23.2. Adding Quadratic Curve Segments .....   | 251 |
| 5.1.2.23.3. Adding Cubic Curve Segments .....       | 257 |
| 5.1.2.24. Text Tool .....                           | 264 |
| 5.1.2.25. Image Tool .....                          | 268 |
| 5.1.2.26. Library Tool .....                        | 270 |
| 5.1.2.27. Stroke Button .....                       | 272 |
| 5.1.2.28. Fill Button .....                         | 274 |
| 5.1.2.29. Text Attribute Button .....               | 276 |
| 5.1.2.30. Function Key Feature .....                | 278 |
| 5.1.2.31. Option Key Feature .....                  | 281 |
| 5.1.3. Drawing Canvas .....                         | 283 |
| 5.1.3.1. Overlays .....                             | 284 |
| 5.1.3.1.1. Nudge Overlay .....                      | 285 |
| 5.1.3.1.2. Line Overlay .....                       | 285 |
| 5.1.3.1.3. Connector Type Overlay .....             | 286 |

|   |     |
|---|-----|
| 5.1.3.2. Easy Drag Mode .....                     | 290 |
| 5.1.4. Editing Basics.....                        | 293 |
| 5.1.4.1. Selecting a Figure .....                 | 294 |
| 5.1.4.2. Deleting a Figure.....                   | 299 |
| 5.1.4.3. Saving and Exiting.....                  | 300 |
| 5.1.4.3.1. Discarding Changes .....               | 301 |
| 5.1.4.3.2. Saving as a New Drawing .....          | 302 |
| 5.1.4.3.3. Saving Drawings Without Exiting.....   | 303 |
| 5.1.4.4. Renaming a Drawing .....                 | 304 |
| 5.1.4.5. Using the Clipboard .....                | 306 |
| 5.1.4.5.1. Paste Style .....                      | 306 |
| 5.1.4.5.2. Copying a Figure .....                 | 308 |
| 5.1.4.5.3. Duplicating a Figure .....             | 309 |
| 5.1.4.5.4. Cut and Paste .....                    | 311 |
| 5.1.4.6. Undo and Redo .....                      | 316 |
| 5.1.5. Handling Figures .....                     | 317 |
| 5.1.5.1. Moving a Figure.....                     | 318 |
| 5.1.5.2. Stretching a Figure.....                 | 319 |
| 5.1.5.3. Resizing a Figure .....                  | 320 |
| 5.1.5.4. Rotating a Figure.....                   | 321 |
| 5.1.5.4.1. Changing the Center of Rotation .....  | 324 |
| 5.1.5.4.2. Resetting the Center of Rotation ..... | 326 |
| 5.1.5.5. Flipping a Figure.....                   | 329 |
| 5.1.5.6. Scaling a Figure .....                   | 332 |
| 5.1.5.6.1. Constrain Proportions .....            | 335 |
| 5.1.5.6.2. Scale Size.....                        | 337 |
| 5.1.5.6.3. Scale Attributes.....                  | 340 |
| 5.1.5.7. Shifting a Figure .....                  | 344 |
| 5.1.6. Arranging Figures .....                    | 347 |
| 5.1.6.1. Grouping Figures .....                   | 348 |
| 5.1.6.2. Ungrouping Figures .....                 | 350 |
| 5.1.6.3. Locking Figures .....                    | 352 |
| 5.1.6.4. Unlocking Figures.....                   | 354 |
| 5.1.7. Aligning Figures.....                      | 356 |
| 5.1.7.1. Align to Grid.....                       | 357 |
| 5.1.7.2. Align Top.....                           | 359 |
| 5.1.7.3. Align Vertical Center .....              | 361 |
| 5.1.7.4. Align Bottom .....                       | 363 |
| 5.1.7.5. Align Left.....                          | 365 |
| 5.1.7.6. Align Horizontal Center.....             | 368 |
| 5.1.7.7. Align Right .....                        | 370 |
| 5.1.8. Snapping Figures.....                      | 372 |
| 5.1.8.1. Snap to Grid .....                       | 373 |

|   |     |
|---|-----|
| 5.1.8.2. Snap to Lines.....             | 374 |
| 5.1.8.3. Snap to Shapes .....           | 375 |
| 5.1.8.4. Snap to Pixels.....            | 377 |
| 5.1.8.5. Snap to Points .....           | 381 |
| 5.1.9. Ordering Figures .....           | 385 |
| 5.1.9.1. Move To Front .....            | 386 |
| 5.1.9.2. Move Forward.....              | 388 |
| 5.1.9.3. Move Backward.....             | 390 |
| 5.1.9.4. Move To Back.....              | 392 |
| 5.1.10. Distributing Figures .....      | 394 |
| 5.1.10.1. Distribute Horizontally ..... | 395 |
| 5.1.10.2. Distribute Vertically.....    | 398 |
| 5.1.11. Combining Shapes .....          | 401 |
| 5.1.11.1. Add.....                      | 402 |
| 5.1.11.2. Subtract .....                | 405 |
| 5.1.11.3. Intersect.....                | 408 |
| 5.1.11.4. Exclude .....                 | 411 |
| 5.1.12. Handling Colors .....           | 414 |
| 5.1.12.1. Color Picker .....            | 415 |
| 5.1.12.1.1. Color Wheel.....            | 416 |
| 5.1.12.1.2. Color List.....             | 418 |
| 5.1.12.1.3. Favorites List .....        | 419 |
| 5.1.12.2. Stroke Color .....            | 422 |
| 5.1.12.3. Fill Color.....               | 427 |
| 5.1.12.3.1. Solid.....                  | 433 |
| 5.1.12.3.2. Linear Gradient.....        | 437 |
| 5.1.12.3.3. Radial Gradient.....        | 450 |
| 5.1.12.4. Shadow Color.....             | 462 |
| 5.1.12.5. Text Color .....              | 467 |
| 5.1.12.6. Canvas Background Color ..... | 472 |
| 5.1.12.7. Color Loupe .....             | 476 |
| 5.1.13. Handling Strokes .....          | 479 |
| 5.1.13.1. Stroke Visibility .....       | 480 |
| 5.1.13.2. Stroke Size .....             | 483 |
| 5.1.13.3. Line Cap.....                 | 486 |
| 5.1.13.4. Line Join.....                | 489 |
| 5.1.13.5. Stroke Style.....             | 492 |
| 5.1.13.6. Line Color .....              | 496 |
| 5.1.14. Handling Text.....              | 501 |
| 5.1.14.1. Editing Text .....            | 502 |
| 5.1.14.2. Font Family .....             | 503 |
| 5.1.14.3. Font Size .....               | 506 |
| 5.1.14.4. Font Styles .....             | 509 |

|  |     |
|--|-----|
| 5.1.14.5. Font Color .....                             | 512 |
| 5.1.14.6. Text Alignment .....                         | 518 |
| 5.1.14.7. Text Margin .....                            | 521 |
| 5.1.14.8. Adding Variables to Text.....                | 524 |
| 5.1.14.8.1. Available Variables .....                  | 525 |
| 5.1.14.8.2. Formatting Date Variables.....             | 526 |
| 5.1.14.8.3. Formatting Decimal Variables.....          | 533 |
| 5.1.14.8.4. Formatting Fractional Values .....         | 536 |
| 5.1.15. Handling Paths .....                           | 539 |
| 5.1.15.1. Opening a Path.....                          | 542 |
| 5.1.15.2. Closing a Path .....                         | 545 |
| 5.1.15.3. Joining Lines and Paths .....                | 548 |
| 5.1.15.4. Trimming Lines and Paths .....               | 553 |
| 5.1.15.5. Splitting Segments .....                     | 556 |
| 5.1.15.6. Creating a Compound Path .....               | 559 |
| 5.1.15.7. Separating a Compound Path.....              | 563 |
| 5.1.15.8. Converting Shapes to Paths .....             | 566 |
| 5.1.15.9. Converting Text to a Path .....              | 570 |
| 5.1.15.10. Delete Handle.....                          | 574 |
| 5.1.15.11. Split at Handle.....                        | 578 |
| 5.1.15.12. Insert Handle.....                          | 580 |
| 5.1.15.13. Delete Segment .....                        | 583 |
| 5.1.15.14. Segment to Line .....                       | 585 |
| 5.1.15.15. Segment to Quad.....                        | 588 |
| 5.1.15.16. Segment to Cubic .....                      | 591 |
| 5.1.15.17. Grouping a Path .....                       | 594 |
| 5.1.16. Handling Libraries.....                        | 595 |
| 5.1.16.1. Adding a Library.....                        | 596 |
| 5.1.16.2. Renaming a Library .....                     | 598 |
| 5.1.16.3. Deleting a Library .....                     | 602 |
| 5.1.16.4. Sharing a Library .....                      | 605 |
| 5.1.16.4.1. Sharing Libraries via Email.....           | 605 |
| 5.1.16.4.2. Exporting Libraries with iTunes.....       | 607 |
| 5.1.16.5. Importing a Library.....                     | 609 |
| 5.1.16.5.1. Importing Libraries by Email .....         | 609 |
| 5.1.16.5.2. Importing Libraries from Applications..... | 611 |
| 5.1.16.5.3. Importing Libraries with iTunes.....       | 613 |
| 5.1.16.6. Adding a Stencil.....                        | 614 |
| 5.1.16.7. Renaming a Stencil .....                     | 617 |
| 5.1.16.8. Re-ordering Stencils.....                    | 621 |
| 5.1.16.9. Deleting a Stencil.....                      | 624 |
| 5.1.16.10. Inserting a Stencil Into a Drawing .....    | 627 |
| 5.1.17. Handling Layers .....                          | 629 |

|   |     |
|---|-----|
| 5.1.17.1. Adding a Layer .....                          | 630 |
| 5.1.17.2. Renaming a Layer .....                        | 631 |
| 5.1.17.3. Duplicating a Layer.....                      | 634 |
| 5.1.17.4. Re-ordering Layers .....                      | 635 |
| 5.1.17.5. Merging Layers.....                           | 637 |
| 5.1.17.6. Deleting a Layer.....                         | 638 |
| 5.1.17.7. Layer Visibility .....                        | 640 |
| 5.1.17.8. Locking Layers .....                          | 641 |
| 5.1.17.9. Moving Figures To Layers.....                 | 642 |
| 5.1.18. Calculations.....                               | 644 |
| 5.1.19. Calculating Area.....                           | 645 |
| 5.1.20. Dimensioning .....                              | 647 |
| 6. Tips and Techniques .....                            | 652 |
| 6.1. Selecting Multiple Figures in a Drawing.....       | 653 |
| 6.2. Resizing a Figure Proportionally with Handles..... | 659 |
| 6.3. Creating Proportional Shapes .....                 | 664 |
| 6.4. Using the Selection Rectangle.....                 | 668 |
| 7. Miscellaneous .....                                  | 670 |
| 7.1. File Format Support.....                           | 671 |
| 7.2. Importers.....                                     | 672 |
| 7.2.1. Image Importer Notes.....                        | 673 |
| 7.2.2. SVG Importer Notes.....                          | 674 |
| 7.2.3. VDX Importer Notes .....                         | 675 |
| 7.2.4. EMF Importer Notes .....                         | 676 |
| 7.2.5. WMF Importer Notes .....                         | 677 |
| 7.3. Exporter .....                                     | 678 |
| 7.3.1. Image Exporter Notes.....                        | 679 |
| 7.3.2. SVG Exporter Notes.....                          | 680 |
| 7.3.3. PDF Exporter Notes .....                         | 681 |
| 7.3.4. VDX Exporter Notes.....                          | 682 |
| 7.3.5. Handles Reference.....                           | 683 |
| 7.4. Zooming .....                                      | 685 |
| 7.5. Managing Low Memory .....                          | 686 |
| 7.6. Installing a Custom TrueType Font.....             | 687 |

# 1. Introduction

This is the home of the **TouchDraw for iPad (version 1.x)** 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 five main sections with pages describing each portion of the interface and available functionality:

| Section Name                        | Description   |
|-------------------------------------|---|
| <a href="#">Preface</a>             | The <b>Preface</b> section contains necessary legal and acknowledgement information regarding TouchDraw for iPad.   |
| <a href="#">Getting Started</a>     | The <b>Introduction</b> section contains information for launching TouchDraw and beneficial web page links.   |
| <a href="#">Drawing Chooser</a>     | The <b>Drawing Chooser</b> section can be used to learn about the chooser interface, file management, sharing/importing drawings, and backing up/restoring data within TouchDraw. |
| <a href="#">Drawing Editor</a>      | The <b>Drawing Editor</b> section can be used to learn about the editor interface and the many features made available when working with a drawing in TouchDraw.                  |
| <a href="#">Tips and Techniques</a> | The <b>Tips and Techniques</b> section can be used to learn about using the <a href="#">Function Key Feature</a> to perform specific actions within TouchDraw.                    |
| <a href="#">Miscellaneous</a>       | The <b>Miscellaneous</b> section contains additional information outside of the main UI structure of the application such as file importing and exporting formats.                |

The information shown in the **Drawing Chooser** and **Drawing Editor** sections, in particular, is organized based on the layout of each component's interface. For example, to find information about changing the text properties of a figure in the editor, go to the [Drawing Editor](#) section, expand these pages, and then select **Text**. To find information about importing or sharing a drawing, go to the [Drawing Chooser](#) and select one of these pages.

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

selection.



## 2. Preface

## 2.1. Legal Notice

This software product is copyrighted and all rights reserved by Elevenworks LLC. The distribution and sale of this product are intended for the use of the original purchaser only and for the use on their authorized systems. Copying, duplicating, selling, or otherwise distributing this product with the express written permission of Elevenworks are violations of U.S. Copyright Law and are hereby expressly forbidden.

Every effort has been made to ensure that the information in this manual is accurate; however Elevenworks is not responsible for errors.

Apple, the Apple logo, iPhone, iPod touch, and iTunes are trademarks of Apple Inc., registered in the U.S. and other countries. iPad is a trademark of Apple Inc. App Store is a service mark of Apple Inc. Content purchased from the iTunes Store is for personal lawful use only. Don't steal music.

Microsoft, Microsoft Windows and Visio are trademarks of the Microsoft group of companies.

TouchDraw and the TouchDraw logo are trademarks of Elevenworks LLC.

Other company and product names mentioned herein are trademarks of their respective companies. Mention of third-party products is for informational purposes only and constitutes neither an endorsement nor a recommendation. Elevenworks assumes no responsibility with regard to the performance or use of these products.

## 2.2. Open Source

Portions of this software may utilize the following copyrighted material, the use of which is hereby acknowledged.

| Name          | Link  | License   |
|---------------|---|---|
| DotNetZip     | <a href="http://dotnetzip.codeplex.com/">http://dotnetzip.codeplex.com/</a> | Microsoft Public License (Ms-PL)  |
| ModelText CSS | <a href="http://www.modeltext.com/">http://www.modeltext.com/</a>           | Copyright 2008-2011, Christopher Wells<br><a href="mailto:info@modeltext.com">[info@modeltext.com]</a><br>("Licensor") Licensed under the <a href="#">ModelText CSS License</a> . |

Portions licensed under the Apache License, Version 2.0. You may obtain a copy of the License at:  
<http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

## 2.2.1. Apache License v2.0

Apache License

Version 2.0, January 2004

<http://www.apache.org/licenses/>

### TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

#### 1. Definitions.

"License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document.

"Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License.

"Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity.

"You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License.

"Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files.

"Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types.

"Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below).

"Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof.

"Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution."

"Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.

**2. Grant of Copyright License.** Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

**3. Grant of Patent License.** Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

**4. Redistribution.** You may reproduce and distribute copies of the Work or Derivative Works thereof in any

medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

1. You must give any other recipients of the Work or Derivative Works a copy of this License; and
2. You must cause any modified files to carry prominent notices stating that You changed the files; and
3. You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
4. If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License. You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

**5. Submission of Contributions.** Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

**6. Trademarks.** This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

**7. Disclaimer of Warranty.** Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

**8. Limitation of Liability.** In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special,

incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.

**9. Accepting Warranty or Additional Liability.** While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

## 2.2.2. Microsoft Public License (Ms-PL)

### Microsoft Public License (Ms-PL)

This license governs use of the accompanying software. If you use the software, you accept this license. If you do not accept the license, do not use the software.

#### 1. Definitions

The terms "reproduce," "reproduction," "derivative works," and "distribution" have the same meaning here as under U.S. copyright law.

A "contribution" is the original software, or any additions or changes to the software.

A "contributor" is any person that distributes its contribution under this license.

"Licensed patents" are a contributor's patent claims that read directly on its contribution.

#### 1. Grant of Rights

(A) Copyright Grant- Subject to the terms of this license, including the license conditions and limitations in section 3, each contributor grants you a non-exclusive, worldwide, royalty-free copyright license to reproduce its contribution, prepare derivative works of its contribution, and distribute its contribution or any derivative works that you create.

(B) Patent Grant- Subject to the terms of this license, including the license conditions and limitations in section 3, each contributor grants you a non-exclusive, worldwide, royalty-free license under its licensed patents to make, have made, use, sell, offer for sale, import, and/or otherwise dispose of its contribution in the software or derivative works of the contribution in the software.

#### 1. Conditions and Limitations

(A) No Trademark License- This license does not grant you rights to use any contributors' name, logo, or trademarks.

(B) If you bring a patent claim against any contributor over patents that you claim are infringed by the software, your patent license from such contributor to the software ends automatically.



(C) If you distribute any portion of the software, you must retain all copyright, patent, trademark, and attribution notices that are present in the software.

(D) If you distribute any portion of the software in source code form, you may do so only under this license by including a complete copy of this license with your distribution. If you distribute any portion of the software in compiled or object code form, you may only do so under a license that complies with this license.

(E) The software is licensed "as-is." You bear the risk of using it. The contributors give no express warranties, guarantees or conditions. You may have additional consumer rights under your local laws which this license cannot change. To the extent permitted under your local laws, the contributors exclude the implied warranties of merchantability, fitness for a particular purpose and non-infringement.

## 2.2.3. MIT License

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

## 2.2.4. Model Text CSS License

Permission to use without fee

Permission to use, copy, and/or distribute this software for any purpose with or without fee is hereby granted to you, provided that you accept all the terms of this license.

Transferable

You may copy and distribute this software to other parties ("third parties"), provided that the above copyright notice and this permission notice appear in all copies, and that third parties are bound by the terms of this license.

Closed source, no modification

This is closed source, proprietary software. The software's source code (except for some sample code) has not been released. Although permission is hereby granted to write software which uses this software component, and to use this software as a component within other software, permission is not granted to modify this software component, nor to use nor to distribute modified copies.

No warranties

THE SOFTWARE IS PROVIDED "AS IS" AND THE LICENSOR DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL THE LICENSOR BE LIABLE FOR ANY SPECIAL, DIRECT, INDIRECT, OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

## 2.3. Acknowledgements

Special thanks to Jutta, Rafe, Nico, Flynn, Don and Carol for their support during the development process. TouchDraw 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 into what it is today.

## 3. Getting Started

TouchDraw supplies everything you need to create structured 2D vector graphics on the go with your iPad. Create charts, graphs, floor plans, architecture drawings, illustrations or most anything else you can image. Not only does TouchDraw 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

The following icon will appear on your iPad after purchasing TouchDraw and synchronizing the device with iTunes:



Simply tap once on this icon to launch TouchDraw.

After launching TouchDraw, you will be presented with the [Drawing Chooser](#).

## 3.2. Uninstalling TouchDraw

We hope you will not want to remove TouchDraw from your iPad; however should you need to do so, simply press and hold on the TouchDraw icon until it starts to jiggle. When it starts to jiggle, a "X" decoration appears on the icon as shown below.



Simply tap the "X" to remove TouchDraw from your device. Should you want to re-install TouchDraw, you can do so by re-syncing your iPad with iTunes or by re-downloading it using the App Store app on the iPad.

## 3.3. Useful Links

### Elevenworks Website

Useful links on the Elevenworks.com website.

| Description                      | Link  |
|----------------------------------|---|
| Elevenworks Main Website         | <a href="http://www.elevenworks.com">http://www.elevenworks.com</a>                               |
| TouchDraw for iPad Main Web Page | <a href="http://www.elevenworks.com/touchdraw">http://www.elevenworks.com/touchdraw</a>           |
| TouchDraw Documentation          | <a href="https://www.elevenworks.com/documentation">https://www.elevenworks.com/documentation</a> |

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

### TouchDraw on Twitter

TouchDraw also has a page/stream on Twitter where you can receive updates and/or have an open dialog with the TouchDraw developers.<http://twitter.com/touchdraw>

### TouchDraw on YouTube

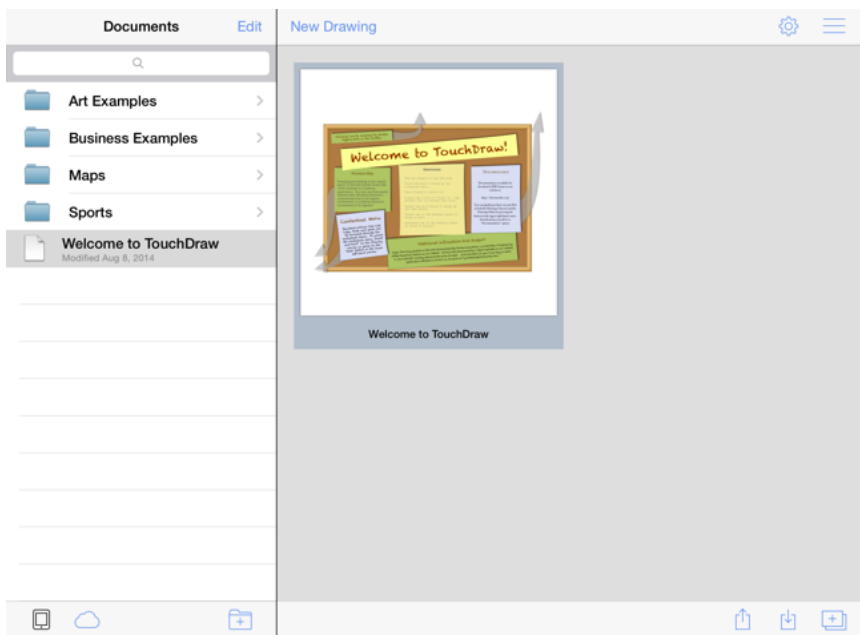
TouchDraw also has a page on YouTube where example "how to" videos have and will be posted.<http://www.youtube.com/user/touchdraw>



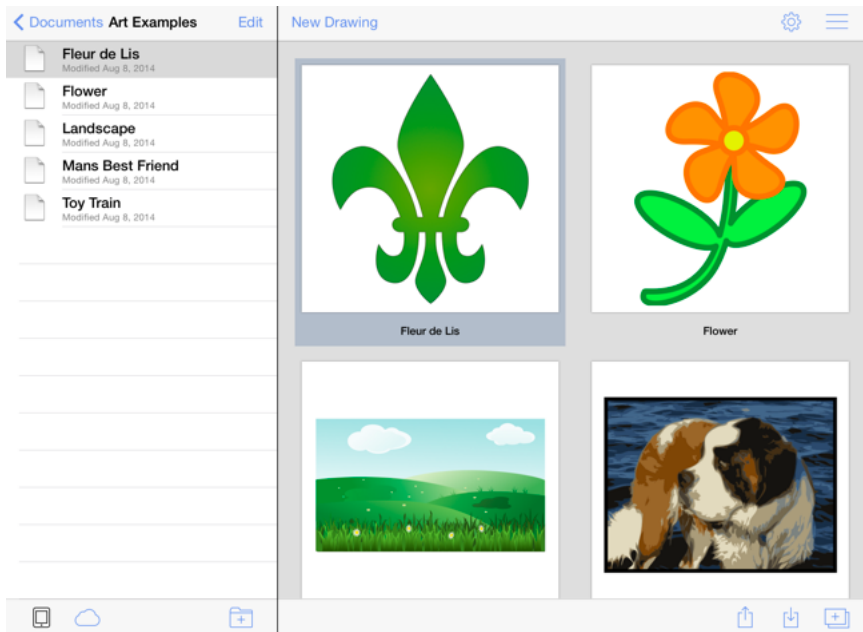
## 4. Drawing Chooser

The **Drawing Chooser** will open when the TouchDraw application is first launched. This screen functions as the user interface for managing drawings that have been stored on the iPad device.

As shown below, the **Drawing Chooser** is split into two views. It will appear the same in both landscape and portrait mode. The **List Panel** resides on the left hand side and the **Preview Panel** resides on the right hand side of the screen.



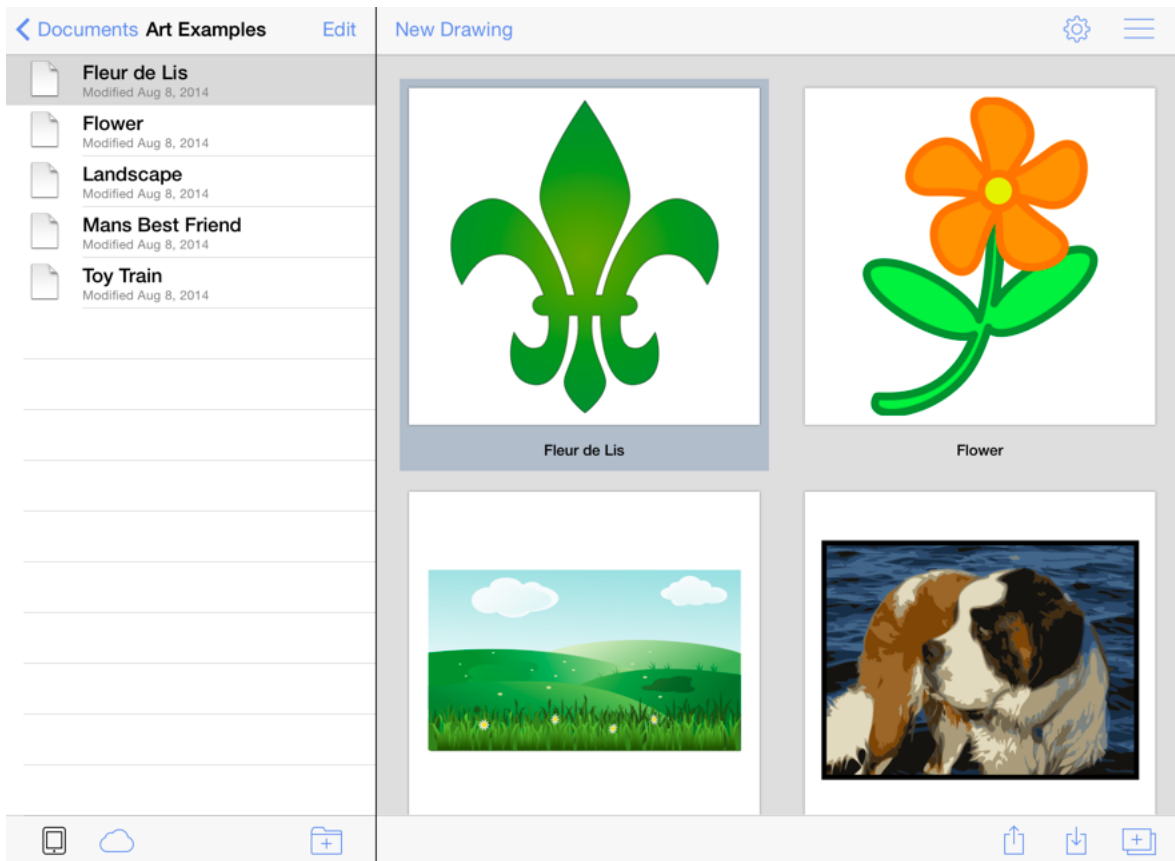
To scroll through the drawings in the **Preview Panel**, simply use a downward or upward swipe gesture to move through the pages. Only four drawings will be displayed within the **Preview Panel** at a time when in landscape mode.



**Note:** Please refer to the [Drawing Chooser User Interface](#) page to learn more about the [Top Toolbar](#), [Bottom Toolbar](#), [List Panel](#), and [Preview Panel](#) interface features of the **Drawing Chooser**.

## 4.1. Drawing Chooser User Interface

The **Drawing Chooser** is divided into four sections: Top Toolbar, List Panel, Preview Panel, and the Bottom Toolbar. It can be used to create and manage drawings (or folders) within TouchDraw.



Click or Tap on the Drawing Chooser section to learn more about its features.

| Section Name                  | Description   |
|-------------------------------|---|
| <a href="#">Top Toolbar</a>   | The <b>Top Toolbar</b> provides access to file management functions and preferences within the TouchDraw application.   |
| <a href="#">List Panel</a>    | The <b>List Panel</b> is located on the left hand hand side of the Drawing Chooser (Landscape Mode) and can be used to access saved drawings or folders.            |
| <a href="#">Preview Panel</a> | The <b>Preview Panel</b> is located on the right hand side of the Drawing Chooser (Landscape Mode) and shows all drawings within a selected parent directory within |

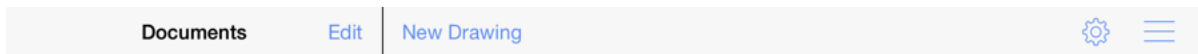
## TouchDraw for iPad

---

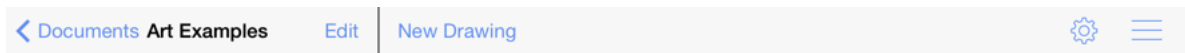
| Section Name                   | Description   |
|--------------------------------|---|
|                                | the List Panel.   |
| <a href="#">Bottom Toolbar</a> | The <b>Bottom Toolbar</b> provides access to previewing, sharing, importing, and additional file/folder management functions. |

## 4.1.1. Top Toolbar


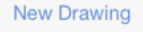



The **Top Toolbar** provides access to file management functions and preferences within the TouchDraw application. It appears as shown below when in **Normal Mode**:



The **Documents Button** appears when a parent directory has been selected from the [List Panel](#) and can be used to return to the main file directory.

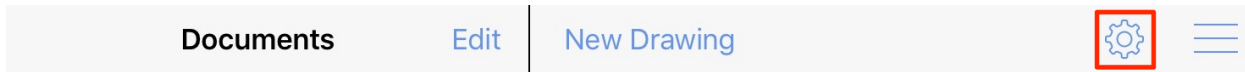


Click or Tap on the Top Toolbar option name to learn more about its functionality.

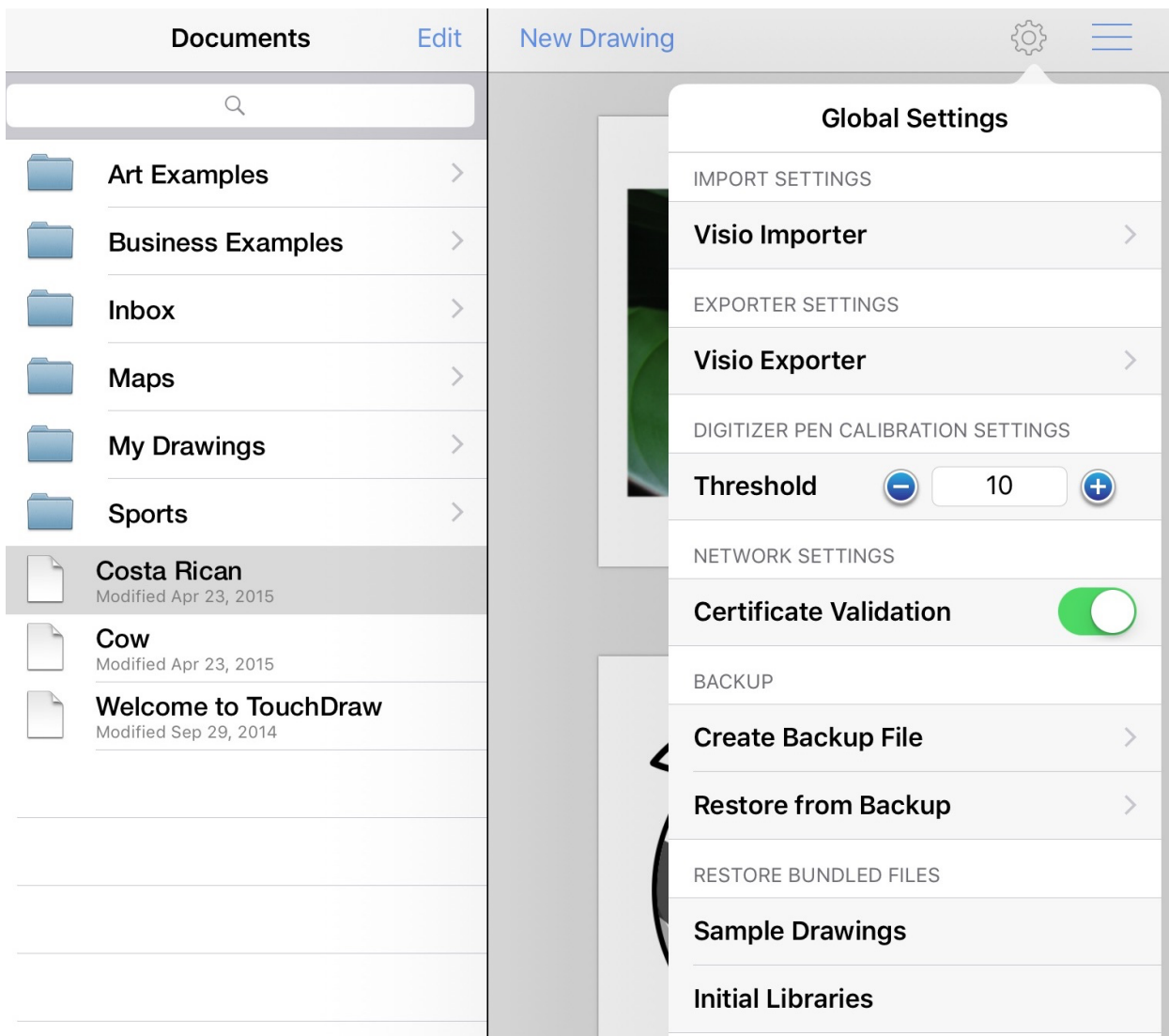
| Icon  | Button Name                          | Description   |
|---|--------------------------------------|---|
|  | <a href="#">Edit</a>                 | The <b>Edit Button</b> can be used to rename and delete files or folders within the <a href="#">List Panel</a> .                      |
|  | <a href="#">New Drawing</a>          | The <b>New Drawing Button</b> can be used to open a new file within the <a href="#">Drawing Editor</a> .                              |
|  | <a href="#">Global Settings Menu</a> | The <b>Global Settings Button</b> can be used to alter importing, pen calibration, network proxy, backup, and restore preferences.    |
|  | <a href="#">Feedback</a>             | The <b>Feedback Button</b> can be used to send feedback regarding TouchDraw and to access additional application sources via the web. |
|  | Documents                            | The <b>Documents Button</b> can be used to return to the main file directory within the <a href="#">List Panel</a> .                  |

### 4.1.1.1. Global Settings Menu

The **Global Settings Menu** can be used to alter importing, pen calibration, network proxy, backup, and restore preferences within TouchDraw. It is accessed by pressing on the **Global Settings Button** located in the upper right corner of the [Top Toolbar](#).



It will appear as shown below:

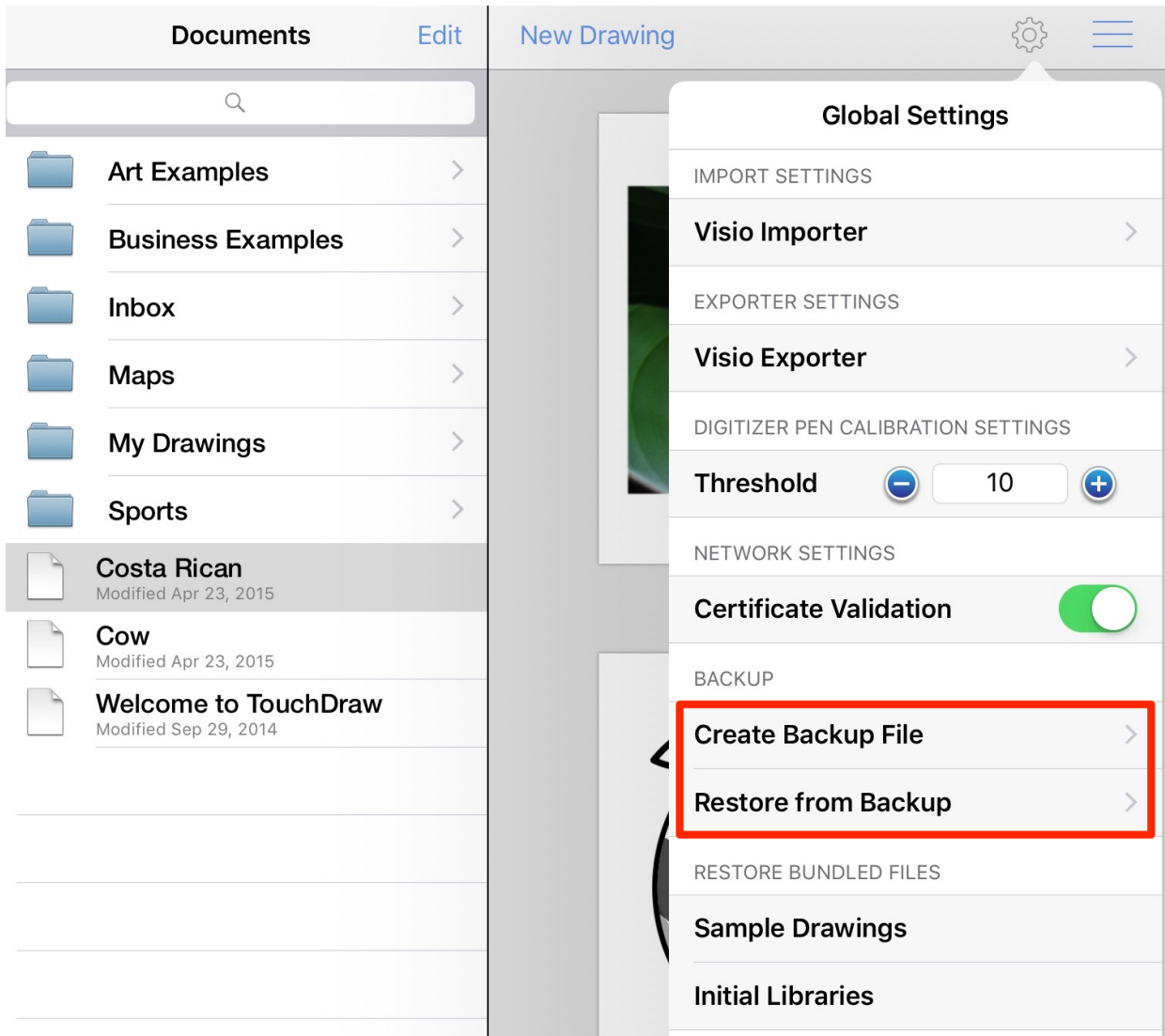


Click or Tap on the Global Settings Menu option name to learn more about its functionality.

| Option Name                           | Description   |
|---------------------------------------|---|
| Import Settings                       | The <b>Import Settings</b> options can be used to set specific preferences for importing drawings from other applications such as Visio.                  |
| Exporter Settings                     | The <b>Exporter Settings</b> options can be used to set specific preferences for exporting drawings from other applications such as Visio.                |
| Digitizer Pen Calibration Settings    | The <b>Digitizer Pen Calibration Settings</b> options can be used to alter preferences such as the threshold for digital pen use during drawing creation. |
| Network Settings                      | The <b>Network Settings</b> options can be used to enable and disable certificate authentication.   |
| <a href="#">Backup</a>                | The <b>Backup</b> options can be used to create an application backup file or restore from a previously generated backup file.                            |
| <a href="#">Restore Bundled Files</a> | The <b>Restore Bundled Files</b> options can be used to restore provided sample drawings or libraries.  |

### 4.1.1.1.1. Backup Options

The **Backup Options** can be used to create an application backup file or restore from a previously generated backup file. They are accessed by pressing on the **Global Settings Button** in the [Top Toolbar](#), as shown below.



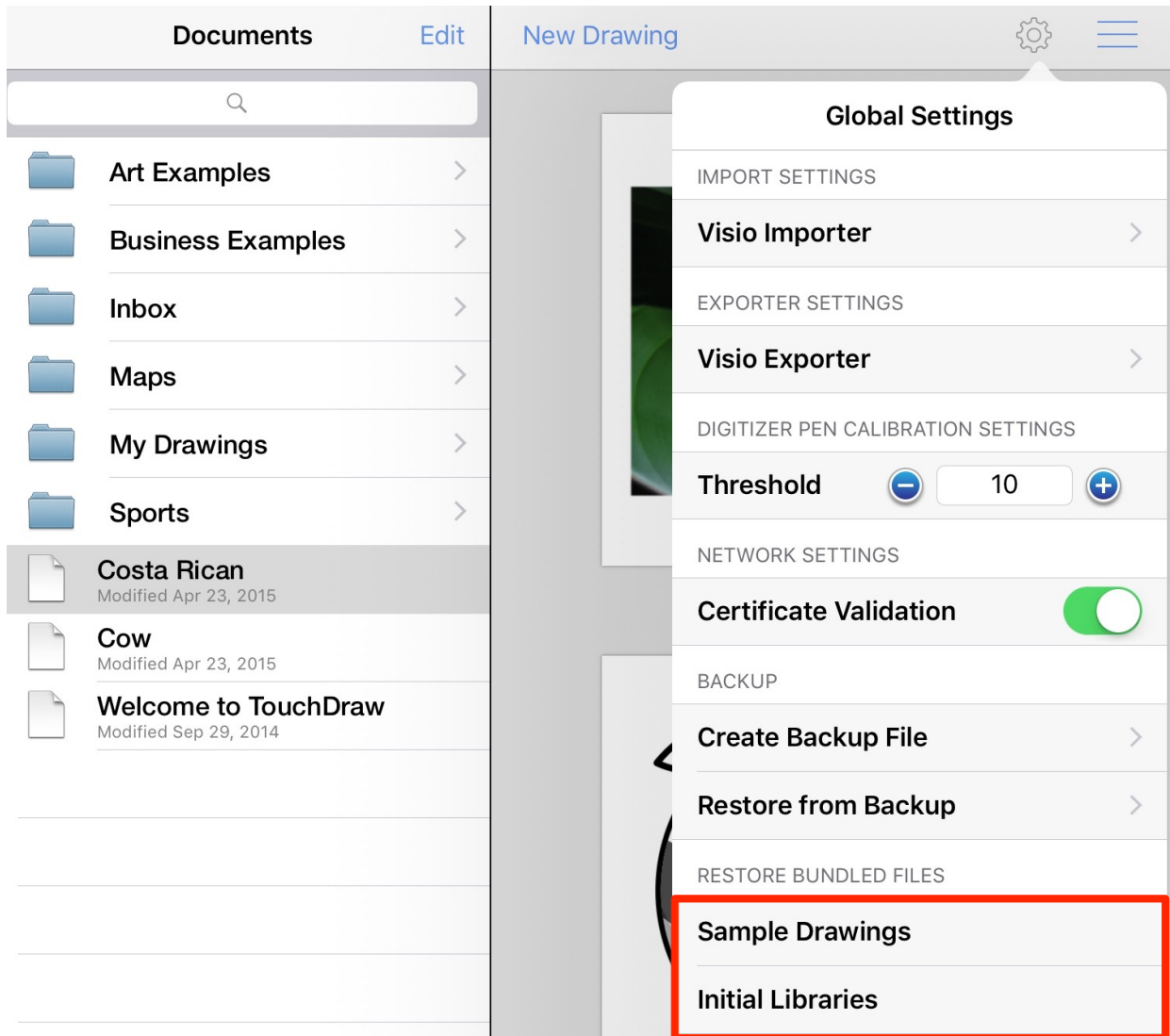
Click or Tap on the Backup option names to learn more about their functionality.

| Option Name                         | Description  |
|-------------------------------------|--|
| <a href="#">Create Backup File</a>  | The <b>Create Backup File</b> option can be used to create a backup file consisting of all drawings and libraries currently stored within TouchDraw. |
| <a href="#">Restore from Backup</a> | The <b>Restore from Backup</b> option can be used restore a previously generated backup file in TouchDraw.   |

## 4.1.1.1.2. Restore Bundled Files Options



The **Restore Bundled Files** options can be used to restore sample drawings and libraries provided during the initial install of TouchDraw. These options are accessed by pressing on the **Global Settings Button** in the [Top Toolbar](#), as shown below.



Click or Tap on the Restore Bundled Files option names to learn more about their functionality.

| Option Name                       | Description   |
|-----------------------------------|---|
| <a href="#">Sample Drawings</a>   | The <b>Sample Drawings</b> option can be used to restore sample drawings that were supplied as part of the initial installation of the TouchDraw application. |
| <a href="#">Initial Libraries</a> | The <b>Initial Libraries</b> option can be used to restore libraries that were supplied as part   |

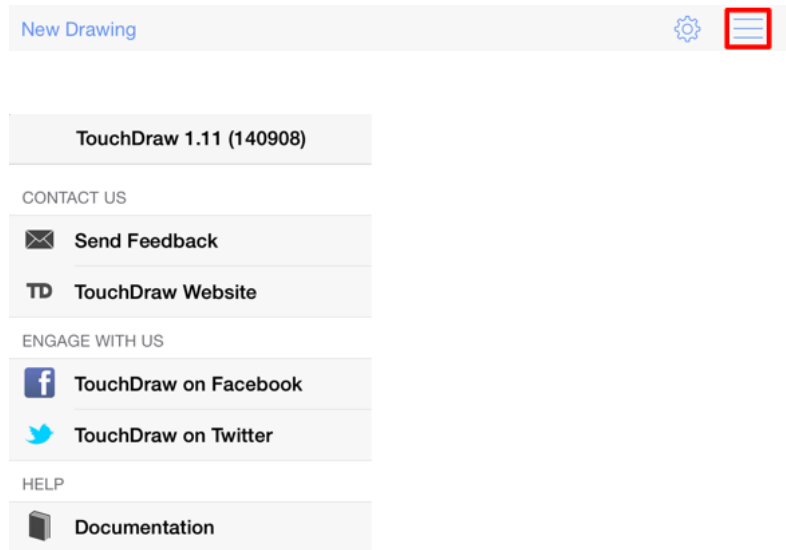
## TouchDraw for iPad

---

| Option Name | Description   |
|-------------|---|
|             | of the initial installation of the TouchDraw application. |

## 4.1.1.2. Feedback Menu

The **Feedback Menu** can be used to view current version information, send feedback regarding the TouchDraw application, and to access additional resources. It opens when the **Feedback Button** is pressed in the [Top Toolbar](#) and appears as shown below:



Click or Tap on the Feedback Menu item name to learn more about its functionality.

| Option Name          | Description   |
|----------------------|---|
| Send Feedback        | The <b>Send Feedback</b> option opens a mail composer view for sending feedback as an email, bug report, suggestion, etc... to the TouchDraw development team without leaving the application. To determine the current version of TouchDraw on the iPad, view the title of the feedback popover. It will contain the version number of TouchDraw as shown above. |
| TouchDraw Website    | The <b>TouchDraw Website</b> option will launch Safari and open the TouchDraw web page at <a href="http://elevenworks.com">elevenworks.com</a> . From this web page, you can find links to the latest version of this document, screenshots, frequently asked questions and additional useful content.  |
| TouchDraw @ Facebook | The <b>TouchDraw @ Facebook</b> option will launch Safari and open the TouchDraw fan page on Facebook. You do not need to be a member of Facebook to view this page.  |

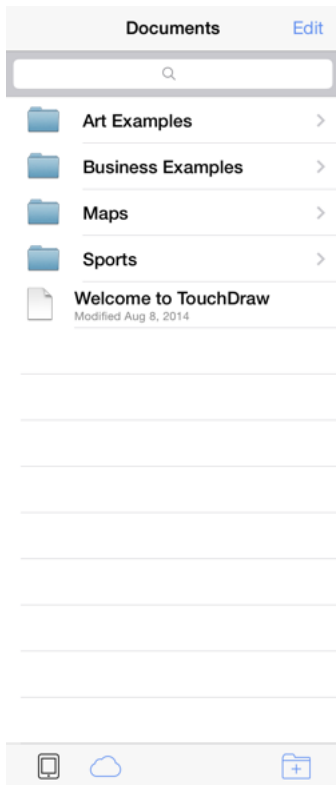
## TouchDraw for iPad

---

| Option Name         | Description   |
|---------------------|---|
|                     | Facebook members can post their own content to the page (such as drawings made with TouchDraw, general comments, and questions) as well as participate in the discussion forums.                                |
| TouchDraw @ Twitter | The <b>TouchDraw @ Twitter</b> option will launch Safari and open the TouchDraw Twitter page. Twitter is provided as another channel for the TouchDraw user community to communicate with the development team. |
| Documentation       | The <b>Documentation</b> option will launch Safari and open the TouchDraw Documentation web page, where the latest version of this document can be downloaded as well as other information.                     |

## 4.1.2. List Panel

The **List Panel** is located on the left hand side of the [Drawing Chooser](#) and can be used to access saved drawings or for performing file/folder management functions.



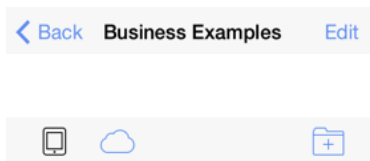
Tap on one of the folder or drawing choices under the **List Panel** to see a visual sample of the drawing(s) within the [Preview Panel](#) portion of the [Drawing Chooser](#). If a folder has been selected, its name will appear at the top of the **List Panel** with all included drawings showing below the name in a list format.

If you are viewing the [Drawing Chooser](#) in **Landscape Mode**, you will be able to preview four drawings at a time within the [Preview Panel](#). In the example below, a **tap** is performed on the **Business Examples** folder.

## TouchDraw for iPad



Tap on the **Edit Button** on the right hand side of the [Top Toolbar](#) to [rename](#) or [delete](#) a folder/drawing and use the **Add Folder Button** on the right hand side of the [Bottom Toolbar](#) to [add a new folder](#) to the main file directory or an existing folder directory.



These two buttons are indicated by the red square outline in the screenshot below.

# TouchDraw for iPad

Back

Business Examples

Edit

Connected Graph

Modified Aug 8, 2014

Floorplan

Modified Aug 8, 2014

Hexagons

Modified Aug 8, 2014

Organization Chart

Modified Aug 8, 2014

Process Circle

Modified Aug 8, 2014

Project Phases

Modified Aug 8, 2014

Pyramid

Modified Aug 8, 2014

Quadrants

Modified Aug 8, 2014

Steps

Modified Aug 8, 2014

Swimlanes

Modified Aug 29, 2014

Topic Pie Chart

Modified Aug 8, 2014

Vertical Lanes

Modified Aug 8, 2014

New Drawing

Start

Task 1

Decision 1

Task 2

Task 3

End

Connected Graph

ITEM 1

ITEM 2

ITEM 3

ITEM 4

ITEM 5

ITEM 6

CORE

Hexagons

ORGANIZATION CHART

ORGANIZATION 1

ORGANIZATION 2

ORGANIZATION 3

ORGANIZATION 4

ORGANIZATION 5

ORGANIZATION 6

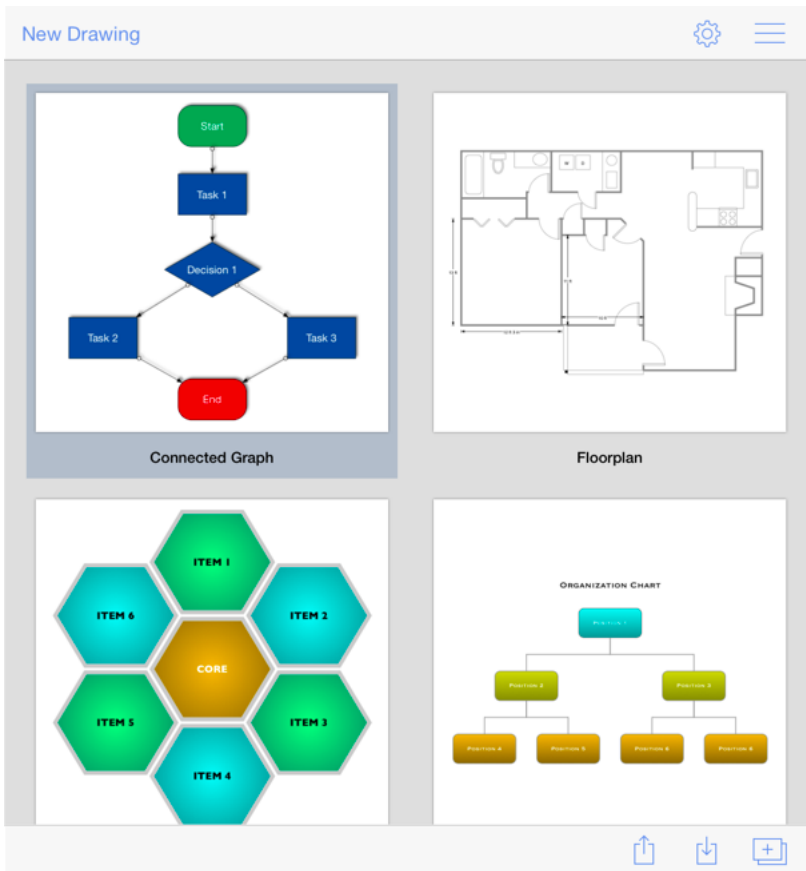
ORGANIZATION 7

Organization Chart

Floorplan

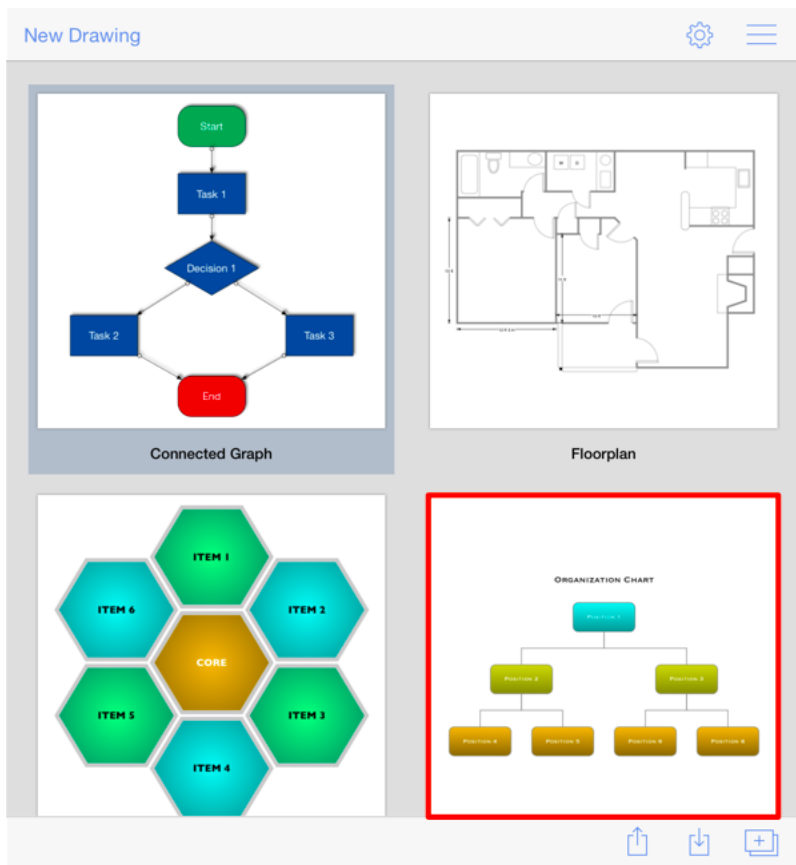
## 4.1.3. Preview Panel

The **Preview Panel** is located on the right hand side of the [Drawing Chooser](#) and shows a preview of drawings in a selected parent directory within the [List Panel](#).

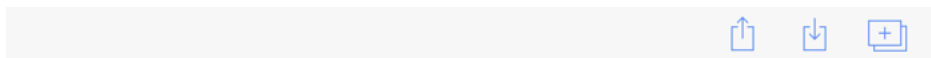


The currently selected drawing will have a border around its image in the **Preview Panel**. Tap on a drawing to make a different selection and open it within the [Drawing Editor](#).



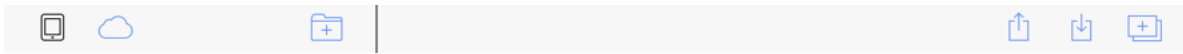


Use the [Bottom Toolbar](#) to perform file management, sharing, and importing functions within TouchDraw.









## 4.1.4. Bottom Toolbar

The **Bottom Toolbar** provides access to previewing, sharing, importing, and additional file/folder management functions. It is located at the bottom of the [Drawing Chooser](#) screen and appears as shown below:

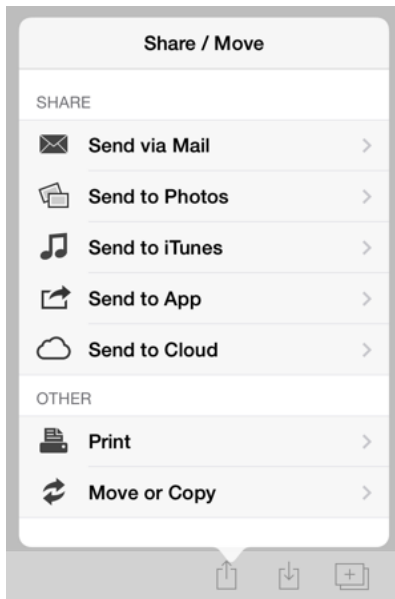


Click or Tap on a Bottom Toolbar Button to learn more about its functionality.

| Icon  | Button Name                           | Description  |
|---|---------------------------------------|--|
|    | iPad File Directory                   | The <b>iPad File Directory Button</b> can be used to view and access folders or drawings in the <a href="#">List Panel</a> that have been stored directly on the device. |
|    | Cloud Storage Directory               | The <b>Cloud Storage Directory Button</b> can be used to view and access folders or drawings in the <a href="#">List Panel</a> that have been stored in the cloud.       |
|  | <a href="#">Add Folder</a>            | The <b>Add Folder Button</b> can be used to add a folder to the main file directory or a selected directory within the <a href="#">List Panel</a> .                      |
|  | <a href="#">Share/Move</a>            | The <b>Share/Move Button</b> can be used to access sharing and moving options for saved drawings.  |
|  | <a href="#">Import</a>                | The <b>Import Button</b> can be used to access importing options for saved drawings.   |
|  | <a href="#">Add/Duplicate Drawing</a> | The <b>Add/Duplicate Drawing Button</b> can be used to add a new drawing to a selected directory or to duplicate an existing drawing within a chosen directory.          |

## 4.1.5. Share/Move Menu

The **Share/Move Menu** can be used to export, print, move, or copy a drawing to another source. It is accessed by pressing on the **Share/Move Button** in the [Bottom Toolbar](#) and appears as shown below:



Please note that the [Send to Cloud](#) option will only appear in this menu if you have configured TouchDraw to view/share files with a **Cloud Services Provider** (i.e. Dropbox, Google Drive, Box, etc.).

Click or Tap on the Share/Move Menu item name to learn more about its functionality.

| Option Name                    | Description   |
|--------------------------------|---|
| <a href="#">Send via Mail</a>  | The <b>Send via Mail Submenu</b> contains options for sharing/exporting a drawing to an email client. |
| <a href="#">Send to Photos</a> | The <b>Send to Photos Submenu</b> contains options for exporting a drawing as a photo.                |
| <a href="#">Sent to iTunes</a> | The <b>Send to iTunes Submenu</b> contains options for exporting a drawing to iTunes.                 |
| <a href="#">Sent to App</a>    | The <b>Send to App Submenu</b> contains options for exporting a drawing to an application.            |
| <a href="#">Send to Cloud</a>  | The <b>Send to Cloud Submenu</b> contains options for exporting a drawing to a cloud                  |

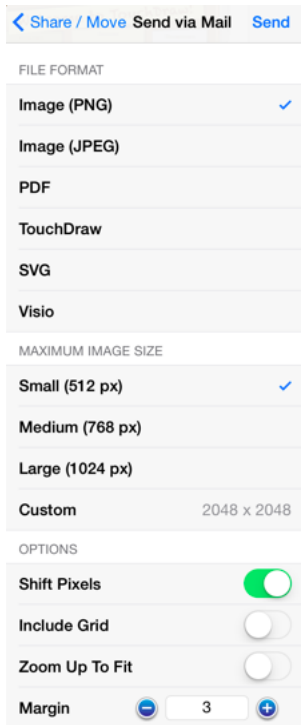
## TouchDraw for iPad

---

| Option Name                  | Description   |
|------------------------------|---|
|                              | services provider.  |
| <a href="#">Print</a>        | The <b>Print Submenu</b> contains options for printing a drawing.                           |
| <a href="#">Move or Copy</a> | The <b>Move or Copy Submenu</b> contains options for moving or copying an existing drawing. |

## 4.1.5.1. Send via Mail

The **Send via Mail Submenu** contains options for exporting a selected drawing through an email client. It is accessed by pressing on the **Share/Move Button** in the **Bottom Toolbar** and then selecting the **Send via Mail** menu option. The Send via Mail Submenu appears as shown below:

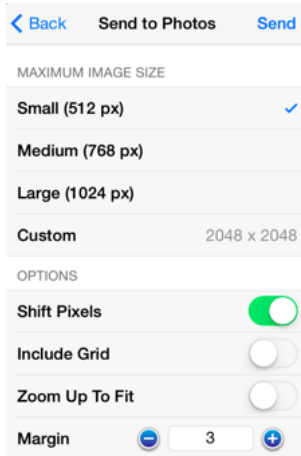


| Option Name        | Description   |
|--------------------|---|
| File Format        | The <b>File Format</b> options are used to select the type of image file to be created by the export.                       |
| Maximum Image Size | The <b>Maximum Image Size</b> option shows the current width and height of the image and can be altered prior to exporting. |
| Shift Pixels       | The <b>Shift Pixels</b> option shifts pixels half a pixel-width toward the right.   |
| Include Grid       | The <b>Include Grid</b> option tells TouchDraw to include (or not include) the grid in the generated file.                  |
| Zoom Up To Fit     | The <b>Zoom Up To Fit</b> option scales the current drawing (or selection) to fit the page.                                 |

| Option Name | Description  |
|-------------|--|
| Margin      | The <b>Margin</b> option is used to set the margin for the exported figure or drawing. |

## 4.1.5.2. Send to Photos

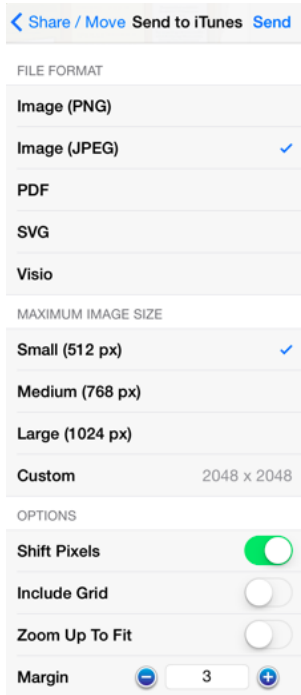
The **Send to Photos Submenu** contains options for publishing a selected drawing into a local photo library. It is accessed by pressing on the **Share/Move Button** in the [Bottom Toolbar](#) and then selecting the **Send to Photos** option. The Send to Photos Submenu appears as shown below:



| Option Name        | Description   |
|--------------------|---|
| Maximum Image Size | The <b>Maximum Image Size</b> option shows the current width and height of the image and can be altered prior to exporting. |
| Shift Pixels       | The <b>Shift Pixels</b> option shifts pixels half a pixel-width toward the right.   |
| Include Grid       | The <b>Include Grid</b> option tells TouchDraw to include (or not include) the grid in the generated file.                  |
| Zoom Up To Fit     | The <b>Zoom Up To Fit</b> option scales the current drawing (or selection) to fit the page.                                 |
| Margin             | The <b>Margin</b> option is used to set the margin for the exported figure or drawing.                                      |

## 4.1.5.3. Send to iTunes

The **Send to iTunes Submenu** contains options for exporting a selected drawing to iTunes. It is accessed by pressing on the **Share/Move Button** in the **Bottom Toolbar** and then selecting the **Send to iTunes** option. The Send to iTunes Submenu appears as shown below:

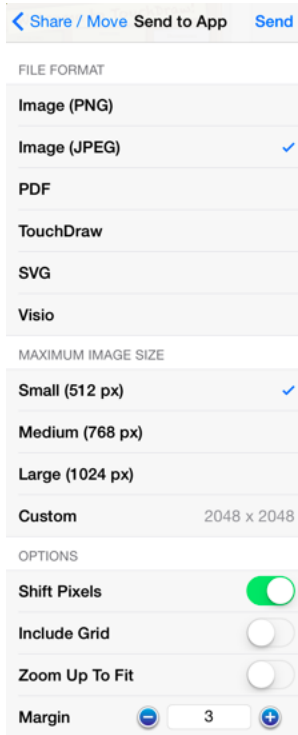


| Option Name        | Description   |
|--------------------|---|
| File Format        | The <b>File Format</b> options are used to select the type of image file to be created by the export.                       |
| Maximum Image Size | The <b>Maximum Image Size</b> option shows the current width and height of the image and can be altered prior to exporting. |
| Shift Pixels       | The <b>Shift Pixels</b> option shifts pixels half a pixel-width toward the right.   |
| Include Grid       | The <b>Include Grid</b> option tells TouchDraw to include (or not include) the grid in the generated file.                  |
| Zoom Up To Fit     | The <b>Zoom Up To Fit</b> option scales the current drawing (or selection) to fit the page.                                 |
| Margin             | The <b>Margin</b> option is used to set the margin for the exported figure or drawing.                                      |



## 4.1.5.4. Send to App

The **Send to App Submenu** contains options for exporting a selected drawing to an application. It is accessed by pressing on the **Share/Move Button** in the **Bottom Toolbar** and then selecting the **Send to App** option. The Send to App Submenu appears as shown below:

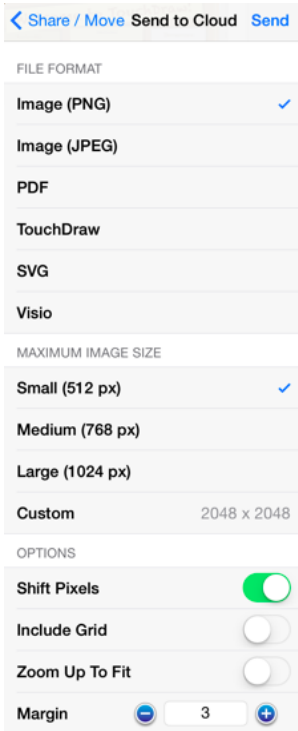


| Option Name        | Description   |
|--------------------|---|
| File Format        | The <b>File Format</b> options are used to select the type of image file to be created by the export.                       |
| Maximum Image Size | The <b>Maximum Image Size</b> option shows the current width and height of the image and can be altered prior to exporting. |
| Shift Pixels       | The <b>Shift Pixels</b> option shifts pixels half a pixel-width toward the right.   |
| Include Grid       | The <b>Include Grid</b> option tells TouchDraw to include (or not include) the grid in the generated file.                  |
| Zoom Up To Fit     | The <b>Zoom Up To Fit</b> option scales the current drawing (or selection) to fit the page.                                 |

| Option Name | Description  |
|-------------|--|
| Margin      | The <b>Margin</b> option is used to set the margin for the exported figure or drawing. |

## 4.1.5.5. Send to Cloud

The **Send to Cloud Submenu** contains options for exporting a selected drawing to a cloud services provider. It is accessed by pressing on the **Share/Move Button** in the [Bottom Toolbar](#) and then selecting the **Send to Cloud** option. The Send to Cloud Submenu appears as shown below:



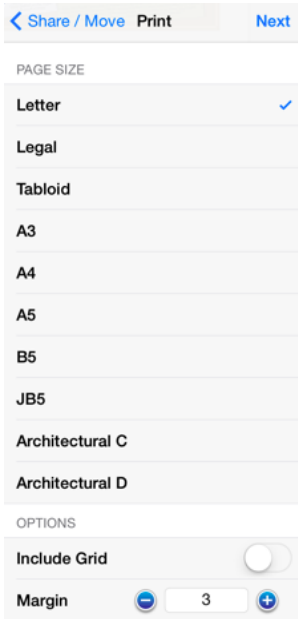
Click or Tap on the Send to Cloud item name to learn more about its functionality.

| Option Name        | Description   |
|--------------------|---|
| File Format        | The <b>File Format</b> options are used to select the type of image file to be created by the export.                       |
| Maximum Image Size | The <b>Maximum Image Size</b> option shows the current width and height of the image and can be altered prior to exporting. |
| Shift Pixels       | The <b>Shift Pixels</b> option shifts pixels half a pixel-width toward the right.   |
| Include Grid       | The <b>Include Grid</b> option tells TouchDraw to include (or not include) the grid in the generated file.                  |

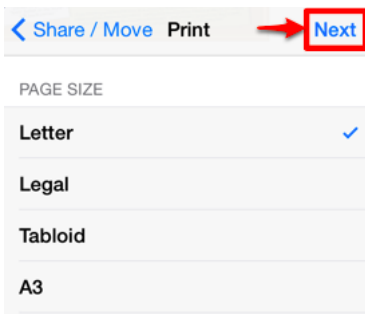
| Option Name    | Description   |
|----------------|---|
| Zoom Up To Fit | The <b>Zoom Up To Fit</b> option scales the current drawing (or selection) to fit the page. |
| Margin         | The <b>Margin</b> option is used to set the margin for the exported figure or drawing.      |

## 4.1.5.6. Print

The **Print Submenu** is used to configure printers, choose a printer, and to set the number of copies for printing a current drawing (or selection) to a network printer. It is accessed by pressing on the **Share/Move Button** in the **Bottom Toolbar** and then selecting the **Print** option. The Print Submenu appears as shown below:



From this submenu, you can select the page size, inform TouchDraw to include the grid, and set the margin. Tap on **Next** in the upper right corner to access an additional menu for selecting a printer, setting the number of copies, and printing your drawing.



Then tap on the **Print Button** to print the selected drawing.

< Print Printer Options

Printer Select Printer >

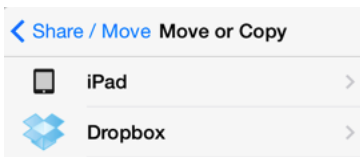
1 Copy

Print

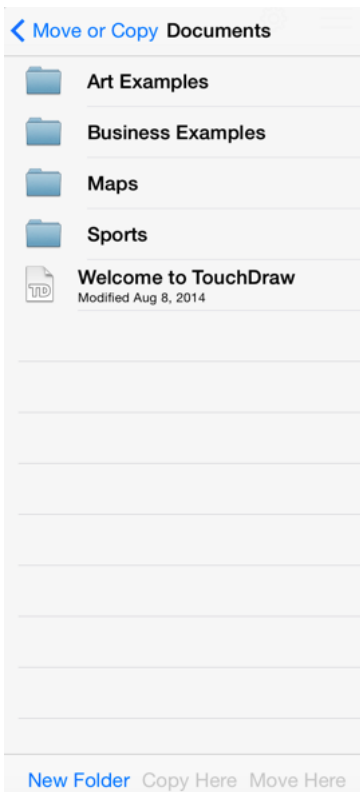
| Option Name | Description   |
|-------------|---|
| Printer     | The <b>Printer</b> option is used to set up a printer or to select an already configured printer. |
| Copy        | The <b>Copy</b> option is used to set the number of copies to be printed.                         |
| Print       | The <b>Print Button</b> directs TouchDraw to print the currently selected drawing.                |

## 4.1.5.7. Move or Copy

The **Move or Copy Submenu** contains options for moving or copying a selected drawing to a new or existing folder location either on the local iPad device or through a cloud storage service provider (Box, Dropbox, etc.). It is accessed by pressing on the **Share/Move Button** located in the [Bottom Toolbar](#) and then selecting the **Move or Copy** option.



Tap on a file source option (iPad or Cloud Storage Provider) and choose the directory where the selected drawing should be moved or copied. Then choose an option at the bottom of the provided popover menu.



Click or Tap on the Move or Copy Button Name to learn more about its functionality.

## TouchDraw for iPad

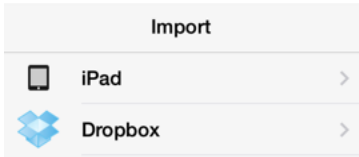
---

| Button Name               | Description   |
|---------------------------|---|
|                           | folder.   |
| <a href="#">Copy Here</a> | The <b>Copy Here Button</b> copies a drawing to the currently selected directory. |
| <a href="#">Move Here</a> | The <b>Move Here Button</b> moves a drawing to the currently selected directory.  |



## 4.1.6. Import Menu

The **Import Menu** can be used to import native drawings or ones created with another application (Images, SVG, VDX, EMF, or WMF) into TouchDraw and save them to an iPad device. It is accessed by pressing on the **Import Button** in the [Bottom Toolbar](#) and appears as shown below:



Choose an importing source and then select the drawing to be imported. The drawing will automatically be converted and imported into the TouchDraw application. Refer to the [Importing a Drawing](#) section of the documentation to learn more about importing drawings.

## 4.1.7. Add/Duplicate Drawing Menu

The **Add/Duplicate Drawing Menu** can be used to add a new drawing to a selected directory in the [List Panel](#) or to duplicate an existing drawing. It is accessed by pressing on the **Add/Duplicate Drawing Button** in the [Bottom Toolbar](#) and appears as shown below:

| Duplicate Menu    |
|-------------------|
| New Drawing       |
| Duplicate Drawing |

Click or Tap on the Add/Duplicate Drawing Menu item to learn more about its functionality.

| Option Name                       | Description  |
|-----------------------------------|--|
| <a href="#">New Drawing</a>       | The <b>New Drawing</b> option creates an untitled drawing and opens the <a href="#">Drawing Editor</a> for editing.                                      |
| <a href="#">Duplicate Drawing</a> | The <b>Duplicate Drawing</b> option generates a copy of a currently selected drawing and opens it within the <a href="#">Drawing Editor</a> for editing. |

## 4.2. File Management

TouchDraw provides several **File Management** options to make working with new, saved, or imported drawings easier. This section explains how to perform basic file and folder operations.

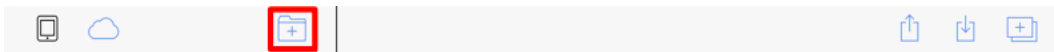
With TouchDraw, it is easy to create [new folders](#) or [drawings](#), [rename](#) or [delete](#) files, and to [move](#), [copy](#), or [duplicate](#) drawings. You can [select a drawing](#) in the **Drawing Chooser** and [open it](#) for editing or [print the drawing](#) for use outside of the application.

## 4.2.1. Creating a New Folder

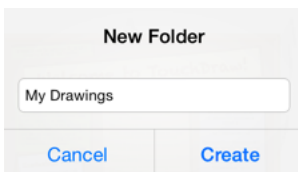
Drawings may be stored locally on an iPad device or through a cloud services provider. A drawing can be saved to the main directory in either file source or a new folder that has been created within the [Drawing Chooser](#).

To create a new folder:

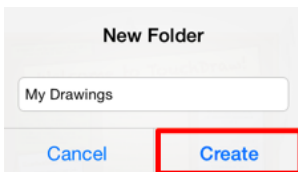
1. Press on the **Add New Folder Button** in the [Bottom Toolbar](#).



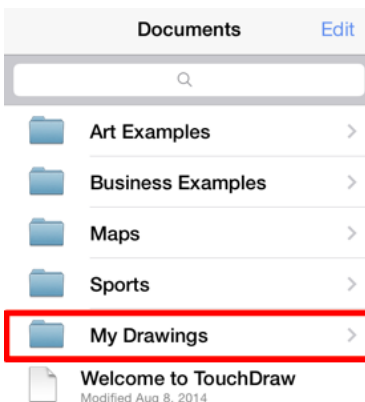
2. Enter a name in the **New Folder** popover window.



3. Press on the **Create Button** to complete the folder addition or press on the **Cancel Button** to exit the popover window.

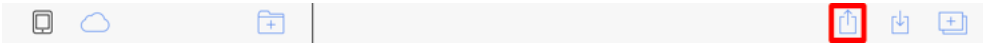


4. The created folder is added to the [List Panel](#), as shown below.

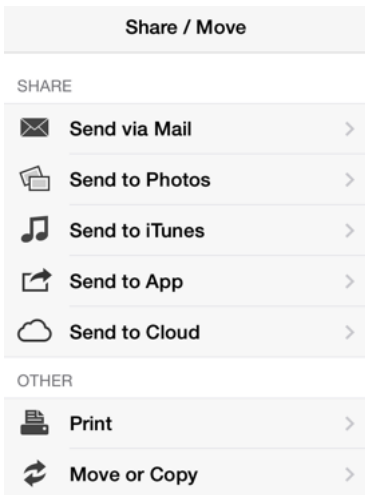


A folder can also be added through the [Share/Move Menu](#) when moving or copying a drawing:

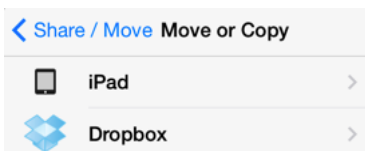
1. Press on the **Share/Move Button** in the [Bottom Toolbar](#).



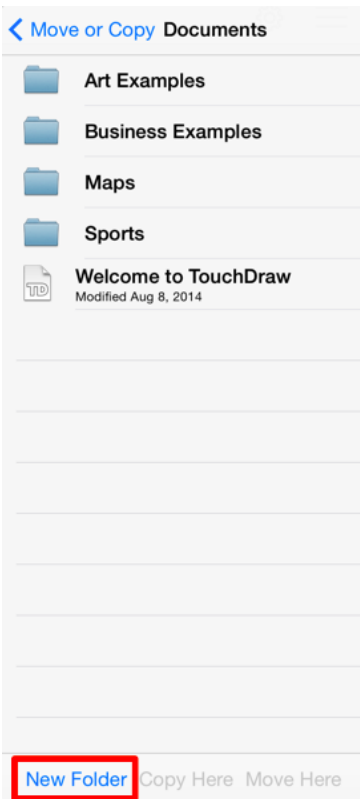
2. Tap on the [Move or Copy](#) Submenu.



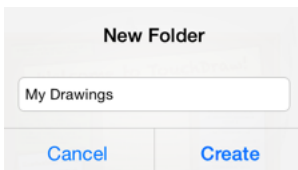
3. Select the **iPad** option.



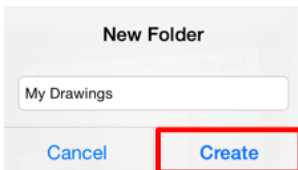
4. Press on the **New Folder Button**.



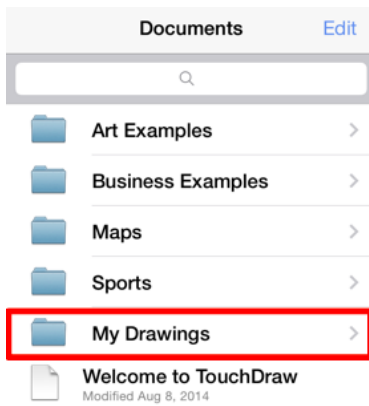
5. Enter a name in the **New Folder** popover window.



6. Press on the **Create Button** to complete the folder addition or press on the **Cancel Button** to exit the popover window.



7. The created folder is added to the [List Panel](#), as shown below.

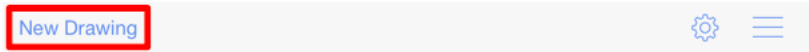


**Note:** Please refer to the [Renaming a Drawing \(or Folder\)](#), [Moving or Copying a Drawing](#), and [Deleting a Drawing \(or Folder\)](#) pages to learn more about managing files and folders.

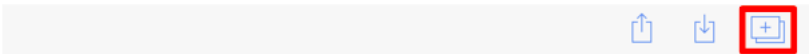
## 4.2.2. Creating a New Drawing

A new drawing can be created within the [Drawing Chooser](#) in one of two ways:

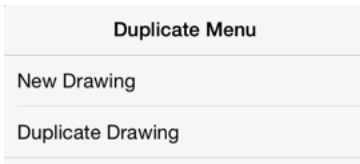
1. Press on the **New Drawing Button** in the [Top Toolbar](#).



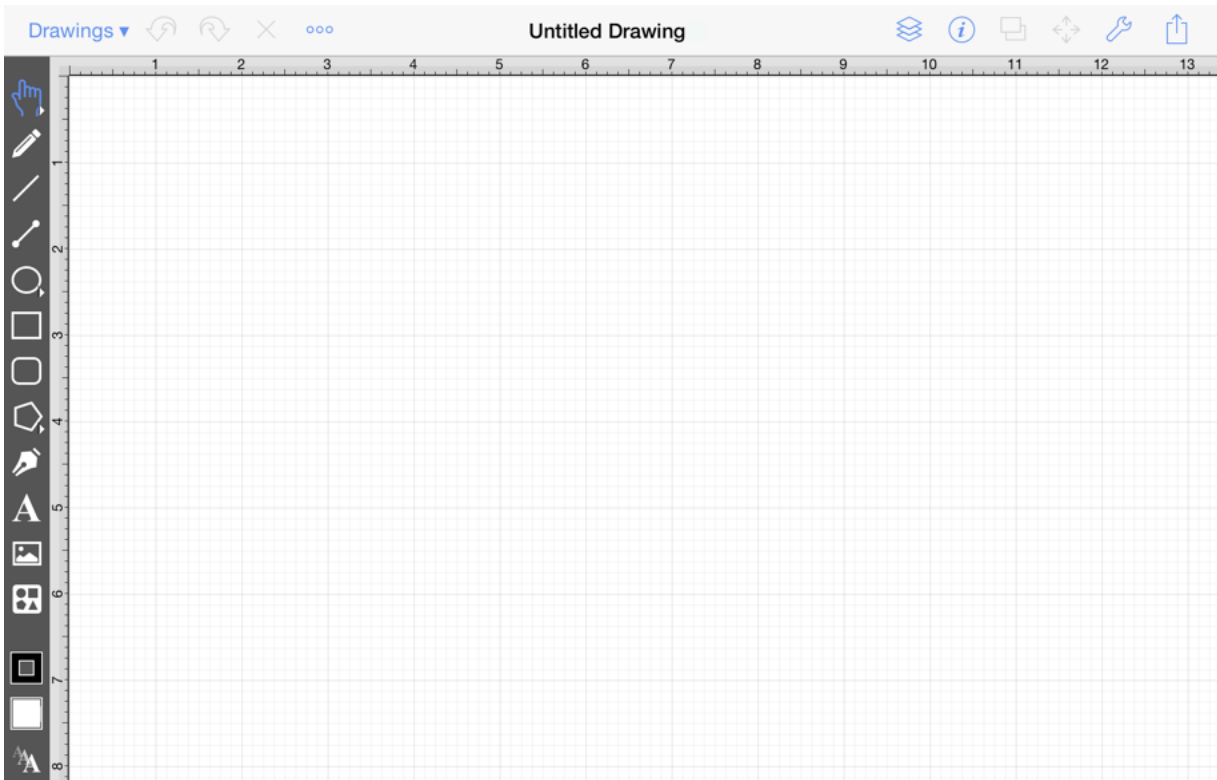
2. Press on the **Add/Duplicate Button** in the [Bottom Toolbar](#).



3. Select the **New Drawing** option in the [Add/Duplicate Drawing Menu](#).



4. The [Drawing Editor](#) will open to a blank drawing canvas.



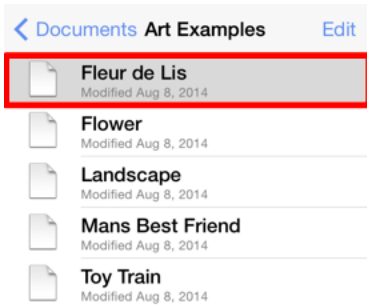


**Note:** The [Drawing Editor](#) will appear with a blank drawing canvas once a new drawing has been created by one of the above methods.

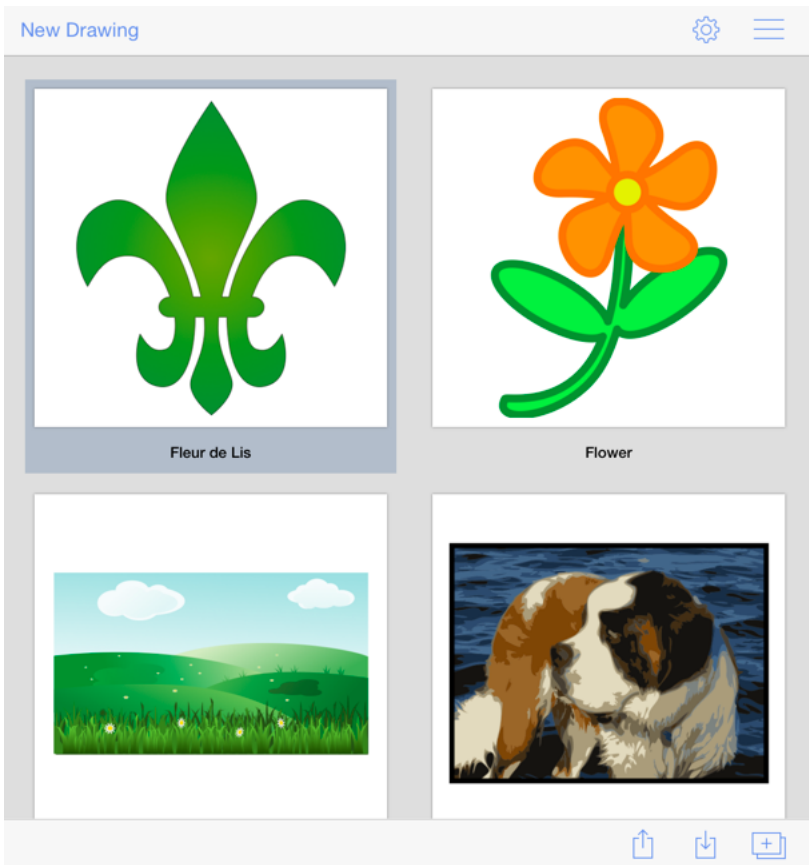
## 4.2.3. Opening a Drawing

A drawing can be opened for editing or viewing in one of two ways:

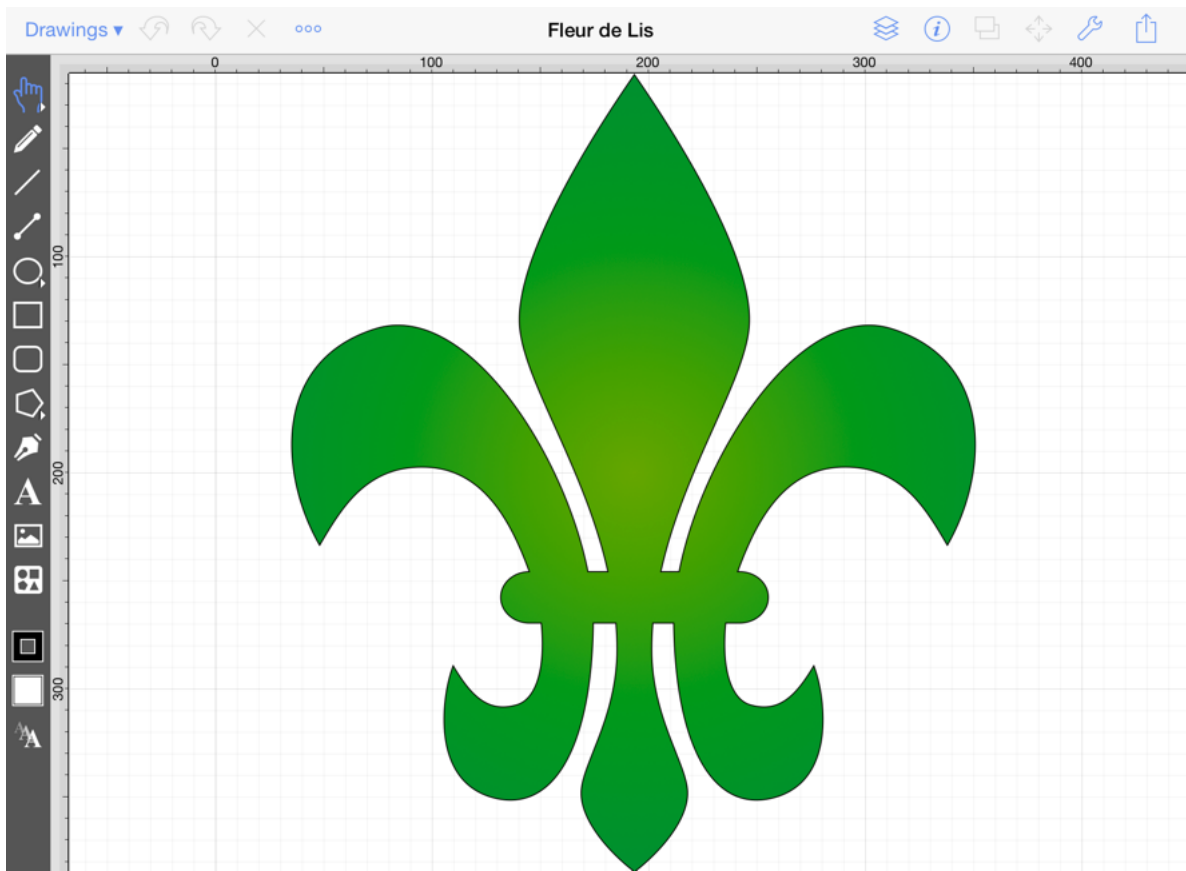
1. Double tap on the desired drawing in the [List Panel](#).



2. Double tap on the drawing in the [Preview Panel](#).



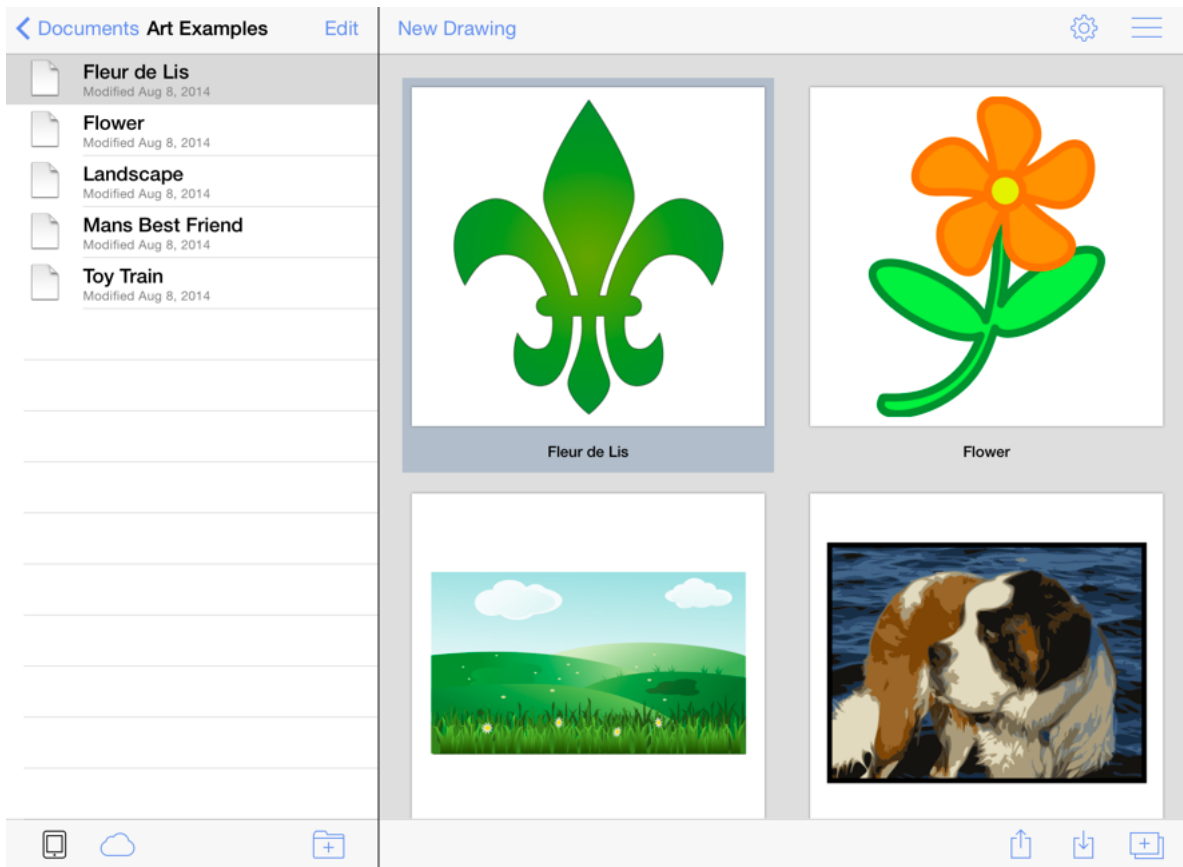
3. The selected drawing will be opened in the [Drawing Editor](#).



## 4.2.4. Selecting a Drawing

Tap once on a drawing in either the [List Panel](#) or the [Preview Panel](#) to select it. Once a drawing has been selected by single tapping, it becomes highlighted in both [Drawing Chooser](#) panels.

A selected drawing will appear highlighted in blue within the **List Panel** and will have a rounded black rectangle drawn behind it in the **Preview Panel**.

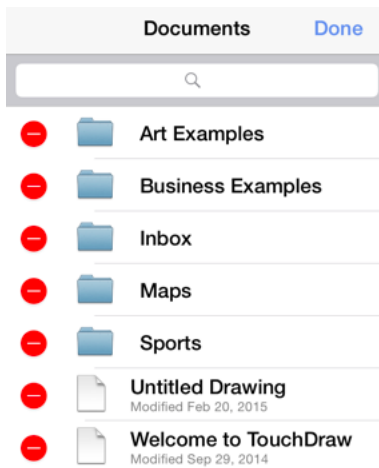
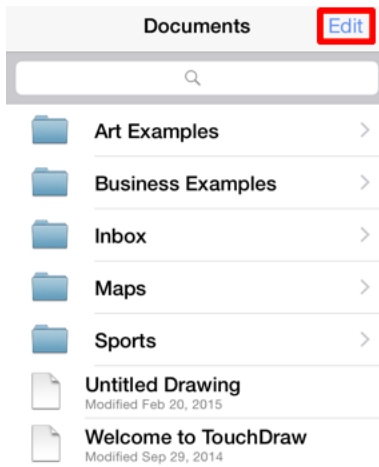


**Note:** Please refer to the [Renaming a Drawing \(or Folder\)](#), [Moving or Copying a Drawing](#), and [Deleting a Drawing \(or Folder\)](#) pages to learn more about managing drawings in the **Drawing Chooser**.

## 4.2.5. Renaming a Drawing (or Folder)

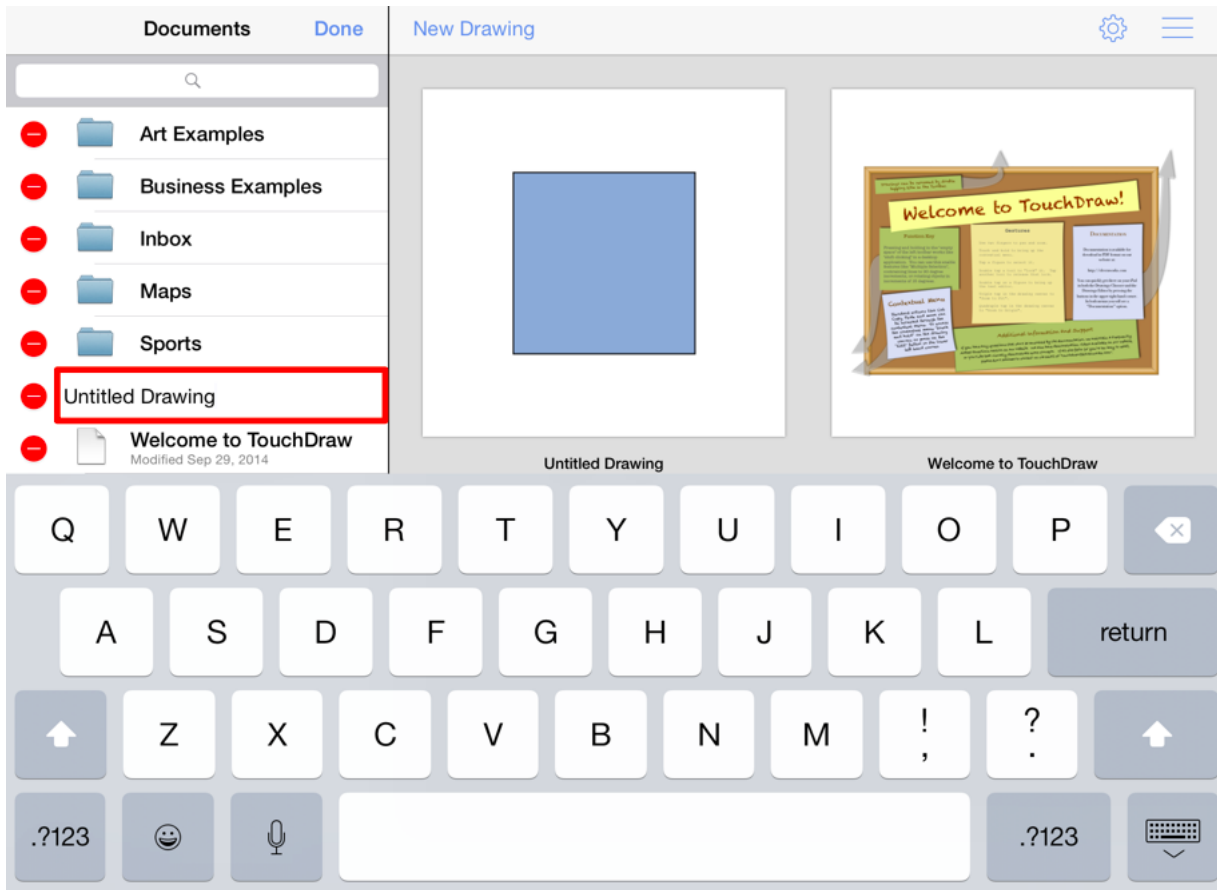
A drawing can be renamed within either the [Drawing Chooser](#) or the [Drawing Editor](#). To rename a drawing (or folder) within the **Drawing Chooser**:

1. Place the drawings list into **Edit Mode** by pressing on the **Edit Button** in the upper right hand corner of the [List Panel](#).

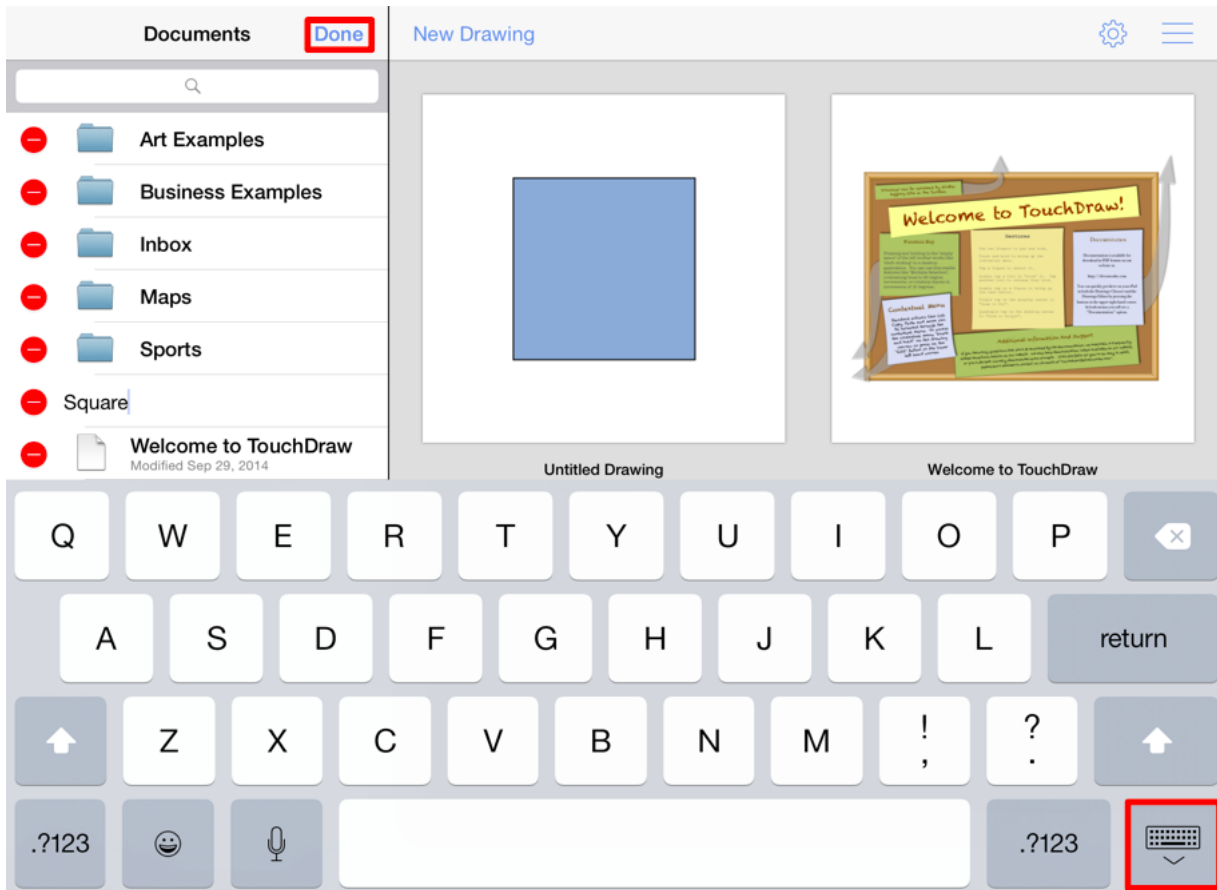


2. Tap on the name of the drawing in the **List Panel** to enable it for editing. A cursor will be inserted at the end of the drawing or folder name and a keyboard will open on the device screen as a visual indicator of entering text editing mode. Enter any desired name with the supplied keyboard. In the example below, **Untitled Drawing** is selected for editing and renamed to Square.

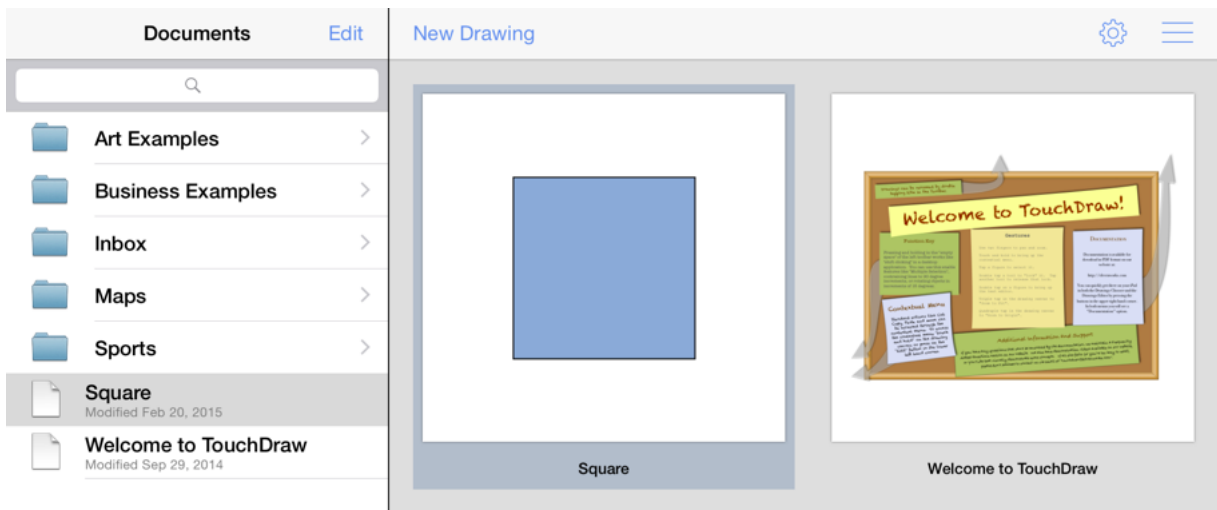
## TouchDraw for iPad



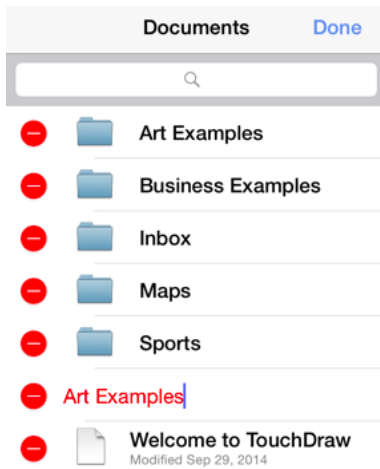
3. Press on the **Hide Button** located in the bottom right portion of the keyboard to complete the rename and remain in edit mode or press on the **Done Button** in the upper right hand corner of the [List Panel](#) to complete the rename and exit edit mode.



4. The drawing will appear in the **List Panel** with the new name, as shown below.



If the entered name is already taken or invalid, TouchDraw will change the text to red as a visual indicator of the entered text being an invalid drawing name.



For details on how to rename a drawing in the editor please refer to [Renaming a Drawing](#) page in the [Drawing Editor](#) section of the documentation.

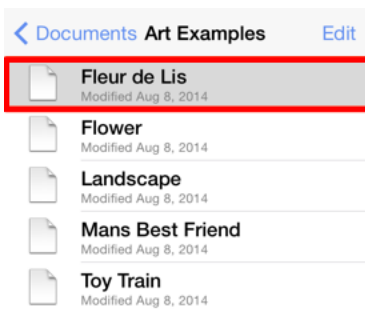


## 4.2.6. Duplicating a Drawing

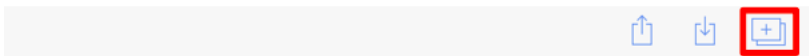
Drawings can be duplicated within the [Drawing Chooser](#) to inherit the same properties and preferences of the original without having to manually recreate them. Once a drawing has been duplicated, the newly created file may be [renamed](#) and [edited](#) separately from the original.

To duplicate a drawing:

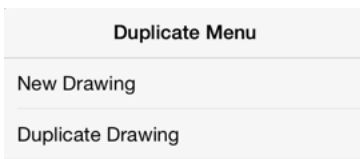
1. Navigate to the desired drawing in the [List Panel](#) and tap on it once to select it.



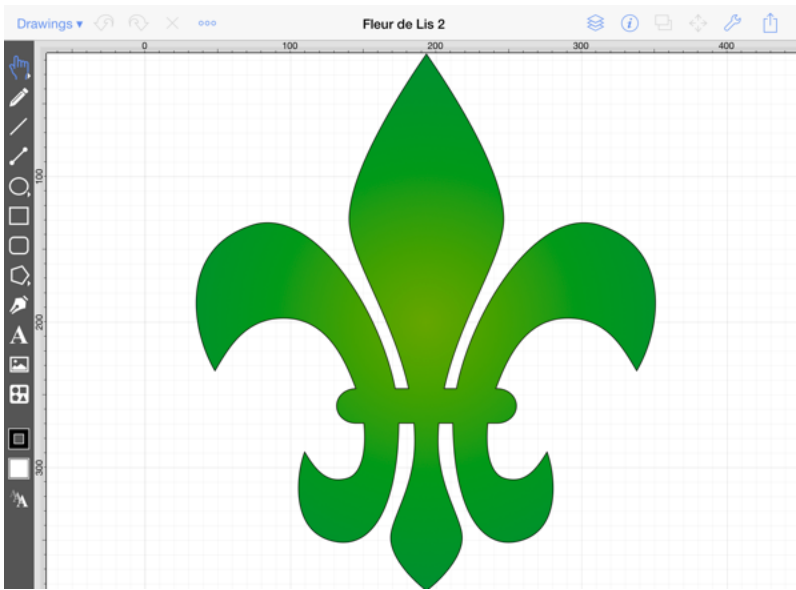
2. Press on the **Add/Duplicate Button** in the [Bottom Toolbar](#).



3. Tap on the **Duplicate Drawing** option.



4. The duplicated drawing will be opened in the [Drawing Editor](#) for viewing and editing. A number is placed at the end of the drawing name to indicate that it is a duplicate or copy, as shown below.



**Note:** A duplicated drawing is saved in the same folder directory as the original, but can be [moved](#) to another location by choosing **Move or Copy** in the [Share/Move Menu](#).

## 4.2.7. Moving or Copying a Drawing

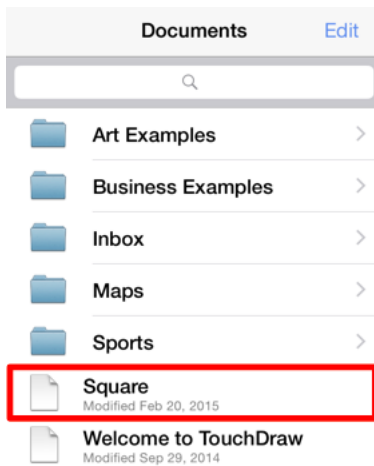
A drawing can be moved or copied from one location to another within the [Drawing Chooser](#). Both the source and target locations could be the iPad's local storage or a remote storage service such as DropBox. The **Move or Copy Menu** provides three possible actions:

- Creating a new folder in the currently viewed directory.
- Moving a drawing to the selected target directory.
- Copying a drawing to the selected target directory.

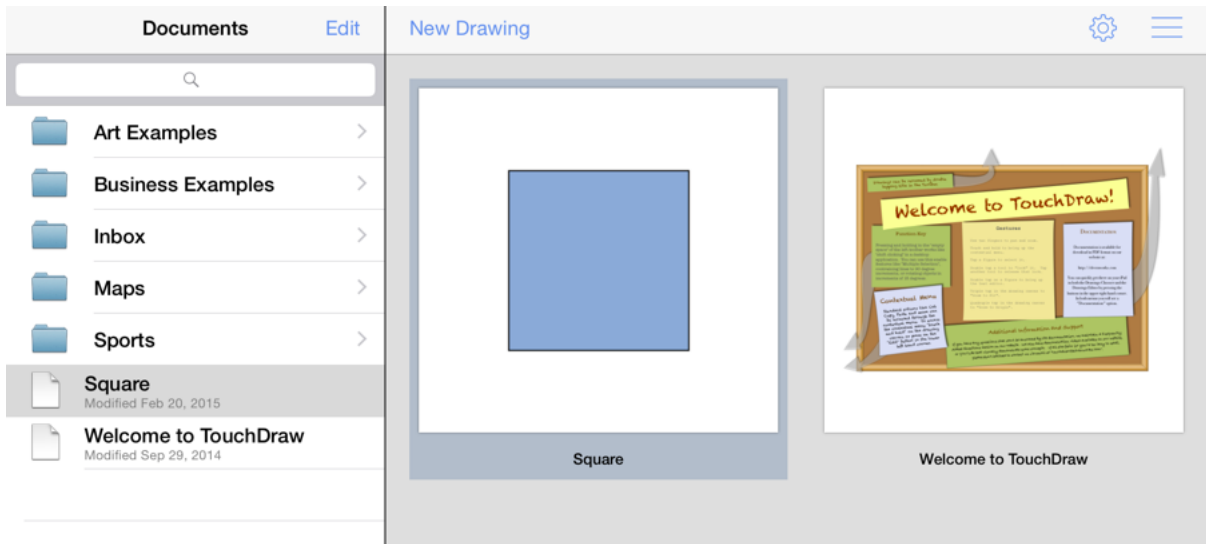
**Note:** Refer to the [Creating a New Folder](#) page to learn more about adding a new folder through the Move or Copy Submenu.

To move or copy a drawing:

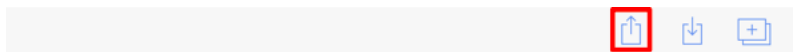
1. Navigate to the directory containing the drawing to be moved or select a drawing from the main file directory. In this example, a drawing from the main file directory is selected.



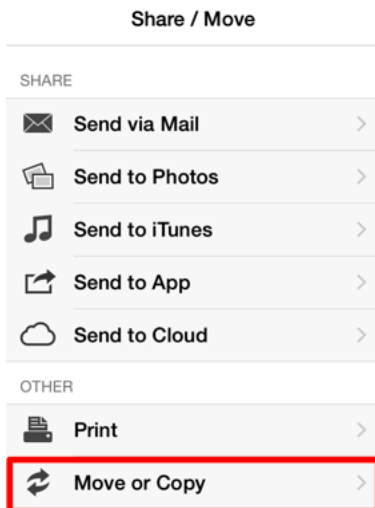
2. Select the drawing either in the [List Panel](#) or the through the [Preview Panel](#) by tapping on it once. In this example the Square drawing is selected.



3. Press the **Share/Move Button** in the [Bottom Toolbar](#).

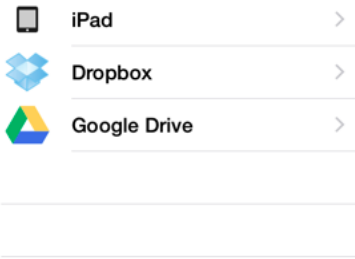


4. Tap on the **Move or Copy** option.



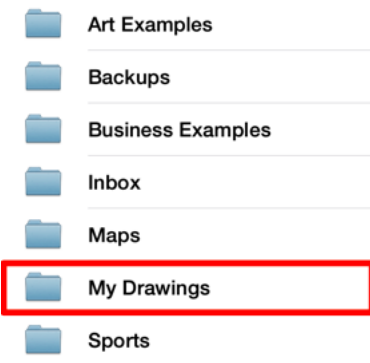
5. When the **Move or Copy** option is selected, a menu similar to the one below will open. An entry for the local iPad device along with any configured cloud services will appear in this menu. Choose the local iPad or a cloud service from this menu.

< [Share / Move](#) Move or Copy

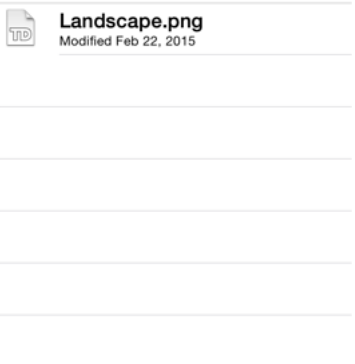


6. A menu similar to the one below will appear while navigating through the directory structure. Navigate to the desired target directory in the provided menu. In this example, the Square drawing is moved (or copied) to the My Drawings directory.

< [Move or Copy](#) Documents



< [Documents](#) My Drawings

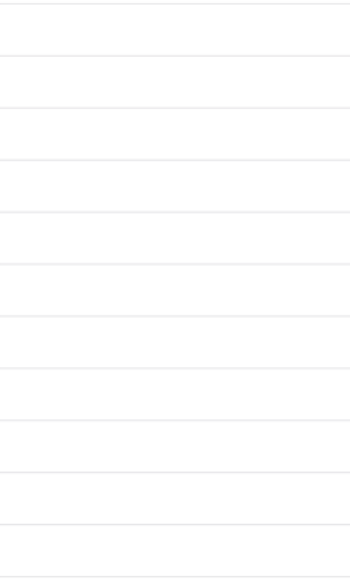


7. Press on the **Move Here Button** or the **Copy Here Button** in the bottom of the [Share/Move Menu](#) to move or copy the file to the selected target directory.

< Documents My Drawings



**Landscape.png**  
Modified Feb 22, 2015



New Folder Copy Here Move Here

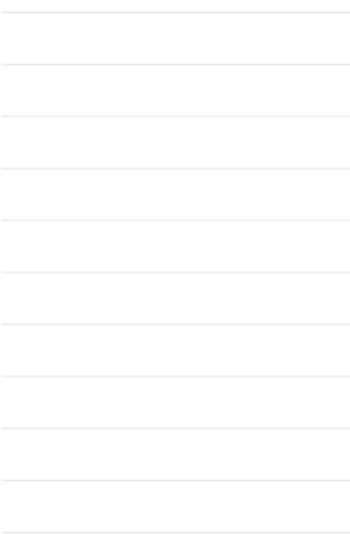
< Documents My Drawings



**Landscape.png**  
Modified Feb 22, 2015

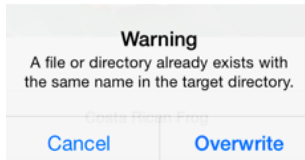


**Square**  
Modified Feb 20, 2015



New Folder Copy Here Move Here

If the filename already exists within the selected target directory, a warning message will appear requiring confirmation to overwrite the existing file. Press on the **Cancel Button** to exit without overwriting or press on the **Overwrite Button** to continue the move or copy.

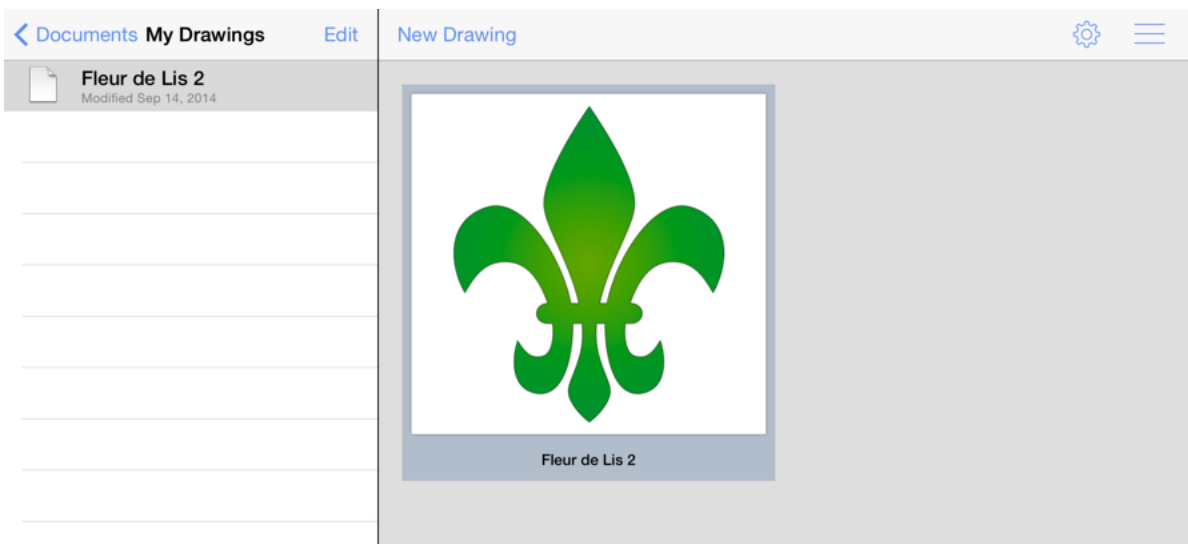


## 4.2.8. Deleting a Drawing (or Folder)

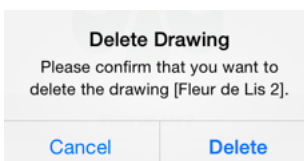
A drawing can be deleted from the iPad or a cloud storage location through either the [List Panel](#) or the [Preview Panel](#).

To delete a drawing in the **Preview Panel**:

1. Navigate to the directory where the drawing is stored. In this example, the Fleur de Lis 2 file in the My Drawings folder is selected for deletion.



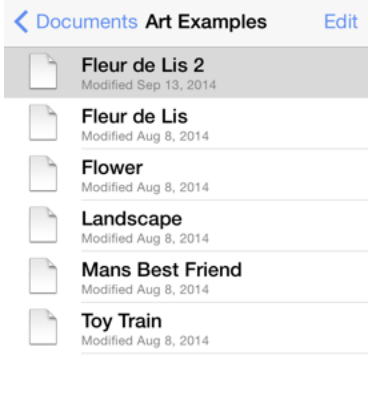
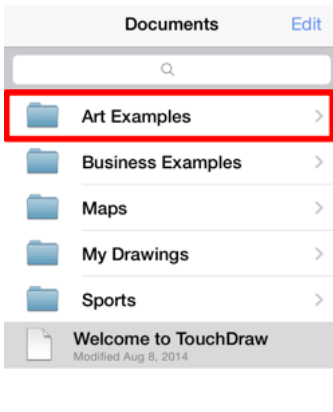
2. Perform an extended press on the desired file in the [Preview Panel](#). This will bring up a confirmation dialog to verify that the drawing should actually be deleted. Press on the **Cancel Button** to exit without deleting or press on the **Delete Button** to remove the drawing from TouchDraw.



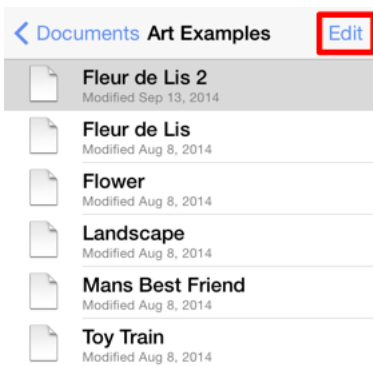
A drawing or folder can also be removed from a selected directory within the [List Panel](#). To delete an item through the **List Panel**:

1. Navigate to the desired folder or drawing and tap on it once to select it.

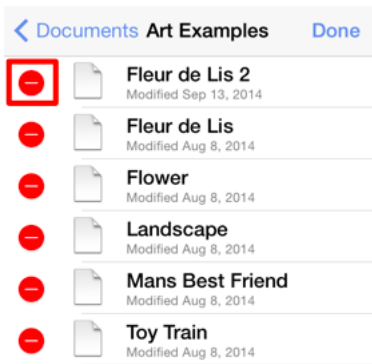




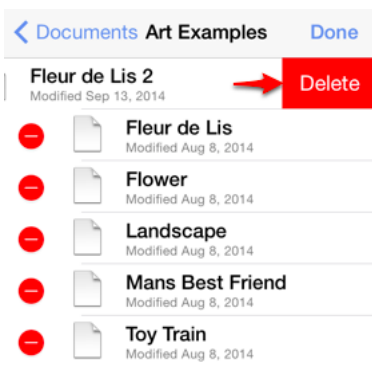
2. Press on the **Edit Button** in the top right hand corner of the List Panel to enter **Edit Mode**.



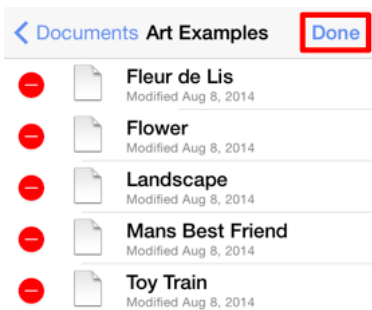
3. Press on the **Delete Item Button** (red circle with white line) located to the left of the folder or drawing name to select it.

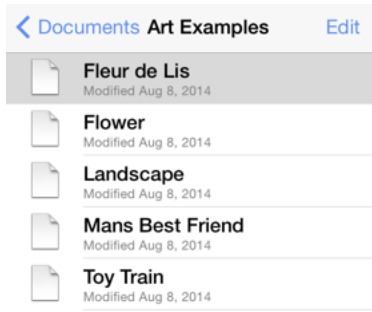


4. Press on the **Delete Button**.



5. Press on the **Done Button** to exit Edit Mode.

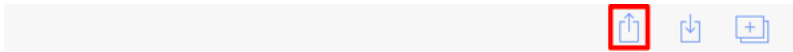




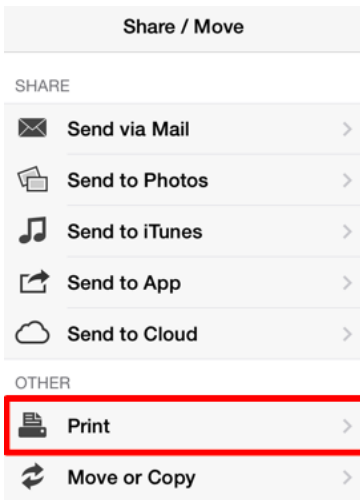
## 4.2.9. Printing a Drawing

TouchDraw supports printing drawings to local printers from the [Drawing Chooser](#). To print a drawing:

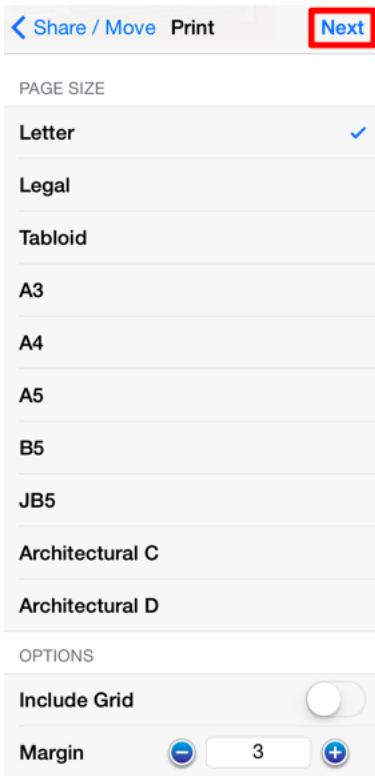
1. Press on the **Share/Move Button** in the [Bottom Toolbar](#).



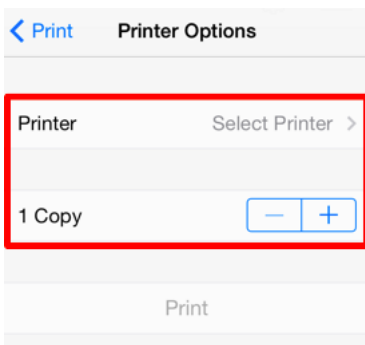
2. Tap on the **Print** option in the [Share/Move Menu](#).



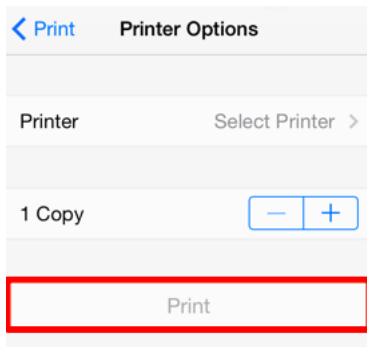
3. Select the **Page Size** and change any other desired options. Then **Tap** on **Next** in the upper right hand corner of the provided popover window.



4. Use the **Printer Options** popover to configure a printer and set the number of copies for printing.



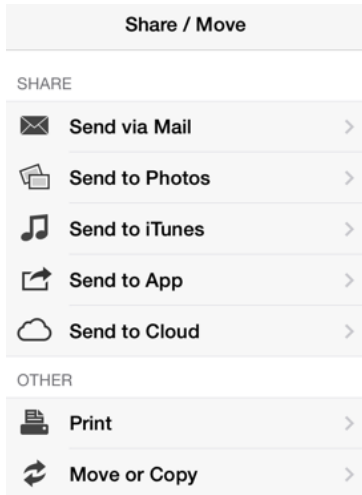
5. Press on the **Print Button** at the bottom of the popover to print the selected drawing.



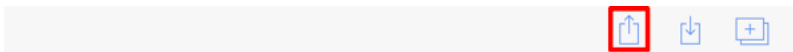
**Note:** TouchDraw will scale the drawing to fit onto 1 Letter or A4 page (depending on your locale) and will automatically choose landscape or portrait mode to best fit the drawing.

## 4.2.10. Sharing a Drawing

TouchDraw supports several different methods of sharing and/or exporting a drawing from within the [Drawing Chooser](#) and from within the [Drawing Editor](#). All **Drawing Chooser** sharing/exporting options are reachable through the [Share/Move Menu](#).



These options are accessed by pressing on the **Share/Move Button** in the [Bottom Toolbar](#), as shown below.



TouchDraw makes it easy to share (export) drawings with various sources on and outside of your device. Please refer to the links below to learn more about the sharing options provided through the [Drawing Chooser](#):

- [Sharing via Email](#)
- [Exporting to the iPads Photo Library](#)
- [Exporting to iTunes](#)
- [Exporting to an Application](#)
- [Exporting to a Cloud Services Provider](#)

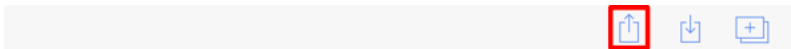
## 4.2.10.1. Sharing via Email

TouchDraw supports sending drawings via email using several different export formats. Six formats are currently supported for exporting a drawing:

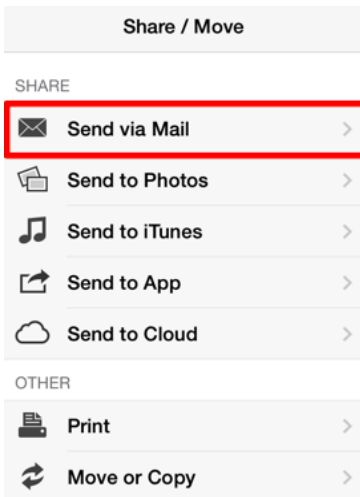
- Image (PNG format)
- Image (JPEG format)
- PDF (Portable Document Format)
- TouchDraw (Native) Format
- SVG (Scalable Vector Graphics)
- Microsoft Visio (VDX Format)

To share a drawing via email:

1. Press on the **Share/Move Button** in the [Bottom Toolbar](#).

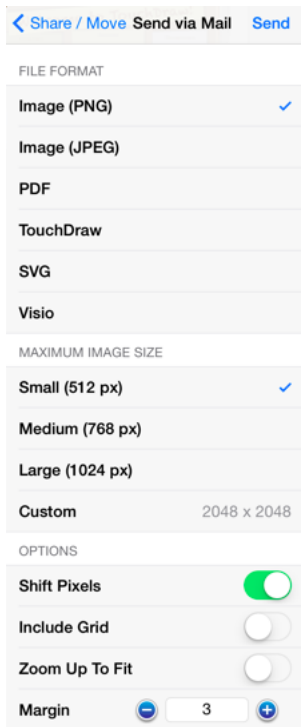


2. Tap on the **Send via Mail** option in the [Share/Move Menu](#).

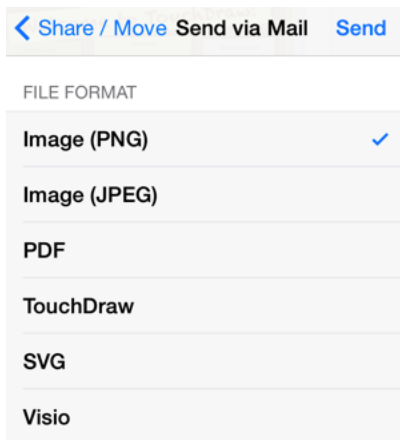


3. The following popover window will appear after selecting **Send via Mail**. You can use this window to select a **File Format** and configure additional sharing options based on the selected format.





4. Tap on a desired **File Format** to make a selection.



5. Press the **Send Button** in the upper right hand corner of the popover after choosing a file format and the appropriate options.

< Share / Move Send via Mail **Send**

FILE FORMAT

- Image (PNG) ✓
- Image (JPEG)
- PDF
- TouchDraw
- SVG
- Visio

6. A mail composer is opened with the exported drawing as an attachment. Enter all necessary email information and press on the **Send Button** in the mail composer when finished.

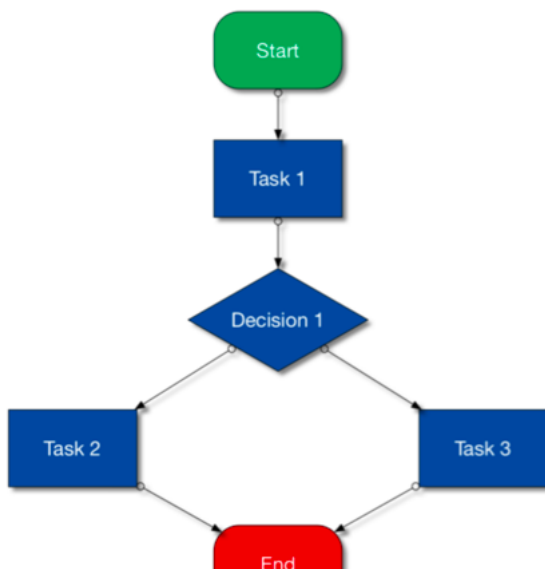
Cancel Connected Graph **Send**

To:

Cc/Bcc:

Subject: Connected Graph

Created with TouchDraw.



When a drawing is exported as an image or as a PDF file, the mail composer will show a preview of the drawing in the mail composer. Exporting a drawing in any other format, such as Visio, results in a file icon being shown in the mail composer. Also, keep in mind that the iPad is not capable of rendering all SVG artifacts such as drop shadows, thus it's completely normal that the preview does not show all of the

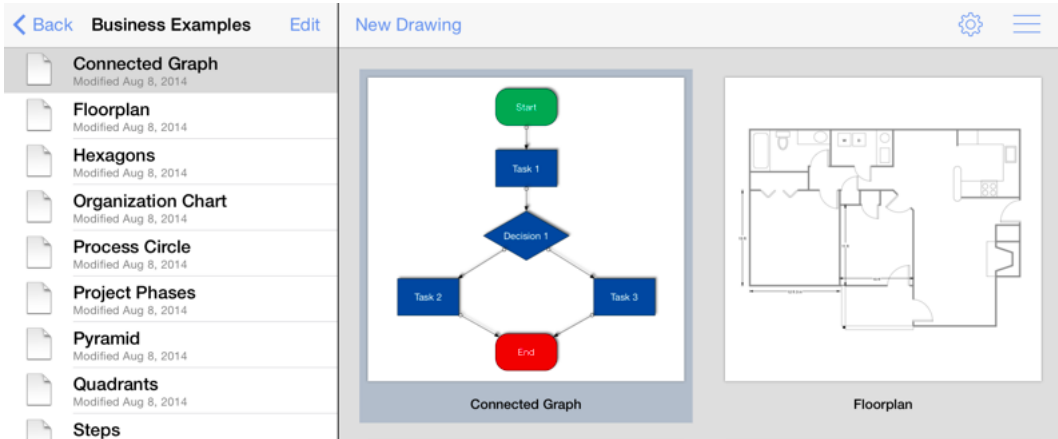
information included in the exported document.

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](#) portion of the documentation.

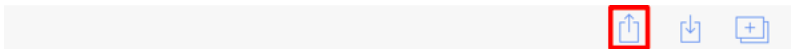
## 4.2.10.2. Exporting to the iPads Photo Library

TouchDraw supports exporting drawings as an image and then adding them to an iPad's photo library all in one step.

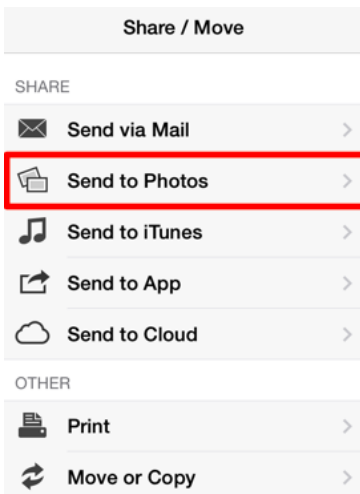
1. Navigate to the drawing in the [List Panel](#) and select it for exporting.



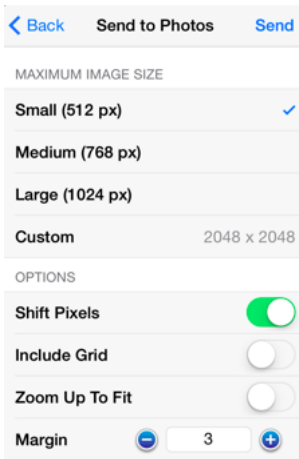
2. Press on the **Share/Move Button** in the [Bottom Toolbar](#).



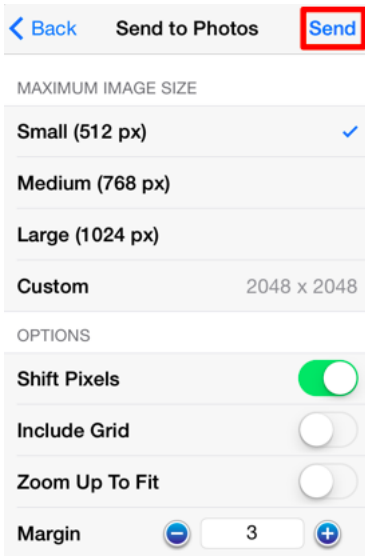
3. Tap on the **Send to Photos** option in the [Share/Move Menu](#).



4. The following popover window will appear after selecting **Send to Photos**.



5. Select all appropriate options and then press on the **Send Button** in the upper right hand corner of the popover to add the drawing to the iPad's local photo library.

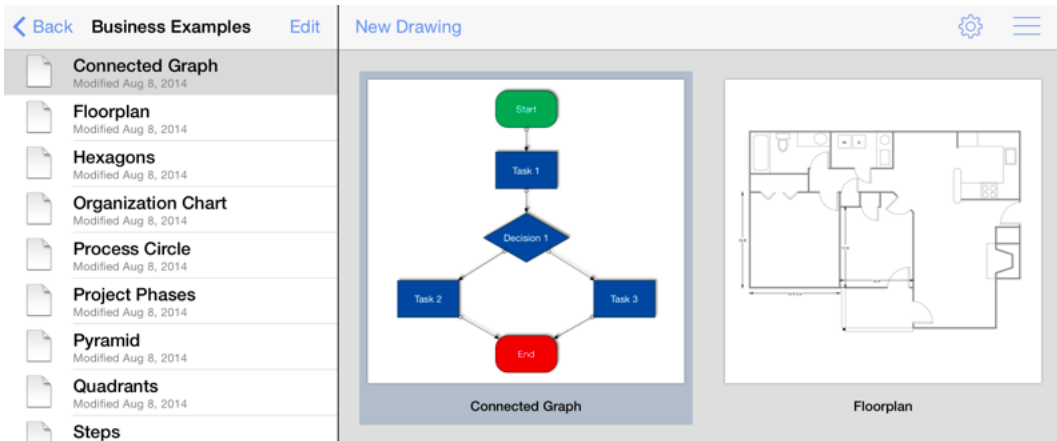


**Note:** More information on the image export options can be found in the [Share/Move Menu](#) section of the documentation. Exporting limitations and known issues regarding each exporting format can be found in the [File Format Support](#) section.

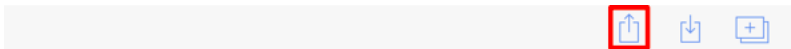
## 4.2.10.3. Exporting to iTunes

TouchDraw supports exporting drawings in the supported file formats into the application documents directory. This allows drawings to be accessed via iTunes when an iPad device is connected to a computer.

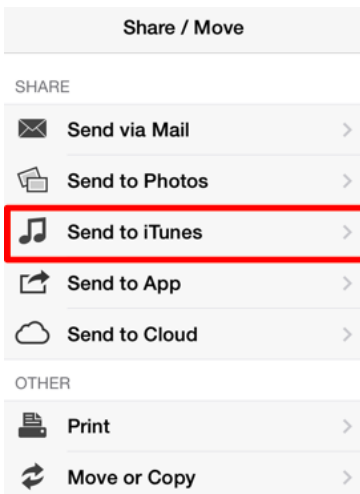
1. Navigate to the desired drawing in the [List Panel](#) and select it for exporting.



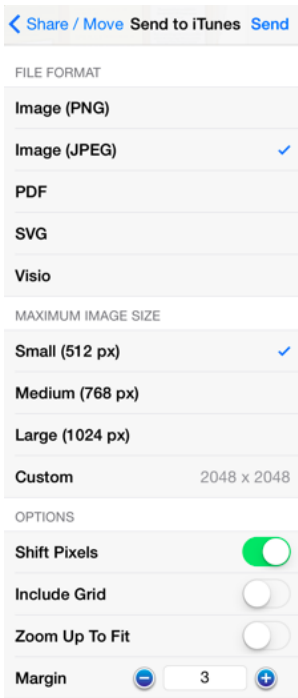
2. Press on the **Share/Move Button** in the [Bottom Toolbar](#).



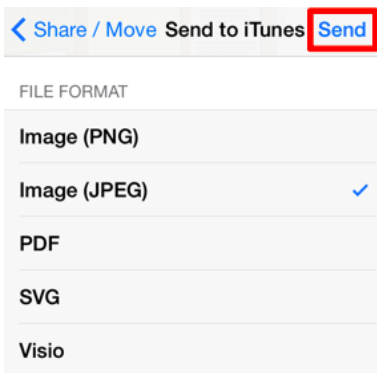
3. Tap on the **Send to iTunes** option in the [Share/Move Menu](#).



4. Choose a **File Format** and select all appropriate options.



The popover will reconfigure itself to show valid options for the selected format once one has been chosen. For example, the maximum image size and additional options can be configured when exporting a drawing as an image. 5. Press on the **Send Button** in the upper right hand corner of the popover to add the drawing into the documents directory.



More information on the image export options can be found in the [Share/Move Menu](#) section of the documentation. Exporting limitations and known issues regarding each supported exporting format can be found in the [File Format Support](#) section.

Complete the following steps to access the subsequently generated document:

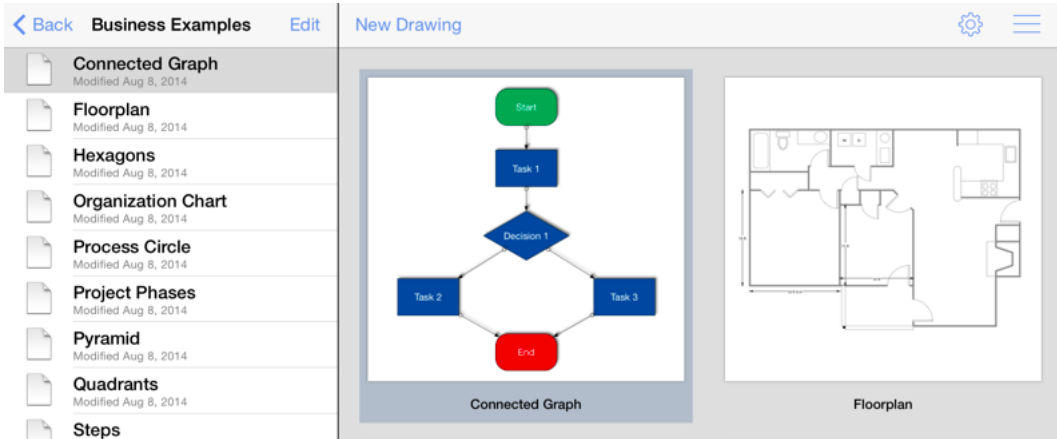
1. Connect the iPad to a computer.
2. Open iTunes.
3. Select iPad in the **Devices** section in the left panel.
4. Select the **Apps Tab** in the right panel.
5. Scroll down to the **File Sharing** section.
6. Select **TouchDraw** in the **Apps List**.
7. Either use drag and drop or the **Save To... Button** to move the file onto a local computer.



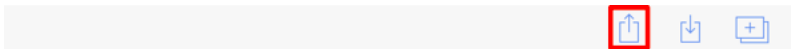
## 4.2.10.4. Exporting to an Application

TouchDraw supports exporting a drawing as an image to an outside application for viewing, editing, or sharing. To export a drawing to an application:

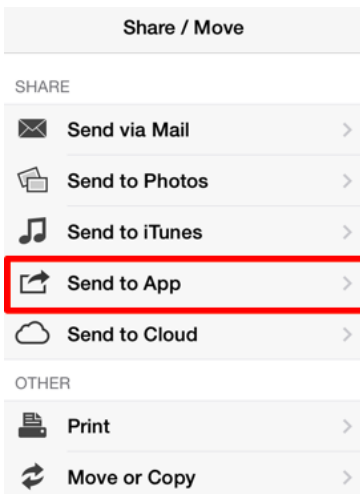
1. Navigate to the desired drawing in the [List Panel](#) and select it for exporting.



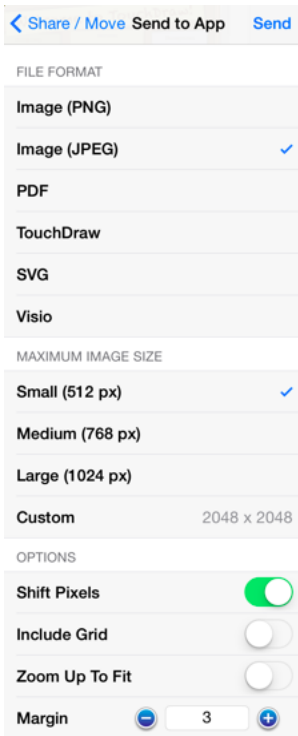
2. Press on the **Share/Move Button** in the [Bottom Toolbar](#).



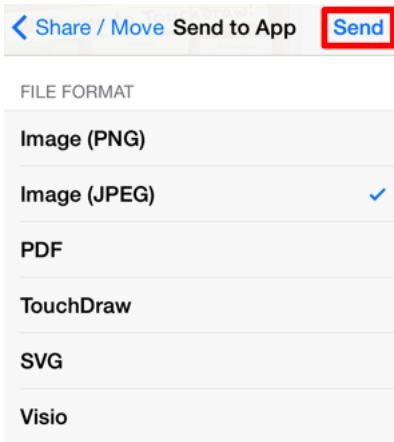
3. Tap on the **Send to App** option in the [Share/Move Menu](#).



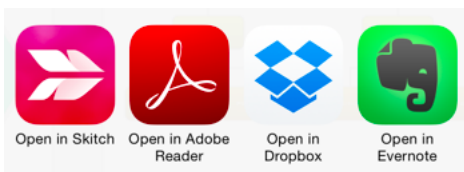
4. Choose a **File Format** and select all appropriate options.



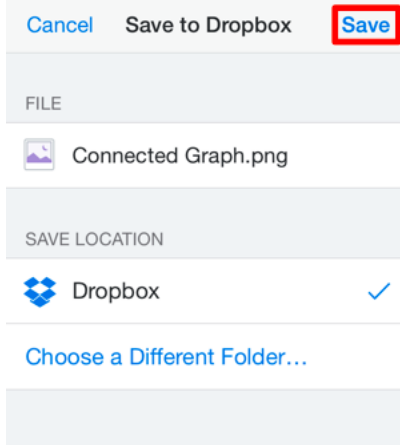
5. Press on the **Send Button** in the upper right hand corner.



6. Choose an **Application** for exporting from the supplied popover window. The provided selections are dynamically based on the applications that have been installed on the iPad device. In the screenshot example below, **Open in Dropbox** is chosen.



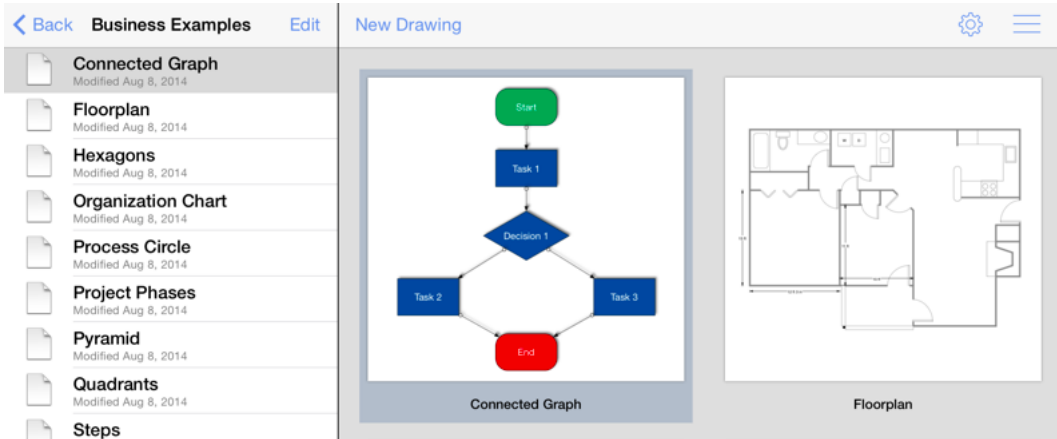
7. The actions following a selection in this popover vary based on the type of chosen application. An application will often supply a prompt window for signing in and/or saving the drawing or simply open the file.



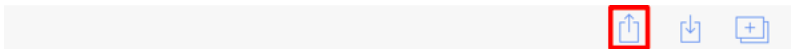
## 4.2.10.5. Exporting to a Cloud Services Provider

TouchDraw supports exporting a drawing to a cloud services provider for viewing and sharing outside of the application. To export a drawing to a selected provider:

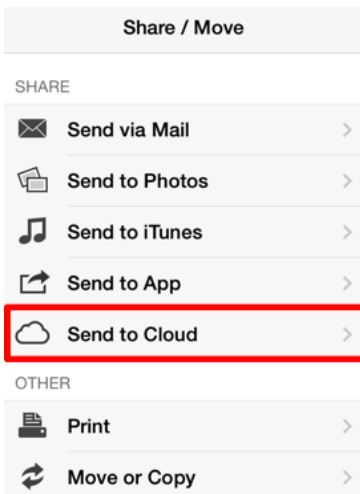
1. Navigate to the desired drawing in the [List Panel](#) and select it for exporting.



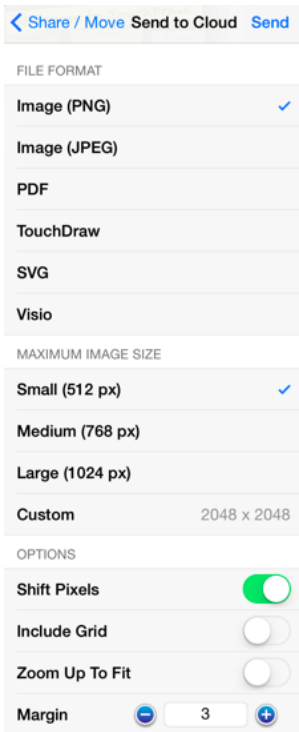
2. Press on the **Share/Move Button** in the [Bottom Toolbar](#).



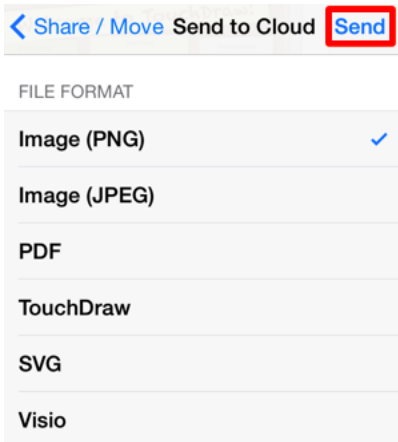
3. Tap on the **Send to Cloud** option in the [Share/Move Menu](#).



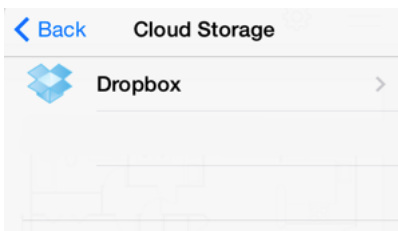
4. Choose a **File Format** and select all appropriate options.



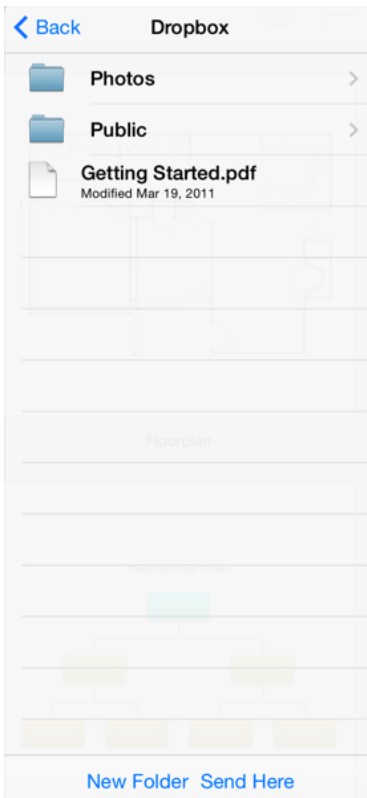
5. Press on the **Send Button** in the upper right hand corner.



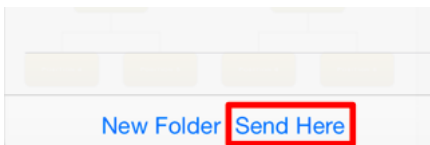
6. Tap on a **Cloud Storage Provider** to make a selection in the provided popover menu. This list is dynamically based upon configured service providers and will appear different on each device. Dropbox is chosen in the example shown below.



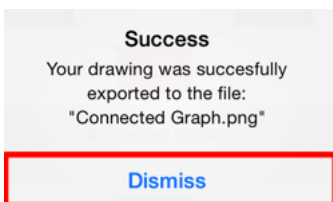
7. Navigate to the target directory where the exported drawing will be saved.



8. Once the target directory has been selected, press on the **Send Here Button** to continue with the export.



9. A confirmation message will appear stating that the file has been successfully exported. Press on the **Dismiss Button** to close the message.



**Note:** Please refer to the [Configuring Cloud Storage](#) page to learn how to set up a cloud service provider with TouchDraw for sharing and importing your drawings.

## 4.2.11. Importing a Drawing

There are currently three ways to import drawings and images into TouchDraw.

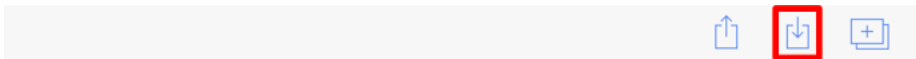
1. Use the [Import Menu](#) available within TouchDraw to import from cloud storage services such as DropBox or Box.
2. Import from the local TouchDraw documents directory, which can be managed within [iTunes](#).
3. Use a [third party application](#) (such as, but not limited to Mail, DropBox or Box) to send (or "Open in...") a drawing to TouchDraw on the iPad itself.

## 4.2.11.1. Importing within TouchDraw

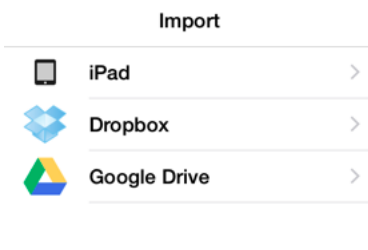
In addition to being able to open native TouchDraw documents, TouchDraw also has support for opening other file types. The list of supported file types are:

- 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)

The **Import Button** can be used to import all non-native file formats and is located in the [Bottom Toolbar](#), as shown below.

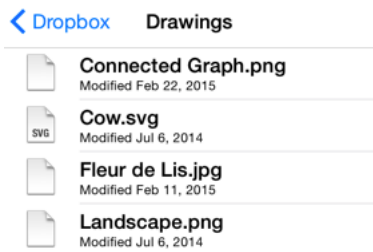
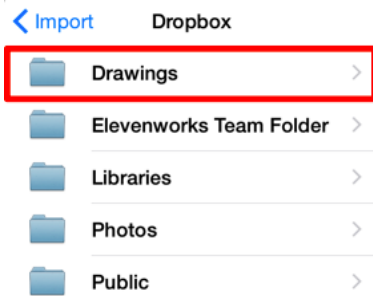


A menu similar to the one displayed below will appear when the **Import Button** is pressed. An entry for the local iPad device will always be shown followed by any configured cloud storage services. Navigate to the local device or to one of the cloud storage providers by pressing on one of the shown options. In the provided example, the Dropbox directory is chosen.



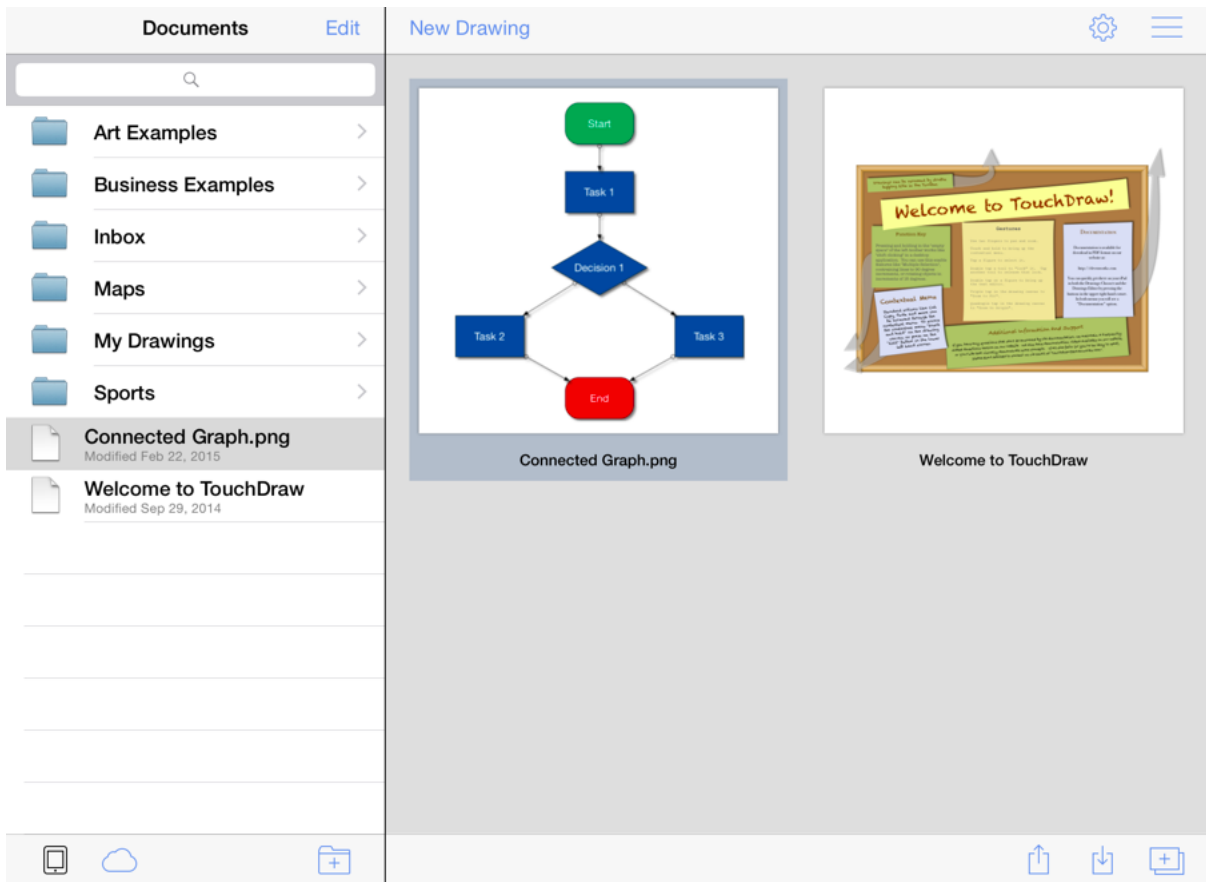
A folder or file list will then be presented based on what has been stored on the local device or within the selected cloud service. If a folder list is presented as shown below, navigate to the desired drawing by pressing on the folder name where it is located. In this example, the Drawings Folder is selected and Connected Graph.png is imported.





To import a drawing/image, tap on the file name in the list to select it. A progress indicator will appear as a visual indicator of the import and the converted/imported drawing becomes available for opening in the current directory when the process has completed.

# TouchDraw for iPad



## 4.2.11.2. Importing Using iTunes

A drawing can be imported into TouchDraw using iTunes when an iPad device is connected to a computer. To import a drawing with this method, follow the steps below:

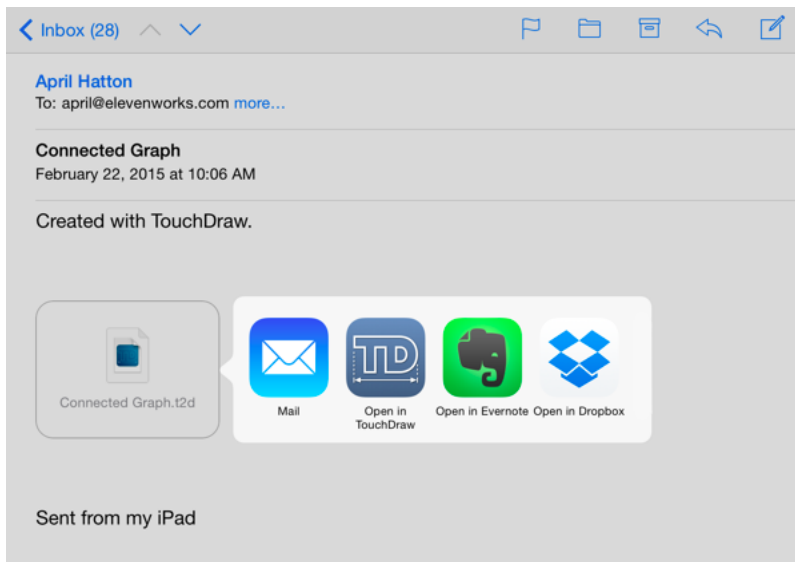
1. Connect the iPad to a computer.
2. Open iTunes.
3. Select iPad in the **Devices** section in the left panel.
4. Select the **Apps Tab** in the right panel.
5. Scroll down to the **File Sharing** section.
6. Select **TouchDraw** in the Apps List.
7. Either use drag and drop or the **Add... Button** to move files from a local computer onto an iPad device.

If the file is a native TouchDraw drawing (.t2d), then the drawing will show up in the [Drawing Chooser](#) when viewing the root documents directory. If the file is one of the other supported formats (.svg, .vdx, etc...) then it will not be visible by default. To import non-native document types, use the [Import Button](#) in the [Bottom Toolbar](#).

### 4.2.11.3. Importing Using Mail (or other local application)

If a drawing in another applications is accessible, use the built-in **Open in...** capability to send the drawing to TouchDraw from the other application. For example, if a TouchDraw drawing is received via an email message, tap and hold on the attached document to bring up a contextual menu which will provide the option to open the attachment with TouchDraw.

The following figure shows an example of the aforementioned contextual menu within Mail to open an attachment



The following file formats can be sent to TouchDraw when using the **Open in...** capability:

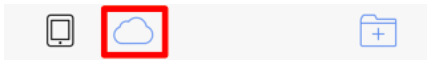
- TouchDraw Native (.t2d)
- Scalable Vector Graphics (.svg)
- Visio XML Drawing (\*.vdx)
- Portable Network Graphic (.png)
- JPEG (.jpg, .jpeg)
- BMP (.bmp)
- TIFF (.tif, .tiff)
- Enhanced Metafile (.emf)
- Windows Metafile (.wmf)

## 4.2.12. Configuring Cloud Storage

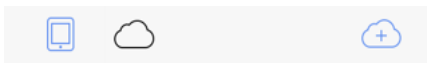
Besides accessing files stored locally on the iPad, TouchDraw also includes support for accessing files stored with a Cloud Storage or remote file service. The supported storage providers are:

- Box (<http://box.com>)
- DropBox (<http://dropbox.com>)
- Google Drive
- SkyDrive
- WebDAV

Press on the **Cloud Button** in the **Bottom Toolbar** to access available cloud storage providers. If the icon that resembles an iPad is blue (as shown in the screenshot below), then TouchDraw will show drawings stored locally on the iPad device.

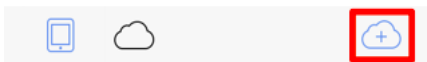


After pressing on the **Cloud Button**, TouchDraw will switch to **Cloud Storage Mode** making it possible to browse through drawings stored remotely in Cloud Storage or remote file stores.

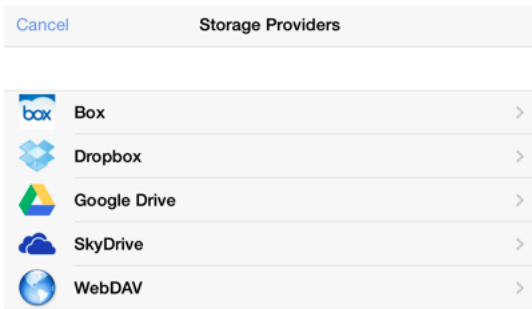


To connect TouchDraw to one of the supported cloud storage services:

1. Press on the **Add Cloud Service Button** (cloud with a plus in it), as shown below.



2. After pressing on the **Add Cloud Service Button**, a list of supported storage providers will be displayed for creating a connection, as illustrated in the screenshot below. Tap on a cloud storage provider name to select it and access its connection options. In the example below, Box is selected as the cloud storage provider.



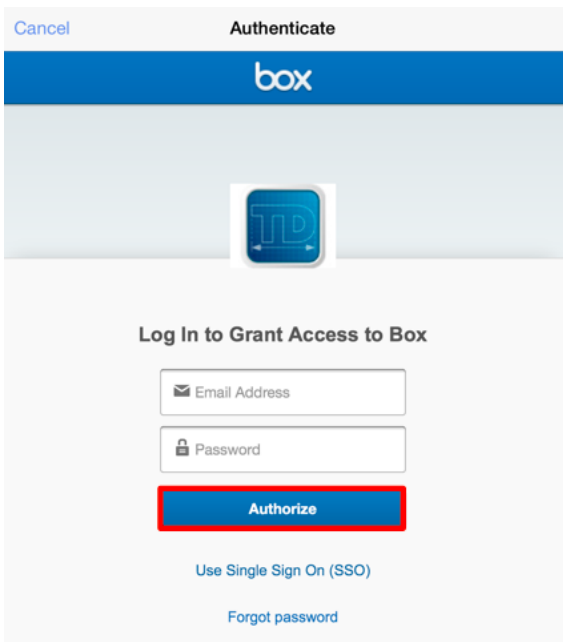
3. A new screen will appear based on the cloud storage provider selection. The **Title** will appear in TouchDraw for importing and sharing files through the cloud storage provider. You can tap on the **Title** to alter the displayed name. The image below illustrates the settings for connecting to Box.



4. After all requisite information has been filled in, press on the **Connect Button** in the toolbar to create the connection.



5. Next, you will need to enter authentication information for the selected cloud storage provider. After you have entered your **Email Address** or **User ID** and **Password** for the chosen provider, tap on the **Authorize Button** (or **Sign In Button**) at the **Authentication Window** to complete the connection. Tap on the **Cancel Button** in the upper left hand corner to exit this window without connecting to the cloud service provider.



For each service type, there is a common entry called **Title**, which must be filled in. This is the name/title for the specific cloud service connection. This configuration ability allows for easy differentiation between multiple accounts using the same service. For example, if you have a personal Box account, and a work Box account, you can connect to both of them using TouchDraw and differentiate them by specifying a different title.

## 4.2.13. Backing Up and Restoring Data

Drawings and libraries stored within TouchDraw can be saved in a

[Backup File](#)

for access at a later time. This feature ensures pertinent files are accessible at times when undesired changes occur or a file is accidentally lost. Backup files can be

[restored](#)

as needed by opening the

[Global Settings Menu](#)

in the

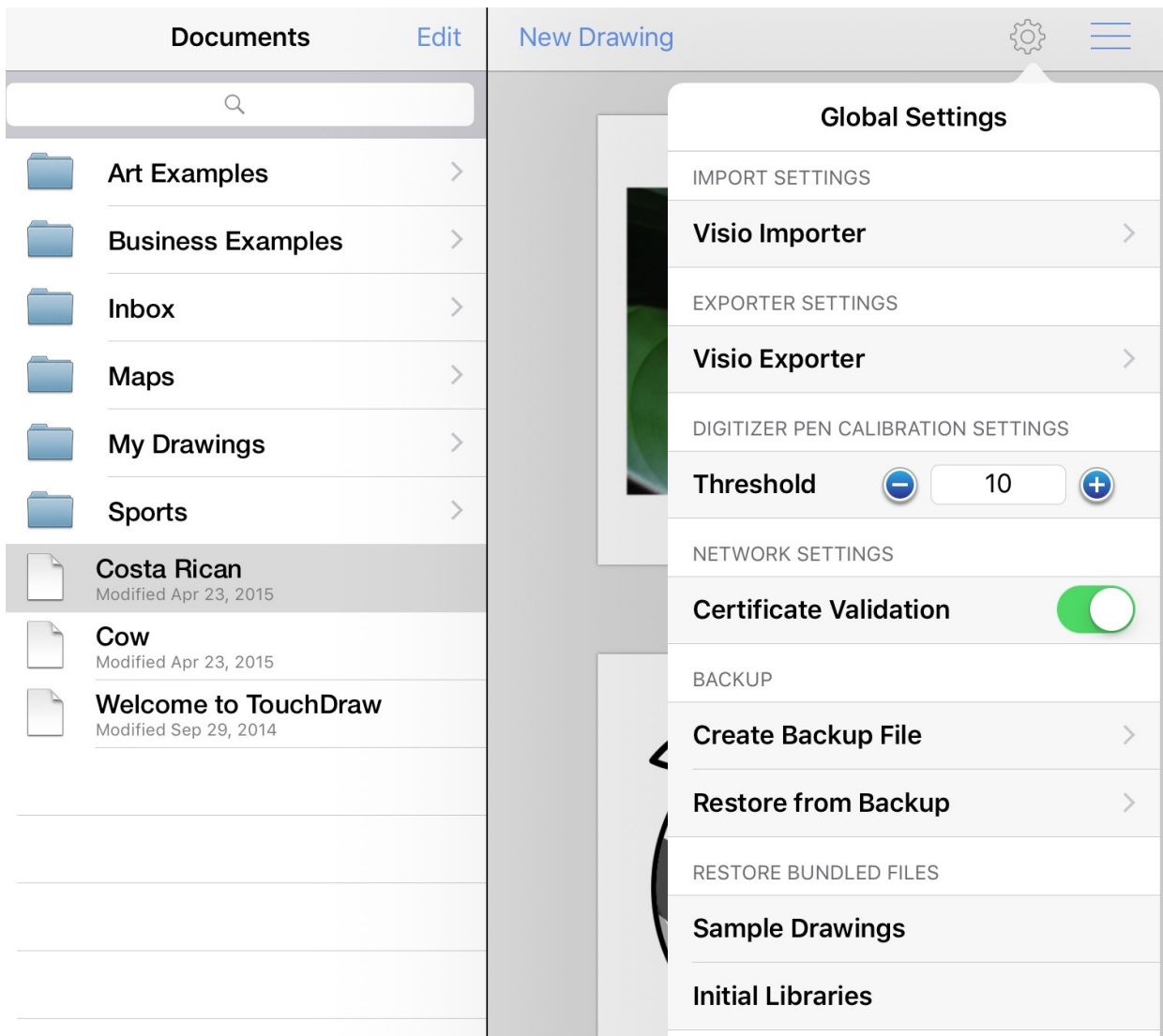
[Drawing Chooser](#)

and browsing to the location where the file is stored.

[Bundled files](#)

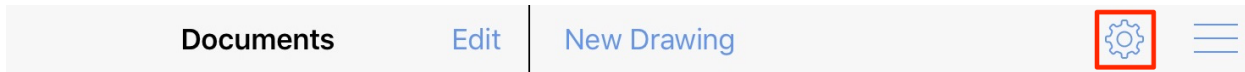
such as sample drawings and libraries provided with the TouchDraw application may also be restored at any time through this menu.





## 4.2.13.1. Creating a Backup File

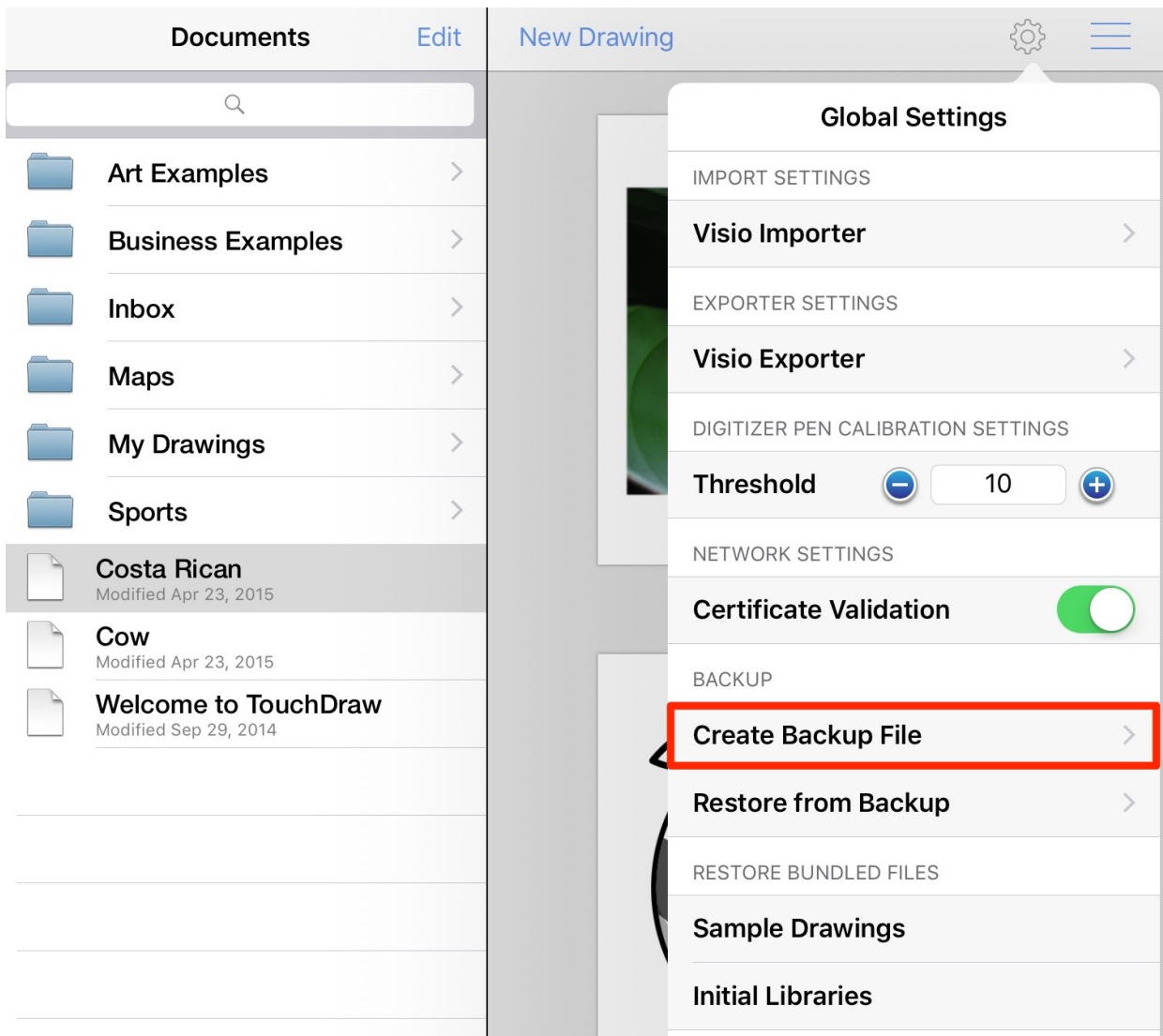
Drawings and libraries stored within TouchDraw application can be backed up as a single file for use in instances where a restore is necessary. The creation of a backup file ensures important data can be accessed any time it is needed. To access this option in TouchDraw, simply click on the **Global Settings Button** in the [Top Toolbar](#) of the [Drawing Chooser](#).



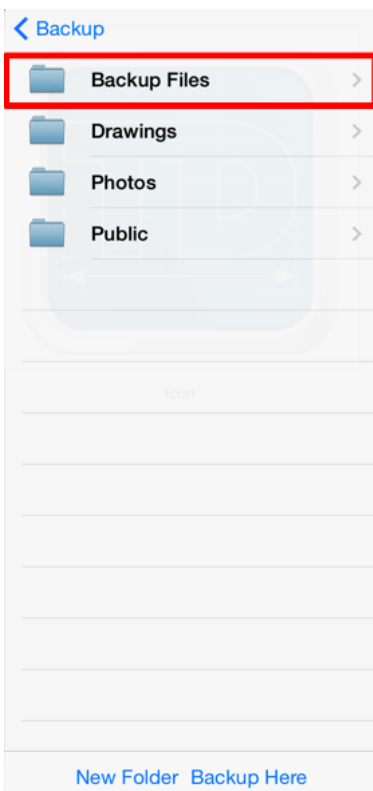
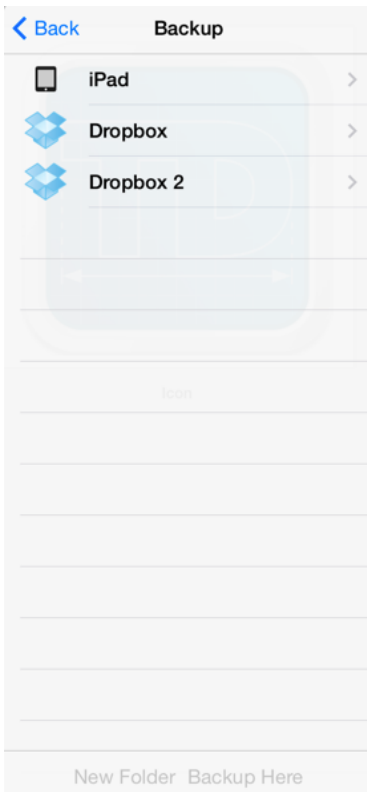
Then pressing on

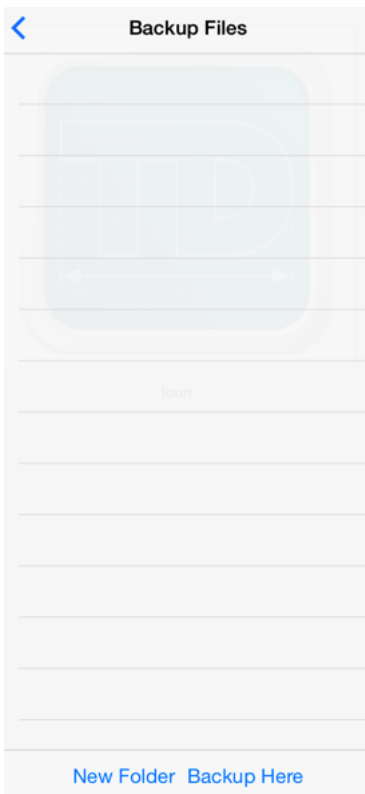
**Create Backup File**

, as shown below.

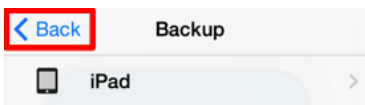


A new menu will appear after pressing on the **Create Backup File** option in the [Global Settings Menu](#) and is used to determine where the generated backup file will be stored. The options shown in this menu will vary depending on the local file storage and cloud service provider choices that are currently available on your iPad. In the example shown below, the **Backup Files Folder** is chosen under the **Dropbox** directory.

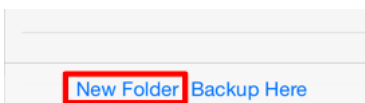




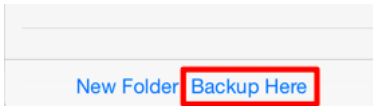
The button located in the upper left hand corner can be used at any time to return to the previous menu or file directory.



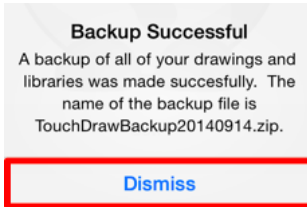
Use the supplied menu to select a location for storing the generated backup file. Tap on the iPad option to store the backup file locally or tap on a listed cloud services provider to store the generated file in the cloud. A **New Folder Button** is provided at the bottom of this menu to create a new folder in the currently selected directory.



Press on the **Backup Here Button** located at the bottom of this menu once the storage location has been chosen to begin generating a backup file.

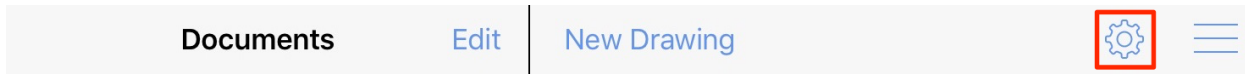


A message will appear once the **Backup File** has been successfully created and saved in the chosen directory. Press on the **Dismiss Button** to close this message.



## 4.2.13.2. Restoring a Backup File

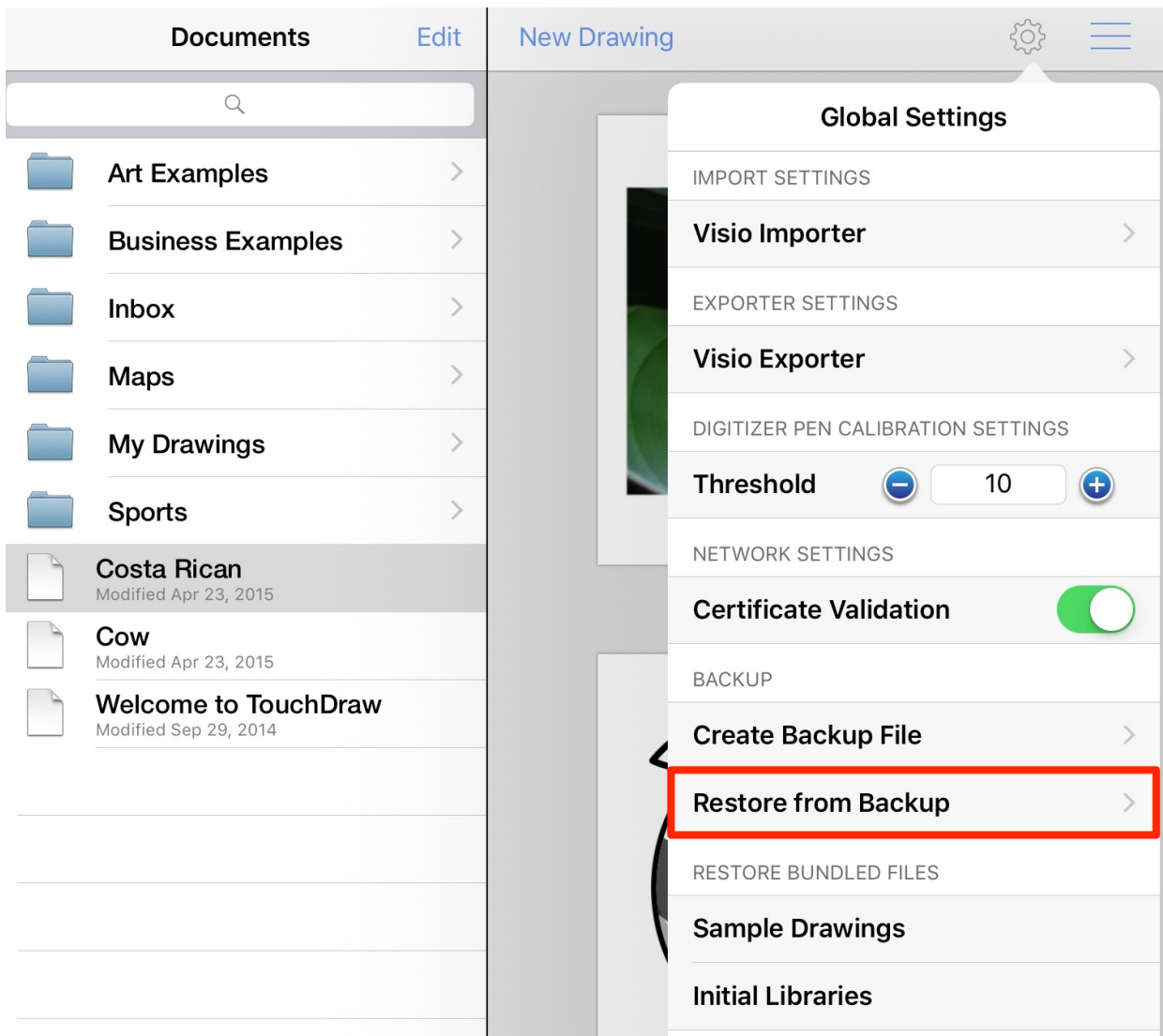
Backup files created within TouchDraw can be restored as needed by clicking on the **Global Settings Button** in the [Top Toolbar](#) of the [Drawing Chooser](#)



Then pressing on the

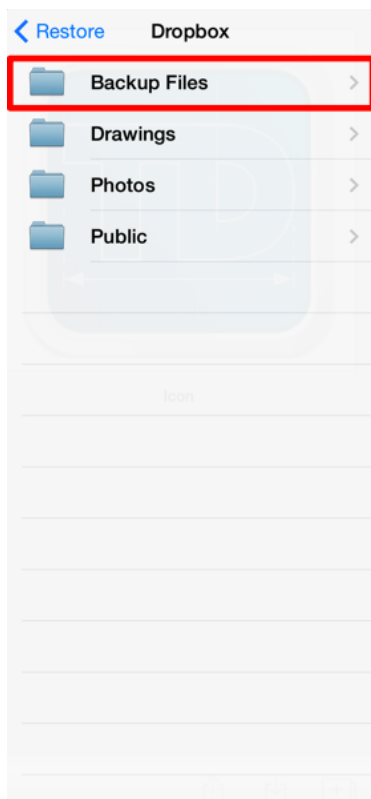
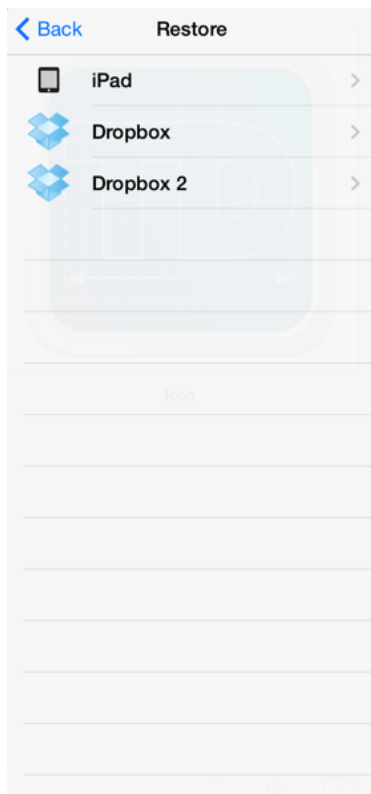
**Restore from Backup**

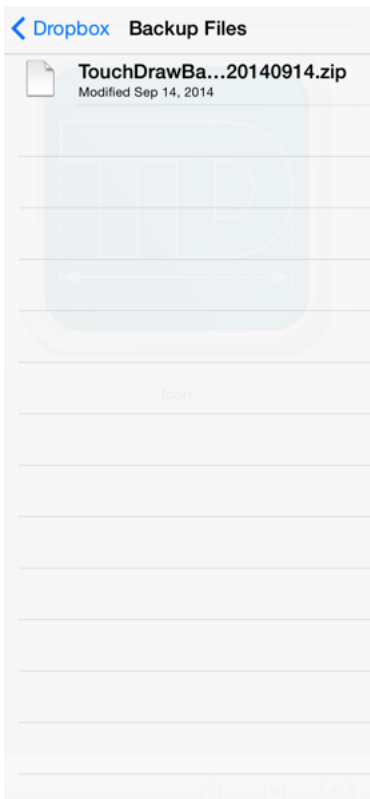
option, as shown below.



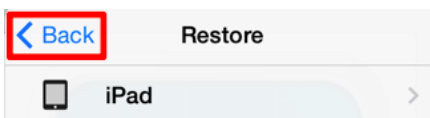
A new menu will appear after pressing on the **Restore from Backup** option in the [Global Settings Menu](#) and is used to browse to the directory where the desired backup file is stored. The options shown on this menu will vary depending on the local file storage and cloud service provider choices that are currently available on your iPad. In the example provided below, the **Backup Files Folder** is chosen under the **Dropbox** directory.



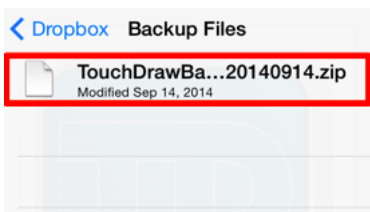




The button located in the upper left hand corner can be used at any time to return to the previous menu or file directory.

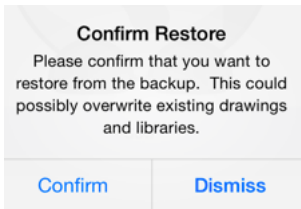


Use the supplied menu to maneuver to the directory where the desired backup file is stored. Tap on the iPad option to access local file sources or tap on a listed cloud services provider to access files stored in the cloud. Then tap on a backup file in the chosen directory to begin the restore process.

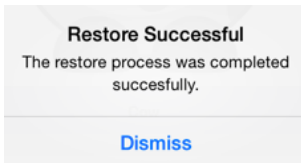


A confirmation message will appear once a backup file has been selected. Press on the **Confirm Button** to

begin restoring the selected backup file or press on the **Dismiss Button** to close this message and exit without restoring.

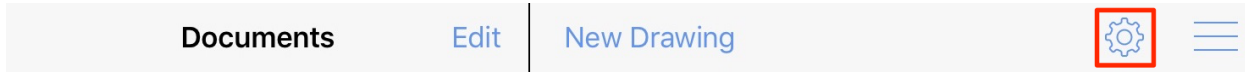


Another message will appear once the restore has been successfully completed. Press on the **Dismiss Button** to close this message.



### 4.2.13.3. Restoring Bundled Files

The **Restore Bundled Files** options can be used to restore sample drawings and libraries provided during an initial install of TouchDraw. These options are accessed by pressing on the **Global Settings Button** in the [Top Toolbar](#), as shown below.



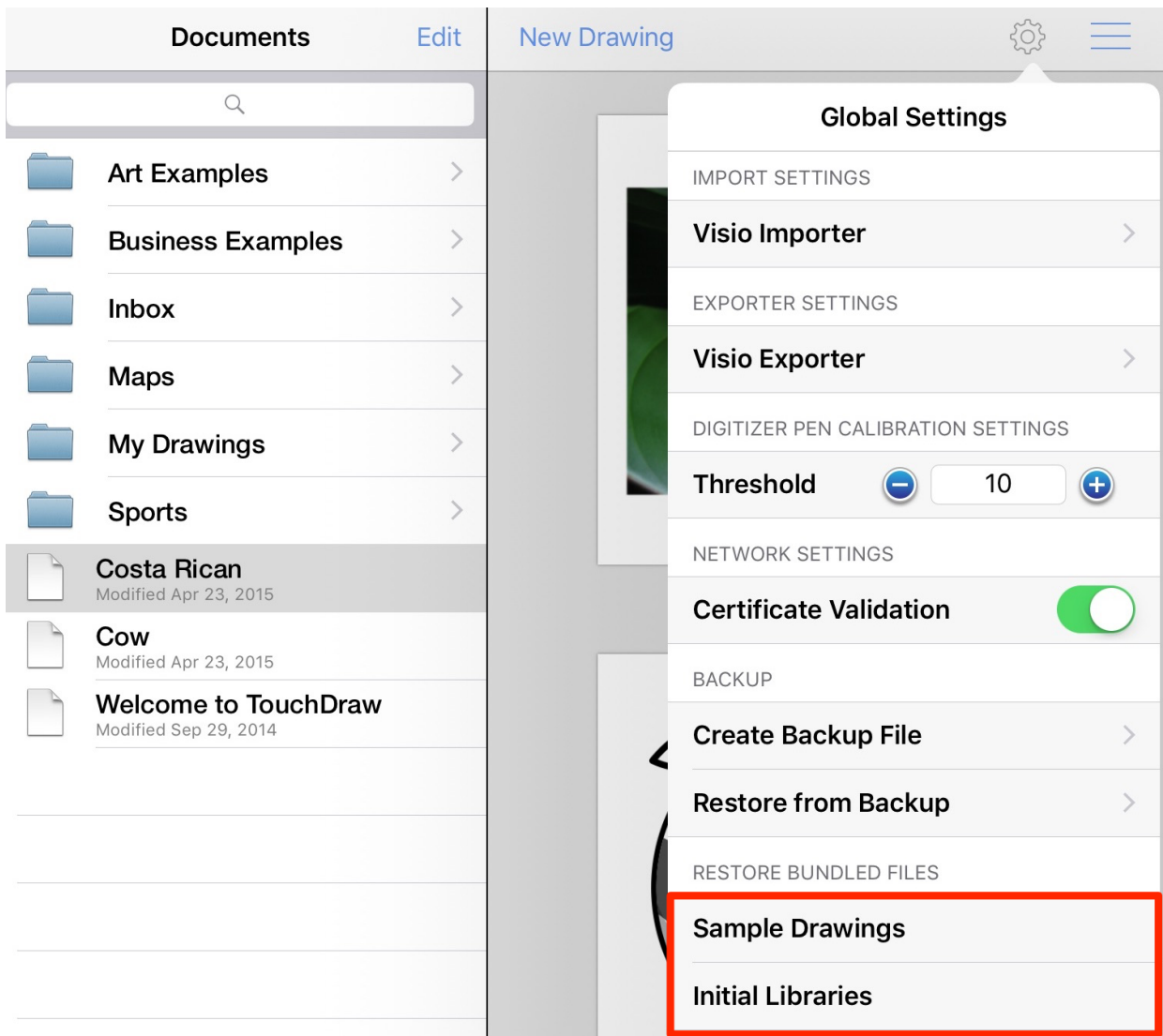
Select the type of

#### **Bundled Files**

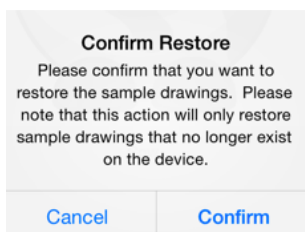
to be restored by pressing on one of the supplied options in the

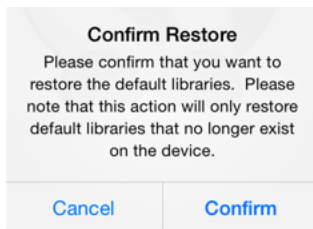
[Global Settings Menu](#)

.



A confirmation message will appear prior to starting the restore. Press on the **Confirm Button** to begin restoring sample drawings or initially supplied libraries. Press on the **Cancel Button** to exit this prompt without beginning the restore process.





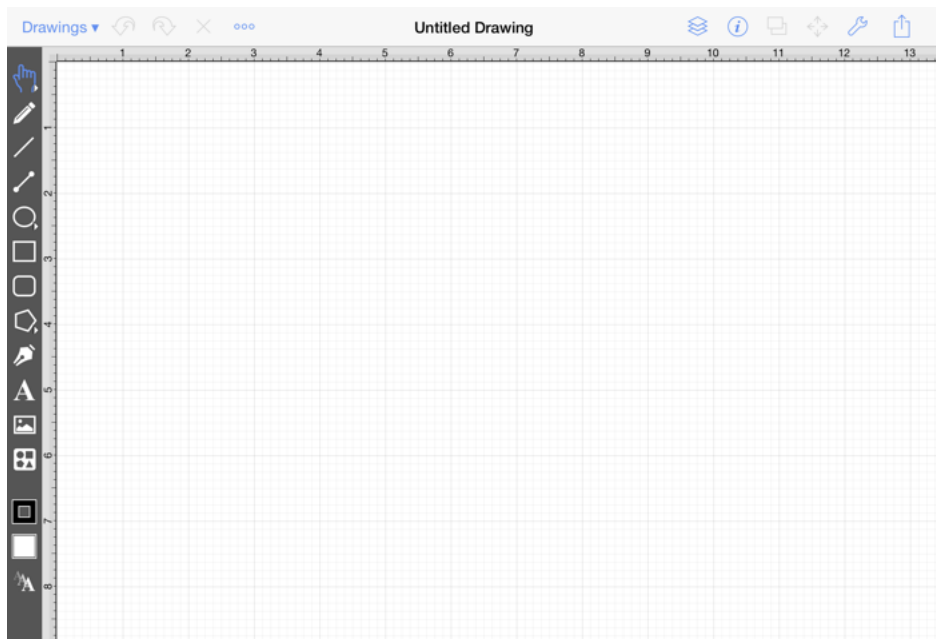
The sample drawings or initial libraries are restored automatically after pressing on the **Confirm Button** and will be viewable in their original directory locations.

## 5. Drawing Editor

The options for **Editing Drawings** in TouchDraw are designed to make working with figures, lines, paths, and handles easier. The following pages explain how to create, manage, and edit figures within a drawing through the **Drawing Editor**.

## 5.1. User Interface

The following screen will open once an [existing](#) or [new drawing](#) has been selected in the [Drawing Chooser](#).



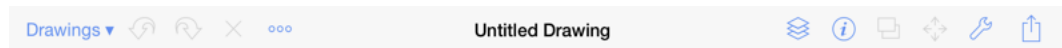
This screen functions as the user interface for creating and managing drawings in TouchDraw for the iPad.

As shown above, the screen is split into two views. The [Drawing Canvas](#) and [Drawing Tools](#) are located on the lower portion of the application window. A [Toolbar](#) is positioned above these two portions of the user interface and can be used to make additional modifications to figures within a drawing.



## 5.1.1. Toolbar

The *Toolbar* has ten buttons available for performing actions within the TouchDraw application and displays the title of the currently selected drawing.



The buttons on the right hand side of the toolbar supply access to most of the functions for modifying drawing figure attributes and changing application settings.

Click or Tap on one of the Toolbar Button names to learn more about its functionality.

| Button Name                     | Description   |
|---------------------------------|---|
| <a href="#">Drawings</a>        | The <b>Drawings Button</b> can be used to access options for saving a drawing that is currently being edited or viewed and exiting to the <a href="#">Drawing Chooser</a> .   |
| <a href="#">Undo</a>            | The <b>Undo Button</b> reverts the last change that was made to a drawing. This button is disabled (dimmed) when no changes have been made and enabled as soon as something is altered in the <a href="#">Drawing Editor</a> .                                |
| <a href="#">Redo</a>            | The <b>Redo Button</b> cancels the last undone change made to the <a href="#">Drawing Canvas</a> . This button is disabled (dimmed) when nothing has been undone and is enabled as soon as the <b>Undo</b> command has been used or something is altered.     |
| <a href="#">Delete</a>          | The <b>Delete Button</b> removes currently selected figure(s) from the <a href="#">Drawing Canvas</a> .   |
| <a href="#">Contextual Menu</a> | The <b>Contextual Menu</b> may be used to access basic editing functions within TouchDraw along with <a href="#">Path</a> , <a href="#">Layer</a> , and Line options.   |
| <a href="#">Layers</a>          | The <b>Layers Button</b> can be used to access options for creating and managing layers within a currently open drawing.  |
| <a href="#">Info</a>            | The <b>Info Button</b> can be used to access options for changing the attributes of a figure that is about to be drawn or any currently selected figure.  |
| <a href="#">Arrangement</a>     | The <b>Arrangement Button</b> can be used to access actions for arranging and aligning selected figures within the <a href="#">Drawing Canvas</a> and is only enabled (selectable) when figures have been <a href="#">selected</a> within the Drawing Canvas. |

## TouchDraw for iPad

---

| Button Name                | Description   |
|----------------------------|---|
|                            |   |
| <a href="#">Adjustment</a> | The <b>Adjustment Button</b> can be used to access actions for finer control over a <a href="#">selected</a> figure(s) or to make path related changes to a figure. |
| <a href="#">Settings</a>   | The <b>Settings Button</b> can be used to access general purpose actions within TouchDraw.  |
| <a href="#">Export</a>     | The <b>Export Button</b> can be used to access actions for exporting a drawing (mail, photo, iTunes, apps) and printing.  |





## 5.1.1.1. Contextual Menu

The **Contextual Menu** provides access to basic editing functions within TouchDraw along with [Path](#), [Layer](#), and Line options. It is accessible by either touching and pressing on the [Drawing Canvas](#) for ~1 second or pressing on the **Contextual Menu Button** in the [Top Toolbar](#), as shown below.



The options shown on this menu change depending on the type of figure(s) and number of figures currently [selected](#) within the [Drawing Canvas](#). Options will also vary based on previous changes made to figure(s). For example, the **Paste Submenu** does not appear unless a figure has been cut or copied and path choices only appear when a path figure has been selected.

| Contextual Menu         |                     |
|-------------------------|---------------------|
| CLIPBOARD AND SELECTION |                     |
| Cut                     |                     |
| Copy                    | <a href="#">i</a> > |
| Paste                   | <a href="#">i</a> > |
| Delete                  |                     |
| Select All              | <a href="#">i</a> > |
| Duplicate               | <a href="#">i</a> > |
| PATHS                   |                     |
| Insert Handle           |                     |
| Delete Segment          |                     |
| Segment To Line         |                     |
| Segment To Cubic Curve  |                     |
| LAYERS                  |                     |
| Move To Layer           | >                   |

| Contextual Menu         |   |
|-------------------------|---|
| CLIPBOARD AND SELECTION |   |
| Cut                     |   |
| Copy                    |  > |
| Paste                   |  > |
| Delete                  |   |
| Select All              |  > |
| Duplicate               |  > |
| LAYERS                  |   |
| Move To Layer           | >   |
| LINES                   |   |
| Style As Dimension Line |   |

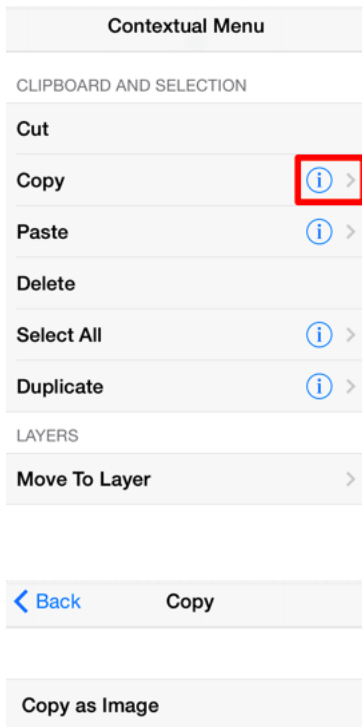
Click or Tap on the corresponding Contextual Menu item name to learn more about what the option does.

| Option Name                        | Description  |
|------------------------------------|--|
| <a href="#">Cut</a>                | The <b>Cut</b> option removes the currently selected item from the active drawing and places it in the clipboard.  |
| <a href="#">Copy</a>               | The <b>Copy</b> option places a copy of the currently selected item into the clipboard.  |
| <a href="#">Paste</a>              | The <b>Paste</b> option places current clipboard contents into the active drawing.   |
| <a href="#">Paste Submenu</a>      | The <b>Paste Submenu</b> contains options for pasting the most current clipboard item into the active drawing. A tap on the <b>Paste Submenu Button</b> results in a simple paste action. Press on the blue circle with a white arrow to access additional pasting options.                            |
| <a href="#">Delete</a>             | The <b>Delete</b> option permanently removes an item from the active drawing.  |
| <a href="#">Select All</a>         | The <b>Select All</b> option selects all figures within the currently active drawing.  |
| <a href="#">Select All Submenu</a> | The <b>Select All Submenu</b> contains options for selecting figures within the active drawing. A tap on the <b>Select All Submenu Button</b> results in the selection of all figures within the active drawing. Press on the blue circle with the white arrow to access additional selection options. |
| <a href="#">Duplicate</a>          | The <b>Duplicate</b> option creates a copy of a selected figure(s) and places it within the Drawing Canvas at an offset position.  |

| Option Name                             | Description   |
|---|---|
| <a href="#">Duplicate Submenu</a>       | The <b>Duplicate Submenu</b> contains options for duplicating figures within the active drawing. A tap on the <b>Duplicate Submenu Button</b> results in the duplication of selected figures at an offset position within the active drawing. Press on the blue circle with the white arrow to access additional duplication options. |
| <a href="#">Insert Handle</a>           | The <b>Insert Handle</b> option inserts a handle into the currently selected path segment.  |
| <a href="#">Delete Handle</a>           | The <b>Delete Handle</b> option deletes the currently selected handle from a path segment.  |
| <a href="#">Delete Segment</a>          | The <b>Delete Segment</b> option deletes the currently selected segment from a path.  |
| <a href="#">Segment To Line</a>         | The <b>Segment To Line</b> option can be used to convert a quadratic or cubic path segment into a line segment.   |
| <a href="#">Segment To Quad</a>         | The <b>Segment To Quad</b> option can be used to convert a line or cubic path segment into a quadratic segment.   |
| <a href="#">Segment To Cubic</a>        | The <b>Segment To Cubic</b> option can be used to convert a line or quadratic path segment into a cubic segment.  |
| <a href="#">Move To Layer Submenu</a>   | The <b>Move To Layer Submenu</b> contains options for moving selected figure(s) to a new or existing layer.   |
| <a href="#">Style As Dimension Line</a> | The <b>Style As Dimension Line</b> option adds arrowheads and a variable to a selected line(s). At least one line must be <a href="#">selected</a> in the Drawing Canvas for this option to appear.   |

### 5.1.1.1.1. Copy Submenu

The **Copy Submenu** contains options for copying [selected](#) figures within the [Drawing Canvas](#). It is accessed by pressing on the **Contextual Menu Button** in the [Top Toolbar](#) and then pressing on the **Copy Submenu Button** (blue circle with white arrow). This menu choice only appears if a figure(s) has been selected.

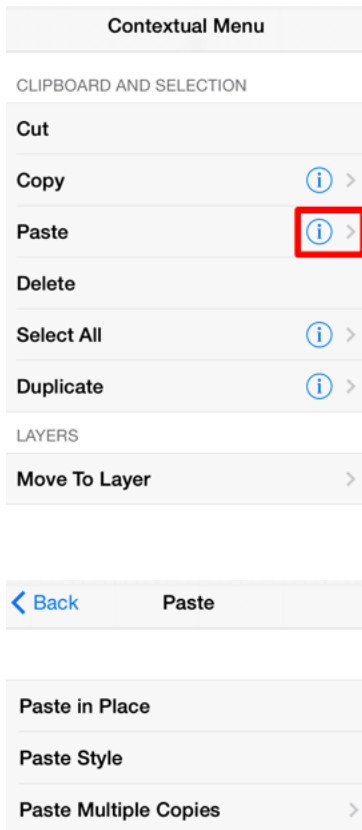


Click or Tap on the corresponding Copy Submenu item name to learn more about what the option does.

| Option Name   | Description   |
|---------------|---|
| Copy as Image | The <b>Copy as Image</b> menu item copies a selected figure(s) to the clipboard as an image object. |

## 5.1.1.1.2. Paste Submenu

The **Paste Submenu** contains options for pasting the most current clipboard item into the active drawing. It is accessed by pressing on the **Contextual Menu Button** in the [Top Toolbar](#) and then pressing on the **Paste Submenu Button** (blue circle with white arrow). This menu choice only appears if a figure(s) have been cut or copied and currently reside in the clipboard.



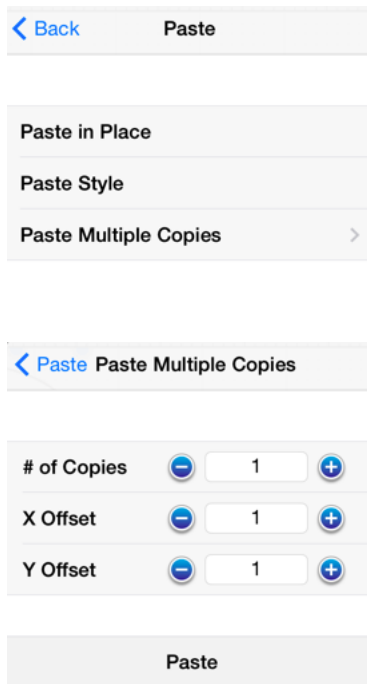
Click or Tap on the corresponding Paste Submenu item name to learn more about what the option does.

| Option Name                                   | Description  |
|---|--|
| <a href="#">Paste in Place</a>                | The <b>Paste in Place</b> menu item copies the current clipboard item into the exact location of the original.         |
| <a href="#">Paste Style</a>                   | The <b>Paste Style</b> menu item applies the formatting properties of one object to the currently selected object.     |
| <a href="#">Paste Multiple Copies Submenu</a> | The <b>Paste Multiple Copies Submenu</b> can be used to paste multiple copies of a clipboard item at specific offsets. |

## 5.1.1.1.3. Paste Multiple Copies Submenu

The **Paste Multiple Copies Submenu** can be used to paste multiple copies of a clipboard item at specific offsets. It is accessed by pressing on the **Contextual Menu Button** in the [Top Toolbar](#), pressing on the **Paste**

**Submenu** , and then pressing on the **Paste Multiple Copies Submenu** . This menu choice only appears if a figure(s) have been cut or copied and currently reside in the clipboard.



Click or Tap on the corresponding Paste Multiple Copies Submenu item name to learn more about what the option does.

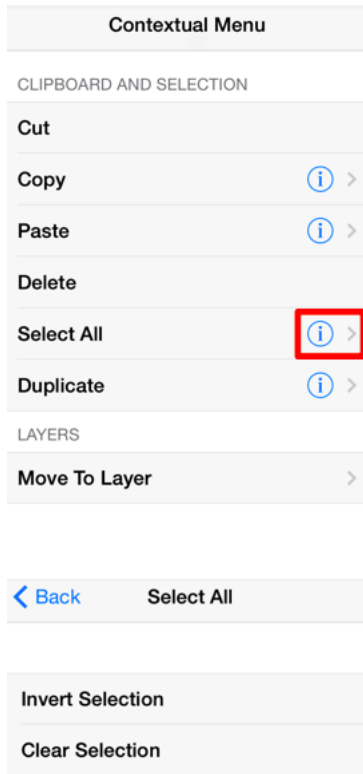
| Option Name                 | Description  |
|-----------------------------|--|
| <a href="#"># of Copies</a> | The <b># of Copies</b> option sets the number of times an item currently residing in the clipboard will be pasted into the active drawing. |
| <a href="#">X Offset</a>    | The <b>X Offset</b> option sets the X position value of the first pasted figure in the <a href="#">Drawing Canvas</a> .                    |
| <a href="#">Y Offset</a>    | The <b>Y Offset</b> option sets the Y position value of the first pasted figure in the <a href="#">Drawing Canvas</a> .                    |

### 5.1.1.1.4. Select All Submenu

The **Select All Submenu** contains options for selecting figures within the active drawing. It is accessed by pressing on the **Contextual Menu Button** in the [Top Toolbar](#) and then pressing on the Select All Submenu



Button (blue circle with white arrow).

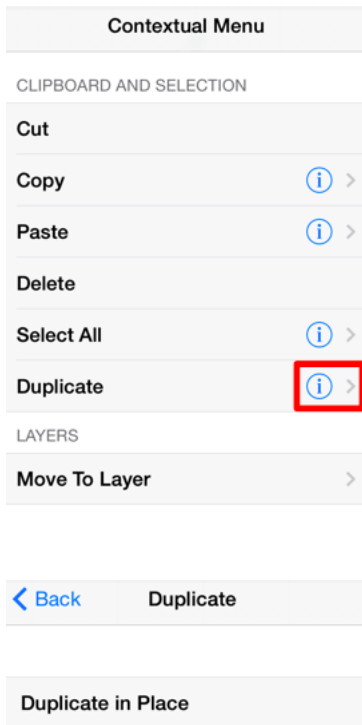


Click or Tap on the corresponding Select All Submenu item name to learn more about what the option does.

| Option Name                      | Description  |
|----------------------------------|--|
| <a href="#">Invert Selection</a> | The <b>Invert Selection</b> option deselects currently selected figures within the active drawing and selects all figures that were previously not chosen. |
| <a href="#">Clear Selection</a>  | The <b>Clear Selection</b> option deselects all currently selected figures within the active drawing.  |

### 5.1.1.1.5. Duplicate Submenu

The **Duplicate Submenu** contains options for duplicating figures within the active drawing. It is accessed by pressing on the **Contextual Menu Button** in the [Top Toolbar](#) and then pressing on the **Duplicate Submenu Button** (blue circle with white arrow).

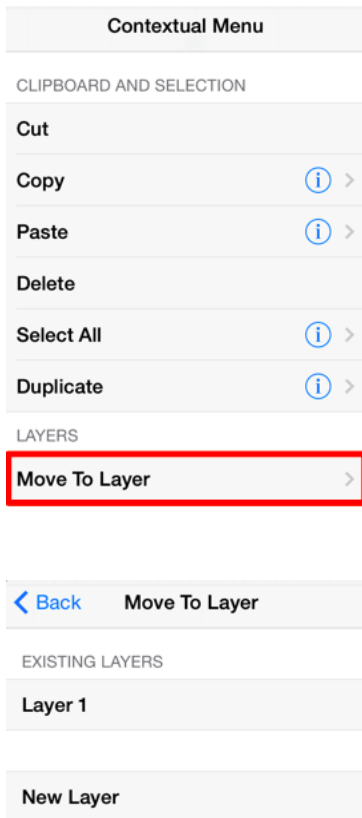


Click or Tap on the corresponding Duplicate Submenu item name to learn more about what the option does.

| Option Name                        | Description   |
|------------------------------------|---|
| <a href="#">Duplicate in Place</a> | The <b>Duplicate in Place</b> option creates a copy of a selected figure(s) and places it in the same location as the original. |

### 5.1.1.1.6. 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 pressing on the **Contextual Menu Button** in the [Top Toolbar](#) and then pressing on the **Move To Layer Submenu Button** (blue circle with white arrow).



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

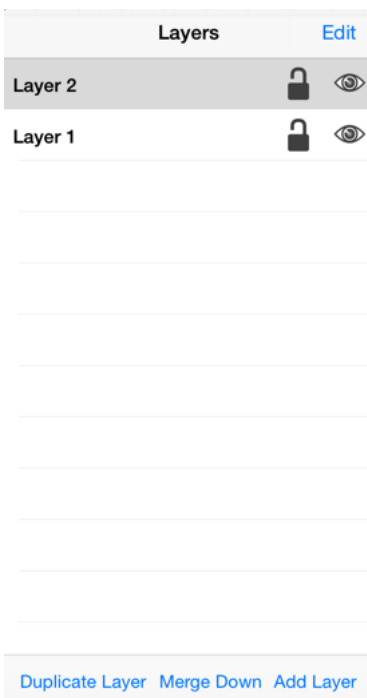
| Option Name                     | Description   |
|---------------------------------|---|
| <a href="#">Existing Layers</a> | The <b>Existing Layers</b> option allows the selected figure(s) to be moved to a specified layer within the active drawing. |
| <a href="#">New Layers</a>      | The <b>New Layers</b> option creates a new layer and places the selected figure(s) in that layer.                           |

## 5.1.1.2. 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 added layer to create a multi-dimensional drawing. They are managed and controlled through the **Layers Menu** located in the [Drawing Editor](#). Press on the **Layers Button** in the [Top Toolbar](#) to access this menu.








When the **Layers Button** is pressed, a popover menu will appear as shown below.



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

| Icon | Option Name                  | Description   |
|------|------------------------------|---|
|      | <a href="#">Add Layer</a>    | The <b>Add Layer</b> option adds a layer to the bottom of the layer list. |
|      | <a href="#">Delete Layer</a> | The <b>Delete Layer</b> option removes the top layer from the layer list. |

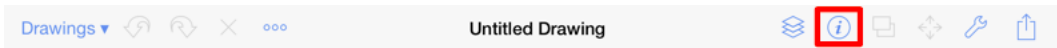
## TouchDraw for iPad

| Icon  | Option Name     | Description   |
|---|-----------------|---|
|    | Merge Down      | The <b>Merge Down</b> option combines the selected layer with the one located one level down in the layer list.   |
|    | Duplicate Layer | The <b>Duplicate Layer</b> option creates a copy of the currently selected layer in the popover menu.   |
|    | Edit            | The <b>Edit Button</b> provides options for renaming and deleting layers.   |
|    | Visibility      | The <b>Visibility</b> option is an "On/Off" toggle 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 <b>Press</b> 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 <b>Lock</b> option is an "On/Off" toggle 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 <b>Press</b> 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.   |

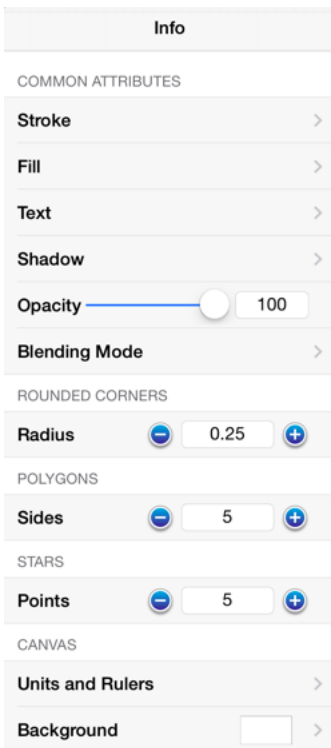
**Note:** Layers located at the top of the **Layers Menu List** are drawn above the layers residing below it.

### 5.1.1.3. Info

The **Info Button** is used to change attributes for a figure that is about to be drawn or any currently selected figure. A popover menu with multiple selection choices will appear when the button is pressed.



Pressing on the **Info Button** causes the **Info Menu** to open. This popover menu provides options for changing the attributes of multiple types of created figures and will appear as shown below.



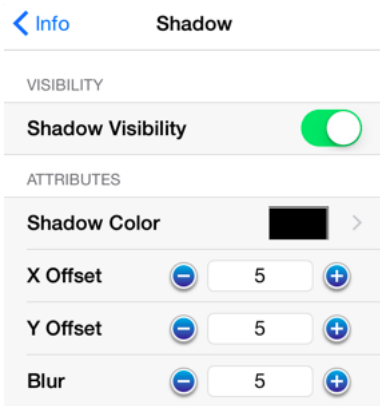
Click or Tap on the corresponding Info Menu item name to learn more about what the option does.

| Attribute Name         | Description  |
|------------------------|--|
| <a href="#">Stroke</a> | The <b>Stroke Button</b> can be used to alter the attributes of a stroke (line) for existing or new figures(s) within the <a href="#">Drawing Canvas</a> . |
| <a href="#">Fill</a>   | The <b>Fill Button</b> can be used to alter the fill attributes (color, opacity, etc.) of selected   |

| Attribute Name                   | Description  |
|----------------------------------|--|
|                                  | or new figure(s).  |
| <a href="#">Text</a>             | The <b>Text Button</b> can be used to alter the text attributes of any figure capable of displaying text.  |
| <a href="#">Shadow</a>           | The <b>Shadow Submenu</b> contains options for altering shadowing, opacity, and blending attributes of a figure(s).  |
| Opacity                          | The <b>Opacity</b> option sets the transparency value for the complete figure.   |
| <a href="#">Blending Mode</a>    | The <b>Blending Mode Submenu</b> can be used to choose the blending mode for a currently selected or new figure(s).  |
| <a href="#">Rounded Corners</a>  | The <b>Rounded Corners</b> option can be used to set the corner size of orthogonal or elbow <a href="#">connection lines</a> and <a href="#">rounded rectangles</a> . The units for the corner size <b>Radius</b> 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 ".25", that means that the corner size is 1/4 of an inch. |
| <a href="#">Polygons</a>         | The <b>Polygons</b> option can be used to set the number of sides for a polygon.   |
| <a href="#">Stars</a>            | The <b>Stars</b> option can be used to set the number of points for a star figure.   |
| <a href="#">Units and Rulers</a> | The <b>Units and Rulers Submenu</b> can be used to set the units of measure for the current drawing. In addition to controlling the layout and divisions of the ruler, the units are also used when exporting the drawings to other formats such as PNG Images and PDF files.  |
| <a href="#">Background</a>       | The <b>Background</b> option can be used to set the <a href="#">Drawing Canvas</a> background color and transparency level for the currently opened drawing.   |

### 5.1.1.3.1. Shadow Submenu

The **Shadow Submenu** contains actions for altering the shadow attributes of currently [selected](#) or new figure(s). It is accessed by pressing on the **Info Button** in the [Top Toolbar](#) of the [Drawing Editor](#). Press on the **Shadow Button** located in the [Info Menu](#) and a popover window will appear as shown below.



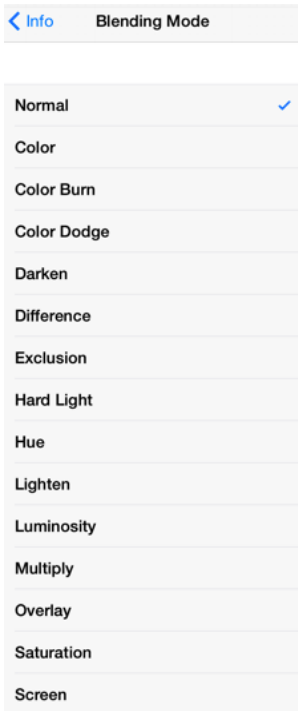
Click or Tap on the corresponding Shadow item name to learn more about what the option does.

| Option Name                  | Description   |
|------------------------------|---|
| Shadow Visibility            | The <b>Shadow Visibility</b> option is an On/Off toggle for managing the visibility of the shadow of a figure(s). If visibility it turned off, a shadow is simply not drawn at all.   |
| <a href="#">Shadow Color</a> | The <b>Shadow Color</b> option opens a popover window for making color changes to the shadow of a selected figure(s) or new figures. The visibility toggle must be On for changes to appear in the <a href="#">Drawing Canvas</a> . |
| X Offset                     | The <b>X Offset</b> option can be used to alter the offset of a shadow in the X axis.   |
| Y Offset                     | The <b>Y Offset</b> option can be used to alter the offset of a shadow in the Y axis.   |
| Blur                         | The <b>Blur</b> option sets the amount of blur applied to the shadow.   |

## 5.1.1.3.2. Blending Mode Submenu

The **Blending Mode Submenu** can be used to set the blending style of stroke, fill, and shadow colors used for currently [selected](#) figures or new figure additions. At least one figure must be selected to see a blending change in real time. If a figure has not been selected, the change will apply to any figure added after a blending mode change has been made.

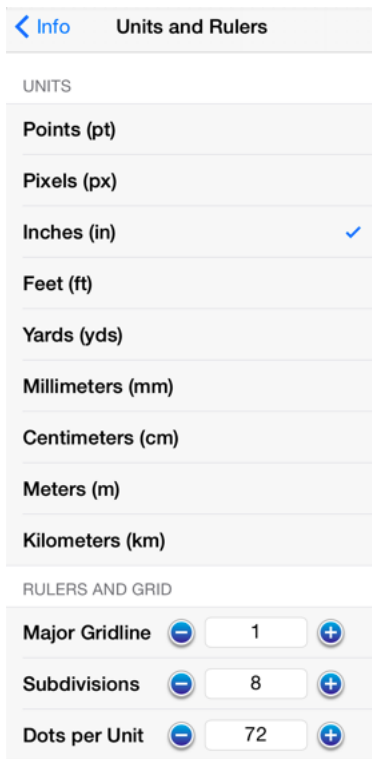




It is accessed by pressing on the **Info Button** in the [Top Toolbar](#) and then pressing on the **Blending Mode Submenu**. Tap on a desired **Blending Mode Style** to make a selection. A checkmark is used to show the currently selected blending mode style.

### 5.1.1.3.3. Units and Rulers Submenu

The **Units and Rulers Submenu** contains options for altering the unit of measure 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. It is accessed by pressing on the **Info Button** in the [Top Toolbar](#) of the [Drawing Editor](#) and appears as shown below:



Click or Tap on the corresponding Units and Rulers item name to learn more about what the option does.

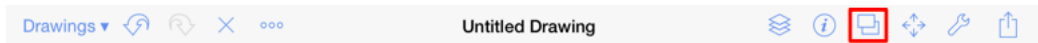
| Option Name    | Description   |
|----------------|---|
| Units          | The <b>Units Section</b> contains options for setting the form of unit measurement on the <a href="#">Drawing Canvas</a> (inches, pixels, etc.).  |
| Major Gridline | The <b>Major Gridline</b> option sets the interval (in the 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 <b>Subdivisions</b> option 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 ever 1/2 cm (5mm) |
| Dots per Unit  | The <b>Dots per Unit</b> option is used to configure the number of points on the screen that are equal to one unit in the current unit of measure.  |

**Note:** When changing from one unit of measure to another, the size of the figures numerically stays the same.

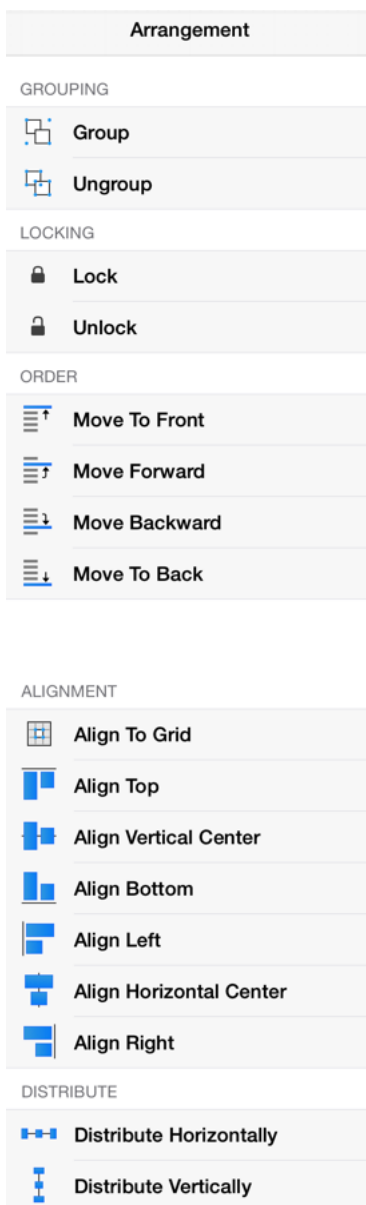
For example, if inches was the starting unit of measurement and changed to centimeters, the objects that were 1 inch wide before, would now be 1 centimeter wide.

## 5.1.1.4. Arrangement

The **Arrangement Button** can be used to access actions for arranging and aligning selected figures within the [Drawing Canvas](#) and is only enabled (selectable) when figures have been [selected](#).



When the **Arrangement Button** is pressed, a popover menu will appear as shown below.



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

| Option Name                   | Description  |
|-------------------------------|--|
| <a href="#">Group</a>         | The <b>Group</b> option 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 <a href="#">Drawing Canvas</a> . Shapes residing on the Drawing Canvas can be manipulated. |
| <a href="#">Ungroup</a>       | The <b>Ungroup</b> option 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.  |
| <a href="#">Lock</a>          | The <b>Lock</b> option prevents a selected figure(s) or group of figures from being <a href="#">moved</a> or <a href="#">resized</a> . This menu item is enabled when one or more unlocked (and lockable) figures are selected in the Drawing Canvas.  |
| <a href="#">Unlock</a>        | The <b>Unlock</b> option removes a previously instated lock on a figure(s) or group of figures to allow for <a href="#">moving</a> and <a href="#">resizing</a> . This menu item is enabled when one or more locked figures are selected in the Drawing Canvas.  |
| <a href="#">Move To Front</a> | The <b>Move To Front</b> option moves a currently selected figure(s) to the front of all figures residing in the same <a href="#">layer</a> . This menu item is enabled when one ore more figures are selected in the Drawing Canvas.  |
| <a href="#">Move Forward</a>  | The <b>Move Forward</b> option moves a currently selected figure(s) one step closer to the top of the stack within the <a href="#">layer</a> they reside in. This menu item is enabled when one ore more figures are selected in the Drawing Canvas.   |
| <a href="#">Move Backward</a> | The <b>Move Backward</b> option moves a currently selected figure(s) one step closer to the bottom of a stack within their residing <a href="#">layer</a> . This menu item is enabled when one ore more figures are selected in the Drawing Canvas.  |
| <a href="#">Move To Back</a>  | The <b>Move To Back</b> option moves a currently selected figure(s) behind all other figures residing within the same <a href="#">layer</a> . This menu item is enabled when one ore more figures are selected in the Drawing Canvas.  |
| <a href="#">Align To Grid</a> | The <b>Align To Grid</b> option aligns figures with the grid. This menu item is enabled when two or more unlocked figures are selected in the Drawing Canvas.  |
| <a href="#">Align Top</a>     | The <b>Align Top</b> option moves all currently selected figures to match the top (Y   |

## TouchDraw for iPad

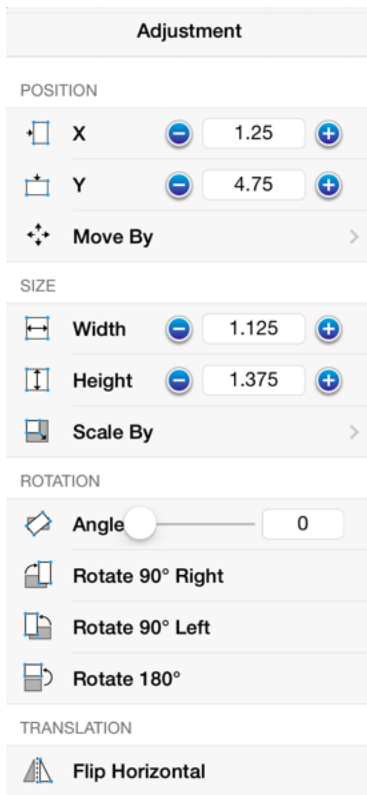
| Option Name                             | Description  |
|---|--|
|   | position) of the <b>first</b> selected figure. This menu item is enabled when two or more unlocked figures are selected in the Drawing Canvas.   |
| <a href="#">Align Vertical Center</a>   | The <b>Align Vertical Center</b> option moves all currently selected figures to match the vertical center (Y position + 1/2 of the height of all figures) of the <b>first</b> selected figure. This menu item is enabled when two or more unlocked figures are selected in the Drawing Canvas. |
| <a href="#">Align Bottom</a>            | The <b>Align Bottom</b> option moves all currently selected figures to match the the bottom (Y position + Height) of the <b>first</b> selected figure. This menu item is enabled when two or more unlocked figures are selected in the Drawing Canvas.   |
| <a href="#">Align Left</a>              | The <b>Align Left</b> option moves all currently selected figures to match the left (X position) of the <b>first</b> selected figure. This menu item is enabled when two or more unlocked figures are selected in the Drawing Canvas.  |
| <a href="#">Align Horizontal Center</a> | The <b>Align Horizontal Center</b> option moves all currently selected figures to match the horizontal center (X position + 1/2 of the width) of the <b>first</b> selected figure. This menu item is enabled when two or more unlocked figures are selected in the Drawing Canvas.             |
| <a href="#">Align Right</a>             | The <b>Align Right</b> option moves all currently selected figures to match the right (X position + Width) of the <b>first</b> selected figure. This menu item is enabled when two or more unlocked figures are selected in the Drawing Canvas.  |
| <a href="#">Distribute Horizontally</a> | The <b>Distribute Horizontally</b> option 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.                                      |
| <a href="#">Distribute Vertically</a>   | The <b>Distribute Vertically</b> option 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.  |

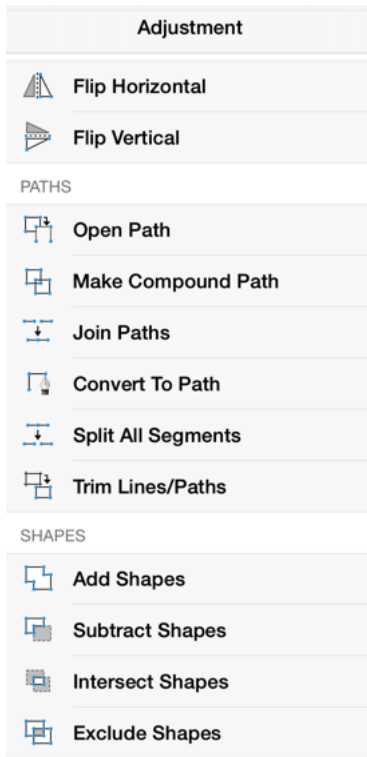
## 5.1.1.5. Adjustment

The **Adjustment Button** can be used to access actions for finer control over selected figures or to make path related changes to a figure and is accessible through the [Top Toolbar](#). It will only be enabled (selectable) when figures have been [selected](#) within the [Drawing Canvas](#).



When the **Adjustment Button** is pressed, a popover menu will appear as shown below.





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

| Option Name             | Description   |
|-------------------------|---|
| X                       | The <b>X</b> option will set the X position of all of the currently selected figure to the value entered. If multiple figures have been selected, the button works as a nudge tool and moves all figures relative the change entered. The value displayed in the text field is the X position of the first selected figure.   |
| Y                       | The <b>Y</b> option will set the Y position of all of the currently selected figure to the value entered. If multiple figures have been selected, the button works as a nudge tool and moves all figures relative the change entered. The value displayed in the text field is the Y position of the first selected figure.   |
| <a href="#">Move By</a> | The <b>Move By</b> option changes the location of a figure based on input coordinates.  |
| Width                   | The <b>Width</b> option will set the width of all of the currently selected figure to the value entered. If multiple figures have been selected, this will set the width of all of the figures to the entered values. To scale the width based on the relative size within the selected figures, either group all of the figures and then resize the group or use the |



## TouchDraw for iPad

| Option Name                      | Description   |
|----------------------------------|---|
|                                  | <a href="#">Nudge Overlay</a> function. The value displayed in the text field is the width of the first selected figure.  |
| Height                           | The <b>Height</b> option will set the height of all of the currently selected figure to the value entered. If multiple figures have been selected, the option will set the height of all selected figures to the entered values. To scale the height based on the relative size within the selected figures, either group all of the figures and then resize the group or use the <a href="#">Nudge Overlay</a> function. The value displayed in the text field is the height of the first selected figure. |
| <a href="#">Scale By</a>         | The <b>Scale By</b> option alters figure size based on input coordinates to create a smaller or larger figure spanning over a specific area.  |
| Angle                            | The <b>Angle</b> option will set the angle of each currently selected figure to the value entered. If multiple figures have been selected, the option will set the angle of all figures to the entered value; however it will rotate them relative to their own centers. To rotate the group of figures relative to the center of the selection, group the figures and then rotate the group.   |
| <a href="#">Rotate 90° Right</a> | The <b>Rotate 90° Right</b> option will rotate the currently selected figures by 90° in a clockwise direction.  |
| <a href="#">Rotate 90° Left</a>  | The <b>Rotate 90° Left</b> option will rotate the currently selected figures by 90° in a counter clockwise direction.   |
| <a href="#">Rotate 180°</a>      | The <b>Rotate 180°</b> option will rotate the currently selected figures by 180° in a counter clockwise direction.  |
| <a href="#">Flip Horizontal</a>  | The <b>Flip Horizontal</b> option will flip the currently selected figures on the X axis.   |
| <a href="#">Flip Vertical</a>    | The <b>Flip Vertical</b> option will flip the currently selected figures on the Y axis.   |
| <a href="#">Open Path</a>        | The <b>Open Path</b> option 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.   |
| <a href="#">Close Path</a>       | The <b>Close Path</b> option is enabled when a path figure is selected and closes a curved path to create a shape.  |
| <a href="#">Join Paths</a>       | The <b>Join Paths</b> option 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  |

## TouchDraw for iPad

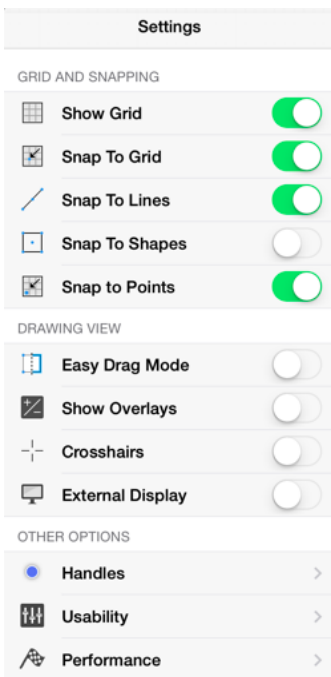
| Option Name                        | Description   |
|------------------------------------|---|
|                                    | figure.   |
| <a href="#">Convert To Path</a>    | The <b>Convert To Path</b> option is enabled when two or more figures are selected and converts any shape or text object into a path for making more detailed manipulations.  |
| <a href="#">Split All Segments</a> | The <b>Split All Segments</b> option is enabled when a closed or open path is selected and separates each segment of the selected figure into its own path segment.   |
| <a href="#">Trim Lines/ Paths</a>  | The <b>Trim Lines/Paths</b> option 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. |
| <a href="#">Add Shapes</a>         | The <b>Add Shapes</b> option is enabled when two shapes and/or closed paths are selected. This option combines two selected shapes into one figure.   |
| <a href="#">Subtract Shapes</a>    | The <b>Subtract Shapes</b> option 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 <a href="#">Drawing Canvas</a> .                            |
| <a href="#">Intersect Shapes</a>   | The <b>Intersect Shapes</b> option is enabled when two shapes and/or closed paths are selected. This option removes all non-intersecting portions of selected figures from the <a href="#">Drawing Canvas</a> .   |
| <a href="#">Exclude Shapes</a>     | The <b>Exclude Shapes</b> option is enabled when two shapes and/or closed paths are selected. This option removes the intersecting portions of selected figures from the <a href="#">Drawing Canvas</a> .   |

## 5.1.1.6. Settings

The **Settings Button** can be used to access general purpose actions for software usability and performance. It is accessible in the [Top Toolbar](#) within the [Drawing Editor](#).



When the **Settings Button** is pressed, a popover menu will appear as shown below.



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

| Option Name                  | Description  |
|------------------------------|--|
| Show Grid                    | The <b>Show Grid</b> option 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.     |
| <a href="#">Snap to Grid</a> | The <b>Snap To Grid</b> option toggles the snap to grid functionality. The snap to grid 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. |

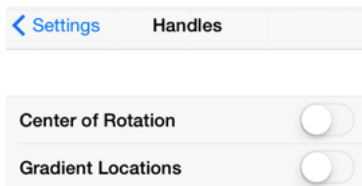
## TouchDraw for iPad

| Option Name                       | Description  |
|-----------------------------------|--|
| <a href="#">Snap to Lines</a>     | The <b>Snap to Lines</b> option aligns figures with the nearest lines.   |
| <a href="#">Snap to Shapes</a>    | The <b>Snap to Shapes</b> option snaps a figure to a selected shape vertex or center point. To see this option in action, disable the <a href="#">Snap to Grid</a> option, make certain <b>Snap to Shapes</b> is enabled, and then draw a star or rectangle. Once the shape is completed, select the <a href="#">Line Tool</a> 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. |
| <a href="#">Snap to Pixels</a>    | The <b>Snap to Pixels</b> option aligns figures to whole pixel numbers for simplified object modification and increased accuracy. This option remains disabled until the <a href="#">Unit of Measure</a> for the drawing is changed to pixels.   |
| <a href="#">Snap to Points</a>    | The <b>Snap to Points</b> option aligns objects to points on the grid for simplified modification and increased accuracy. This option remains disabled until the <a href="#">Unit of Measure</a> for the drawing is changed to points.   |
| <a href="#">Easy Drag Mode</a>    | The <b>Easy Drag Mode</b> option 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.   |
| Show Overlays                     | The <b>Show Overlay</b> option toggles the visibility of the various overlay tools, which are covered in detail in the <a href="#">Overlays</a> section of the documentation.  |
| Crosshairs                        | The <b>Crosshairs</b> option tells TouchDraw to draw crosshairs in the editor panel for <i>every</i> touch done within the editor. This means that multiple crosshairs will appear on the screen for multi-touch gestures.   |
| External Display                  | The <b>External Display</b> option allows the current drawing to be shown on an external monitor when a supported cable is connected to the iPad (such as the Apple VGA Adapter). Once connected, the button can be used to turn on or off the external display support.   |
| <a href="#">Handles Submenu</a>   | The <b>Handles Submenu</b> contains options for configuring which handles will be visible for figures residing on the <a href="#">Drawing Canvas</a> .   |
| <a href="#">Usability Submenu</a> | The <b>Usability Submenu</b> contains options for application setup and operational characteristics.   |

| Option Name                         | Description  |
|-------------------------------------|--|
| <a href="#">Performance Submenu</a> | The <b>Performance Submenu</b> contains options for impacting <a href="#">Drawing Editor</a> performance. Specifically, these options will help speed up zooming and panning when zoomed in by a large factor on drawings using many shadow or gradient effects. |

### 5.1.1.6.1. Handles Submenu

The **Handles Submenu** contains options for configuring which handles are visible for figures residing on the [Drawing Canvas](#). It is accessed by pressing on the **Settings Button** in the [Top Toolbar](#) and then tapping on the **Handles** option in the [Settings Menu](#).

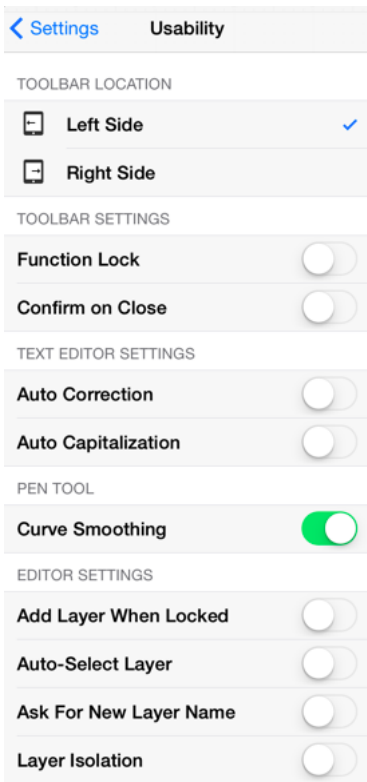


Click or Tap on the corresponding Handles Option name to learn more about what the option does.

| Option Name                        | Description  |
|------------------------------------|--|
| <a href="#">Center of Rotation</a> | Enabling the the <b>Center of Rotation</b> option allows the point at which a figure or shape is rotated around to be edited.                          |
| <a href="#">Gradient Locations</a> | The <b>Gradient Locations</b> option toggles the visibility of the gradient location handle within a figure(s) on the <a href="#">Drawing Canvas</a> . |

### 5.1.1.6.2. Usability Submenu

The **Usability Submenu** contains options for application setup and operational characteristics. It is accessed by pressing on the **Settings Button** in the [Top Toolbar](#) and then tapping on the **Usability** option in the [Settings Menu](#).



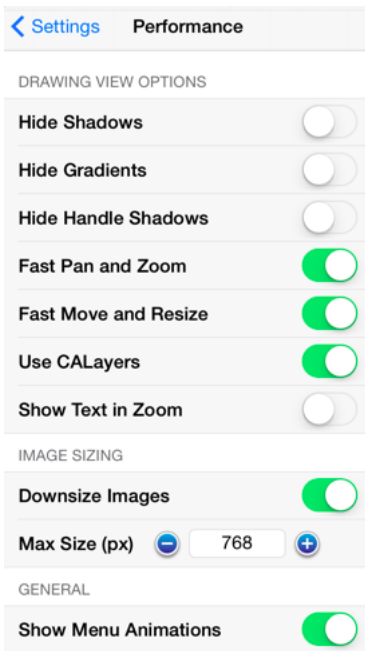
Click or Tap on the corresponding Settings Option name to learn more about what the option does.

| Option Name                   | Description  |
|-------------------------------|--|
| Left Side                     | The <b>Left Side</b> option places the vertical toolbar on the left side of the <a href="#">Drawing Editor</a> . This is the default position and the natural choice for right handed users.   |
| Right Side                    | The <b>Right Side</b> option places the vertical toolbar on the right side of the screen. This is the natural choice for left handed users.  |
| <a href="#">Function Lock</a> | The <b>Function Lock</b> option allows the <a href="#">Function Key Feature</a> to be locked. This is a useful option for maintaining the aspect ratio of multiple figures during resizing without having to hold down the toolbar. It is also a useful option for enabling the one handed operation of TouchDraw. A new button will appear in the lower left hand side of the <a href="#">Drawing Toolbar</a> after the <b>Function Lock</b> has been enabled, as shown below. Perform a tap on the button to enable the Function Key Feature. The toolbar will turn black as a visual indicator that the feature is enabled just as when the Drawing Toolbar is pressed and held. Tap the function button a second time to disable the Function Key Feature. |

| Option Name                      | Description  |
|----------------------------------|--|
| <a href="#">Confirm to Close</a> | The <b>Confirm to Close</b> option enables a confirmation dialog to prevent an accidental exit from the Drawing Editor and to the drawing chooser. This is useful for many users who inadvertently press the <b>Drawings Button</b> . The confirmation dialog will only present itself if the drawing has been modified. TouchDraw will return to the Drawing Chooser without confirmation if a drawing has been viewed only and no changes were made. |
| Auto Correction                  | The <b>Auto Correction</b> option enables or disables automatic correction as text is entered within a currently open drawing.   |
| Auto Capitalization              | The <b>Auto Capitalization</b> option can be used to make the first value entered into the <a href="#">Text Editor</a> either lower or uppercase. It automatically defaults to <b>Off</b> and must be turned <b>On</b> for the first letter to be automatically capitalized when entering text into the editor.  |
| Curve Smoothing                  | The <b>Curve Smoothing</b> option enables or disables the creation of a smooth curve when the <a href="#">Pen Tool</a> is used to create a figure.   |
| Add Layer When Locked            | The <b>Add Layer When Locked</b> option automatically creates another layer if a figure is added to the <a href="#">Drawing Canvas</a> when the current layer is locked when enabled.  |
| Auto-Select Layer                | The <b>Auto-Select Layer</b> option alters the currently active layer to the residing layer of a selected figure unless the layer has been locked.   |
| Ask For New Layer Name           | The <b>Ask For New Layer Name</b> option opens a prompt for entering a layer name when a new layer is added to a drawing and is disabled (not selected) by default.  |
| Layer Isolation                  | The <b>Layer Isolation</b> option isolates modifications to the currently selected layer and prevents other existing layers from being selected for editing.   |

### 5.1.1.6.3. Performance Submenu

The **Performance Submenu** contains a few options for impacting [Drawing Editor](#) performance. Specifically, these options will help speed up zooming and panning when zoomed in by a large factor on drawings using many shadow or gradient effects. It is accessed by pressing on the **Settings Button** in the [Top Toolbar](#) and then tapping on the **Performance** option in the [Settings Menu](#).



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

| Option Name         | Description   |
|---------------------|---|
| Hide Shadows        | The <b>Hide Shadows</b> 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.                                     |
| Hide Gradients      | The <b>Hide Gradients</b> 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. |
| Hide Handle Shadows | The <b>Hide Handle Shadows</b> option hides 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.                                  |
| Fast Pan and Zoom   | The <b>Fast Pan and Zoom</b> option hides text and additional items during zooming to increase rendering speed within the Drawing Editor. These items are not actually removed from the drawing.  |



## TouchDraw for iPad

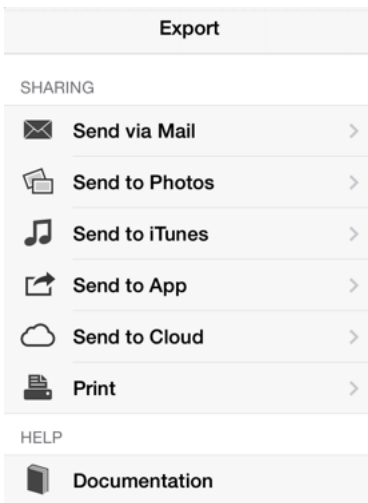
| Option Name          | Description  |
|----------------------|--|
| Fast Move and Resize | The <b>Fast Move and Resize</b> option hides text and additional items during resizing to increase rendering speed within the Drawing Editor. These items are not actually removed from the drawing.   |
| Use CALayers         | The <b>Use CALayers</b> option toggles whether or not TouchDraw uses iOS' "Core Animation" layer support. When this option is turned on, it will speed up rendering performance by breaking up the background (grid, etc...), drawing and foreground (handles, etc...) into separate composite drawing operations. The downside to using this is that it will use more memory (RAM). It is suggested that this option is turned off for iPad 1 users, and turned on for users of new models. |
| Show Text in Zoom    | The <b>Show Text in Zoom</b> option toggles the visibility of text while panning and zooming actions are being performed in the Drawing Editor. This does not mean that text is removed from the drawing. Instead, text is not drawn in the editor to provide increased rendering speed.   |
| Downsize Images      | The <b>Downsize Images</b> option tells TouchDraw whether or not it should downsize images when they are imported. If it is enabled, then it will use the value of the "Max Size (px)" setting to limit the width or the height of the imported image. This option is on by default in order to limit memory usage.  |
| Max Size (px)        | The <b>Max Size (px)</b> option sets the maximum pixel size (either width or height) of imported images if the "Downsize Images" option is on.   |
| Show Menu Animations | The <b>Show Menu Animations</b> option can be used to turn off the "fade in/fade out" animations for all of the menus. This option is turned on by default; however power users interested in speed and usability over eye-candy may want to turn this option off.   |

## 5.1.1.7. Export

The **Export Menu** can be used to export a drawing into a one of the [3rd party file formats](#) supported for exporting. It is accessible in the [Top Toolbar](#) within the [Drawing Editor](#).



When the **Export Button** is pressed, a popover menu will appear as shown below.



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

| Option Name                            | Description   |
|--|---|
| <a href="#">Send via Mail Submenu</a>  | The <b>Send via Mail Submenu</b> contains options for exporting a drawing to an email client. |
| <a href="#">Send to Photos Submenu</a> | The <b>Send to Photos Submenu</b> contains options for exporting a drawing as a photo.        |
| <a href="#">Send to iTunes Submenu</a> | The <b>Send to iTunes Submenu</b> contains options for exporting a drawing to iTunes.         |
| <a href="#">Send to App Submenu</a>    | The <b>Send to App Submenu</b> contains options for exporting a drawing to an application.    |

| Option Name                           | Description  |
|---------------------------------------|--|
| <a href="#">Send to Cloud Submenu</a> | The <b>Send to Cloud Submenu</b> contains options for exporting a drawing to a cloud storage provider. |
| <a href="#">Print Submenu</a>         | The <b>Print Submenu</b> contains options for printing a drawing.                                      |
| Documentation                         | The <b>Documentation</b> option opens the application documentation via the web.                       |

### 5.1.1.7.1. Send via Mail Submenu

The **Send via Mail Submenu** contains available options for exporting the current drawing (or selection) through an email client. It is accessed by pressing on the **Export Button** in the [Top Toolbar](#) and then tapping on the **Send via Mail** option. The Send to Mail Submenu appears as shown below:

< Export
Send via Mail
Send

CONTENT

Entire Drawing

✓

Current Selection

FILE FORMAT

Image (PNG)

✓

Image (JPEG)

PDF

TouchDraw

SVG

Visio

MAXIMUM IMAGE SIZE

Small (512 px)

✓

Medium (768 px)

Large (1024 px)

Custom

2048 x 2048

OPTIONS

Shift Pixels

☒

Include Grid

☐

Zoom Up To Fit

☐

Margin

3

[< Export](#)
[Send via Mail](#)
[Send](#)

CONTENT

Entire Drawing ✓

Current Selection

FILE FORMAT

Image (PNG)

Image (JPEG)

PDF ✓

TouchDraw

SVG

Visio

PAGE SIZE

Letter ✓

Legal

Tabloid

A3

A4

A5

B5

JB5

Architectural C

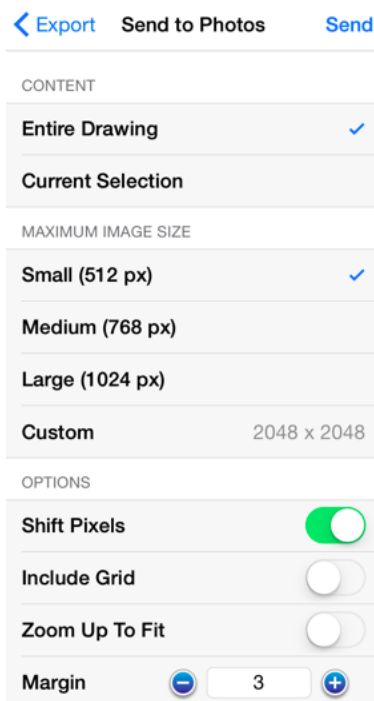
| Option Name        | Description   |
|--------------------|---|
| Content            | The <b>Content</b> options are used to select what will be exported: entire drawing, selected content, or selected layer.             |
| File Format        | The <b>File Format</b> options are used to select the type of image file to be created by the export.                                 |
| Page Size          | The <b>Page Size</b> options are used to select the size of the page when exporting or printing Portable Document Format (PDF) files. |
| Maximum Image Size | The <b>Maximum Image Size</b> option shows the current width and height of the image and can be altered prior to exporting.           |
| Shift Pixels       | The <b>Shift Pixels</b> option shifts pixels half a pixel-width toward the right.   |
| Include Grid       | The <b>Include Grid</b> option tells TouchDraw to include (or not include) the grid in the  |

| Option Name    | Description   |
|----------------|---|
|                | generated file.   |
| Zoom Up To Fit | The <b>Zoom Up To Fit</b> option scales the current drawing (or selection) to fit the page. |
| Margin         | The <b>Margin</b> option is used to set the margin for the exported figure or drawing.      |

If **Current Selection** is chosen as the content to send and no items have been selected in the [Drawing Canvas](#), it will send the entire drawing.

## 5.1.1.7.2. Send to Photos Submenu

The **Send to Photos Submenu** contains available options for publishing the current drawing (or selection) into a local photo library. It is accessed by pressing on the **Export Button** in the [Top Toolbar](#) and then tapping on the **Send to Photos** option. The Send to Photos Submenu appears as shown below:



| Option Name | Description   |
|-------------|---|
| Content     | The <b>Content</b> options are used to select what will be exported: entire drawing, selected content, or selected layer. |

| Option Name        | Description   |
|--------------------|---|
| Maximum Image Size | The <b>Maximum Image Size</b> option shows the current width and height of the image and can be altered prior to exporting. |
| Shift Pixels       | The <b>Shift Pixels</b> option shifts pixels half a pixel-width toward the right.   |
| Include Grid       | The <b>Include Grid</b> option tells TouchDraw to include (or not include) the grid in the generated file.                  |
| Zoom Up To Fit     | The <b>Zoom Up To Fit</b> option scales the current drawing (or selection) to fit the page.                                 |
| Margin             | The <b>Margin</b> option is used to set the margin for the exported figure or drawing.                                      |

**Note:** If **Current Selection** is chosen as the content to send and no items have been selected in the [Drawing Canvas](#), it will send the entire drawing.

### 5.1.1.7.3. Send to iTunes Submenu

The **Send to iTunesSubmenu** contains available options for exporting the current drawing (or selection) to iTunes. It is accessed by pressing on the **Export Button** in the [Top Toolbar](#) and then tapping on the **Send to iTunes** option. The Send to iTunes Submenu appears as shown below:

[< Export](#) [Send to iTunes](#) [Send](#)

CONTENT

|                   |   |
|-------------------|---|
| Entire Drawing    | ✓ |
| Current Selection |   |

FILE FORMAT

|              |   |
|--------------|---|
| Image (PNG)  | ✓ |
| Image (JPEG) |   |
| PDF          |   |
| SVG          |   |
| Visio        |   |

MAXIMUM IMAGE SIZE

|                 |             |
|-----------------|-------------|
| Small (512 px)  | ✓           |
| Medium (768 px) |             |
| Large (1024 px) |             |
| Custom          | 2048 x 2048 |

OPTIONS

|                |   |
|----------------|---|
| Shift Pixels   | <input checked="" type="checkbox"/>             |
| Include Grid   | <input type="checkbox"/>                        |
| Zoom Up To Fit | <input type="checkbox"/>                        |
| Margin         | <div><div>−</div><div>3</div><div>+</div></div> |

[< Export](#)
[Send to iTunes](#)
[Send](#)

CONTENT

Entire Drawing ✓

Current Selection

FILE FORMAT

Image (PNG)

Image (JPEG)

PDF ✓

SVG

Visio

PAGE SIZE

Letter ✓

Legal

Tabloid

A3

A4

A5

B5

JB5

Architectural C

Architectural D

| Option Name        | Description   |
|--------------------|---|
| Content            | The <b>Content</b> options are used to select what will be exported: entire drawing, selected content, or selected layer.             |
| File Format        | The <b>File Format</b> options are used to select the type of image file to be created by the export.                                 |
| Page Size          | The <b>Page Size</b> options are used to select the size of the page when exporting or printing Portable Document Format (PDF) files. |
| Maximum Image Size | The <b>Maximum Image Size</b> option shows the current width and height of the image and can be altered prior to exporting.           |
| Shift Pixels       | The <b>Shift Pixels</b> option shifts pixels half a pixel-width toward the right.   |
| Include Grid       | The <b>Include Grid</b> option tells TouchDraw to include (or not include) the grid in the  |

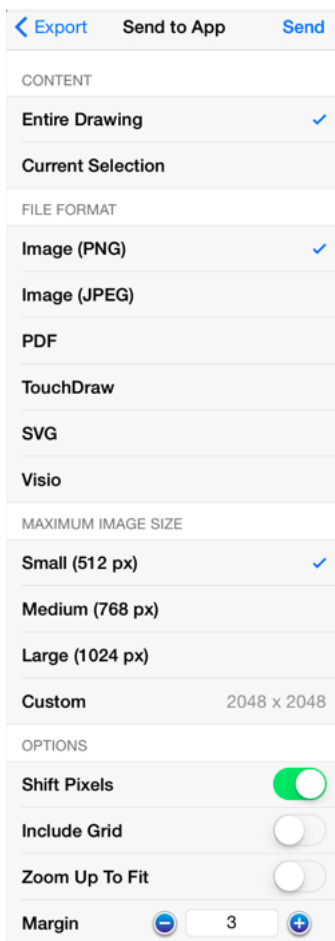


| Option Name    | Description   |
|----------------|---|
|                | generated file.   |
| Zoom Up To Fit | The <b>Zoom Up To Fit</b> option scales the current drawing (or selection) to fit the page. |
| Margin         | The <b>Margin</b> option is used to set the margin for the exported figure or drawing.      |

If **Current Selection** is chosen as the content to send and no items have been selected in the [Drawing Canvas](#), it will send the entire drawing.

### 5.1.1.7.4. Send to App Submenu

The **Send to App Submenu** contains available options for exporting the current drawing (or selection) to an application. It is accessed by pressing on the **Export Button** in the [Top Toolbar](#) and then tapping on the **Send to App** option. The Send to App Submenu appears as shown below:



[< Export](#)
[Send to App](#)
[Send](#)

CONTENT

Entire Drawing

✓

Current Selection

FILE FORMAT

Image (PNG)

Image (JPEG)

PDF

✓

TouchDraw

SVG

Visio

PAGE SIZE

Letter

✓

Legal

Tabloid

A3

A4

A5

B5

JB5

Architectural C

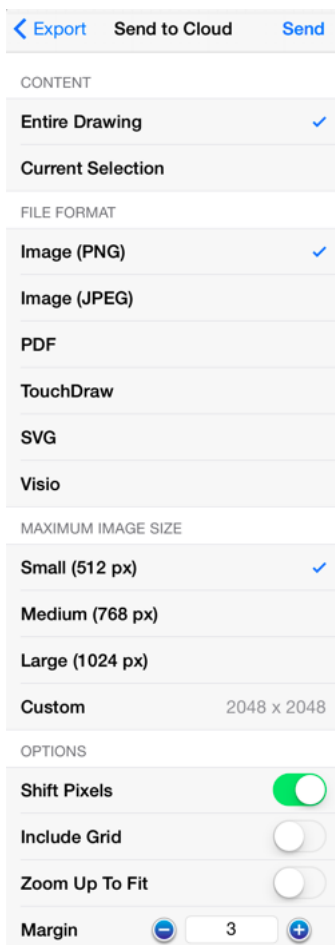
| Option Name        | Description   |
|--------------------|---|
| Content            | The <b>Content</b> options are used to select what will be exported: entire drawing, selected content, or selected layer.             |
| File Format        | The <b>File Format</b> options are used to select the type of image file to be created by the export.                                 |
| Page Size          | The <b>Page Size</b> options are used to select the size of the page when exporting or printing Portable Document Format (PDF) files. |
| Maximum Image Size | The <b>Maximum Image Size</b> option shows the current width and height of the image and can be altered prior to exporting.           |
| Shift Pixels       | The <b>Shift Pixels</b> option shifts pixels half a pixel-width toward the right.   |
| Include Grid       | The <b>Include Grid</b> option tells TouchDraw to include (or not include) the grid in the  |

| Option Name    | Description   |
|----------------|---|
|                | generated file.   |
| Zoom Up To Fit | The <b>Zoom Up To Fit</b> option scales the current drawing (or selection) to fit the page. |
| Margin         | The <b>Margin</b> option is used to set the margin for the exported figure or drawing.      |

**Note:** If **Current Selection** is chosen as the content to send and no items have been selected in the [Drawing Canvas](#), it will send the entire drawing.

### 5.1.1.7.5. Send to Cloud Submenu

The **Send to Cloud Submenu** contains available options for exporting the current drawing (or selection) to a cloud storage provider. It is accessed by pressing on the **Export Button** in the [Top Toolbar](#) and then tapping on the **Send to Cloud** option. The Send to Cloud Submenu appears as shown below:



[< Export](#)
[Send to Cloud](#)
[Send](#)

CONTENT

Entire Drawing ✓

Current Selection

FILE FORMAT

Image (PNG)

Image (JPEG)

PDF ✓

TouchDraw

SVG

Visio

PAGE SIZE

Letter ✓

Legal

Tabloid

A3

A4

A5

B5

JB5

Architectural C

| Option Name        | Description   |
|--------------------|---|
| Content            | The <b>Content</b> options are used to select what will be exported: entire drawing, selected content, or selected layer.             |
| File Format        | The <b>File Format</b> options are used to select the type of image file to be created by the export.                                 |
| Page Size          | The <b>Page Size</b> options are used to select the size of the page when exporting or printing Portable Document Format (PDF) files. |
| Maximum Image Size | The <b>Maximum Image Size</b> option shows the current width and height of the image and can be altered prior to exporting.           |
| Shift Pixels       | The <b>Shift Pixels</b> option shifts pixels half a pixel-width toward the right.   |
| Include Grid       | The <b>Include Grid</b> option tells TouchDraw to include (or not include) the grid in the  |

| Option Name    | Description   |
|----------------|---|
|                | generated file.   |
| Zoom Up To Fit | The <b>Zoom Up To Fit</b> option scales the current drawing (or selection) to fit the page. |
| Margin         | The <b>Margin</b> option is used to set the margin for the exported figure or drawing.      |

If **Current Selection** is chosen as the content to send and no items have been selected in the [Drawing Canvas](#), it will send the entire drawing.

## 5.1.1.7.6. Print Submenu

The **Print Submenu** is used to configure printers, choose a printer, and set the number of copies for printing a current drawing (or selection) to a network printer. It is accessed by pressing on the **Export Button** in the [Top Toolbar](#) and then tapping on the **Print** option. A submenu will appear for selecting the page size and additional print related options, as shown below:

[< Export](#) [Print](#) [Next >](#)

CONTENT

Entire Drawing

✓

Current Selection

PAGE SIZE

Letter

✓

Legal

Tabloid

A3

A4

A5

B5

JB5

Architectural C

Architectural D

OPTIONS

Include Grid

☐

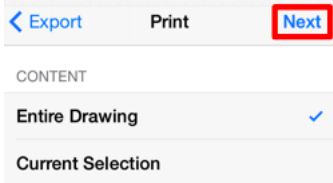
Margin

−

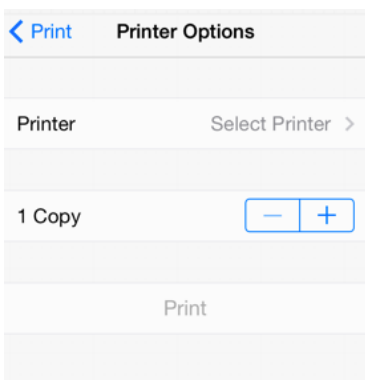
3

+

Tap on an option to make a selection and then press on the **Next Button** in the upper right hand corner when finished.



The **Print Submenu** appears as shown below:



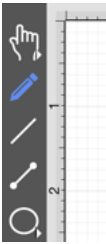
| Option Name | Description   |
|-------------|---|
| Printer     | The <b>Printer</b> option is used to set up a printer or to select an already configured printer. |
| Copy        | The <b>Copy</b> option is used to set the number of copies to be printed.                         |
| Print       | The <b>Print Button</b> directs TouchDraw to print the currently selected drawing.                |

## 5.1.2. 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 [Move, Zoom, and Selection Tool](#) can operate in two modes: "Normal" or "Sticky".

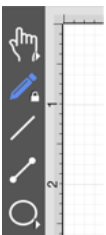
### Normal Mode

In **Normal Mode**, which is activated by selecting the tool through a single tap, the tool is used to insert one figure into the drawing. Upon completion of creating a figure, the **Move, Zoom, and Selection Tool** will be reactivated and the created figure is selected. A tool is in **Normal Mode** when it's 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 by a double tap, 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 additional figures of the same type can be created/inserted immediately. To cancel/end creating the selected figure type, simply select another tool. A tool is in **Sticky Mode** when it's background is highlighted with a blue gradient and contains a lock symbol in the lower right hand corner as shown in the figure below.

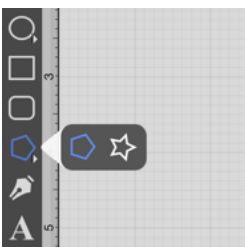
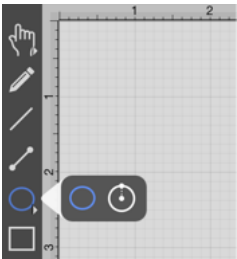
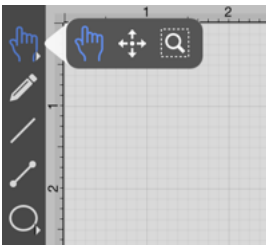


### Easy Drag Mode

The "empty" area between the tools and the edit menu at the bottom can also be used, in conjunction with a vertical swipe, to toggle the **Easy Drag Mode**. In this mode, TouchDraw will hide the handles and instead highlight the selected figures. This mode makes it easier to move smaller figures without worrying about inadvertently resizing them. This is explained in more detail in the [Easy Drag Mode](#) section of the documentation.

### Additional Drawing Tool Options

The **Move, Zoom, and Selection Tool**, **Connection Tool**, **Oval Tool**, and **Polygon Tools** have additional options as indicated by the arrow at the bottom right of each button. Perform an extended **Press** to access these features and then tap on the provided choices to make a selection. Available choices will appear as shown below:



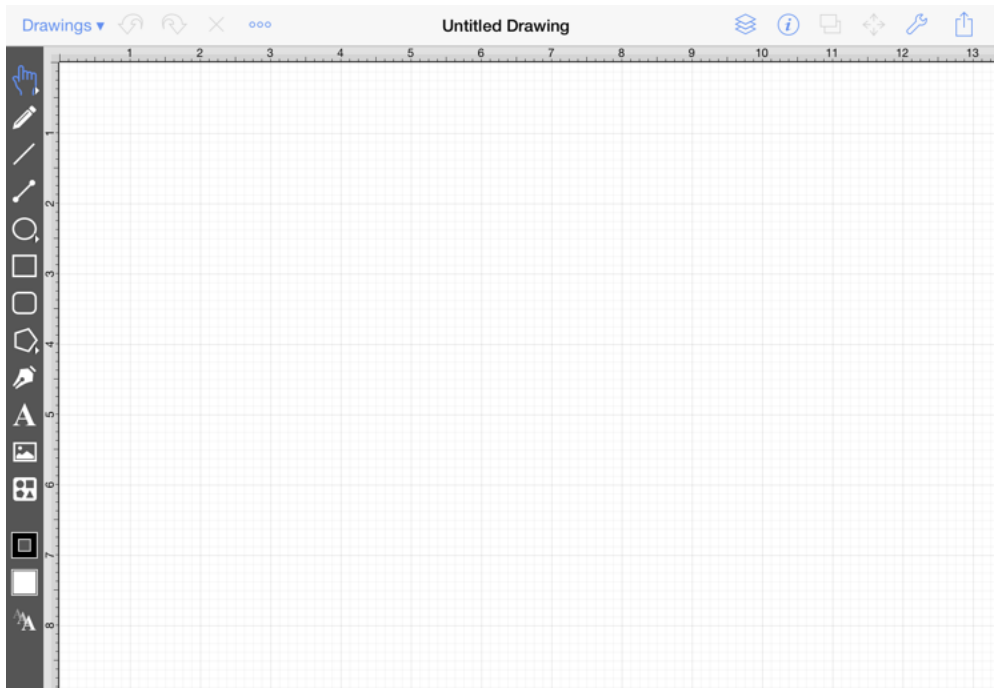
These **Drawing Toolbar** options are explained in further detail under the [Selection Tool](#), [Connection Tool](#),







[Oval Tool](#) , and [Polygon Tool](#) sections of the documentation.

## 5.1.2.1. 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.



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

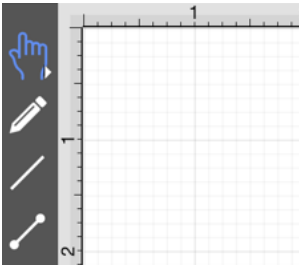
| Icon  | Option Name                                    | Description  |
|---|--|--|
|  | <a href="#">Move, Zoom, and Selection Tool</a> | The <b>Move, Zoom, and Selection Tool</b> is the chosen tool default within the application each time a drawing is created or opened. It can be used to pan the <a href="#">Drawing Canvas</a> , zoom in or out, and for figure selection. |
|  | <a href="#">Pen Tool</a>                       | The <b>Pen Tool</b> uses a technique called curve fitting to create a smooth curve from a drawn freehand path.   |
|  | <a href="#">Line Tool</a>                      | The <b>Line Tool</b> can be used to draw straight lines.   |
|  | <a href="#">Connection Tool</a>                | The <b>Connection Tool</b> can be used to draw lines for connecting one figure to another and makes it easy to create connected  |

## TouchDraw for iPad

| Icon  | Option Name                            | Description   |
|---|--|---|
|   |  | graphs such as flow charts.   |
|    | <a href="#">Oval Tool</a>              | The <b>Oval Tool</b> can be used to create ovals or circles within a drawing.   |
|    | <a href="#">Rectangle Tool</a>         | The <b>Rectangle Tool</b> can be used to create rectangles or squares within a drawing.   |
|    | <a href="#">Rounded Rectangle Tool</a> | The <b>Rounded Rectangle Tool</b> can be used to create rounded rectangles or rounded squares within a drawing.   |
|    | <a href="#">Polygon Tool</a>           | The <b>Polygon Tool</b> can be used to create regular polygons within a drawing.  |
|    | <a href="#">Path Tool</a>              | The <b>Path Tool</b> is the most powerful and complex tool available within TouchDraw. It can be used to create complex curves and shapes with detailed control on every aspect of the shapes appearance. |
|   | <a href="#">Text Tool</a>              | The <b>Text Tool</b> can be used to create a text area within a drawing.  |
|  | <a href="#">Image Tool</a>             | The <b>Image Tool</b> can be used to insert an image from the iPad's photo library into the drawing.  |
|  | <a href="#">Library Tool</a>           | The <b>Library Tool</b> can be used to add and manage stencils stored within the application and for adding these objects to a drawing.   |
|  | <a href="#">Stroke Button</a>          | The <b>Stroke Button</b> contains options for altering stroke (or line) attributes of a currently selected figure(s) or new additions to the <a href="#">Drawing Canvas</a> .                             |
|  | <a href="#">Fill Button</a>            | The <b>Fill Button</b> contains options for enabling and managing fill attributes of a currently selected figure(s) or new additions to the <a href="#">Drawing Canvas</a> .                              |
|  | <a href="#">Text Attribute Button</a>  | The <b>Text Attribute Button</b> contains options for setting the text attributes of a currently selected figure(s) or new additions to the <a href="#">Drawing Canvas</a> .                              |

## 5.1.2.2. Move, Zoom, and Selection Tool

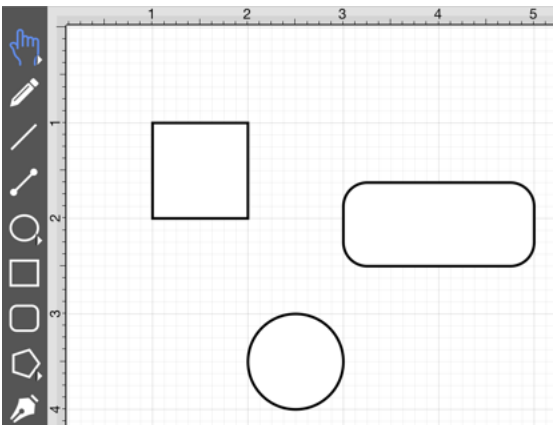
The **Move, Zoom, and Selection Tool** is the chosen tool default within the application each time a drawing is [created](#) or [opened](#). The following described functions can be performed when this tool is selected.

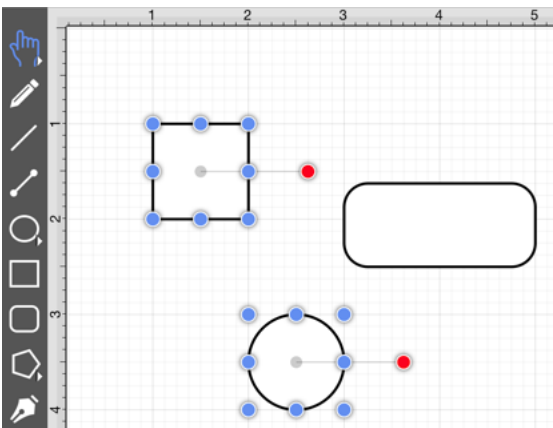
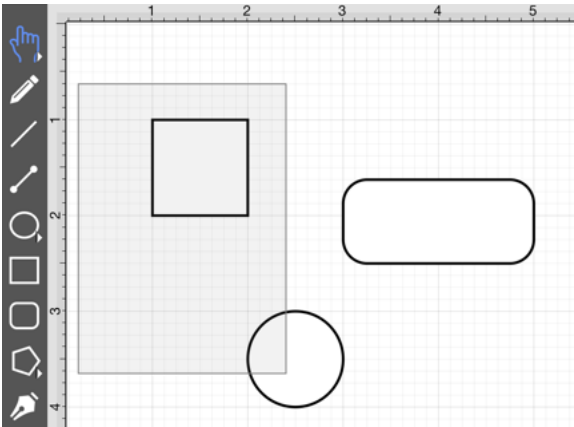


### Selecting Figures

The simplest and most common method for selecting objects is to perform a tap 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. Touch and drag within the [Drawing Canvas](#) in an area where there are no figures to draw a selection rectangle over all objects within a desired area in the Drawing Canvas. 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 the [Function Key Feature](#) enabled, results in what TouchDraw considers to be single selection. By single selection, we mean that only the figure or figures selected within the enactment of one gesture will be selected.

### Multiple Selection

To select multiple figures in an individual manner by tapping (or dragging) multiple times, use the [Function Key Feature](#) to tell TouchDraw to enable multiple selection mode. Each tap (or drag) 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

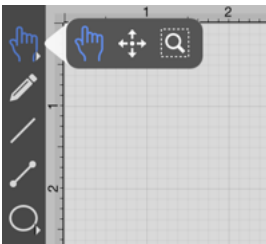
To zoom in on a drawing, put two fingers within the drawing panel and either pinch them to zoom out, or spread your fingers to zoom in. Feedback regarding the exact zoom level is given at the top of the Drawing Canvas as these gestures are performed.

### Moving (Panning)

To move around in a drawing, put two fingers within the drawing panel and drag them around (without pinching or expanding them). The current position of the drawing will track with the position of your fingers. The ruler will also track these movements to provide feedback regarding the current location within the drawing.

### The Move and Zoom Tool and Zoom Rectangle Tool

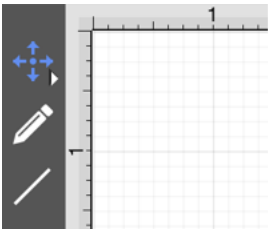
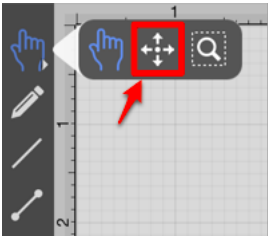
Two additional **Move**, **Zoom**, **Selection Tool** options are made available when an extended **Press** is performed over the tool button.



This [Move and Zoom Tool](#) option allows the grid to be moved with a **Touch/Drag** gesture combination for panning, zooming in, or zooming out on an entire drawing rather than moving the objects residing on the Drawing Canvas. The [Zoom Rectangle Tool](#) can be used to draw a rectangle over a portion of the [Drawing Canvas](#) to specify a precise zooming location.

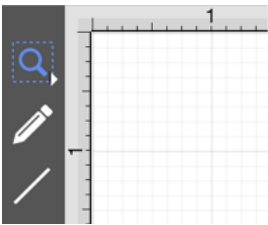
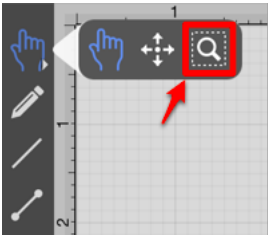
### 5.1.2.3. Move and Zoom Tool

The **Move and Zoom Tool** selection allows the visible portion of the drawing to be moved with a **Touch/Drag** gesture combination 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 **Press** is performed over the [Move, Zoom, and Selection Tool](#) button and will appear as shown below.

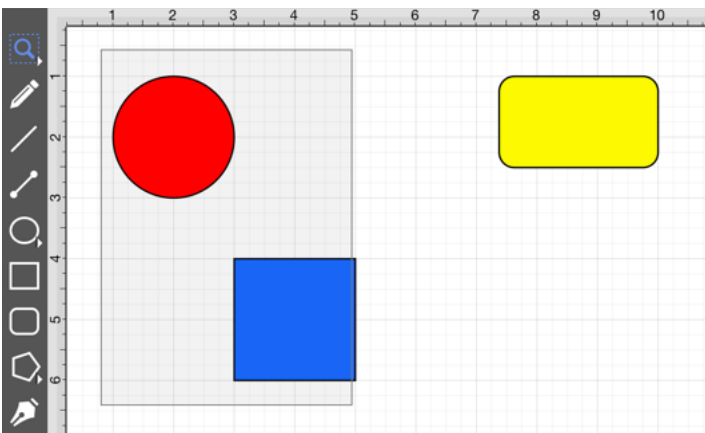


## 5.1.2.4. Zoom Rectangle Tool

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](#). This option is accessible when an extended **Press** is performed over the [Move, Zoom, and Selection Tool](#) button. Press on the Zoom Rectangle Tool and it will appear in place of the standard Selection Tool in the [Drawing Toolbar](#).

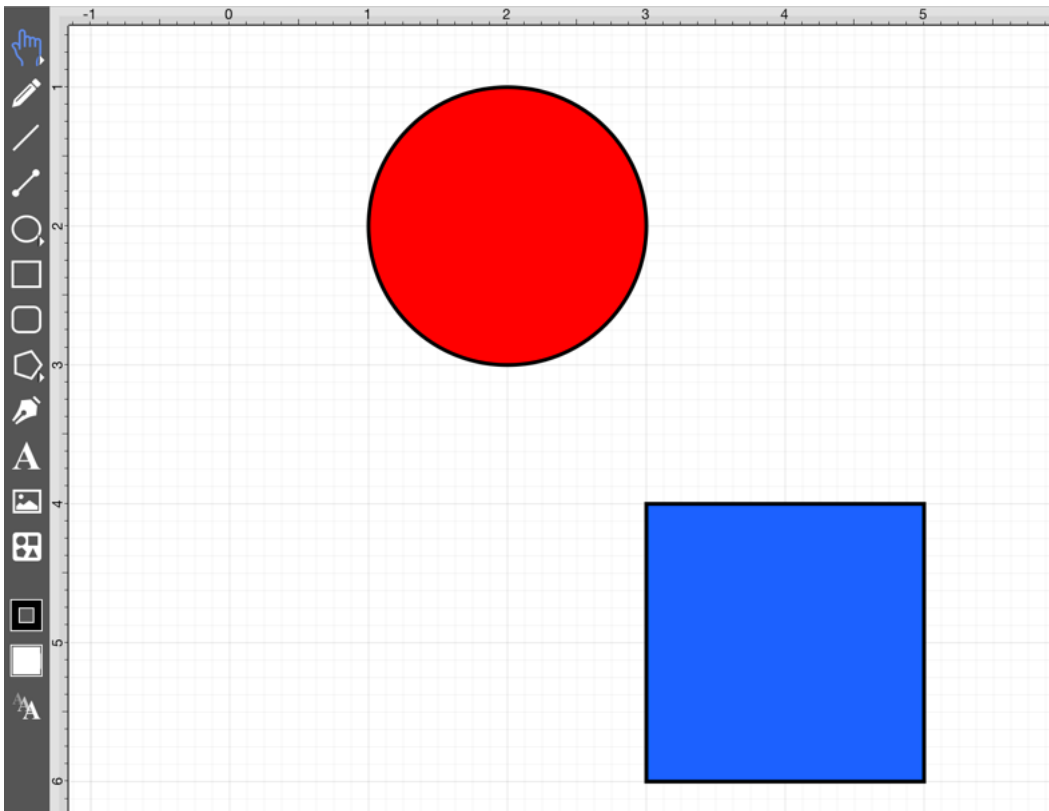


**Touch, Hold, and Drag** the rectangle over a desired area and then release this action to complete the selection. In this example, the blue square and red circle are selected with the **Zoom Rectangle Tool**.



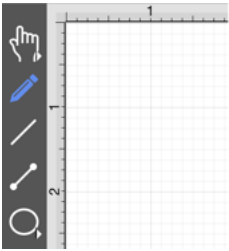
The [Drawing Editor](#) will automatically zoom in on the figures within the selected area.



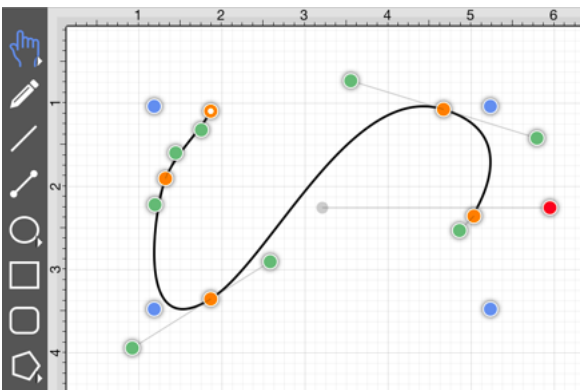
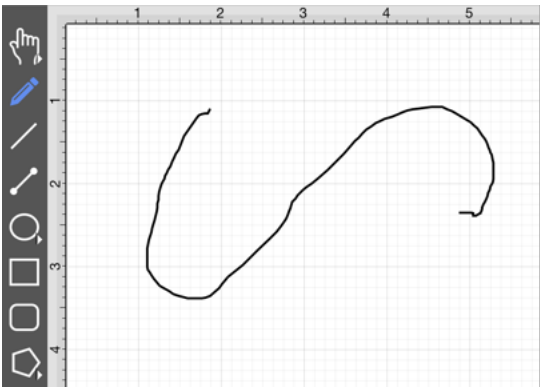


## 5.1.2.5. Pen Tool

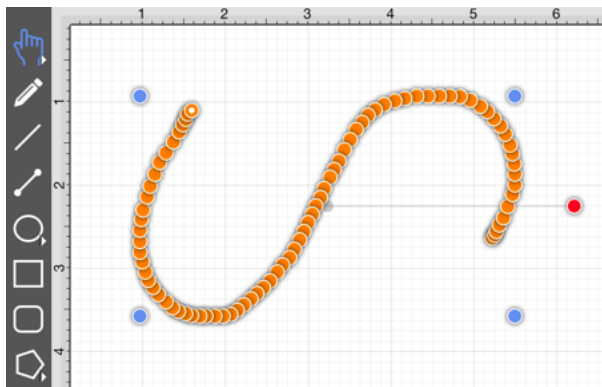
The **Pen Tool** uses a technique called curve fitting to create a smooth curve from a freehand path that is drawn by using a **Touch/Drag** gesture combination to drag the tool to desired points on the [Drawing Canvas](#).



To use the tool, simply select it, and then draw a freehand path by using a **Touch/Drag** gesture combination to maneuver the pen. The **Pen Tool** converts the drawn path into a [smooth curve](#) once the drag gesture 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.



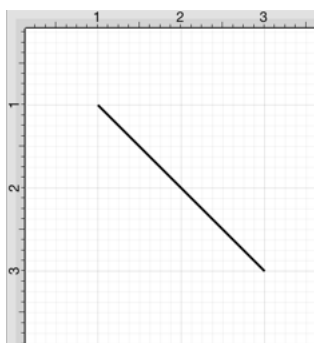
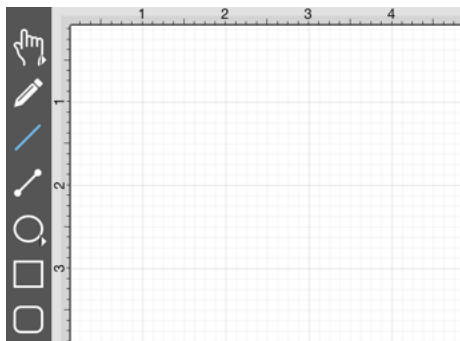
Please note that if the **Curve Smoothing** option is disabled in the [Usability Settings](#), then the figure created with the **Pen Tool** will appear similar to what is shown below:



The **Pen Tool** can create shapes instead of paths by using the [Function Key Feature](#) in conjunction with the pen tool. If the **function key feature** is enabled when finishing the drawing of a shape (path) by releasing your finger, a closed shape will be created as opposed to an open path.

## 5.1.2.6. Line Tool

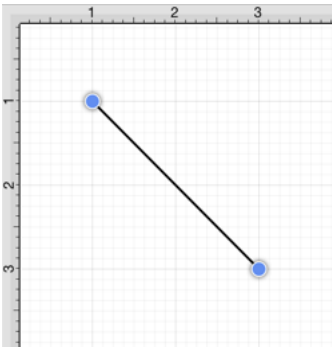
The **Line Tool** can be selected to draw straight lines. Use a **Touch/Drag** gesture combination to draw the line from a set starting point to a desired end point and then release the used finger to complete the drawing action.



If the [Function Key Feature](#) is enabled during line creation, the line is constrained to increments of 90°.

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 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:

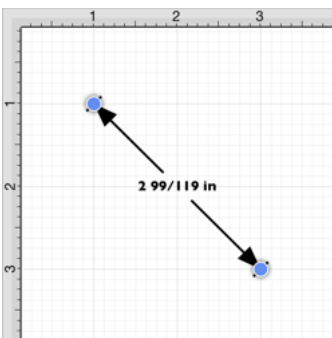
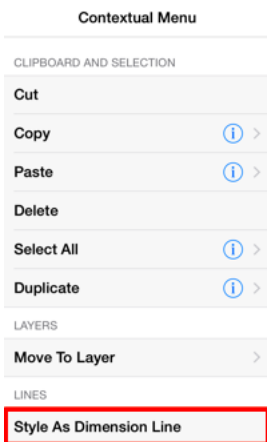
1. [Select](#) the line figure you would like to alter.



2. Then press and hold on the [Drawing Canvas](#) for ~1 second or use the **Contextual Menu Button** in the [Top Toolbar](#).



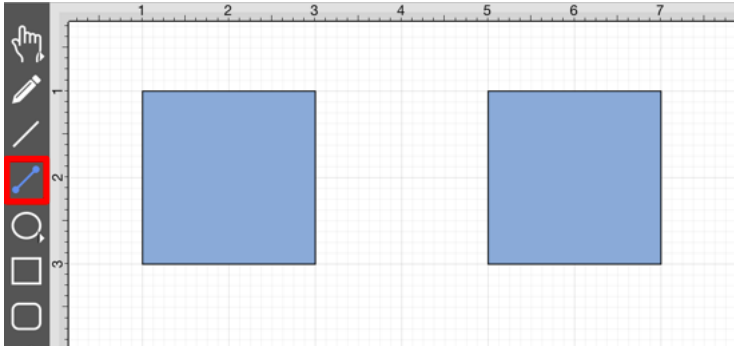
3. Tap on **Style As Dimension Line** and the selected line figure(s) will appear similar to the example shown below:



## 5.1.2.7. 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.

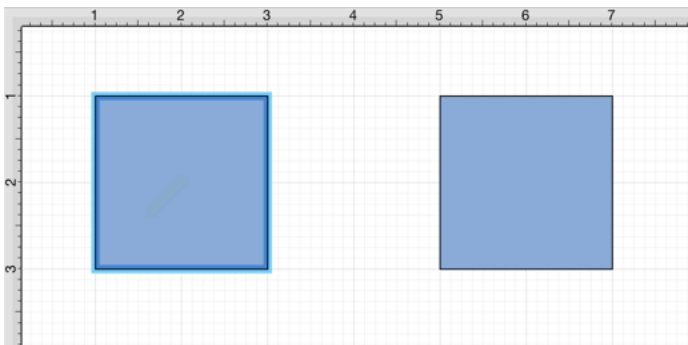
1. Begin by creating two figures and then select the **Connection Tool**. All figures including path shapes, text blocks, and images can be connected with the exception of lines and open paths.



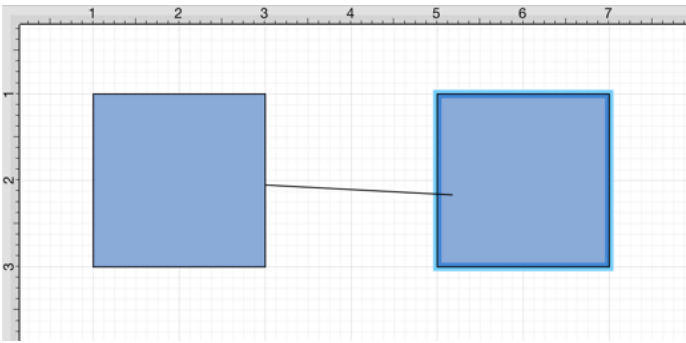
2. A Connection Tool popover window will appear in the bottom right hand corner of the [Drawing Canvas](#). Tap on the desired type of Connection Tool to make a selection. In this example, the [Line Connection Tool](#) is chosen as indicated by the dark gray coloring.



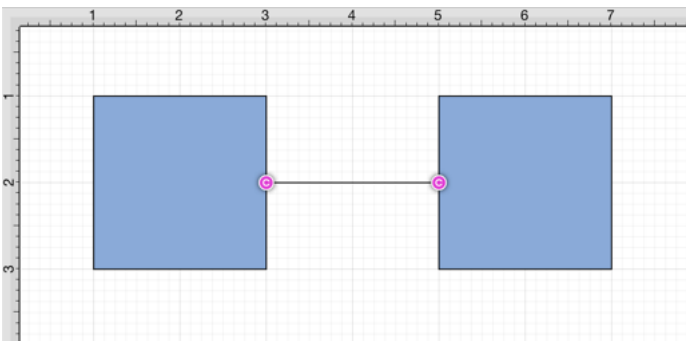
3. Touch (but do not lift your finger) within the first shape to be connected. The figure will be "highlighted" with a light blue border when the selection has been performed correctly. The light blue border indicates the ability to connect the figure.



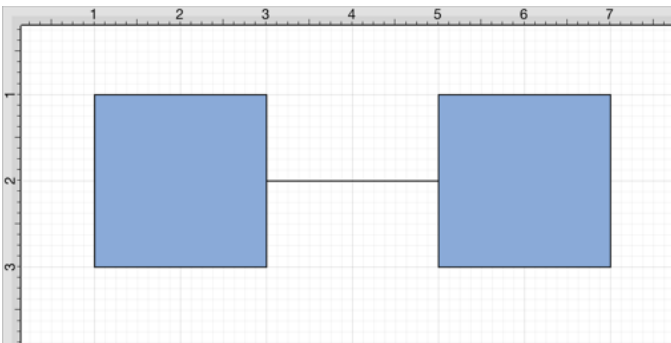
4. Drag your finger from the start figure to the end figure where the connection will terminate. When your finger is within the "target" figure, it will be "highlighted" with a light blue border. The light blue border indicates the ability to connect the second figure to the source figure.

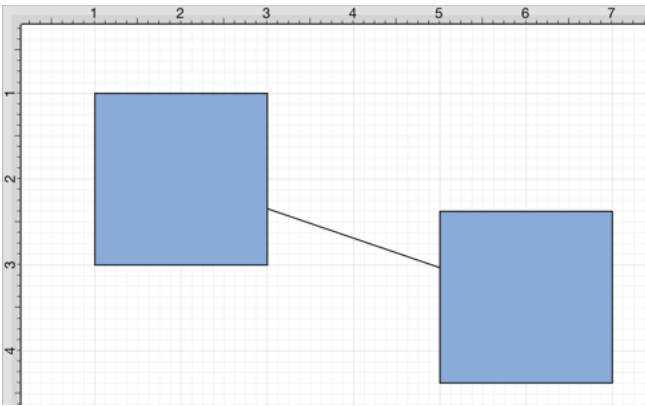


5. The connection line is created between the two figures when the **Touch/Drag** gesture combination is released.



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





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

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



## 5.1.2.8. Connection Tool Options

**Connection Tool** options are made available when the **Connection Tool Button** is pressed in the [Drawing Toolbar](#). These options appear in the bottom right of the [Drawing Canvas](#) as a popover window.




Click or tap on the name of a **Connection Tool** choice to find out more about its functionality.

| Icon | Name  | Description  |
|------|---|--|
|      | <a href="#">Line Connection Tool</a>                | The <b>Line Connection Tool</b> draws a line connection that connects two shapes in the shortest path.   |
|      | <a href="#">North-South Connection Tool</a>         | The <b>North-South Connection Tool</b> 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. |
|      | <a href="#">East-West Connection Tool</a>           | The <b>East-West Connection Tool</b> 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.       |
|      | <a href="#">Horizontal-Vertical Connection Tool</a> | The <b>Horizontal-Vertical Connection Tool</b> 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.                   |
|      | <a href="#">Vertical-Horizontal Connection Tool</a> | The <b>Vertical-Horizontal Connection Tool</b> 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.      |
|      | <a href="#">Path Connection Tool</a>                | The <b>Path Connection Tool</b> creates a path connection that connects two shapes. As with paths created with the <a href="#">Path Tool</a> , path connections can be manipulated to add additional line or                           |

## TouchDraw for iPad

---

| Icon  | Name                                | Description   |
|---|-------------------------------------|---|
|   |                                     | curve segments.   |
|  | <a href="#">Hub Connection Tool</a> | The <b>Hub Connection Tool</b> creates a connection line that is able to receive connections. This is typically used for creating network diagrams. |

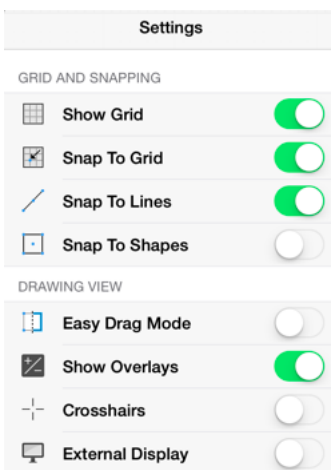
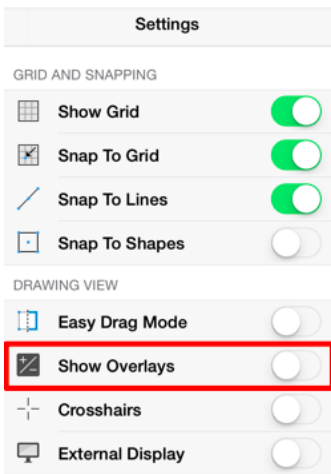
## 5.1.2.9. Changing Connector Types

The **Connector Type** of a selected connection line can be changed when the [Show Overlays](#) preference has been enabled in TouchDraw. This preference must be enabled for the **Connector Type Overlay** to appear in the [Drawing Canvas](#). Follow the steps below to enable this option:

1. Tap on the **Settings Button** in the [Top Toolbar](#).



2. Use the slider located to the right of **Show Overlays** in the menu to enable this preference in TouchDraw. **Touch and drag** your finger to the right or **tap** on the slider to enable the preference.

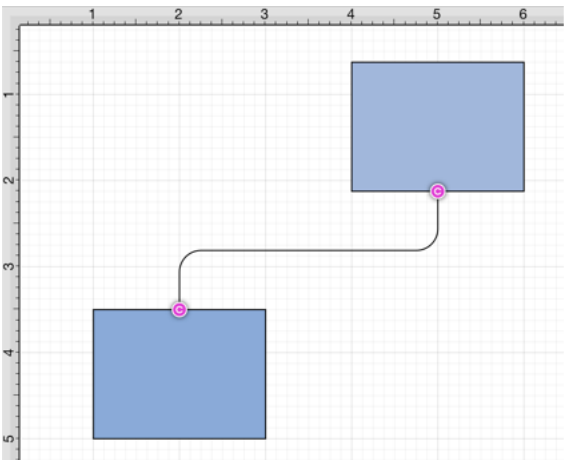
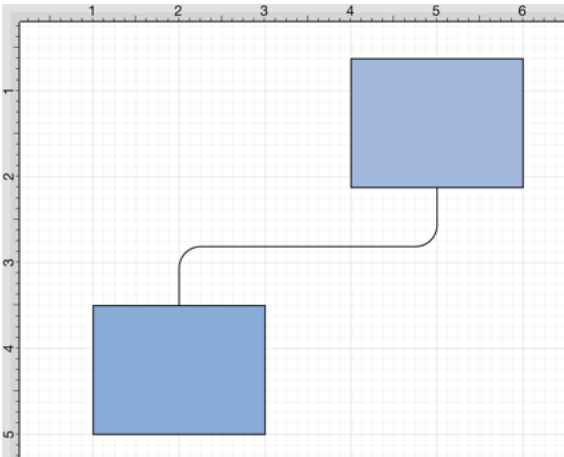


3. The **Connector Type Overlay** will appear in the lower right hand corner of the [Drawing Canvas](#) when the **Connection Tool** or an existing connection is selected.



After enabling this preference, you will be able to select an existing connection line and choose a different **Connector Type** from the overlay panel. Follow the steps below to change the **Connector Type** for a selected connection line in a drawing:

1. Tap on the desired connection line in the [Drawing Canvas](#) to make a selection. In this example, a [North-South](#) connection line is selected.

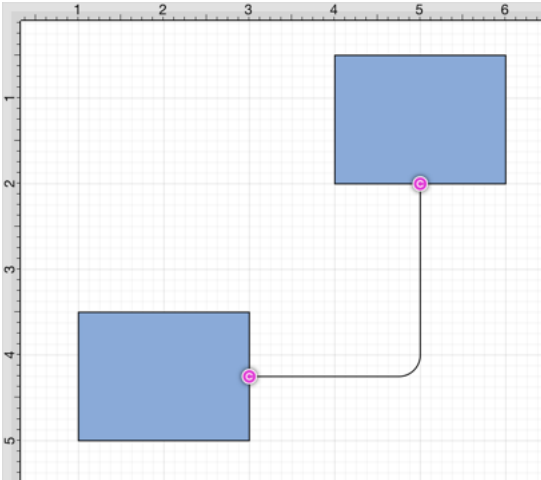


2. Tap on the appropriate **Connector Type** in the overlay panel. For this example, the [Vertical-Horizontal](#) connector type is selected.





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

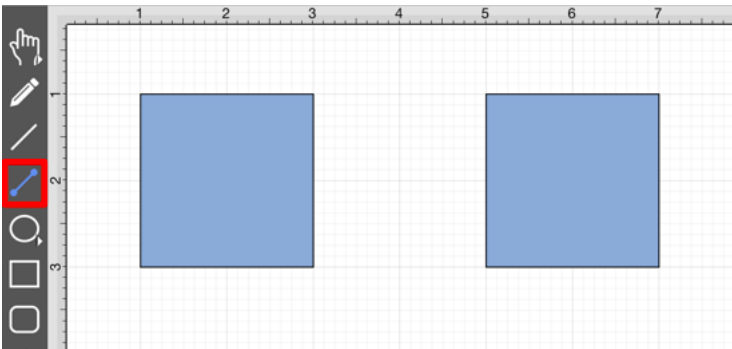


**Note:** To learn more about using the **Connector Type Overlay**, please refer to the [Overlays](#) section of the wiki documentation.

## 5.1.2.10. 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 by pressing on the **Stroke Button** located in the [Info Menu](#). To create a connection with this tool:

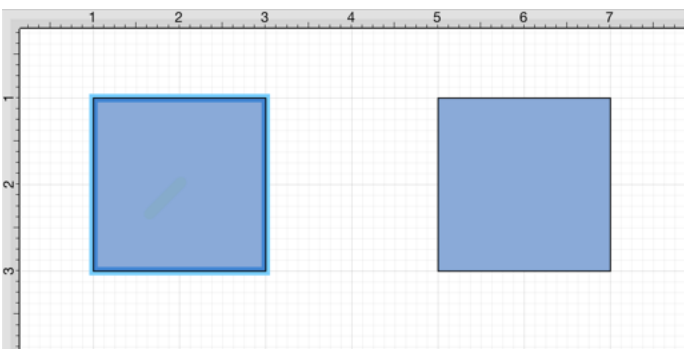
1. Select the **Line Connection Tool** in the [Drawing Toolbar](#).



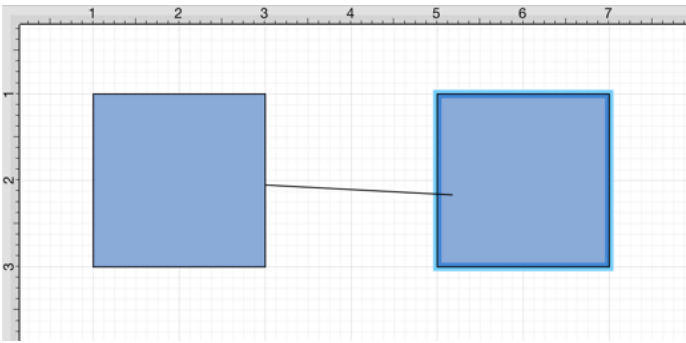
2. Tap on the **Line Connector Type** to select it.



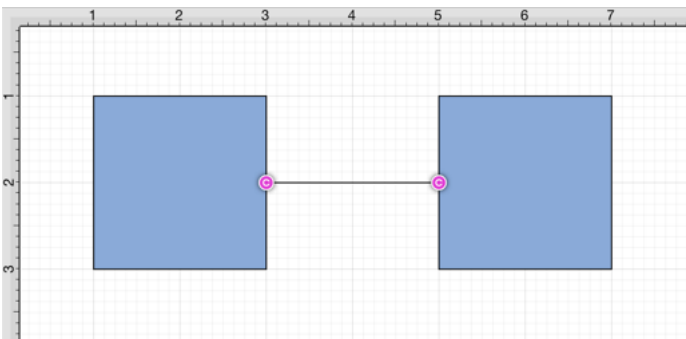
3. Perform a **Touch/Drag** gesture combination at the desired starting point on the source figure and move the handle to a desired end point on the target figure.



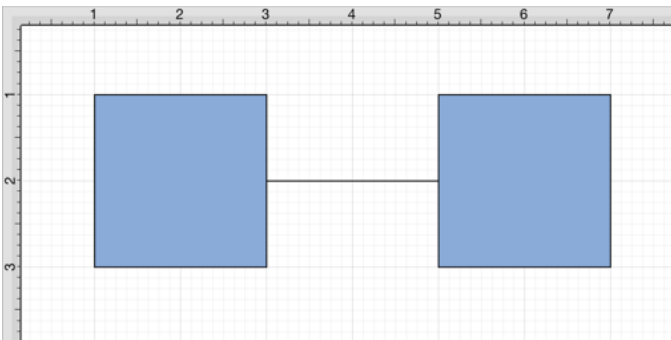
4. Release the **Touch** action to complete the connection line. Each selected figure will be highlighted in blue when a valid connection has been made.

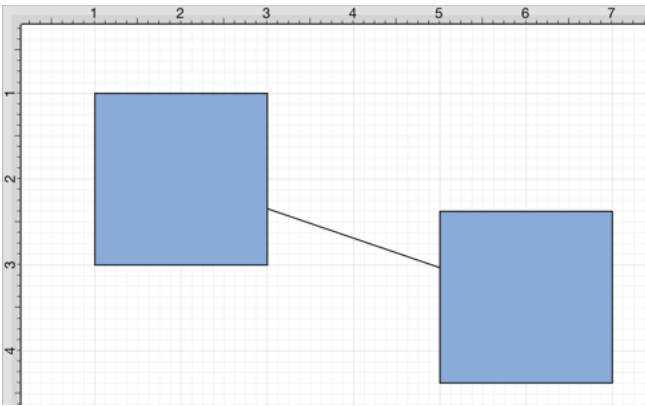


5. The connection line is created between the two figures when the **Touch/Drag** gesture combination is released.



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



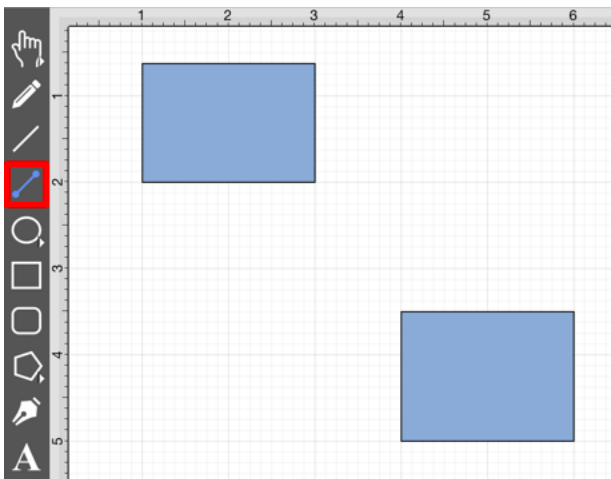




## 5.1.2.11. North-South Connection Tool

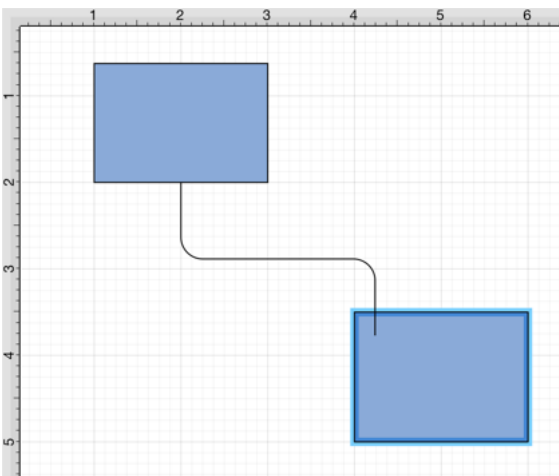
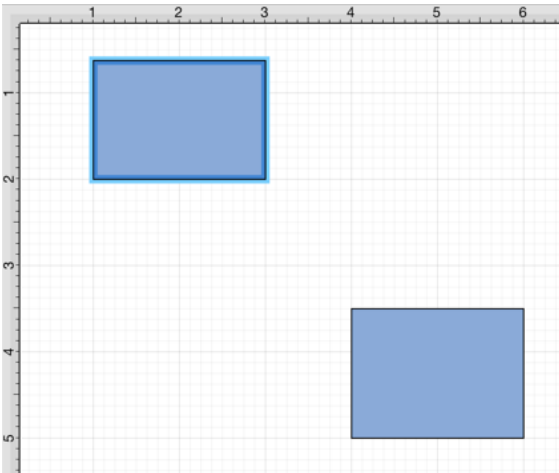
The **North-South Connection Tool** draws a connection line that originates from the side (either north/top or south/bottom) of the source figure and connects to the side (either north/top or south/bottom) of the target figure.

To select the North-South Connection Tool, press on the **Connection Tool Button** in the [Drawing Toolbar](#) and then tap on the **North-South Connector Type** in the popover window located in the bottom right corner of the [Drawing Canvas](#).

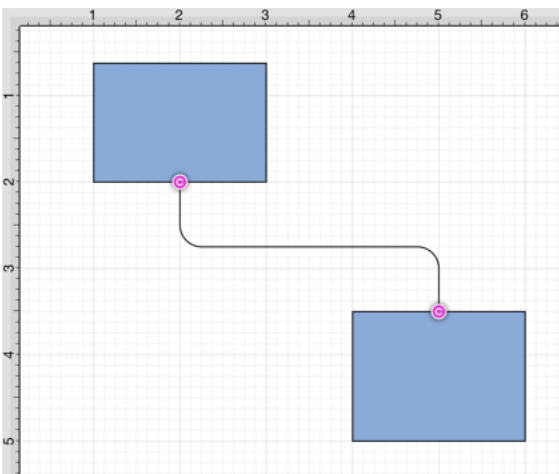


This connection between the figures is created in the same manner as with the [Line Connection Tool](#), but the connection path remains orthogonal with the source and target lines remaining vertical.

Perform a **Touch/Drag** gesture combination from the desired starting point on the source figure to the desired end point on the target figure and then release the **Touch** 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:

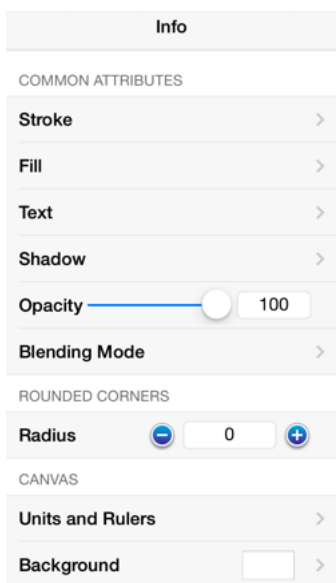
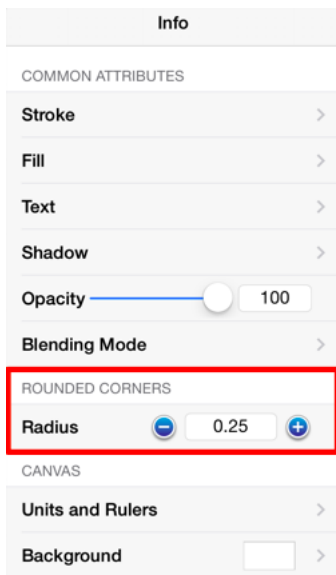


The completed connection line will appear as shown below.

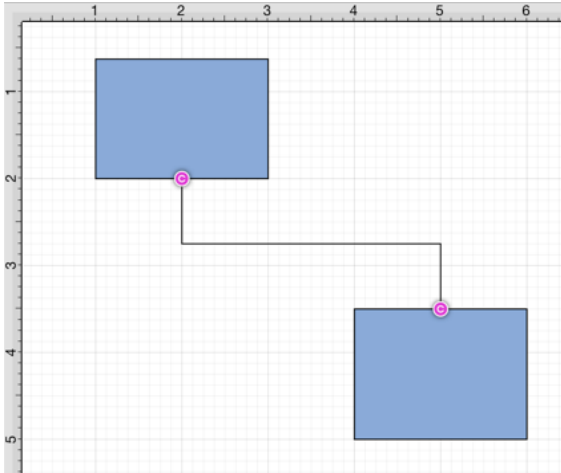


Performing a **Touch/Drag** gesture combination on the second figure after the connection is established results in the connection line position being adapted to keep the two figures connected. The appearance of a created orthogonal or elbow connection line varies based on the location of each figure and the amount of space between the two connected figures.

The connection line will automatically contain a rounded corner. To change the **Rounded Corner Radius** of the created connection line, make certain it is [selected](#), open the [Info Menu](#), and then alter the **Radius** value under **Rounded Corners**.



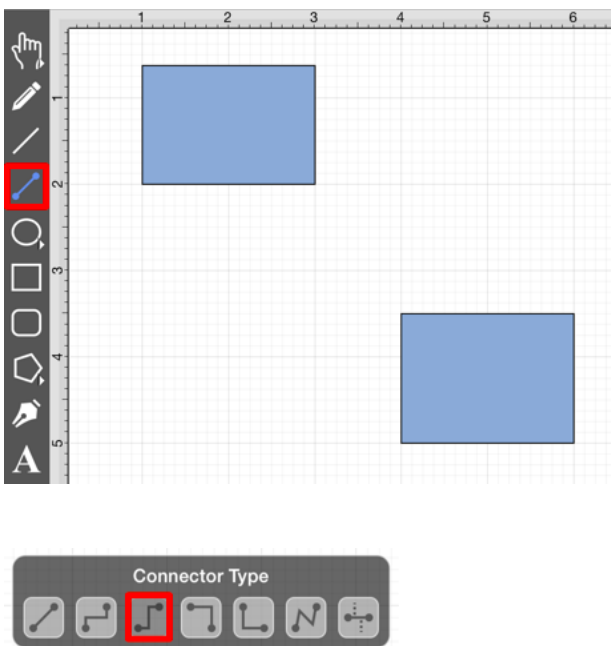
Changing the **Rounded Corner Radius** to zero for a selected connection line causes the corners to become ninety degree angles as shown below.



## 5.1.2.12. East-West Connection Tool

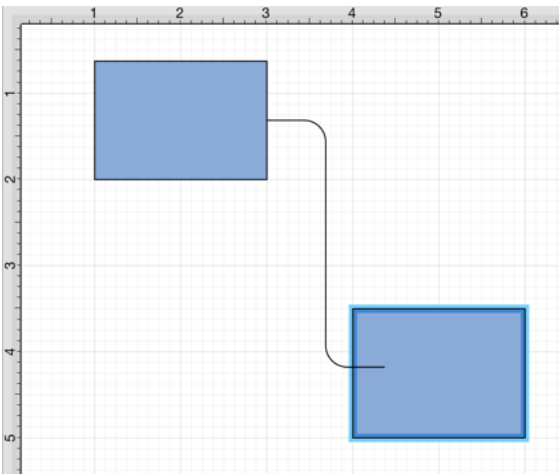
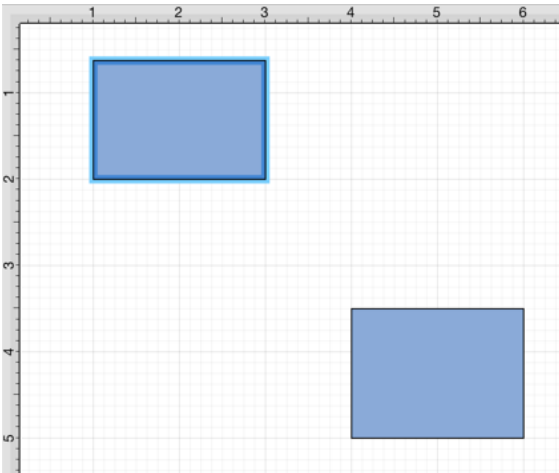
The **East-West Connection Tool** draws a connection line that originates from the side (either west/left or east/right) of the source figure and connects to the side (either west/left or east/right) of the target figure.

To select the East-West Connection Tool, press on the **Connection Tool Button** in the [Drawing Toolbar](#) and then tap on the **East-West Connector Type** in the popover window located in the bottom right corner of the [Drawing Canvas](#).

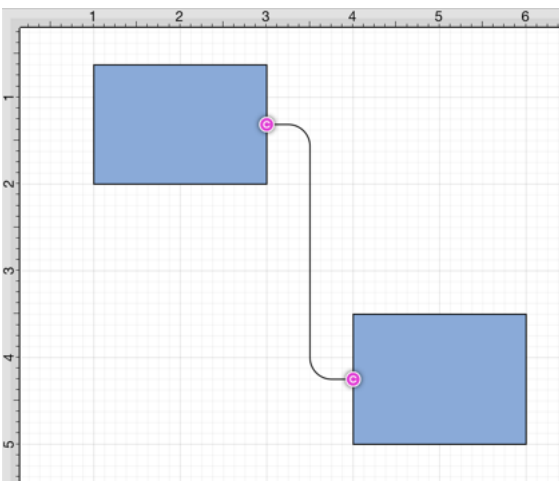


This connection between the figures is created in the same manner as with the [Line Connection Tool](#), but the connection path remains orthogonal with the source and target lines remaining horizontal.

Perform a **Touch/Drag** gesture combination from the desired starting point on a figure to the desired end point on another figure and then release the **Touch** 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:

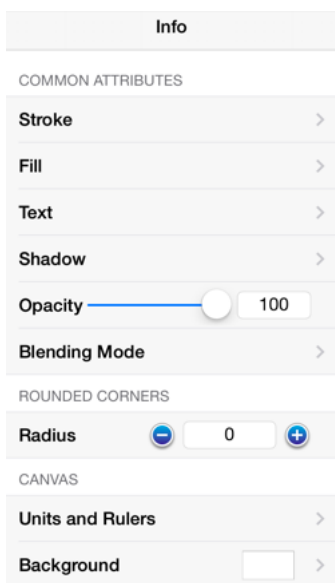
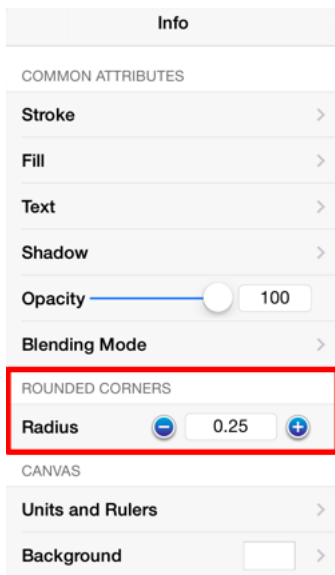


The completed connection line will appear as shown below.

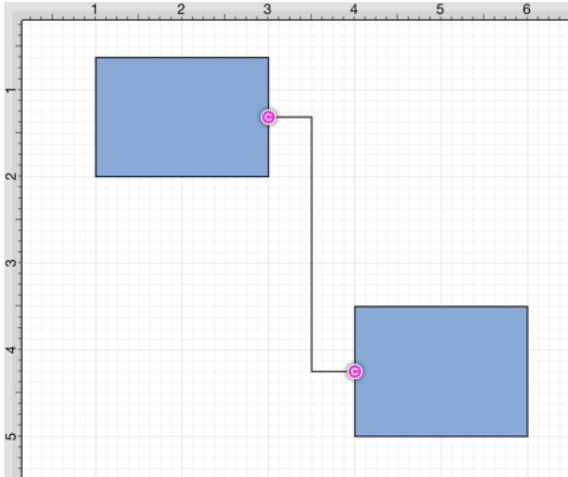


Performing a **Touch/Drag** gesture combination on the second figure after the connection is established results in the connection line position being adapted to keep the two figures connected. The appearance of a created orthogonal or elbow connection line varies based on the location of each figure and the amount of space between the two connected figures.

The connection line will automatically contain a rounded corner. To change the **Rounded Corner Radius** of the created connection line, make certain it is [selected](#), open the [Info Menu](#), and then alter the **Radius** value under **Rounded Corners**.



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

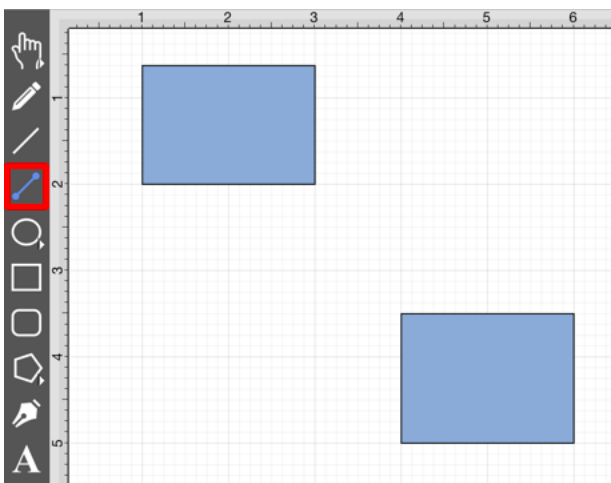




## 5.1.2.13. Horizontal-Vertical Connection Tool

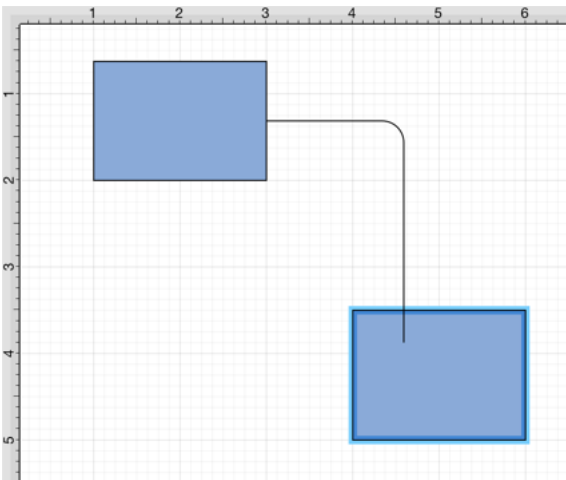
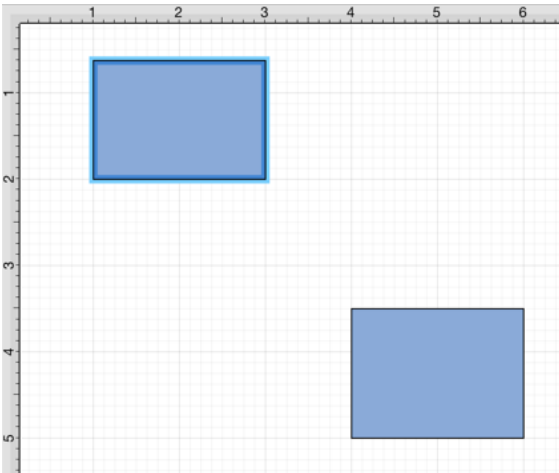
The **Horizontal-Vertical Connection Tool** draws a connection line that originates horizontally from the right or left side of the source figure and connects vertically to the side (top) of the target figure.

To select the Horizontal-Vertical Connection Tool, press on the **Connection Tool Button** in the [Drawing Toolbar](#) and then tap on the **Horizontal-Vertical Connector Type** in the popover window located in the bottom right corner of the [Drawing Canvas](#).

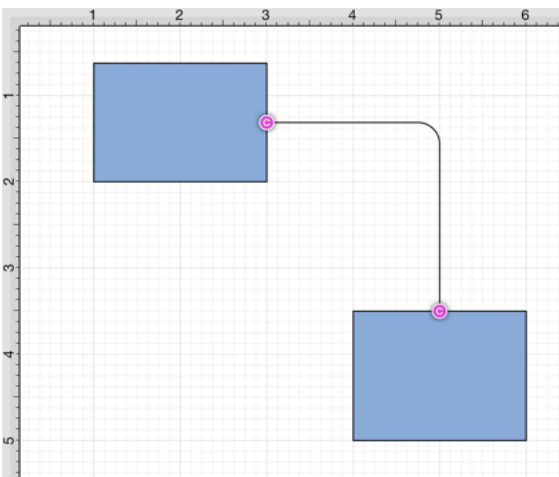


This connection between the figures is created in the same manner as with the [Line Connection Tool](#), but the connection path remains orthogonal with the source lines remaining horizontal and target lines remaining vertical.

Perform a **Touch/Drag** gesture combination from the desired starting point on the source figure to a desired end point on the target figure and then release the **Touch** 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:

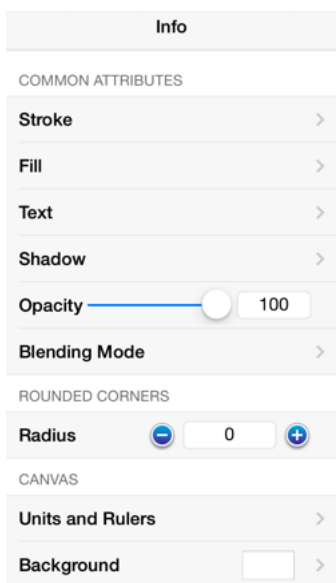
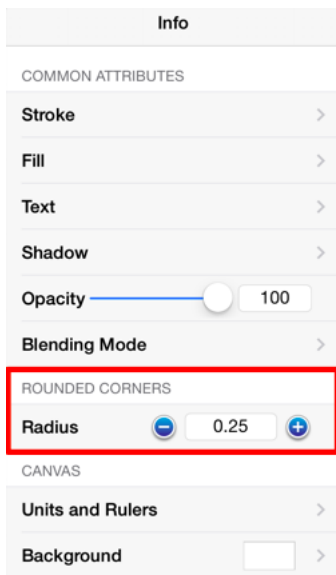


The completed connection line will appear as below.

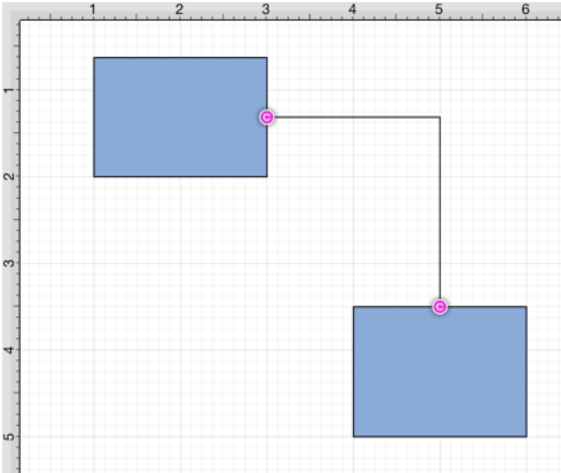


Performing a **Touch/Drag** gesture combination on the second figure after the connection is established results in the connection line position being adapted to keep the two figures connected. The appearance of a created orthogonal or elbow connection line varies based on the location of each figure and the amount of space between the two connected figures.

The connection line will automatically contain a rounded corner. To change the **Rounded Corner Radius** of the created connection line, make certain it is [selected](#), open the [Info Menu](#), and then alter the **Radius** value under **Rounded Corners**.



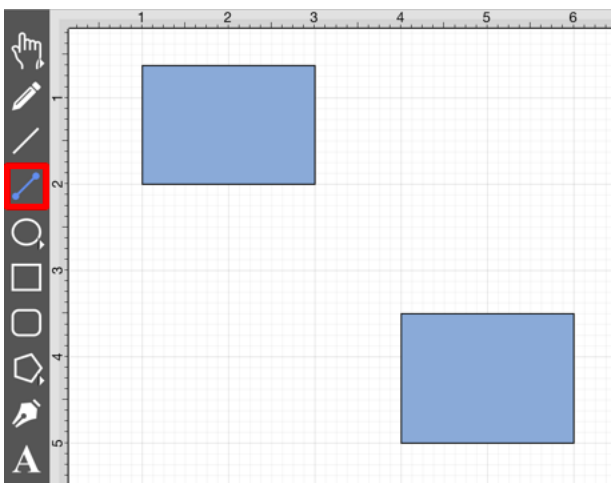
Changing the **Rounded Corner Radius** to zero for a selected connection line causes the corners to become ninety degree angles as shown below.



## 5.1.2.14. Vertical-Horizontal Connection Tool

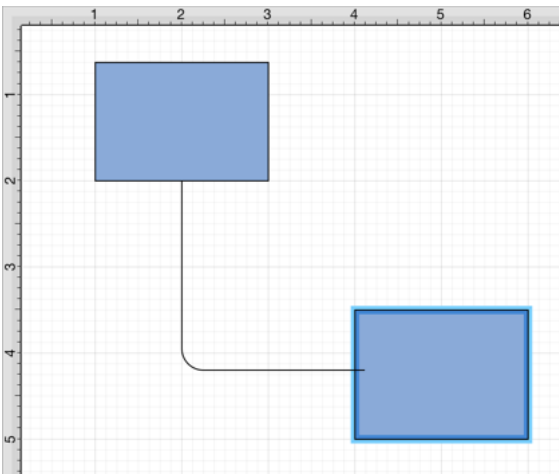
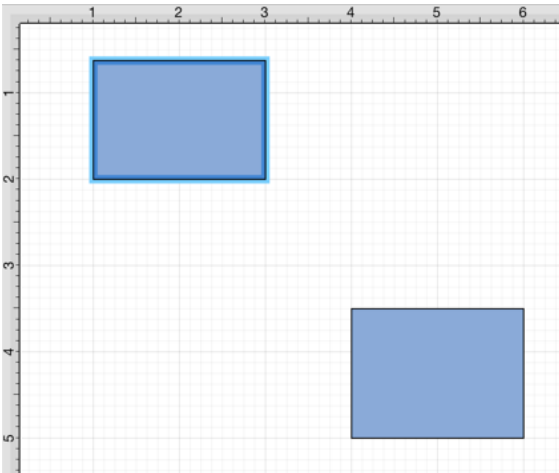
The **Vertical-Horizontal Connection Tool** draws a connection line that originates vertically from the side (either top or bottom) of the source figure and connects to the side (either left or right) of the target figure.

To select the Vertical-Horizontal Connection Tool, press on the **Connection Tool Button** in the [Drawing Toolbar](#) and then tap on the **Vertical-Horizontal Connector Type** in the popover window located in the bottom right corner of the [Drawing Canvas](#).

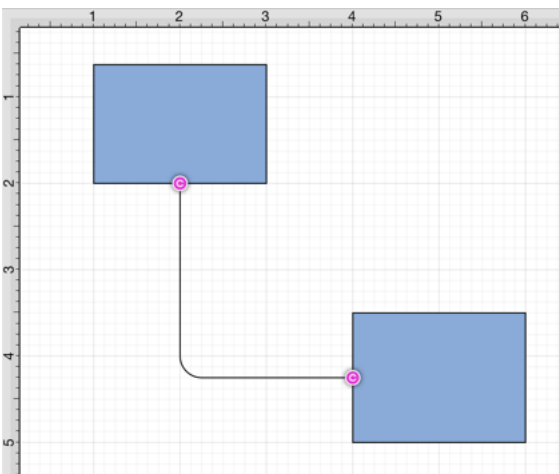


This connection between the figures is created in the same manner as with the [Line Connection Tool](#), but the connection path remains orthogonal with the source lines remaining vertical and target lines remaining horizontal.

Perform a **Touch/Drag** gesture combination from the desired starting point on the source figure to a desired end point on the target figure and then release the **Touch** 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:

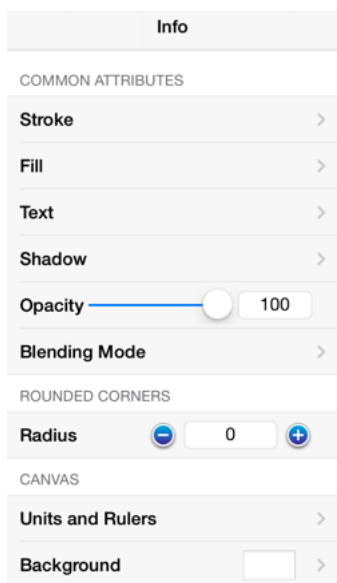
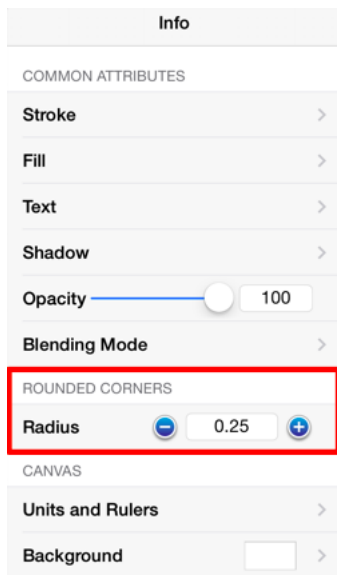


The completed connection will appear as shown below.

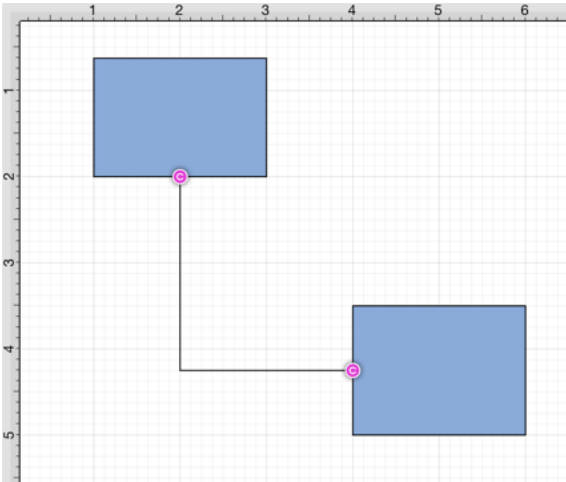


Performing a **Touch/Drag** gesture combination on the second figure after the connection is established results in the connection line position being adapted to keep the two figures connected. The appearance of a created orthogonal or elbow connection line varies based on the location of each figure and the amount of space between the two connected figures.

The connection line will automatically contain a rounded corner. To change the **Rounded Corner Radius** of the created connection line, make certain it is [selected](#), open the [Info Menu](#), and then alter the **Radius** value under **Rounded Corners**.



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

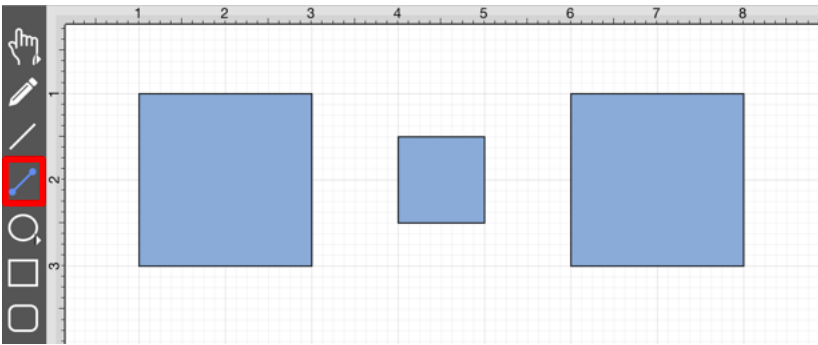




## 5.1.2.15. Path Connection Tool

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, press on the **Connection Tool Button** in the [Drawing Toolbar](#).

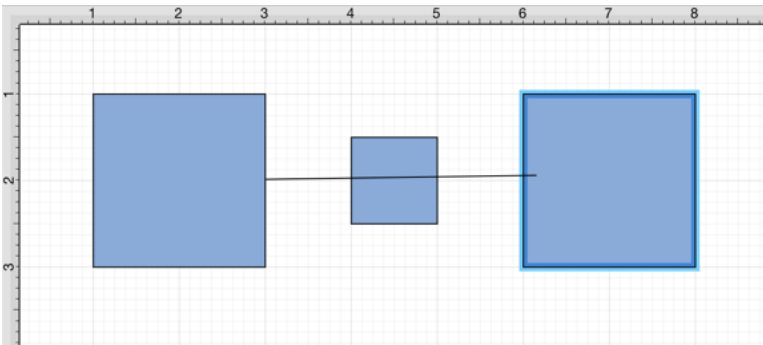
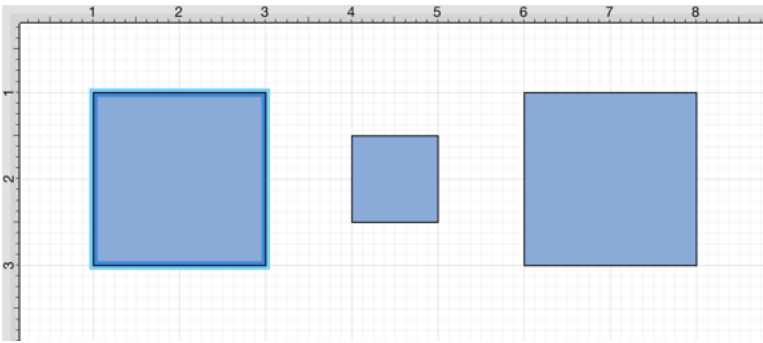


Then tap on the **Path Connector Type** in the popover window located in the bottom right corner of the [Drawing Canvas](#).

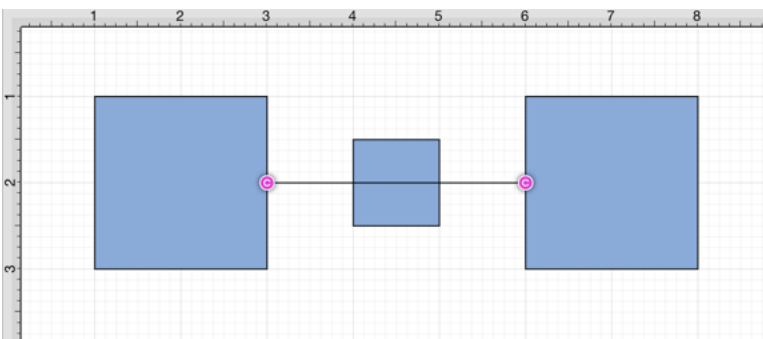


This connection between the figures is created in the same manner as with the [Line Connection Tool](#), but the created path can be modified just as items generated with the [Path Tool](#). See the [Handling Paths](#) section of this documentation to learn more.

Perform a **Touch/Drag** gesture combination from the desired starting point on the source figure to a desired end point on target figure and then release the **Touch** 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:



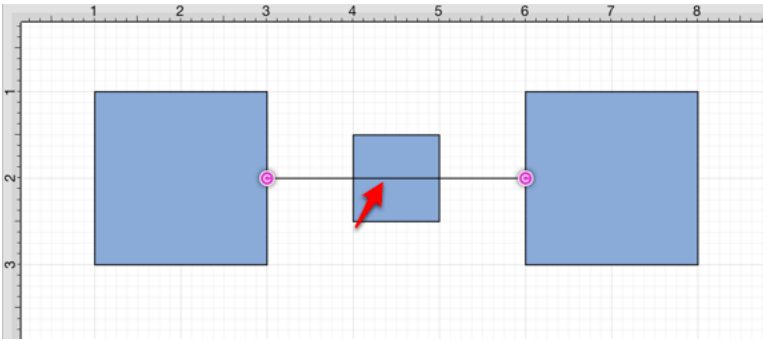
The completed connection will appear as shown below.



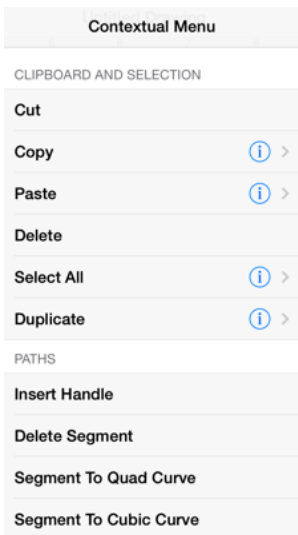
**Note:** Performing a **Touch/Drag** gesture combination on the second figure after the connection is established results in the connection line position being adapted to keep the two figures connected.

### 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 an **extended Press** on the connection line to open the [Contextual Menu](#) or by selecting the connection line and tapping on the **Contextual Menu Button** in the [Top Toolbar](#).



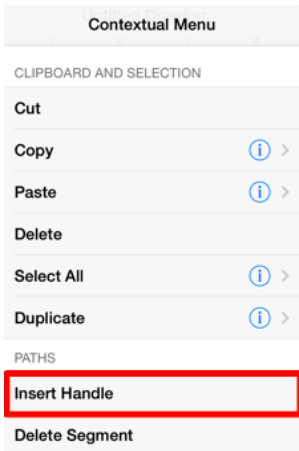
Several options will appear within the [Contextual Menu](#) for modifying the connection line and routing it around a specific figure. Handles and/or curved segments can be added to alter the route of the connection line.

**Note:** Please note that if you select [Delete Segment](#) without adding any additional handles or segments, then the connection line will be completely removed from the drawing.

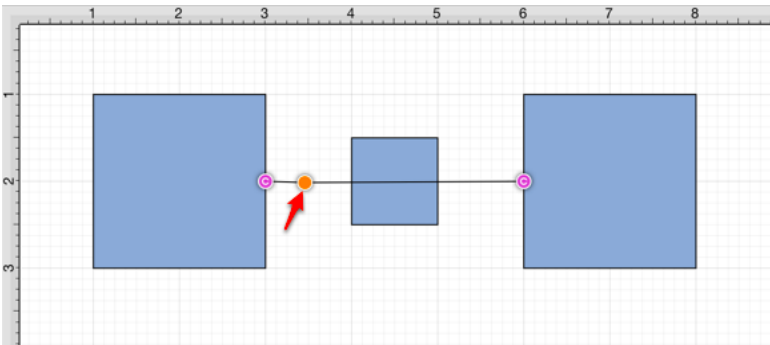
### Example 1: Inserting Handles

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.

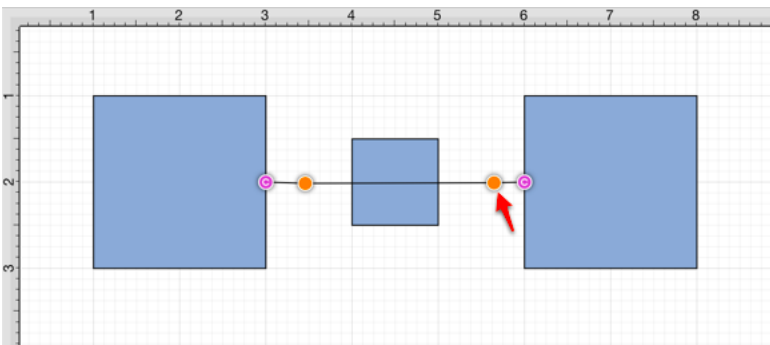
1. Perform an **extended Press** on the connection line in a location to the left of the crossed figure and then select **Insert Handle** from the menu.



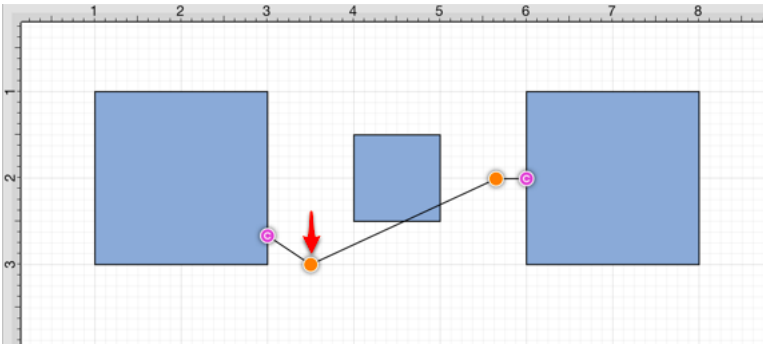
2. A new **Path Handle** (Orange) will appear within the **Path Connection Line** as shown below:



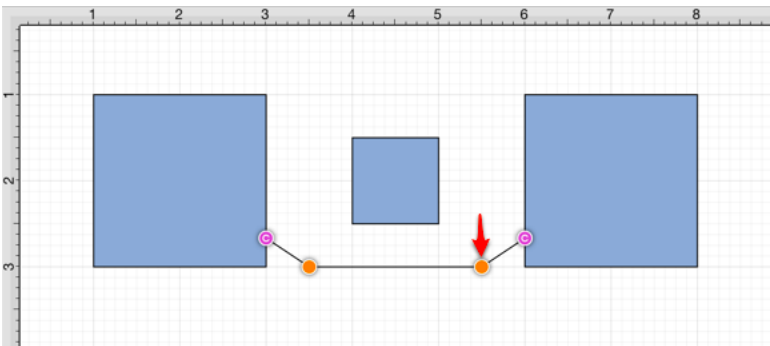
3. Perform an **extended Press** on the connection line in a location to the right of the crossed figure and then select **Insert Handle** from the menu again to add another Path Handle (Orange).



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



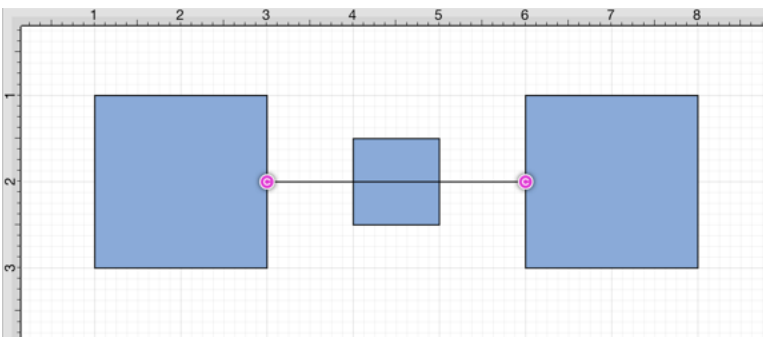
5. Notice that the line still intersects the figure. Press and drag on the right handle to continue altering the direction/path of the connection line. This will result in the straight segment residing below the figure and a successfully routed Path Connection Line.



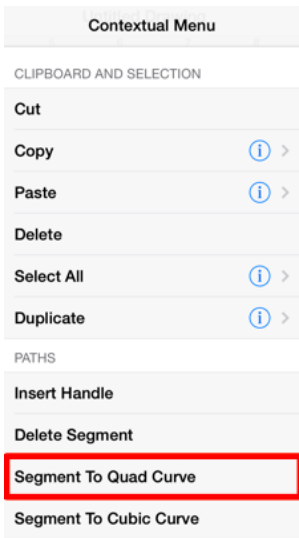
**Note:** Please note that the handles may be moved in any direction; however, for this example both are moved down to route the connection line around the figure.

### Example 2: Segment to Quad

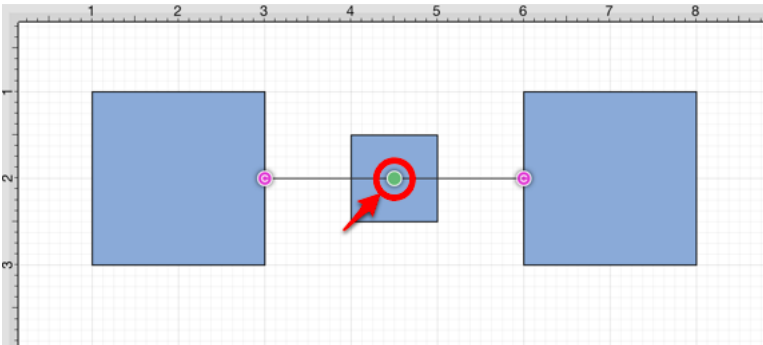
A **Path Connection Line** can also be routed differently by converting the line to a quadratic segment. This example will use the same original figures as shown previously and will display how to convert the current connection line to a quadratic segment for path routing.



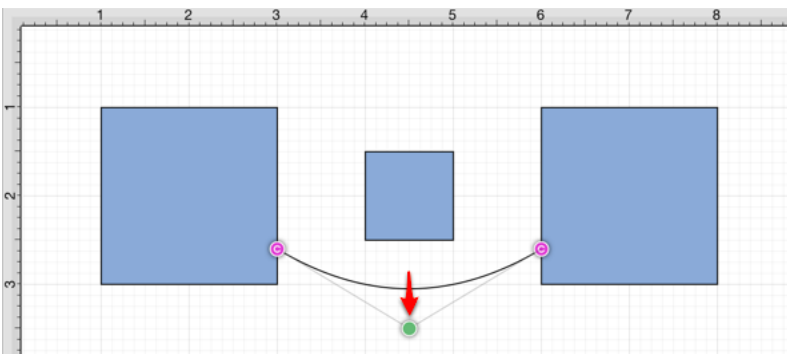
1. Perform an **extended Press** on the connection line and then select **Segment to Quad** from the menu.



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

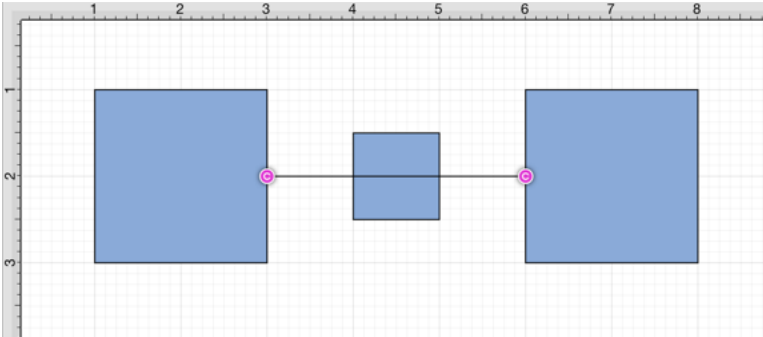


3. Press and drag the handle downward (or upward) to create a curved segment. The **Control Point Handle** may be moved in any direction; however, for this example, it is moved downward below the figure.

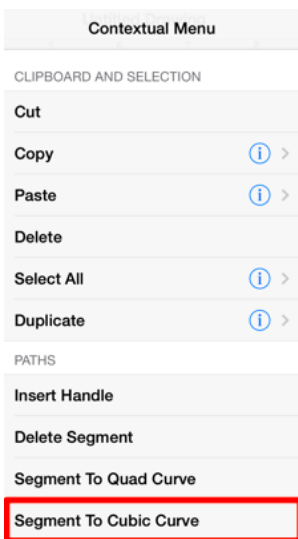


Example 3: Segment to Cubic

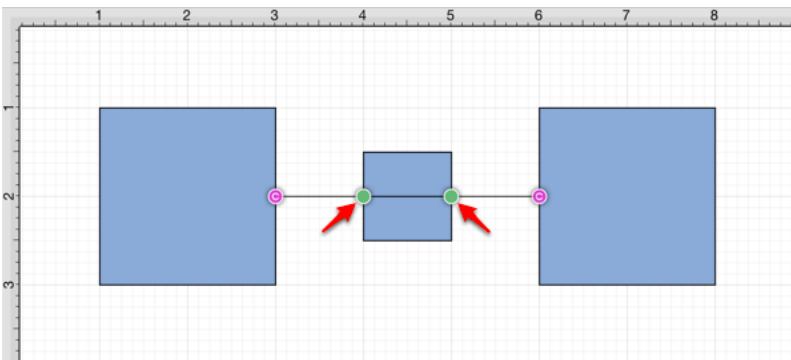
A **Path Connection Line** can also be routed differently by converting the line to a cubic segment. This example will use the same original figures as shown previously and will display how to convert the current connection line to a quadratic segment for path routing.



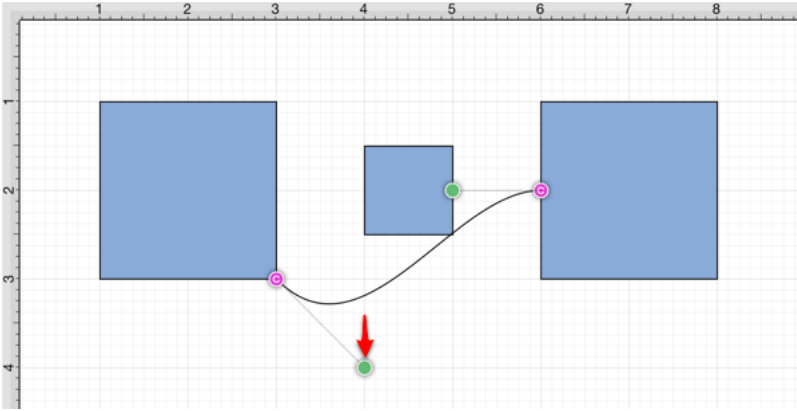
1. Perform an **extended Press** on the connection line and then select **Segment to Cubic** from the menu.



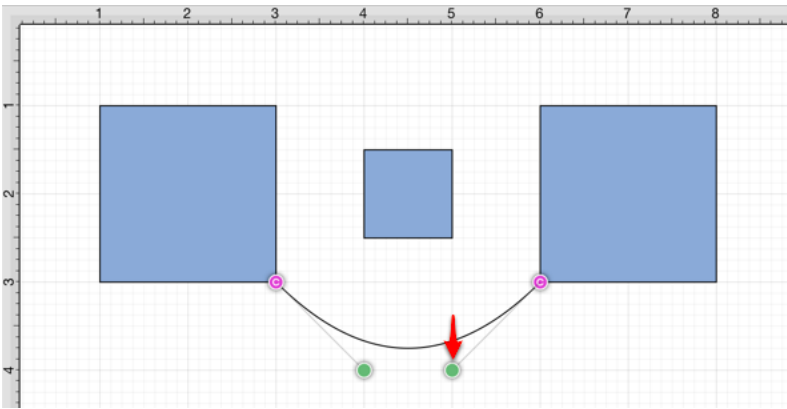
2. Two **Control Point Handles (Green)** will appear within the connection line.



3. Press 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.



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

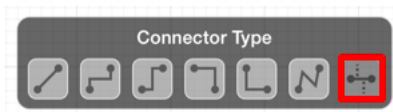
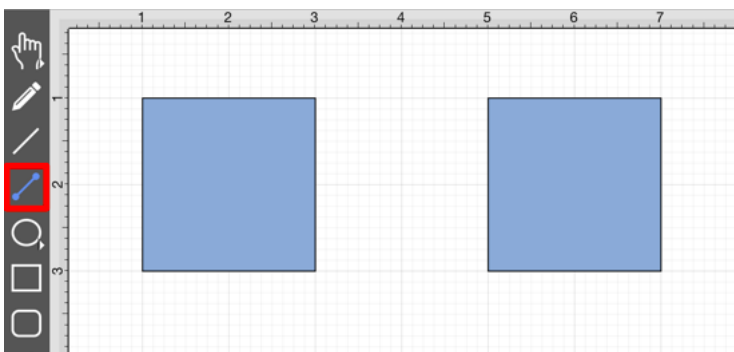




## 5.1.2.16. Hub Connection Tool

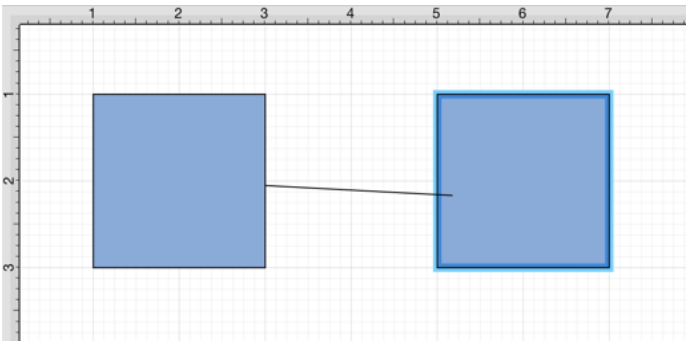
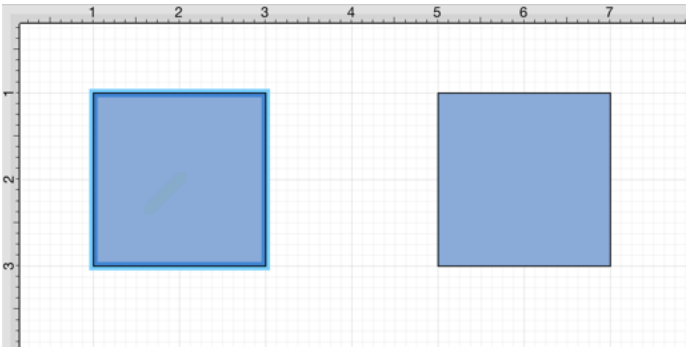
The **Hub Connection Tool** creates a connection line that is able to receive connections and is typically used for creating network diagrams. The connection line can originate from any side of the source figure and connects to any side of the target figure or to another hub connection line.

To select the Hub Connection Tool, press on the **Connection Tool Button** in the [Drawing Toolbar](#) and then tap on the **Hub Connector Type** in the popover window located in the bottom right corner of the [Drawing Canvas](#).

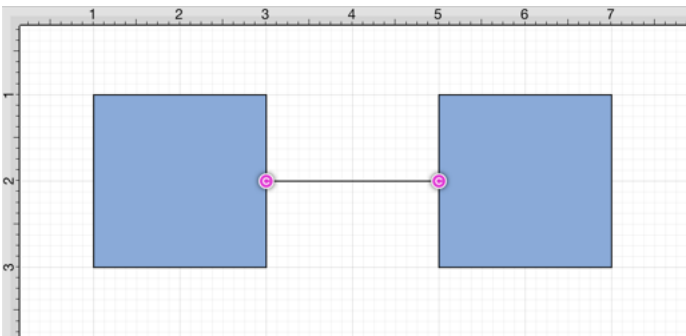


This connection between the figures is created in the same manner as with the [Line Connection Tool](#); however, the connection path can be placed between two hub connection lines to create a networking or alternative type of diagram.

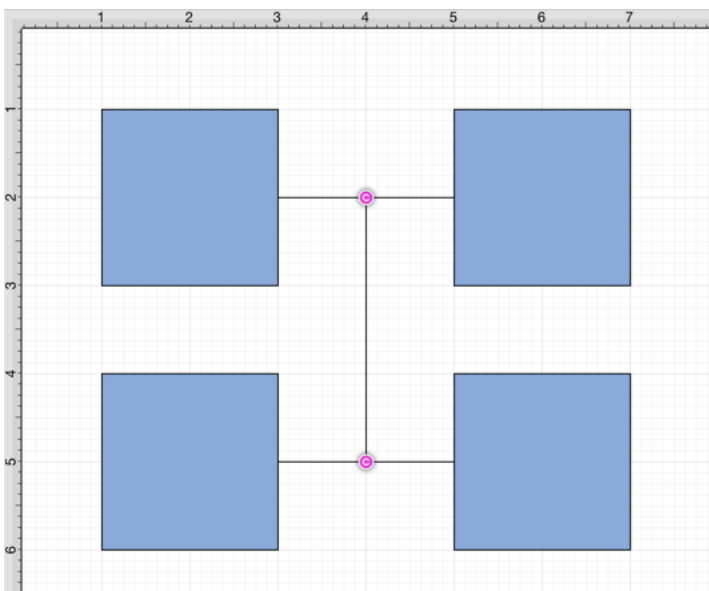
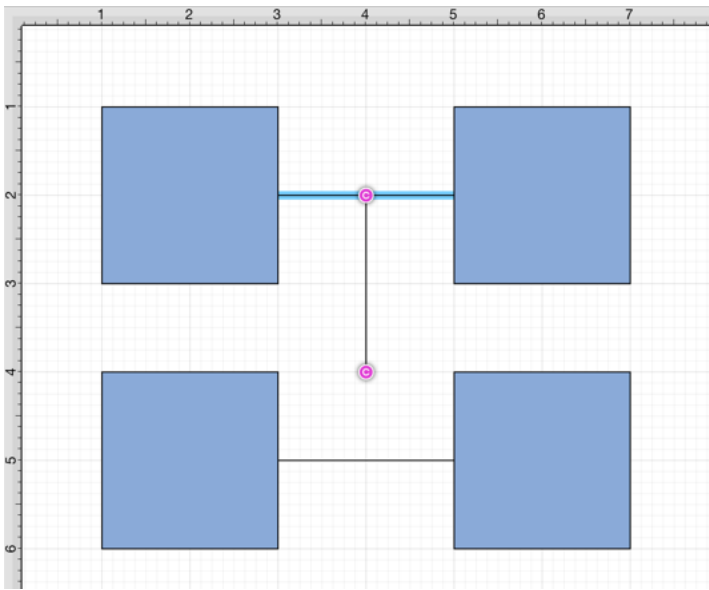
Perform a **Touch/Drag** gesture combination from the desired starting point on the source figure to the desired end point on the target figure or hub connection line and then release the **Touch** action to complete the connection. The selected figures or hub connection lines will be highlighted in 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.



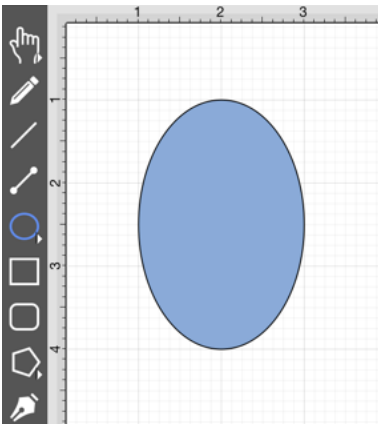
The following example shows a hub connection line joining two previously drawn hub connection lines.



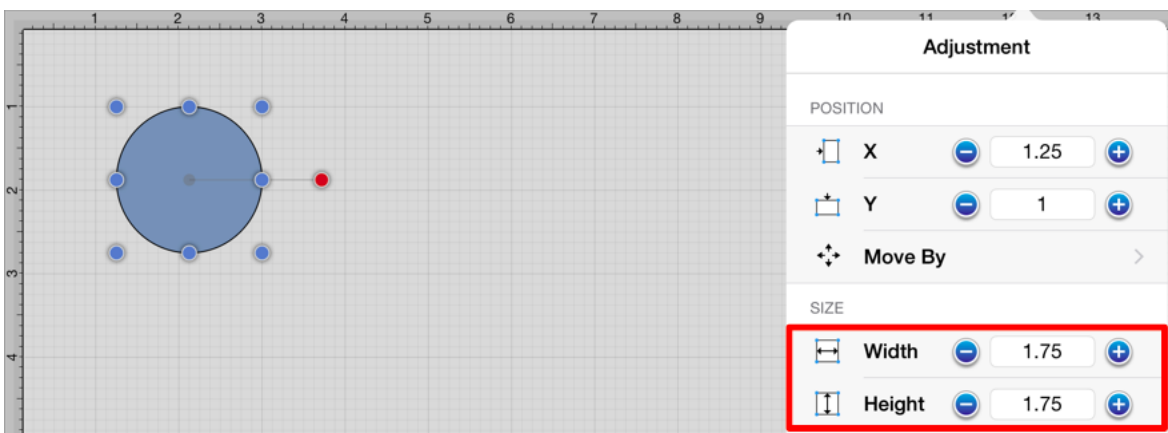
Performing a **Touch/Drag** gesture combination on the second figure after the connection is established results in the connection line position being adapted to keep the two figures connected.

## 5.1.2.17. Oval Tool

The **Oval Tool** is used to create ovals or circles within a drawing. To use the tool, simply select it and then perform a **Touch/Drag** gesture combination at the point in the [Drawing Canvas](#) where one of the bounding corners of the oval or circle should be. Drag in any direction and release the **Touch** action where the other bounding corner should be.



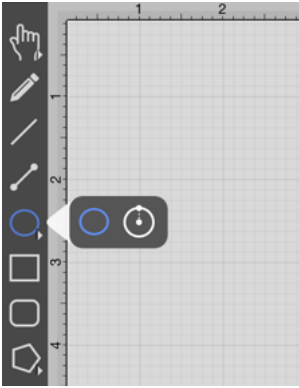
Using the **Oval Tool** in conjunction with the [Function Key Feature](#) allows for the creation of perfect circles by constraining the width and the height of the created object to equal values.



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

Circle Tool

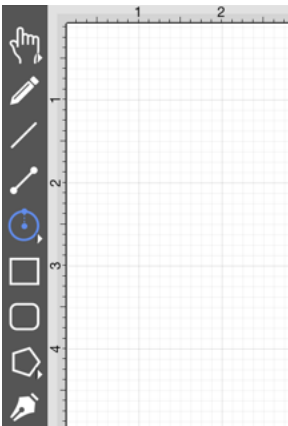
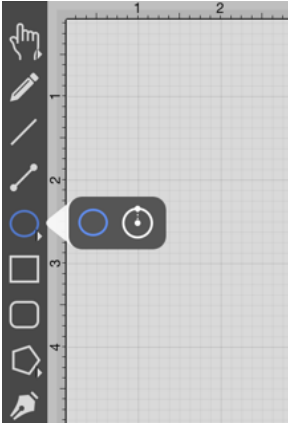
Additional **Oval Tool** options are made available when an extended **Press** is performed over the tool button.



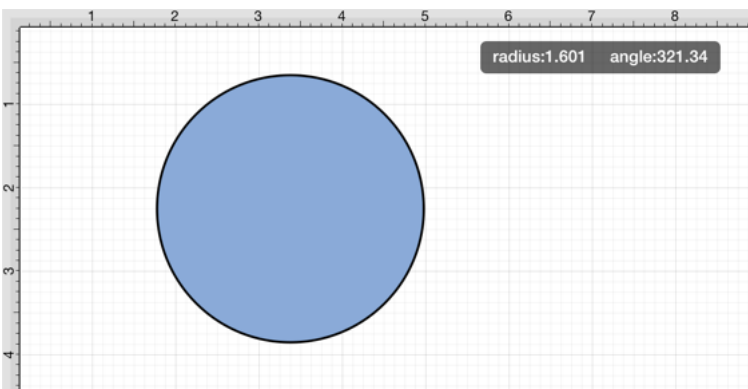
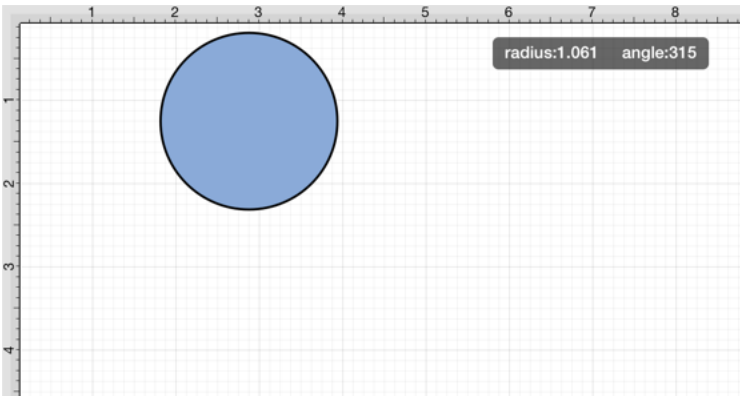
This **Circle Tool** creates a perfect circle where the radius increases in increments as the size of the shape increases.

## 5.1.2.18. 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, perform an extended **Press** on the **Oval Tool** in the **Drawing Toolbar** to bring up the popover menu.

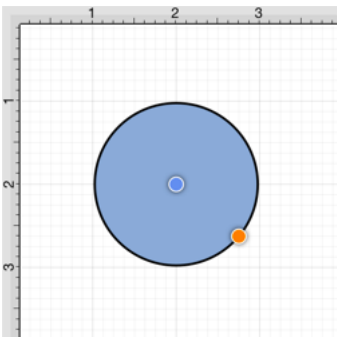


**Touch** on the point in the **Drawing Canvas** where the center of the circle should be and **Drag** outward without lifting the used finger until the circle consists of a desired radius or size. Release the **Touch** action to complete the circle. The radius and angle values will increase as the size of the circle increases. Refer to the images below:

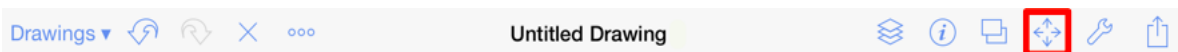


The radius of a circle can be altered any time after it has been created. To change the radius of a circle:

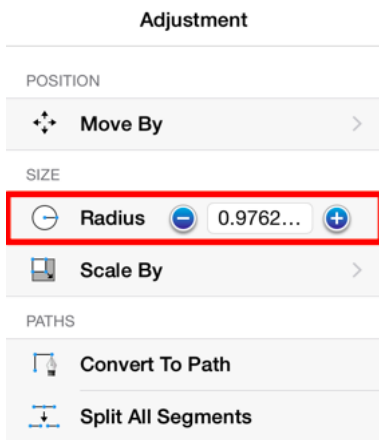
1. **Select** the circle to be altered.



2. Press on the **Adjustment Button** in the **Top Toolbar** to open the **Adjustment Menu**.



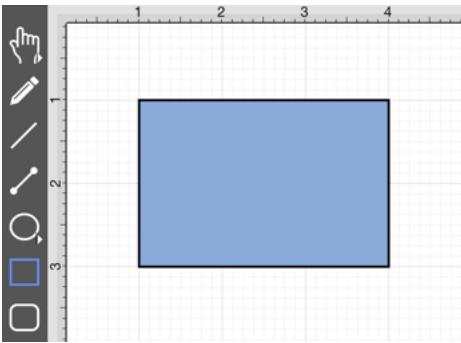
3. Use the **Radius Control** to set the radius of a circle. Tap on the "plus" or "minus" buttons to change the value or press on the text entry field to bring up a keypad for entering the value by hand.



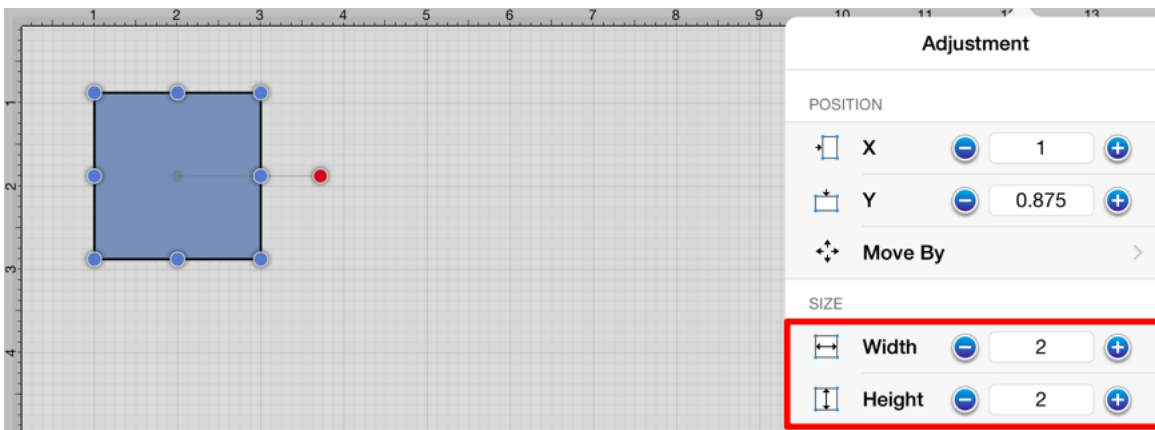


## 5.1.2.19. Rectangle Tool

The **Rectangle Tool** can be used to create rectangles or squares within a drawing. To use the tool, simply select it and then use a **Touch/Drag** gesture 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 **Touch** action where the other bounding corner should reside on the Drawing Canvas.



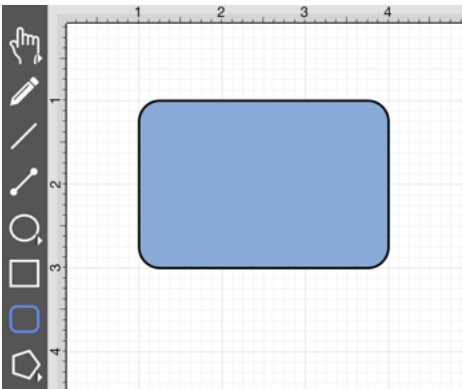
Using the **Rectangle Tool** in conjunction with the [Function Key Feature](#) allows for the creation of perfect squares by constraining the width and the height of the created object to equal values. In the example below, a square that is 2 inches in height and width has been created:



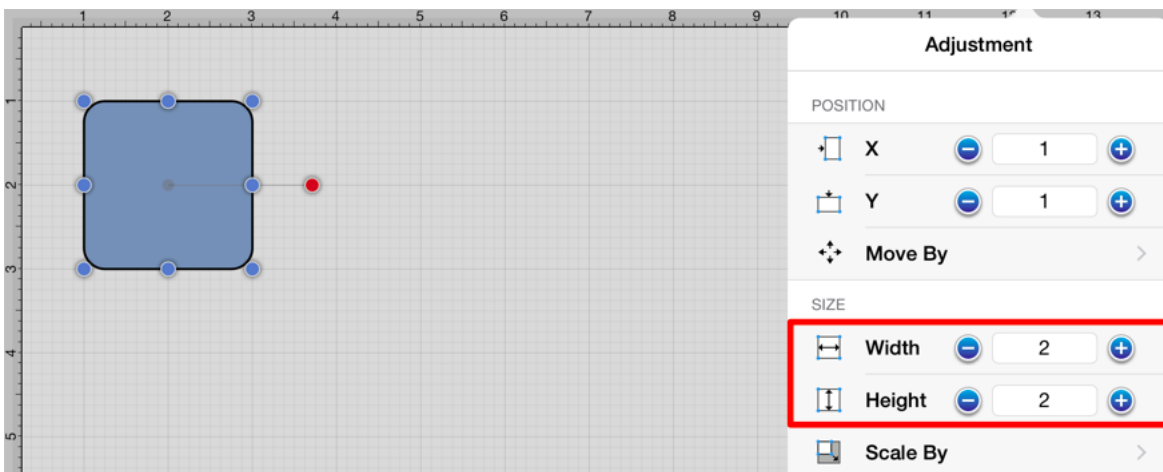
**Note:** A rectangle can also contain text. See the [Handling Text](#) section for additional details.

## 5.1.2.20. Rounded Rectangle Tool

The **Rounded Rectangle Tool** can be used to create rounded rectangles or rounded squares within a drawing. To use the tool, simply select it and use a **Touch/Drag** gesture 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 **Touch** action where the other bounding corner should reside on the Drawing Canvas.



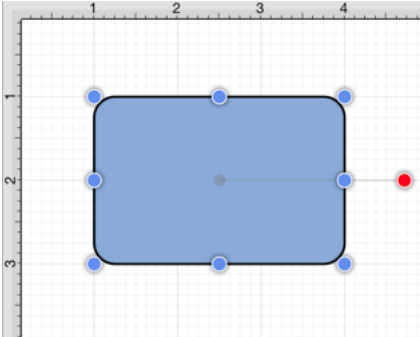
Use the **Rounded Rectangle Tool** in conjunction with the [Function Key Feature](#) to create perfectly rounded squares. Having the **Function Key Feature** activated while creating a rounded rectangle constrains the width and the height to equal values. In the example below, a rounded square that is 2 inches in height and width has been created:



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

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

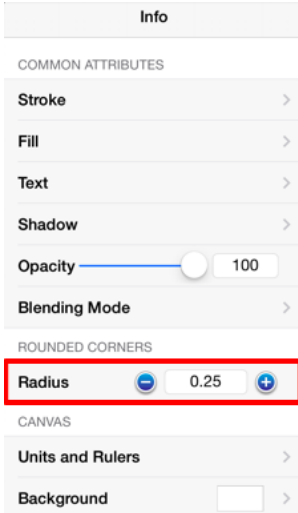
1. **Select** a rounded rectangle.



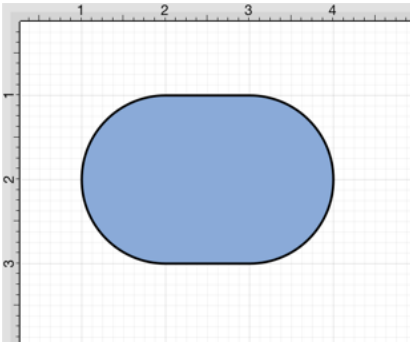
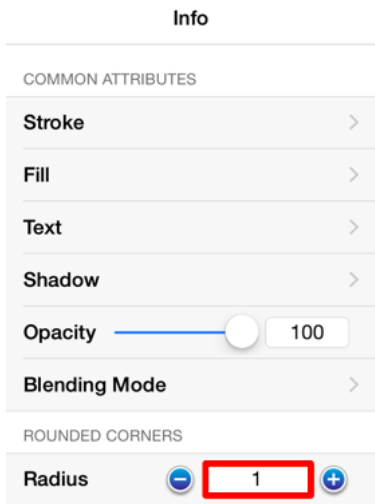
2. Press on the **Info Button** in the **Top Toolbar** to open the **Info Menu**.



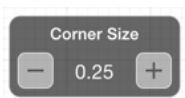
3. Use the **Rounded Corners Control** to set the size. Tap on the "plus" or "minus" buttons to change the value or tap on the text entry field to bring up a keyboard for entering the value by hand.



4. In the example below, the corner size has been changed to 1 inch:



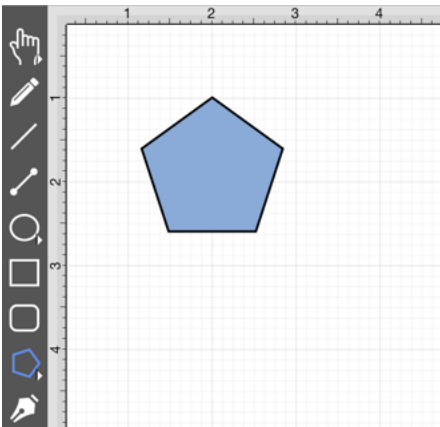
The measurement can also be altered before creating a shape by tapping on the "plus" or "minus" buttons located in the **Corner Size Popover Window**. This popover window appears when the **Rounded Rectangle Tool** is first selected and is located in the bottom right corner of the Drawing Canvas.



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 .25, that means the corner size is 1/4 of an inch.

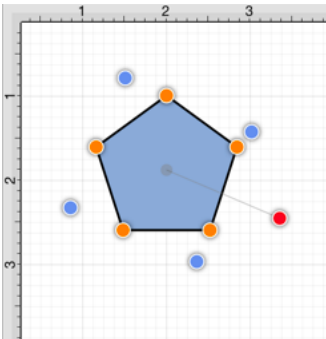
## 5.1.2.21. Polygon Tool

The **Polygon Tool** can be used to create regular polygons within a drawing. To use the tool, simply select it and then use a **Touch/Drag** gesture combination at the point in the Drawing Canvas where the *center* of the polygon will be. Then drag in any direction and release the **Touch** action where one of the outer points of the polygon should reside on the [Drawing Canvas](#).

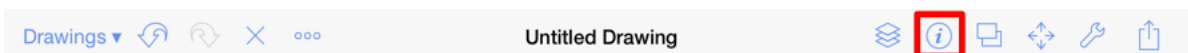


The number of polygon sides can be specified prior to drawing the shape, during creation, or altered any time after it has been created. To set the number of sides before or after creating a shape:

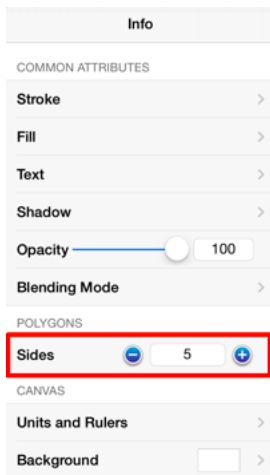
1. [Select](#) the polygon to be altered.



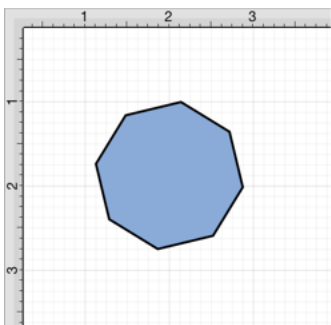
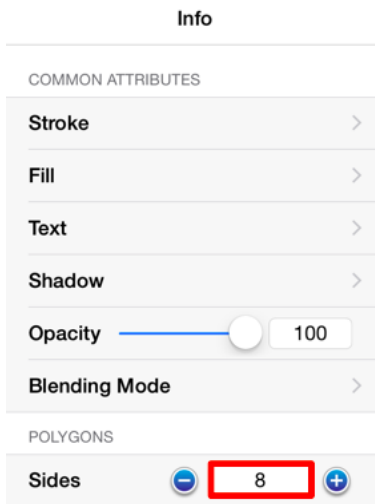
2. Press on the **Info Button** in the [Top Toolbar](#) to open the [Info Menu](#).



3. Use the **Polygons Control** to set the number of sides. Tap on the "plus" or "minus" buttons to change the value or tap on the text entry field to bring up a keyboard for entering the value by hand.



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



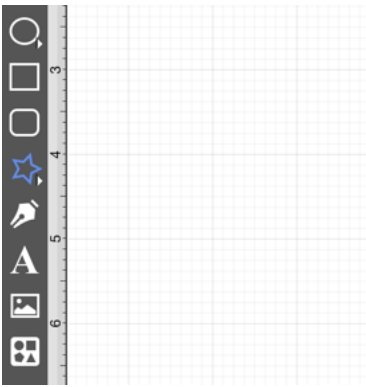
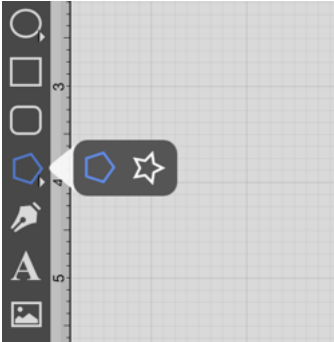
An additional option is provided for altering the number of sides before creating a polygon. A **Number of Sides** popover window appears in the bottom right corner of the Drawing Canvas when the **Polygon Tool** is selected, tap on the "plus" or "minus" buttons or tap on the text entry field to set this value prior to drawing the figure.



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

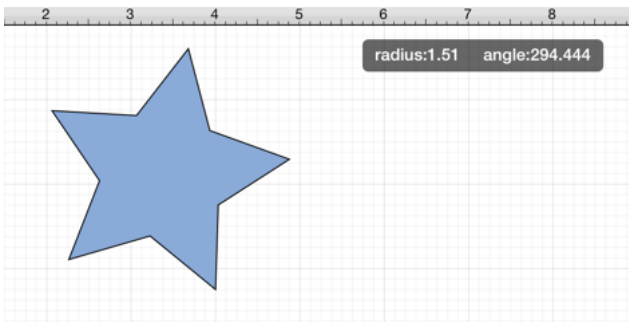
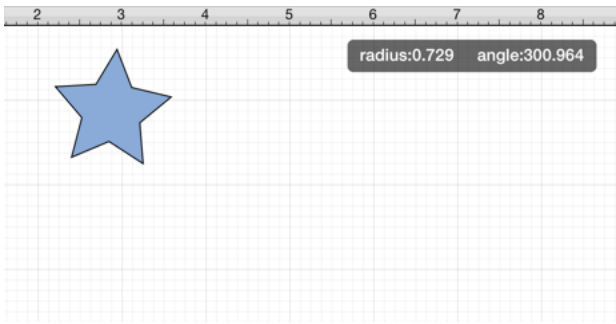
## 5.1.2.22. Star Tool

The **Star Tool** can be used to create stars within a drawing. To select the Star Tool, perform an extended **Press** on the [Polygon Tool](#) in the [Drawing Toolbar](#) to bring up the menu and then tap on the **Star Tool** in the provided selection menu.



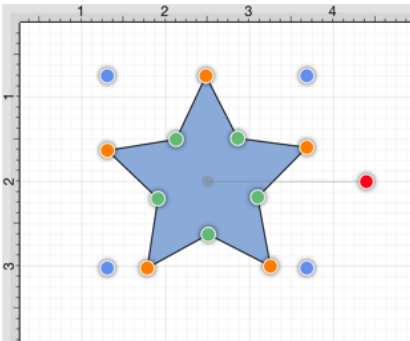
**Touch** on the point in the [Drawing Canvas](#) where the center of the star should be and **Drag** outward without lifting the used finger until the star consists of a desired radius, angle, and size. Release the **Touch** action to complete the star. The radius and angle values will increase as the size of the star increases, as shown in the images below.



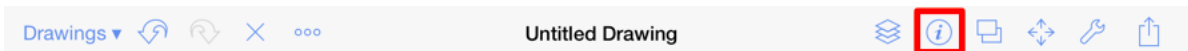


The number of star points can be specified prior to drawing the shape or altered any time after it has been created. To set the number of points:

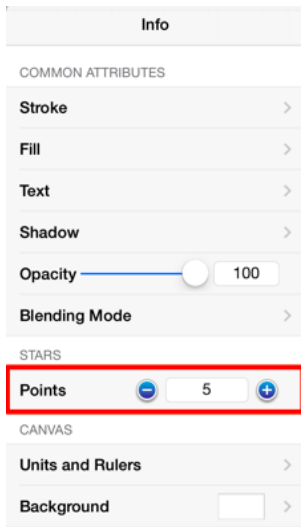
1. **Select** the star to be altered.



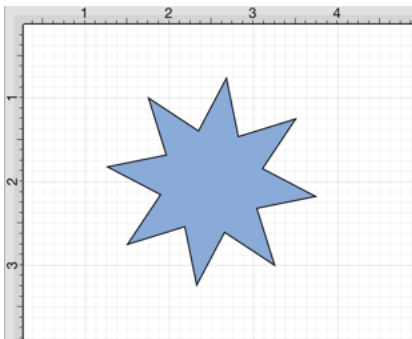
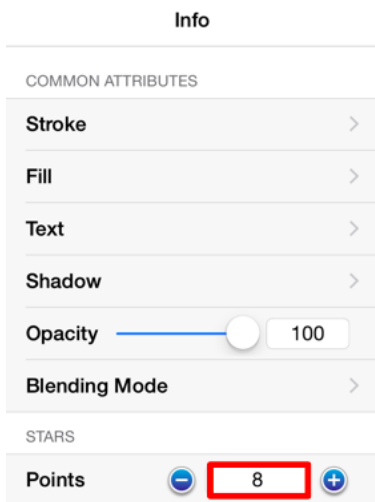
2. Press on the **Info Button** located in the **Top Toolbar** to open the **Info Menu**.



3. Use the **Points Control** to set the number of point for a star. Tap on the "plus" or "minus" buttons to change the value or press on the text entry field to bring up a keypad for entering the value by hand.

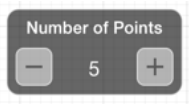


4. In the example below, the value has been changed to 8.



The number of points can also be altered before creating a shape by tapping on the "plus" or "minus" buttons

located in the **Number of Points Popover Window** . This popover window appears when the **Star Tool** is first selected and is located in the bottom right corner of the [Drawing Canvas](#) .



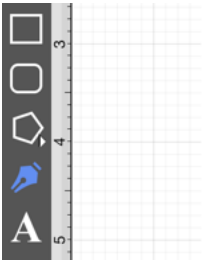
**Note:** A star can also contain text. See [Handling Text](#) for further details.

## 5.1.2.23. Path Tool

The **Path Tool** is the most powerful and complex tool available within TouchDraw. It can be used to create complex curves and shapes with detailed control on every aspect of the shapes 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 1 control point)
- Cubic Curves (lines with 2 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. The used finger will need to be lifted to create each path segment of a line or shape and this is accomplished by using one of two available gestures depending on whether or not the end result should be a path or shape.



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

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

To **Create a Shape**, tap on the first (start) handle (the orange handle with a white dot) to manually complete a shape or perform a **Triple Tap** on the Drawing Canvas for the **Path Tool** to automatically draw a line from the current position to the start position to close the path. The **Triple Tap** method eliminates the need to draw a point to intersect with the starting point.

### 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.

## TouchDraw for iPad

This characteristic provides a hint to the TouchDraw 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   |
|-------------------------------|---|
| Touch/Drag                    | A <b>Touch/Drag</b> combination can be use to create a curve segment and allows the "phantom" control point to be dragged to a any Drawing Canvas position to generate a desired curve segment.   |
| Single Tap                    | A <b>Single Tap</b> 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 <b>Touch/Drag</b> combination creates a curve segment. An additional curve segment (based on the "phantom" control point position) is created when a <b>Single Tap</b> action is performed in this scenario. |
| Double Tap                    | A <b>Double Tap</b> action anywhere on the Drawing Canvas completes the path and causes the <a href="#">Move, Zoom, and Selection Tool</a> to be automatically chosen as the active drawing tool.   |
| Triple Tap                    | A <b>Triple Tap</b> on the start handle (the orange handle with a white dot) or anywhere within the Drawing Canvas directs TouchDraw to automatically draw a line from the current position to the start position and closes the path. The <b>Triple Tap</b> method eliminates the need to draw a point to intersect with the starting point.   |
| Function Key Feature/Tap      | Enabling the <a href="#">Function Key Feature</a> and using it in combination with a <b>Tap</b> when adding the next path segment alerts TouchDraw to ignore the "phantom" control point and creates a straight line segment.   |
| Option Key Feature/Tap        | Enabling the <a href="#">Option Key Feature</a> and using it in combination with a <b>Tap</b> allows the "phantom" control point position to be set to a desired location on the Drawing Canvas after a <b>Touch/Drag</b> combination has been performed to create a curve segment.   |
| Option Key Feature/Touch/Drag | Enabling the <a href="#">Option Key Feature</a> and using it in combination with a <b>Touch/Drag</b> gesture 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 <b>Touch/Drag</b> action has ben completed for creating the curve segment.   |

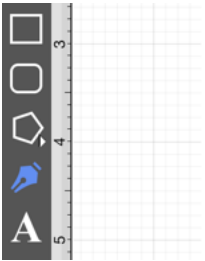
| Action | Description |
|--------|-------------|
|        |             |

### 5.1.2.23.1. Adding Straight Line Segments

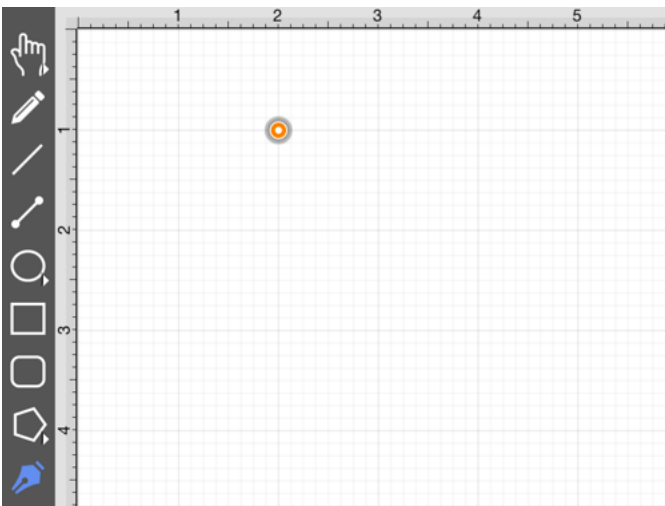
To create a **Straight Line Segment**, perform a **single tap** (do not drag) at the starting point and then again at the corresponding line end point. For example, the objective of drawing a parallelogram could be accomplished with the [Path Tool](#).

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

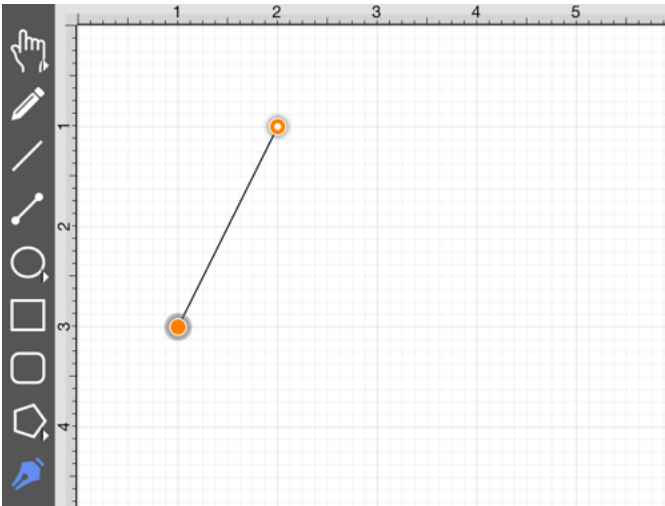
1. Select the **Path Tool** in the [Drawing Toolbar](#).



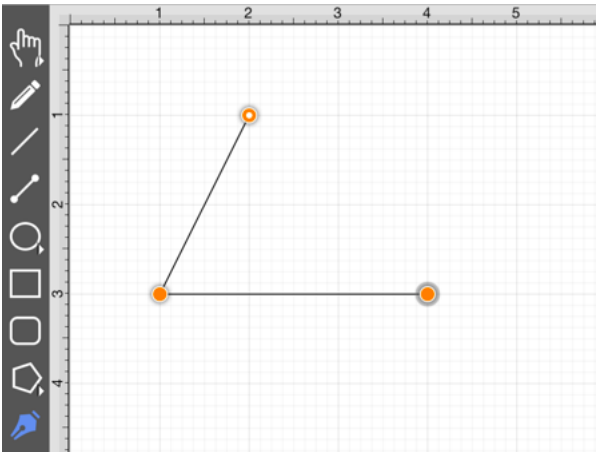
2. Tap on the [Drawing Canvas](#) at the location where the starting point should be established for the path. An orange handle with a white dot will appear in this specific location to signify the starting point of the path.



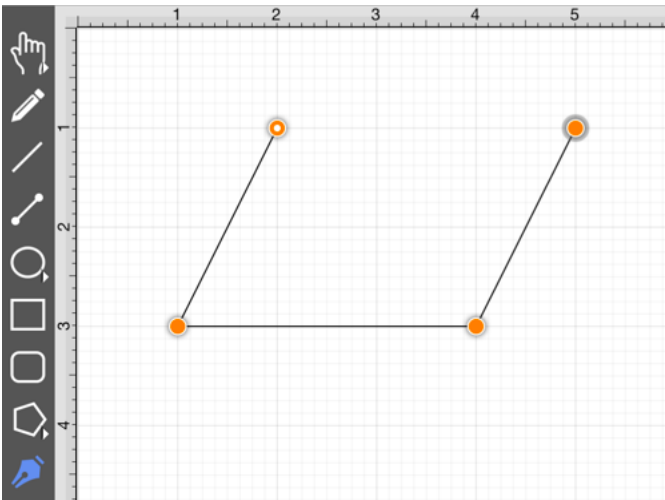
3. Tap on the Drawing Canvas at the location where the second corner of the parallelogram will be. This action draws a line between these two set points. It also creates a second handle (orange with no dot) at the point where the first segment ends and the second one begins.



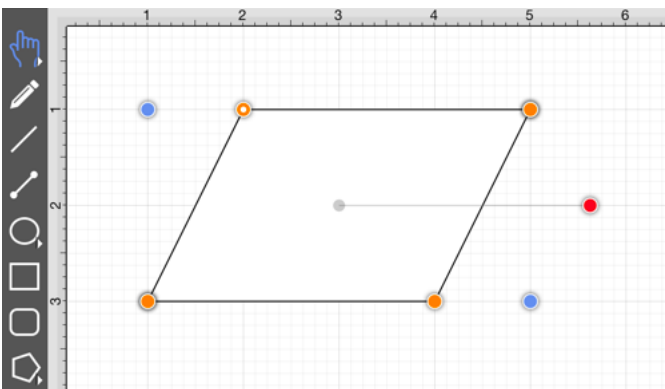
4. Tap on the Drawing Canvas at the location where the third corner of the parallelogram should be. As before, the action will cause a line to be drawn from the last point to the newest point and add an orange handle to the drawing.



5. Tap 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.

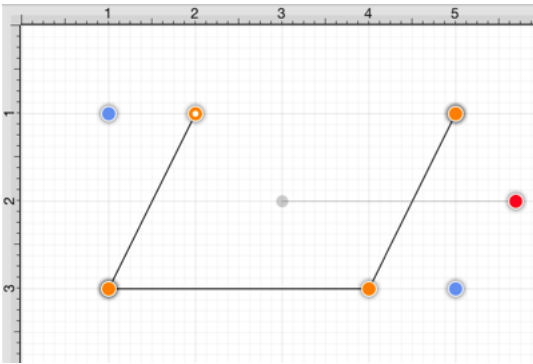


6. Two different options are available for automatically drawing the last line to connect the first point to the last (i.e. closing a path). The first option involves performing a **Tap** on the start point (orange handle with white dot). The second option involves performing a **Triple Tap** anywhere within the Drawing Canvas. The second choice 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 it's center point.



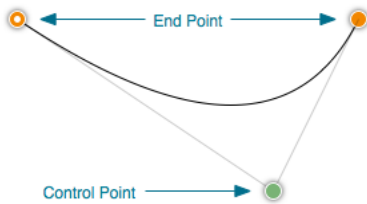
A **Double Tap** in the Drawing Canvas results in a path as illustrated in the screenshot below.





### 5.1.2.23.2. 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 Tap** adds an end point and a **Touch/Drag** gesture 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:

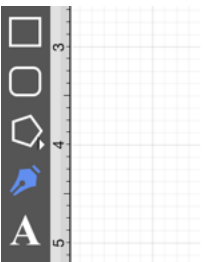
- Performing a Single Tap and then a Touch/Drag combination.
- Performing a Touch/Drag combination and then a Single Tap.

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.

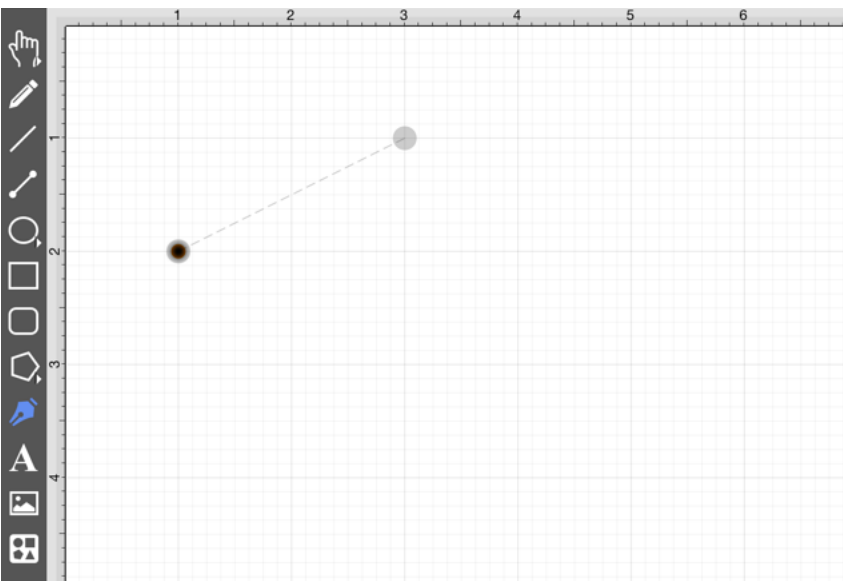


The following instructions outline the process we would take to do this.

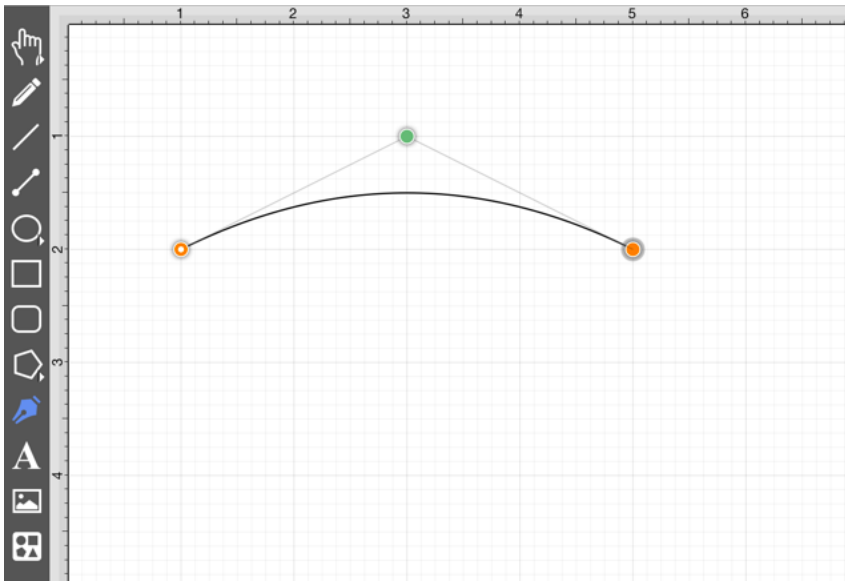
1. Select the **Path Tool** in the [Drawing Toolbar](#).



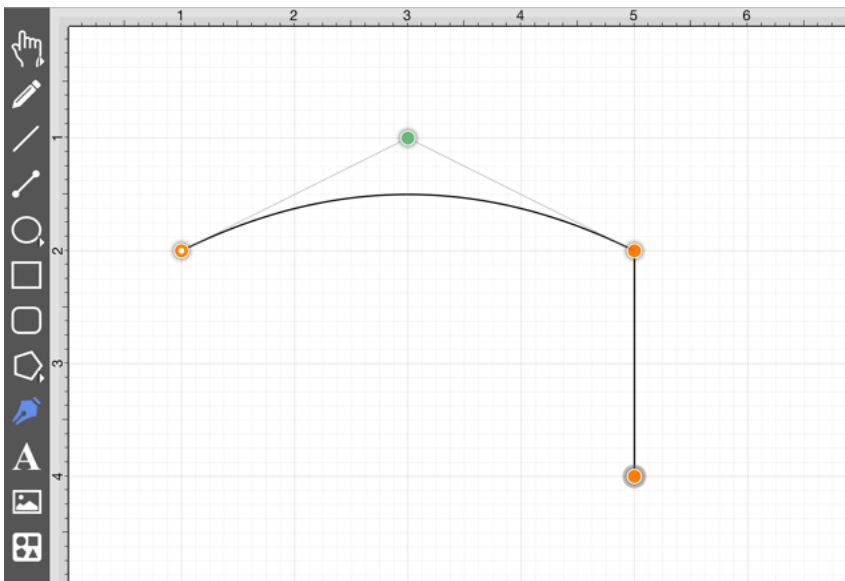
2. **Touch** (but do not release) on the [Drawing Canvas](#) at the location where the starting point for the path should be established. Any of the corner points could be a starting point for creating this shape; however, the upper left corner point is the starting location for this tutorial. Next, **drag** the segment to the established control point location without releasing the **Touch** action. TouchDraw 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.



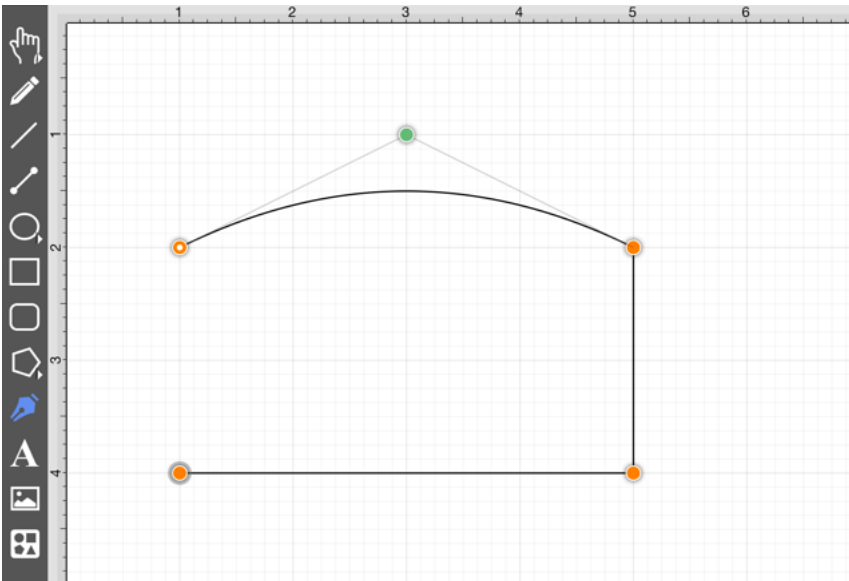
3. Next, tap on the Drawing Canvas location where the second corner of the path should be (the upper right hand corner). This action creates a quadratic curve between the two end points, with the added control point functioning as an indicator to TouchDraw as to how to draw the curve.



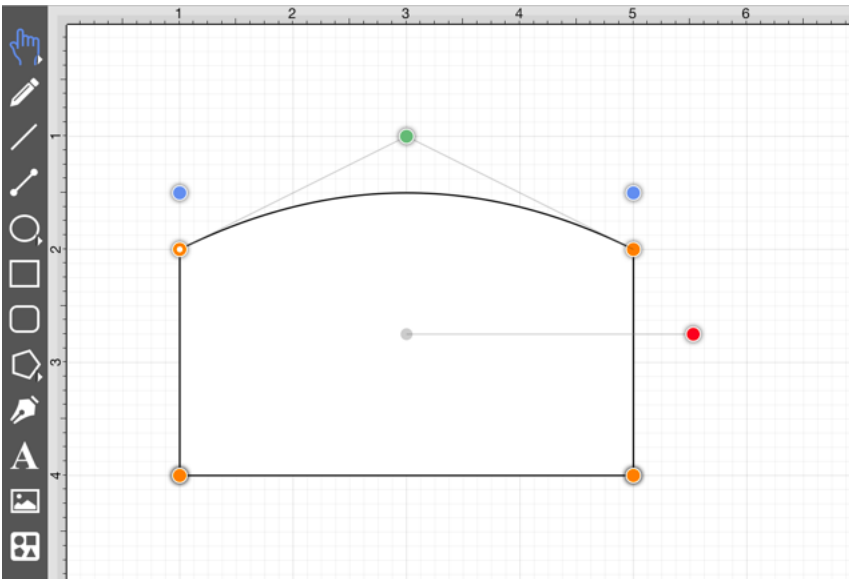
4. Next, tap on the drawing in the location where the third corner of the path should be. As in the previous examples, it will have drawn a line from the last created point to the new point.



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

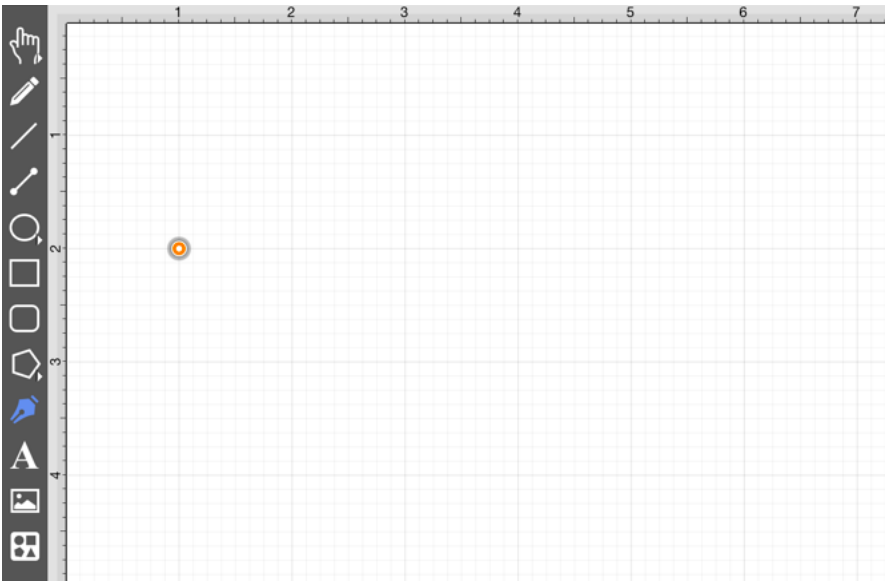


6. To close the shape, either **Tap** on the start point (the orange handle with a white dot in it) or **Triple Tap** anywhere within the [Drawing Canvas](#). This action closes the shape and exits the path tool (assuming [Sticky Mode](#) has not been enabled).

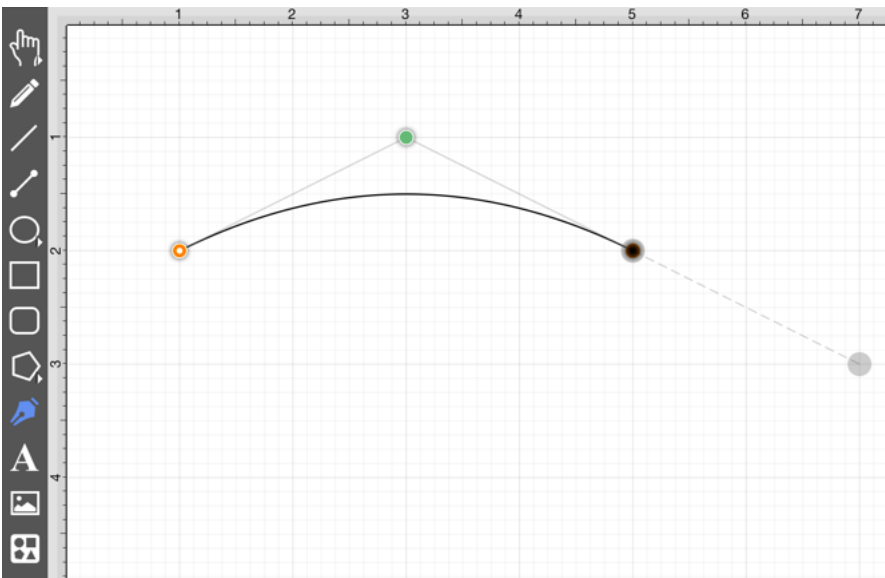


In addition to the approach above, the same figure can be drawn performing these actions in a slightly different order, as shown below:

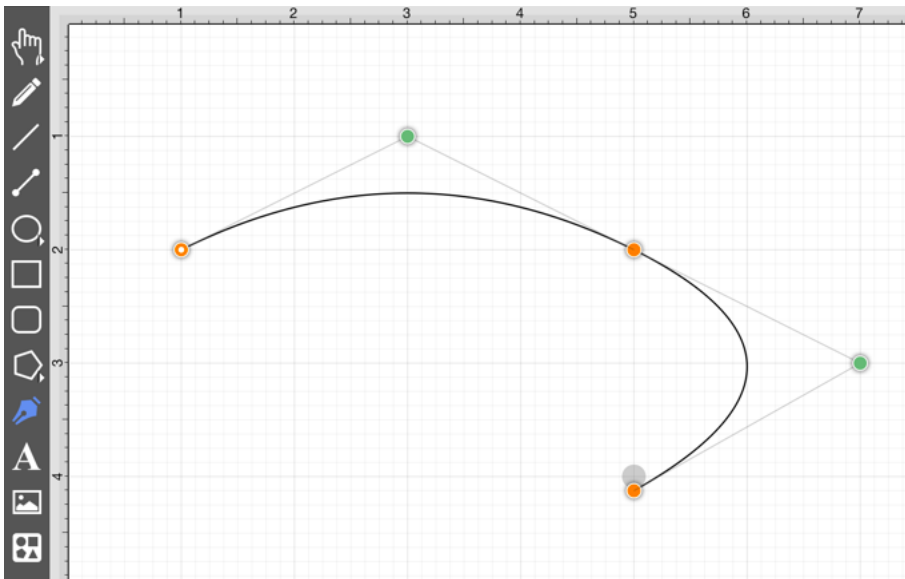
1. Tap in the upper left hand corner to create the first point of the curved portion of the fireplace.



2. Perform a **Touch/Drag** gesture 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.



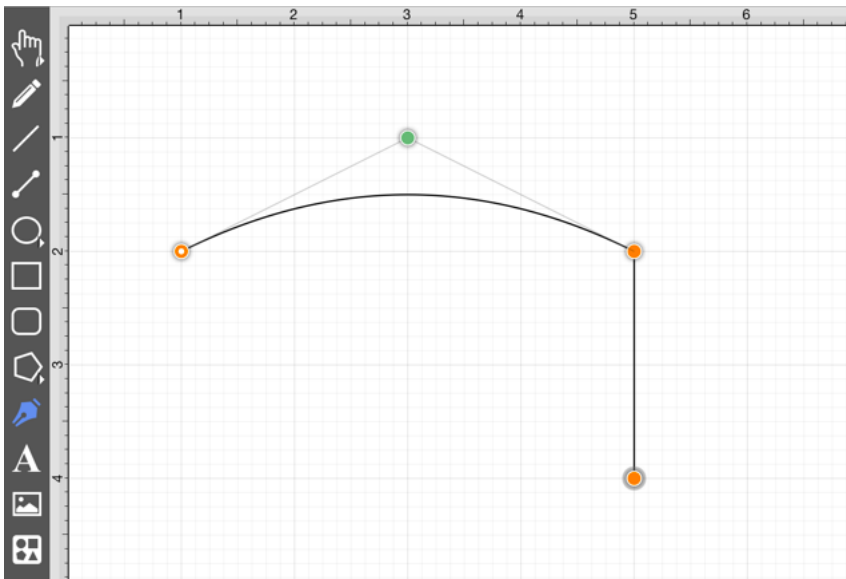
3. Add a line to the next corner in the shape by tapping where the next end point should be located.



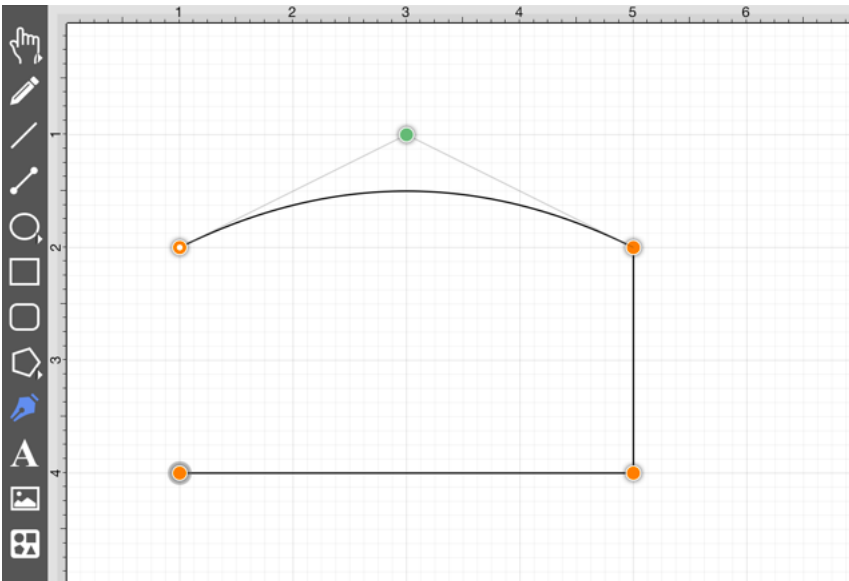
4. Obviously, this is not the desired result. If a "phantom" control point exists and a **Tap** is performed on the drawing, TouchDraw will use this control point to create a quadratic curve segment. In this case, the "phantom" control point should be ignored and discarded to draw a straight line segment from the last end point to the new end point. Tap on the **Undo Button** located in the [Top Toolbar](#) to remove this segment addition.



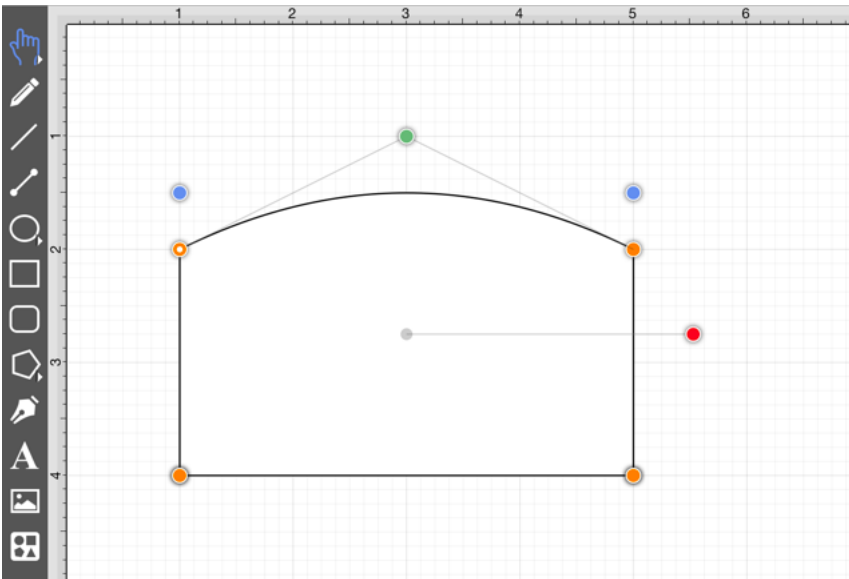
5. To draw a straight line from the last end point to the new end point, enable the [Function Key Feature](#) and tap on the next end point location in the [Drawing Canvas](#). This action instructs TouchDraw to ignore the "phantom" control point and to draw a straight line.



6. Tap on the next corner end point to create the bottom of the fireplace.

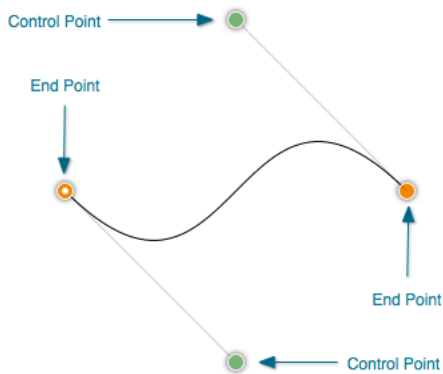


7. To close the shape, either **Tap** on the start point (the orange handle with a white dot in it) or **Triple Tap** anywhere within the [Drawing Canvas](#). This action closes the shape and exits the path tool (assuming [Sticky Mode](#) has not been enabled).



### 5.1.2.23.3. Adding Cubic Curve Segments

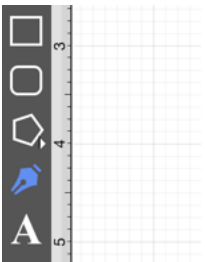
A **Cubic Curve** is a line segment with two end points and two control points that determine the exact curve to be drawn. The image below illustrates an example of a cubic curve.



Two core gestures are available when creating path segments. A **Single Tap** will add just an end point and **Touch/Drag** gesture 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 Touch/Drag gesture combination at one point and then by performing a Touch/Drag gesture combination at another point.

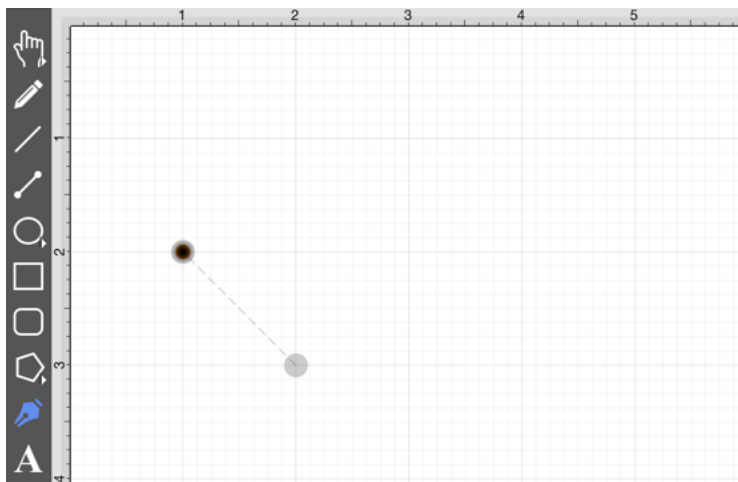
For example, complete the following steps to draw a path like the one displayed in the example above:

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

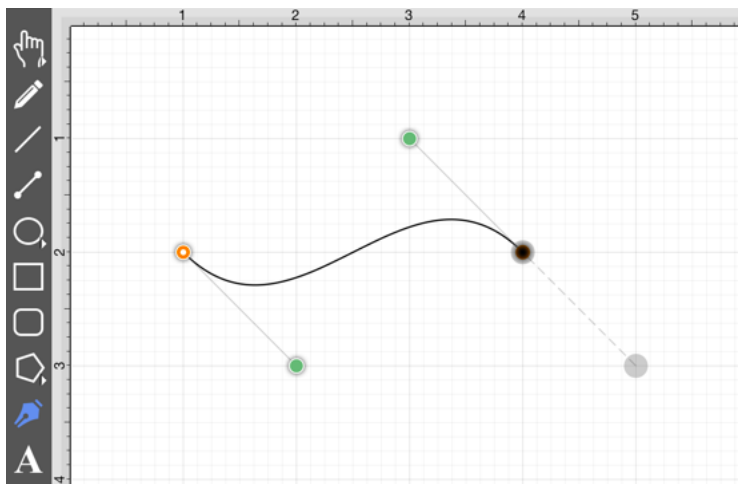


2. Touch on a desired starting point on the [Drawing Canvas](#) and drag to another location to establish the first control point. The orange handle with the white dot signifies the starting point of the path. The gray circle or "phantom" control point will turn into a control point when a curve segment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

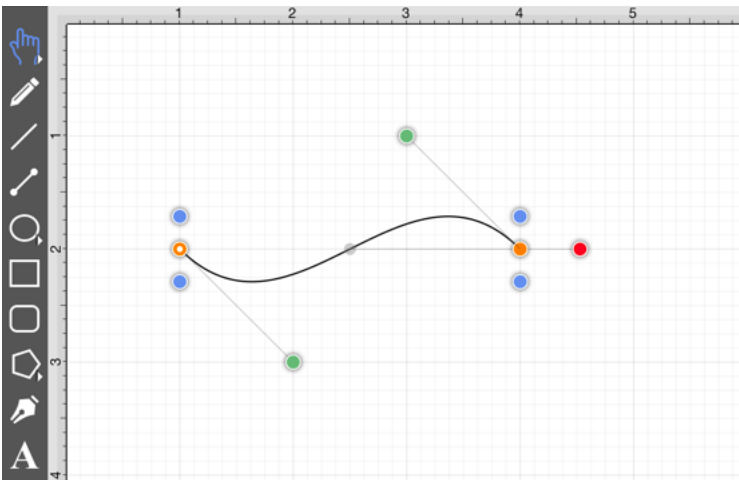




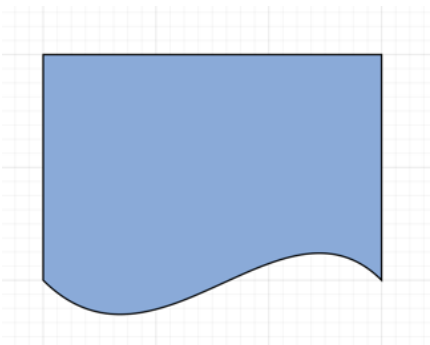
3. Next, touch on the point within the Drawing Canvas where the segment end point will be and then drag the "phantom" control point outward toward the right and bottom of the Drawing Canvas to create the desired curve. A real control point will be placed exactly opposite (relative to the endpoint) from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



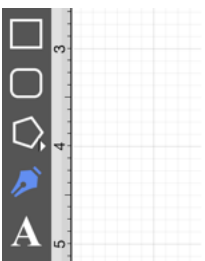
4. Since a path is being created rather than a shape, a **Double Tap** must be performed on the [Drawing Canvas](#) to inform TouchDraw of the completed path.



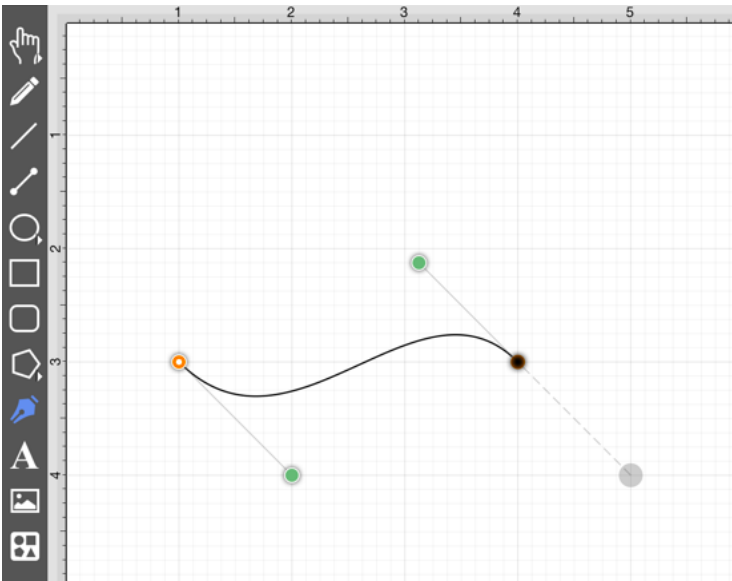
The next step is to create a shape like the one shown below.



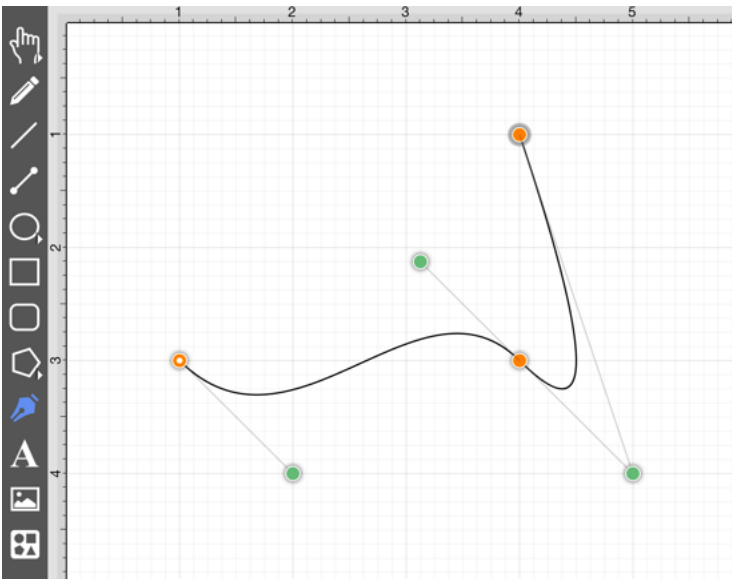
1. Select the **Path Tool** in the [Drawing Toolbar](#).

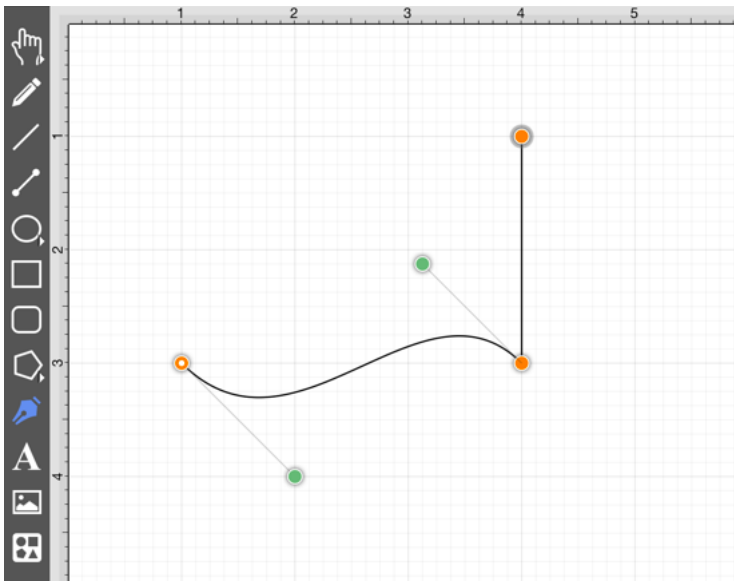


2. Repeat the steps above to create curve on the bottom of the shape as shown below.

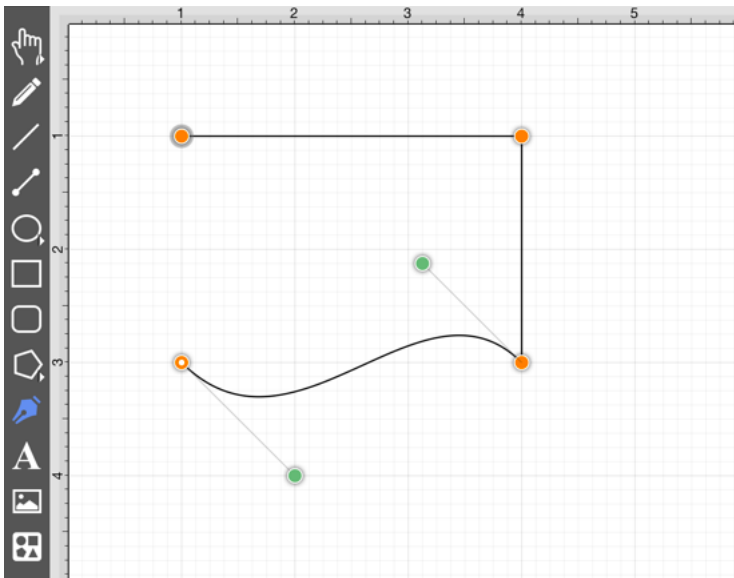


3. Next, draw the edge on the right hand side of the shape. If a control point exists and a **Tap** is completed to add a single endpoint, TouchDraw will use the "phantom" control point to create a curve. Enable the [Function Key Feature](#) by touching and holding in the empty section of the Drawing Toolbar for ~1 second until it turns red while performing the **Tap** gesture on the end point location to inform TouchDraw that a straight line should be added. The following screenshot illustrates what happens when the **Function Key Feature** is not used:

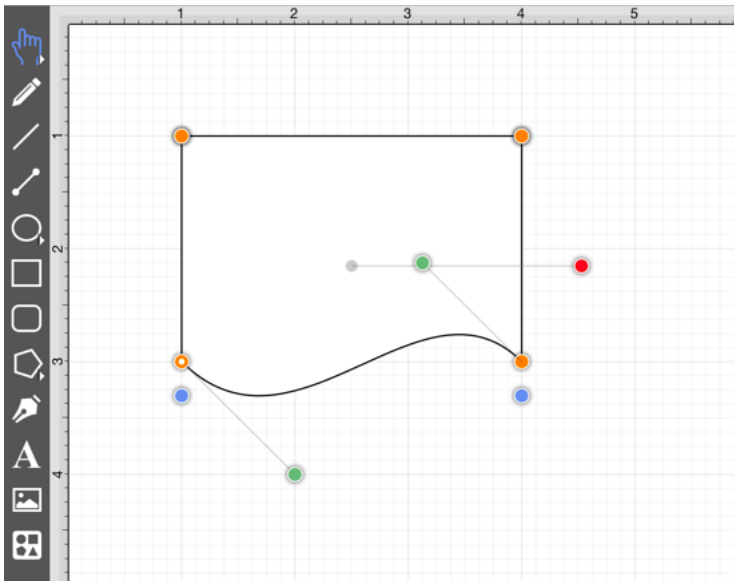




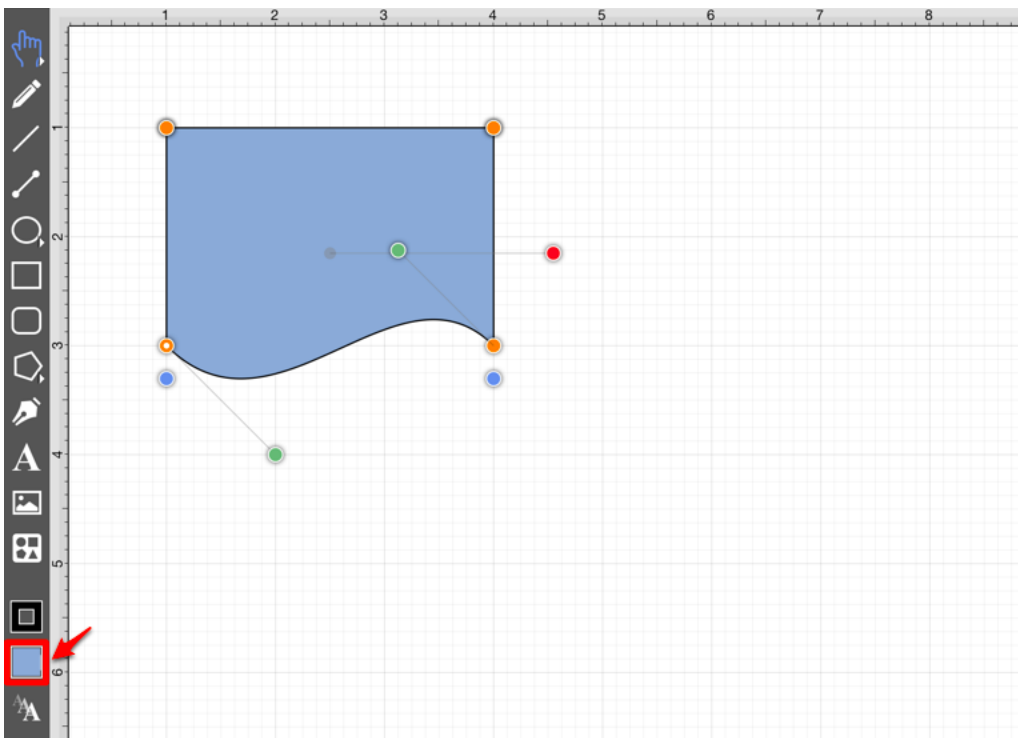
4. Next, **Tap** in the upper left hand corner where the next end point should be.



5. Finally, to close the path and to create a shape, either **Tap** on the start point (the orange handle with a white dot) or **Triple Tap** in the [Drawing Canvas](#).

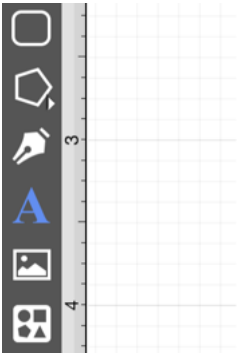


6. To set the color, Press on the **Fill Button** located in the [Drawing Toolbar](#) and choose light blue. Refer to the [Handling Colors](#) portion of the documentation to learn more about using colors.

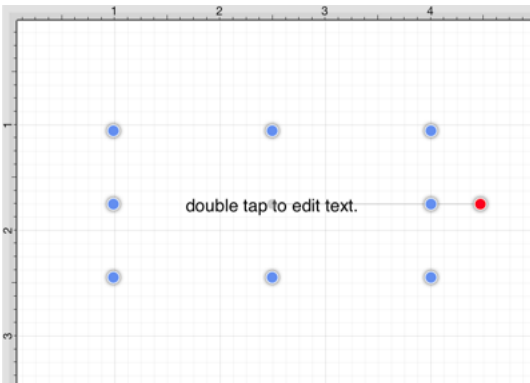


## 5.1.2.24. Text Tool

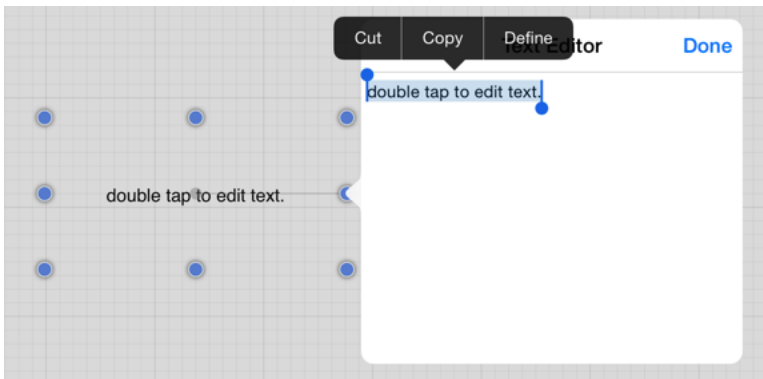
The **Text Tool** can be used to create a text area within a drawing. To use this tool, simply select it and perform a **Touch/Drag** gesture combination at the point in the [Drawing Canvas](#) where one of the bounding corners of the text area should be. Then drag in any direction and release the **Touch** action where the other bounding corner should be located.



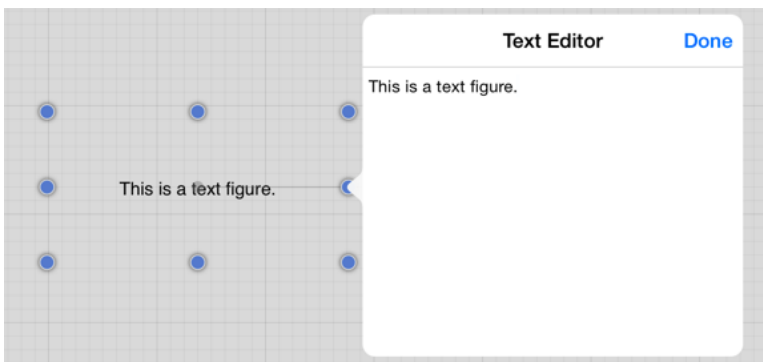
After a text area has been added, the image shown below containing the default text **Double tap to edit text** will appear.



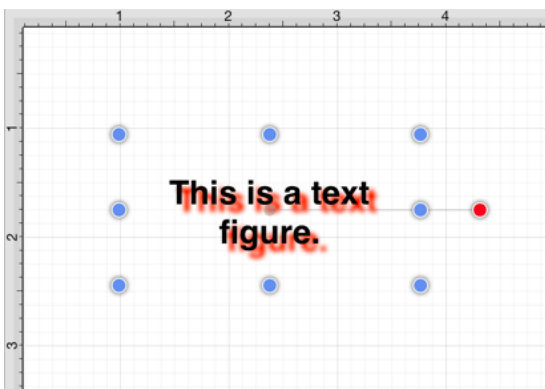
**Double Tapping** on the figure causes a text editor to appear for entry.



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



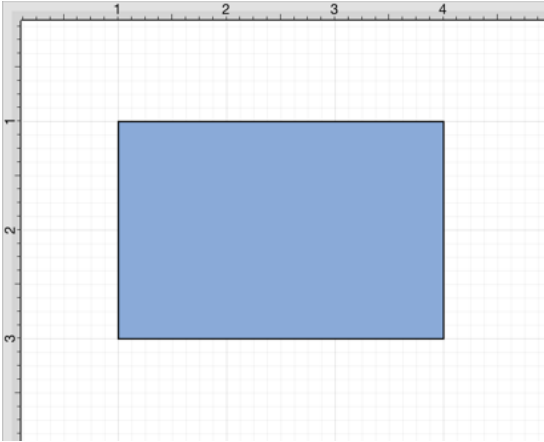
The text figure is different from all other types of figures because it only shows text. It cannot have a border (stroke) or be filled; however, displayed text can include a shadow.



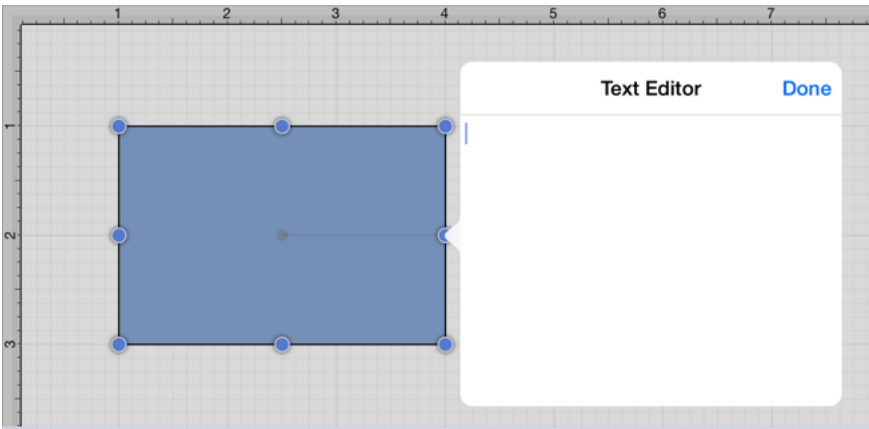
Adding Text To Figures

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

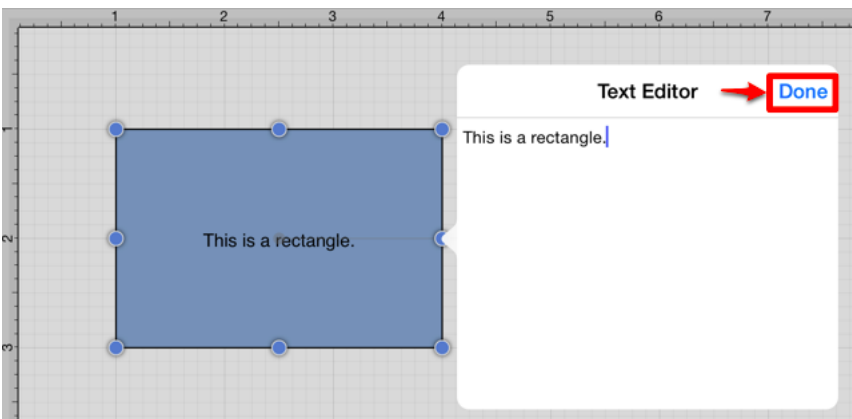
1. Use one of the [Drawing Tools](#) to create a figure.



2. Double Tap on the desired figure and the editor shown above will open.

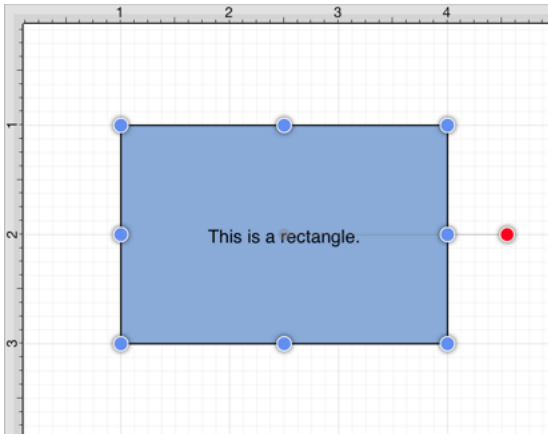


3. Enter text and then tap on the figure area or press the **Done Button** in the upper right hand corner to close the editor.



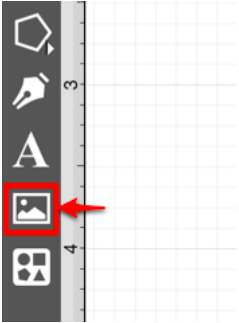


4. The text will appear as shown below once the editor has been closed.

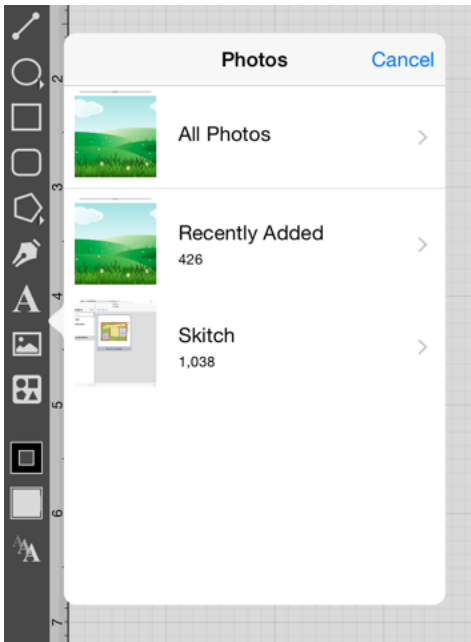


## 5.1.2.25. Image Tool

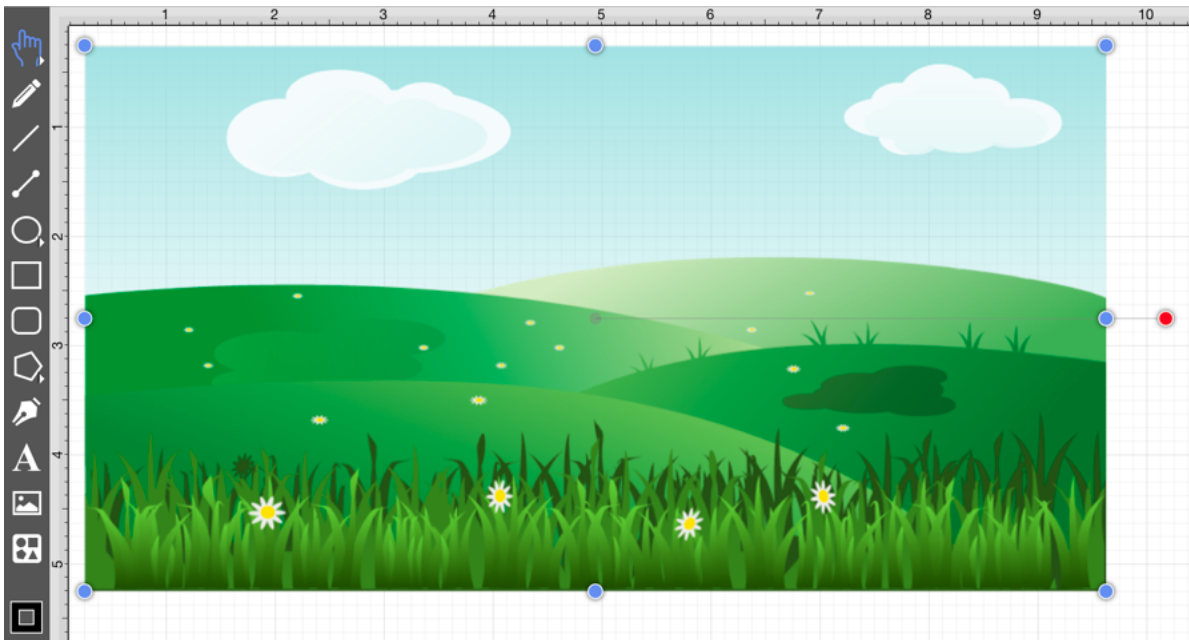
The **Image Tool** can be used to insert an image from an iPad's photo library into the drawing. To use the tool, press on the **Image Tool Button** in the [Drawing Toolbar](#) to open the **Image Popover Window**, as shown below:



Navigate through the photo library to find the desired image and select it to insert it into the currently open drawing.



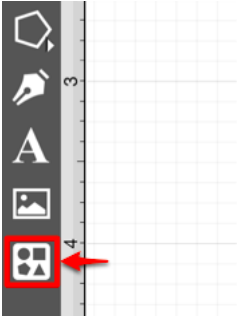
The screenshot below shows an example of an image that has been inserted into a drawing. An image is like any other type of figure in TouchDraw and has bounds handles for stretching and resizing in addition to a rotation handle.



When importing an image greater than 768 pixels in width or height, TouchDraw will create a resized copy to insert into the drawing. It does this for performance and memory management reasons.

## 5.1.2.26. Library Tool

**Libraries** are used to add and manage stencils stored within the application and for adding these objects to a drawing. They are accessed by pressing on the **Libraries Tool Button** in the [Drawing Toolbar](#), as shown below.



Tap on the desired library to access saved stencils. In this example, the **Flow Chart Library** is selected.

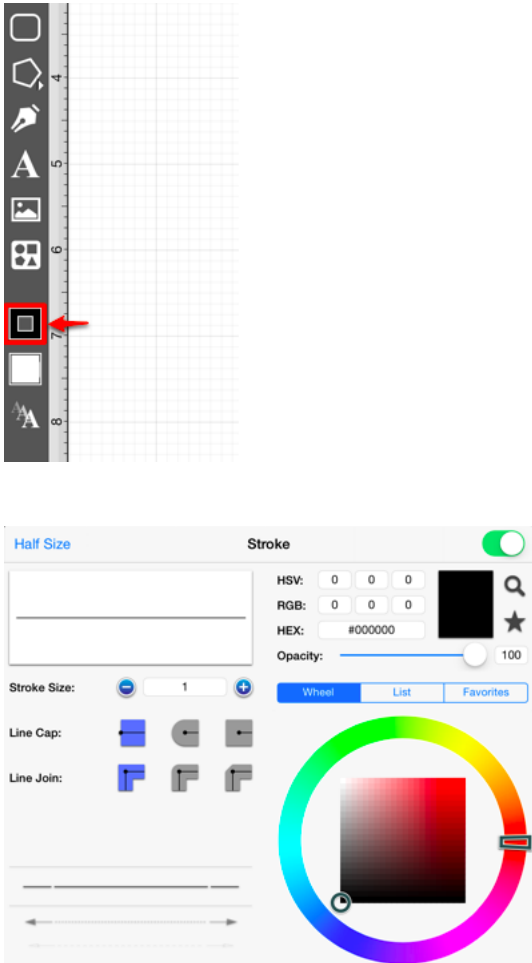
| Libraries                       |   | <a href="#">Edit</a> |
|---------------------------------|---|----------------------|
| American Football               | > |                      |
| Architectural                   | > |                      |
| Balloons and Callouts           | > |                      |
| BPMN                            | > |                      |
| Circuit Symbols                 | > |                      |
| Condensing Units                | > |                      |
| Electrical Symbols              | > |                      |
| Flow Chart                      | > |                      |
| Icons - Devices                 | > |                      |
| Icons - Faces                   | > |                      |
| Icons - Misc                    | > |                      |
| Icons - Weather                 | > |                      |
| <a href="#">Add New Library</a> |   |                      |



Tap on a desired stencil to add it to the current drawing. For more information, refer to the [Handling Libraries](#) section of this documentation.

## 5.1.2.27. Stroke Button

The **Stroke Button** provides access to options for setting the attributes of a line (stroke). Press on the **Stroke Button** located in the [Drawing Toolbar](#) to access these attribute options and open the popover window shown below.



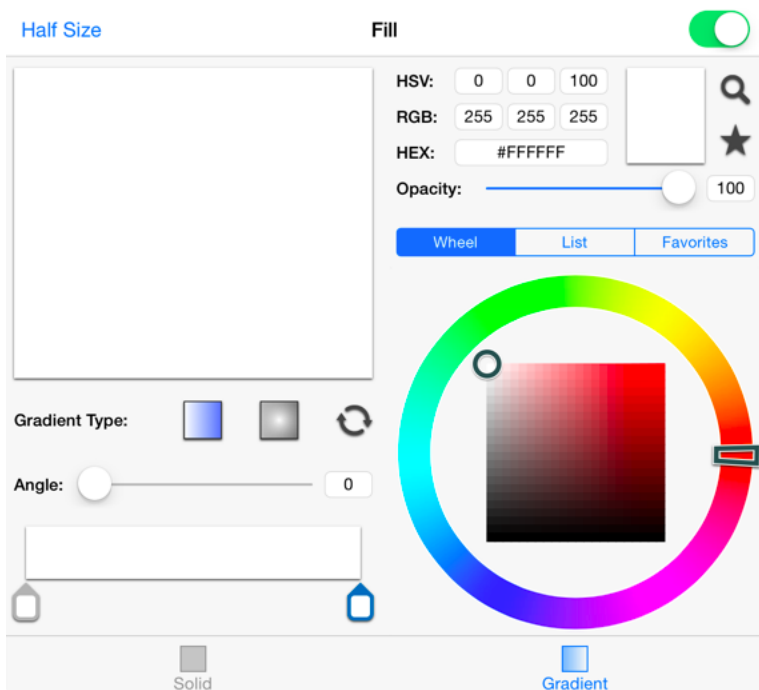
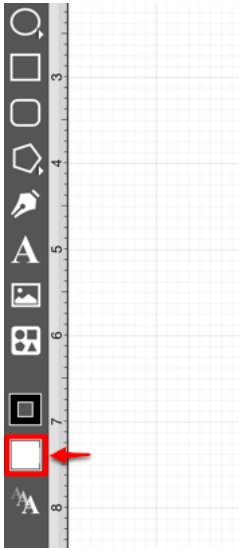
Click or tap on the corresponding Stroke Attribute name to learn more about what the option does.

| Attribute Name                    | Description   |
|-----------------------------------|---|
| <a href="#">Stroke Visibility</a> | The <b>Stroke Visibility</b> option is an "On/Off" toggle slider 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 (OFF). |

| Attribute Name                     | Description   |
|------------------------------------|---|
| Stroke Preview Pane                | The <b>Stroke Preview Pane</b> can be used to view how attribute changes will appear. It is located in the upper left hand corner of the <b>Stroke Popover Window</b> . |
| <a href="#">Stroke Size</a>        | The <b>Stroke Size</b> option sets the width of a stroke <i>in pixels</i> .   |
| <a href="#">Line Cap</a>           | The <b>Line Cap</b> option sets the cap of a line to Butt, Rounded, or Square.  |
| <a href="#">Line Join</a>          | The <b>Line Join</b> option sets the join of a line to Mitered, Rounded, or Beveled.  |
| <a href="#">Stroke Style Wheel</a> | The <b>Stroke Style Wheel</b> sets the style of the beginning, middle, and end portion of a line or stroke.   |
| <a href="#">Line Color</a>         | The <b>Line Color</b> options located on the left hand side of the popover window are used to specify the color and transparency of a stroke.                           |

## 5.1.2.28. Fill Button

The **Fill Button** provides access to options for setting the fill attributes of all objects with the exception of the Line and Connection tools. Press on the **Fill Button** located in the [Drawing Toolbar](#) to access these attribute options and open the popover window shown below.



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

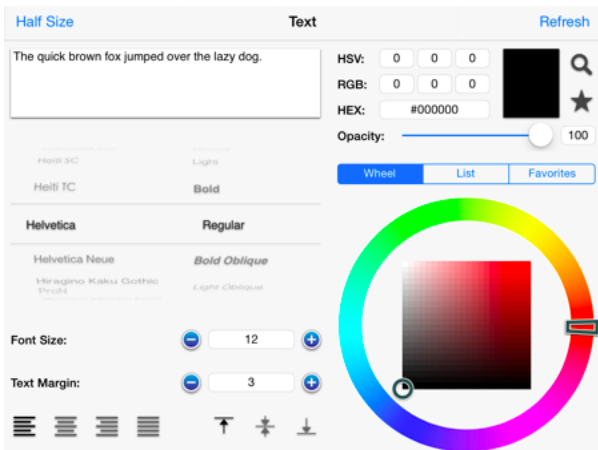
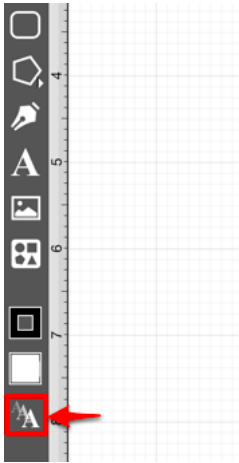


| Attribute Name                  | Description  |
|---------------------------------|--|
| <a href="#">Fill Visibility</a> | The <b>Fill Visibility</b> option is an "On/Off" slider for toggling the visibility of the fill of a figure(s). Shapes have no fill when this option is disabled (OFF).  |
| <a href="#">Solid</a>           | The <b>Solid</b> option fills a figure with solid color.   |
| <a href="#">Linear Gradient</a> | The <b>Linear Gradient</b> option transitions from a specified start color to a specified end color at the designated angle.   |
| <a href="#">Radial Gradient</a> | The <b>Radial Gradient</b> option 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.  |
| <a href="#">Angle</a>           | The <b>Angle</b> option sets the angle of a linear or radial gradient and can be used to alter how color is transitioned from the start point to the end point of a figure.  |
| <a href="#">Color Slider</a>    | The <b>Color Slider</b> can be used to alter the lightness or darkness of a transitioning color when a linear or radial gradient fill has been chosen.   |
| <a href="#">Opacity</a>         | The <b>Opacity</b> option alters the opaqueness (opposite of transparency) of a selected color.  |
| <a href="#">Color Wheel</a>     | The <b>Color Wheel</b> is the most common method of color selection for figures and text within an active drawing.   |
| <a href="#">Color List</a>      | The <b>Color List</b> can be used to a color to be selected from a pre-configured list of hues.  |
| <a href="#">Favorites List</a>  | The <b>Favorites List</b> can be used to set the color of currently selected or new figure(s). It provides quick access to frequently used colors.   |
| <a href="#">Color Loupe</a>     | The <b>Color Loupe</b> option activates the loupe feature allowing colors to be picked from a figure, drawing or other object visible within the drawing canvas. It provides a quick and easy way to set a figure color to a previously used color within the drawing. |

Refer to the [Handling Colors](#) section of this documentation to learn more about color attribute changes.

## 5.1.2.29. Text Attribute Button

The **Text Attribute Button** provides access to options for setting the text attributes of a figure(s). Press on the **Text Attribute Button** located in the [Drawing Toolbar](#) to access these attribute options and open the popover window shown below.



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

| Attribute Name   | Description  |
|------------------|--|
| Half Size Button | The <b>Half Size Button</b> closes the color portion of the <b>Text Popover Window</b> .   |
| Refresh Button   | The <b>Refresh Button</b> refreshes the text attributes of a selected figure within the <a href="#">Drawing Canvas</a> to reflect the most recent attribute changes. |

## TouchDraw for iPad

| Attribute Name                              | Description   |
|---|---|
| Text Preview Pane                           | The <b>Text Preview Pane</b> shows how the text will appear in the <a href="#">Drawing Canvas</a> based on the currently chosen attribute settings. |
| <a href="#">Font Family Selection Wheel</a> | The <b>Font Family Selection Wheel</b> is used to choose a set of fonts with the same typeface, but varying qualities such as size and weight.      |
| <a href="#">Font Style Selection Wheel</a>  | The <b>Font Style Selection Wheel</b> is used to set the style or angle of text within figure(s).   |
| <a href="#">Font Size</a>                   | The <b>Font Size</b> option sets the height of characters in a selected font family.  |
| <a href="#">Text Margin</a>                 | The <b>Text Margin</b> option set the margins for text within a figure(s). The measurement spans from the text box edge to the actual text.         |
| <a href="#">Text Alignment</a>              | The <b>Text Alignment</b> options set the vertical and horizontal text alignment modes for text within a figure(s).                                 |
| <a href="#">Text Color</a>                  | The <b>Text Color</b> options set the color and transparency of text appearing in a figure(s).  |

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

## 5.1.2.30. Function Key Feature

The left toolbar also works as a **Function Key** and is similar to a control click (Windows) or an option click (Macintosh). When this feature 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 **function key feature** can be used to enable multiple selection within the [Drawing Canvas](#) or to constraint the proportions of a figure as it is resized with one of the handles.

To enable this functionality, hold and press on the lower half of the [Drawing Toolbar](#) where no tools are present. After approximately 1 second, the toolbar will turn red as an indication of the **function key feature** being enabled. It will remain enabled as long as the utilized finger/thumb remains held on the toolbar.



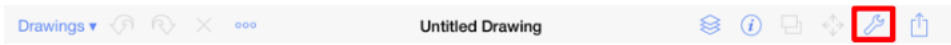
The standard dark gray toolbar will reappear as a visual indicator of the function key being disabled when the finger is released.



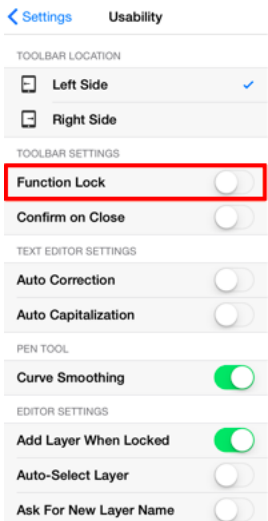
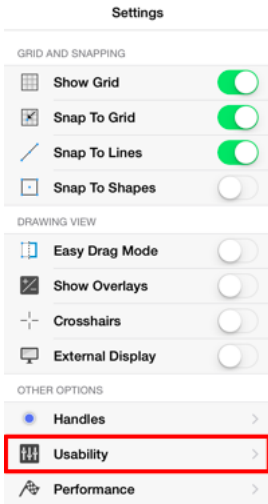
The **Function Lock** option may also be used to lock the Function Key Feature. It can be helpful for maintaining the aspect ratio of multiple figures during resizing without having to hold down the toolbar. It is also a useful option for enabling the one handed operation of TouchDraw.

To enable this option, tap on the **Settings Button** in the [Top Toolbar](#) and then tap on the [Usability Submenu](#).

## TouchDraw for iPad






Tap on the **Function Lock On/Off Toggle Slider**. It will appear with a green background when enabled.




[← Settings](#)   Usability


TOOLBAR LOCATION

 **Left Side** 


 **Right Side**


TOOLBAR SETTINGS

**Function Lock** 


**Confirm on Close** 

TEXT EDITOR SETTINGS


**Auto Correction** 


**Auto Capitalization** 


PEN TOOL

**Curve Smoothing** 

EDITOR SETTINGS

**Add Layer When Locked** 

**Auto-Select Layer** 

**Ask For New Layer Name** 

## 5.1.2.31. Option Key Feature

The left toolbar also works as a **Option Key** and is similar to a control click (Windows) or an option click (Macintosh). When this feature 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 feature** 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](#).

To enable this functionality, **Double Tap and Hold** on the lower half of the [Drawing Toolbar](#) where no tools are present. After approximately 1 second, the toolbar will turn blue as an indication of the **option key feature** being enabled. It will remain enabled as long as the utilized finger/thumb remains held on the toolbar.



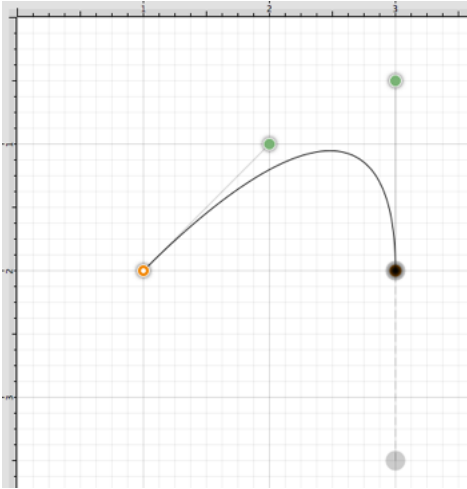
The standard dark gray toolbar will reappear as a visual indicator of the **option key feature** being disabled when the finger is released.



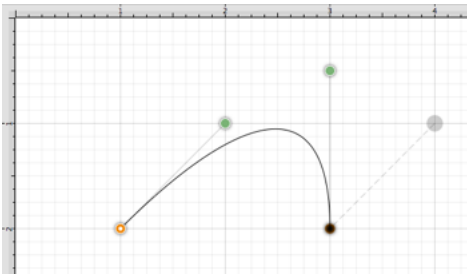
Option Key Feature/Tap

An **Option/Tap** combination allows the "phantom" control point position to be set to a desired location on the [Drawing Canvas](#) after a **Touch/Drag** combination has been performed to create a curve segment. **Double Tap and Hold** on the empty portion of the [Drawing Toolbar](#) to activate this gesture combination. The following

image shows the "phantom" control point at the 3,3.5 position:



An **Option/Tap** 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:



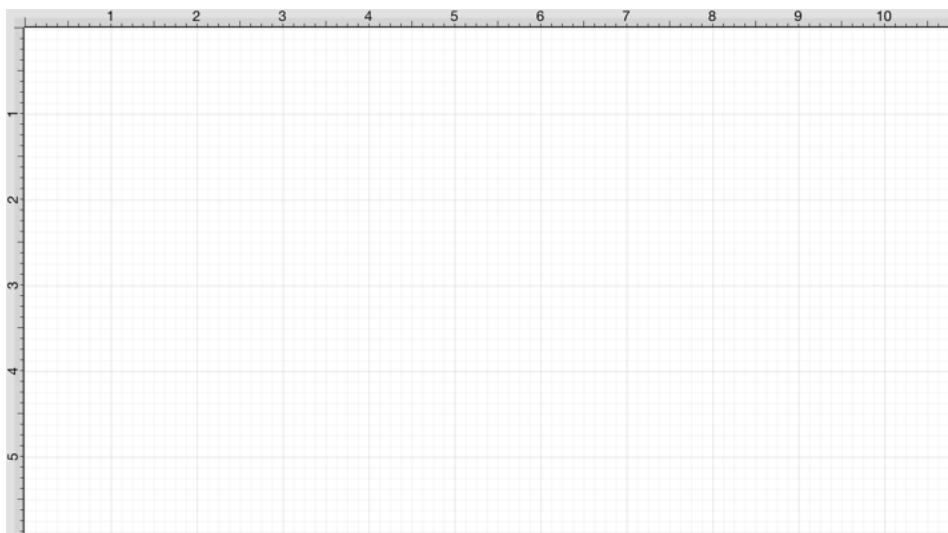
Option Key Feature/Touch/Drag

An **Option/Touch/Drag** gesture 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 **Touch/Drag** action has been completed for creating the curve segment. This gesture combination is made possible by performing a **Double Tap and Hold** on the empty portion of the [Drawing Toolbar](#) as discussed above.



## 5.1.3. Drawing Canvas

The **Drawing Canvas** is the area of the screen the currently active drawing. All added figures appear in this portion of the [Drawing Editor](#).



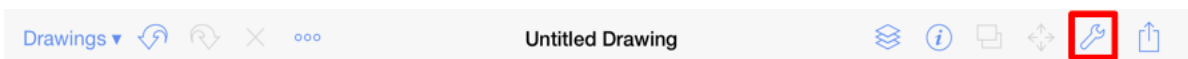
The [Adjustment Menu](#) can be used to alter figure size and positioning within the Drawing Canvas, TouchDraw includes an [Overlay Mode](#) feature to provide finer control over a selected shape, figure, or line when making these alterations.

## 5.1.3.1. Overlays

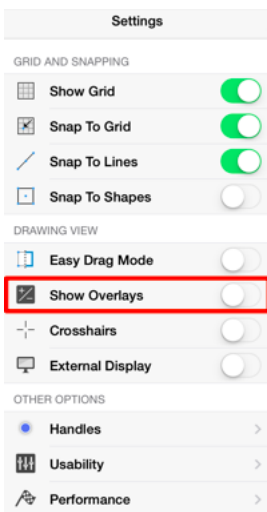
**Overlay Mode** superimposes contextual tools over the drawing based on context of the current selection. TouchDraw currently supports three types of overlay modes: [Nudge](#), [Line](#), and [Connector Type](#).

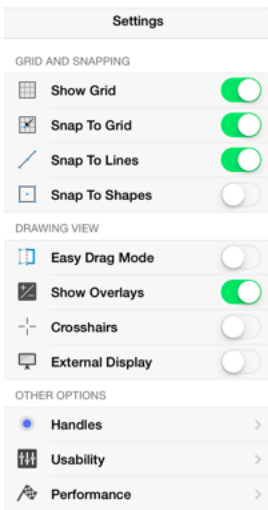
The **Show Overlay** toggle must be set to "ON" in the [Settings Menu](#) to use this application feature. To turn on this feature:

1. Press on the **Settings Button** located in the [Top Toolbar](#) of the [Drawing Editor](#).



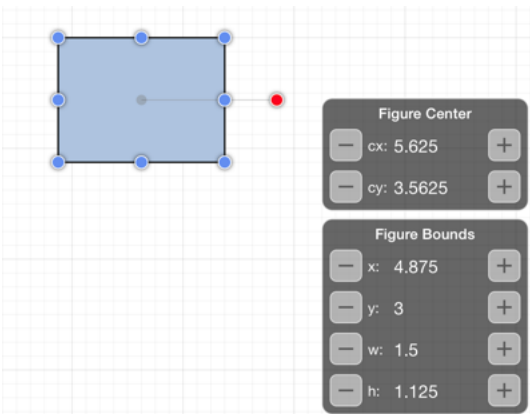
2. Perform a **Touch/Drag** combination toward the right or **Tap** on the right side of the **Show Overlay** toggle to enable this feature.





### 5.1.3.1.1. Nudge Overlay

When [Overlay Mode](#) is enabled and a shape (as opposed to a line) or multiple figures has been [selected](#), a **Nudge Overlay** will fade into the lower right hand corner of the [Drawing Canvas](#).

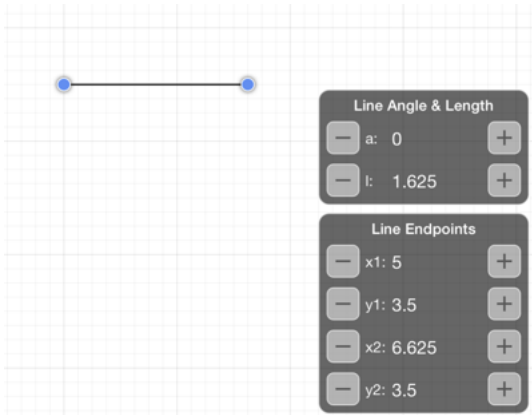


The **Nudge Overlay** application feature provides finer control over the x location, y location, width and height of a selected figure (or figures) without having to bring up the [Adjustment Menu](#). It can also be used to alter the center position (cx, cy) of a figure. **Tap** on the "plus" or "minus" buttons next to a desired center or bounds selection to alter the position or size of a selected figure(s).

### 5.1.3.1.2. Line Overlay

When [Overlay Mode](#) is enabled and one or more lines have been [selected](#), a **Line Overlay** will fade into the

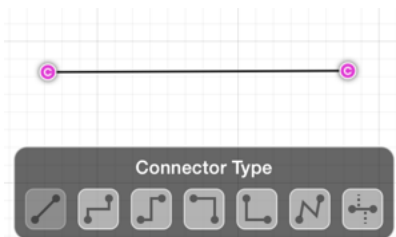
lower right hand corner of the [Drawing Canvas](#) .



The **Line Overlay** application feature provides finer control over the x position and y position of both the starting and ending points of a line. This feature also provides finer control over the angle and length of a selected line(s). **Tap** on the "plus" or "minus" buttons next to the desired position, length, or angle selection to alter its value.

### 5.1.3.1.3. Connector Type Overlay

When [Overlay Mode](#) is enabled and one or more connection lines have been [selected](#), a **Connector Type Overlay** will fade into the lower right hand corner of the [Drawing Canvas](#).

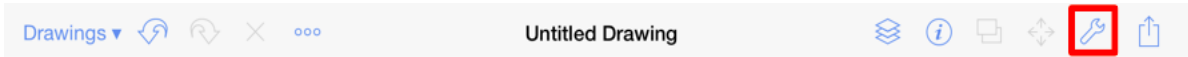


The **Connector Type Overlay** application feature can be used to change the connector type for a selected connection line(s) within the [Drawing Canvas](#). Select a connection line and then **tap** on the desired **Connector Type** in the overlay panel to make a change to an existing connection line. TouchDraw will remember the current selection in the **Connector Type Overlay** and apply it to new connection lines created with the [Connection Tool](#).

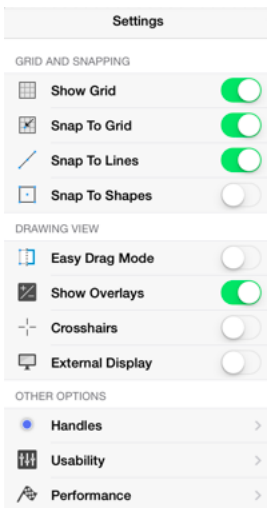
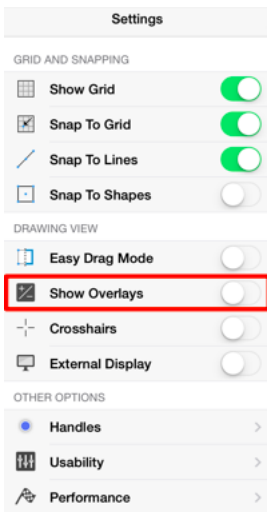
You can [select](#) an existing connection line in the [Drawing Canvas](#) to choose a different connector type in the

overlay panel. You must have the **Show Overlays** preference enabled for the **Connector Type Overlay** panel to appear in TouchDraw. Follow the steps below to enable this option:

1. Tap on the **Settings Button** in the [Top Toolbar](#).



2. Use the slider located to the right of **Show Overlays** in the menu to enable this preference in TouchDraw. **Touch and drag** your finger to the right or **tap** on the slider to enable the preference.

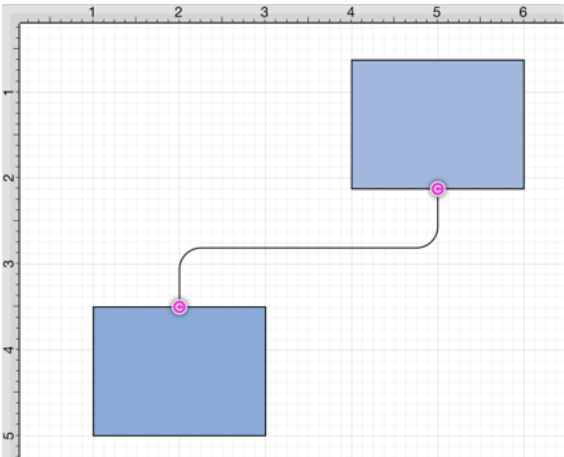
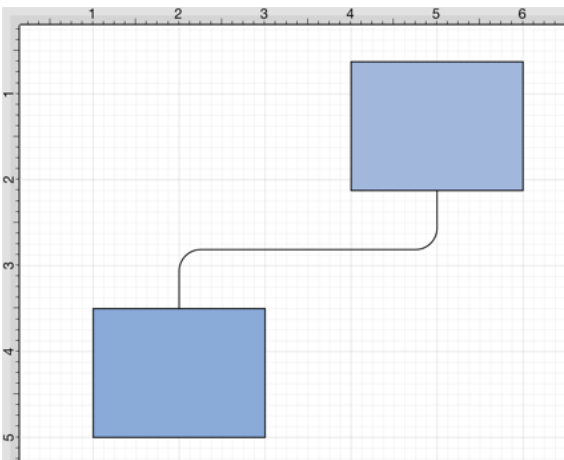


3. The **Connector Type Overlay** will appear in the lower right hand corner of the [Drawing Canvas](#) when the [Connection Tool](#) or an existing connection within the [Drawing Canvas](#) is selected.



After enabling this preference, you will be able to select an existing connection line and choose a different **Connector Type** from the overlay panel. Follow the steps below to change the **Connector Type** for a selected connection line in a drawing:

1. Tap on the desired connection line in the [Drawing Canvas](#) to make a selection. In this example, a [North-South](#) connection line is selected.

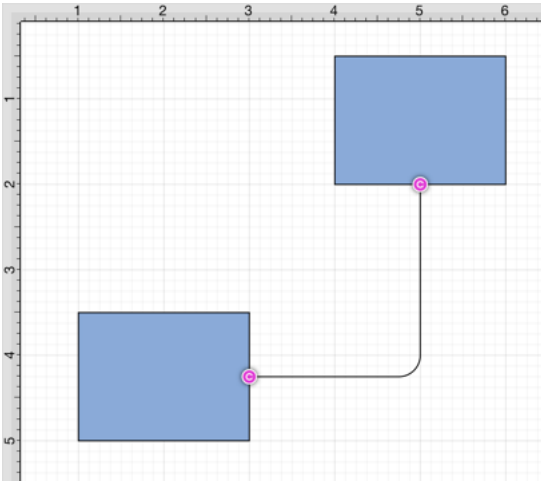


2. Tap on the appropriate **Connector Type** in the overlay panel. For this example, the [Vertical-Horizontal](#) connector type is selected.





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

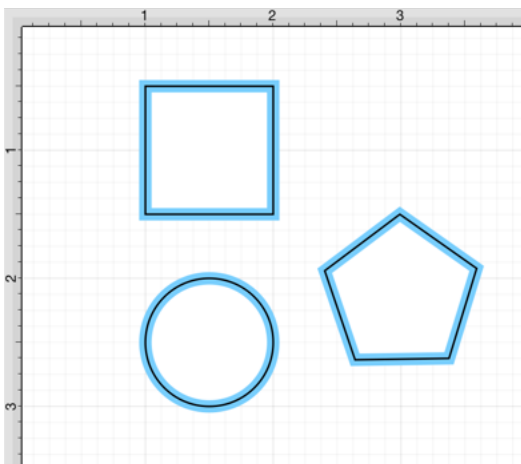
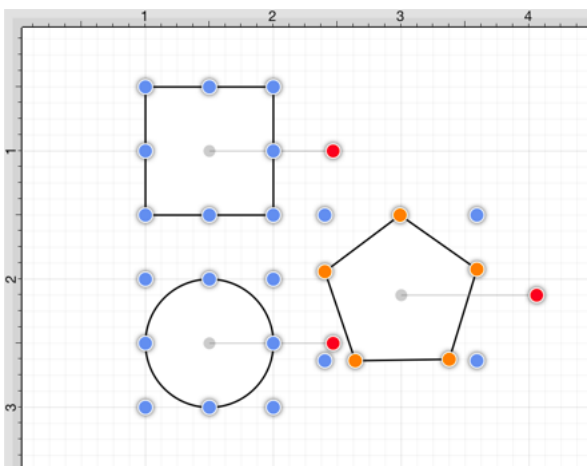


**Note:** To learn more about using connection lines in TouchDraw and the available **Connector Types**, please refer to the [Connection Tool](#) section of the wiki documentation.

## 5.1.3.2. Easy Drag Mode

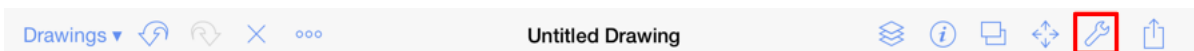
TouchDraw includes an **Easy Drag Mode** that makes it simpler to move and select figures without having to worry about touching one of the handles (which could lead to an unwanted resize). This is also particularly useful when trying to move a small object, without having to zoom way in.

The following figures show how a selected figure will look when selected without the option enabled and how they appear when **Easy Drag Mode** is enabled:

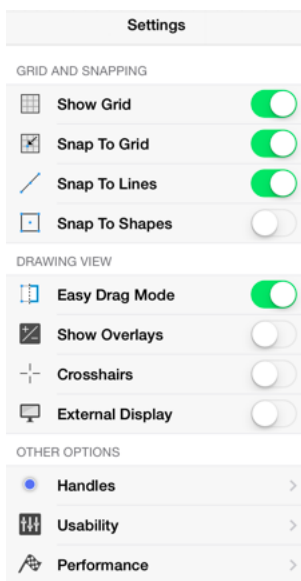
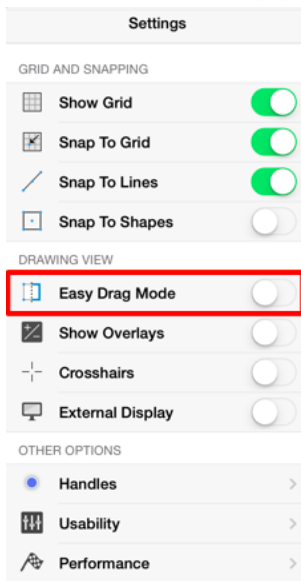


This option can be enabled in one of the following ways:

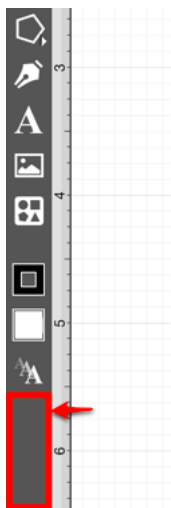
1. Press on the **Settings Button** in the [Top Toolbar](#) to open the [Settings Menu](#).





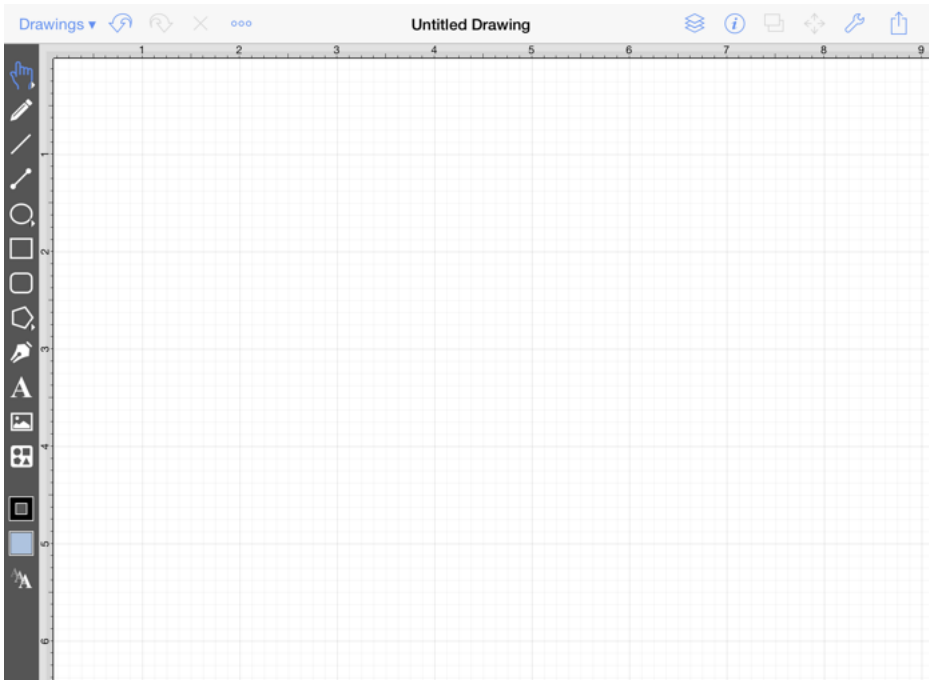


2. Perform an upward or downward vertical swipe in the blank area of the [Drawing Toolbar](#).



## 5.1.4. Editing Basics

The **Drawing Editor** contains the features and tools necessary for creating and editing new or existing drawings. The editor appears after creating a new drawing or opening an existing file and consists of three sections as shown in the image below.



Click or tap on the name of the **Drawing Editor** section to learn more about what actions can be performed.

| Section Name                    | Description   |
|---------------------------------|---|
| <a href="#">Top Toolbar</a>     | The <b>Top Toolbar</b> provides access to most object actions and drawing properties. |
| <a href="#">Drawing Toolbar</a> | The <b>Drawing Toolbar</b> is the activation location for application drawing tools.  |
| <a href="#">Drawing Canvas</a>  | The <b>Drawing Canvas</b> is used to view, create, and change drawings.               |

## 5.1.4.1. Selecting a Figure

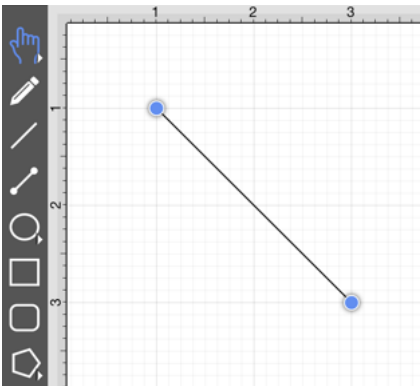
TouchDraw contains five types of figures:

- 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.

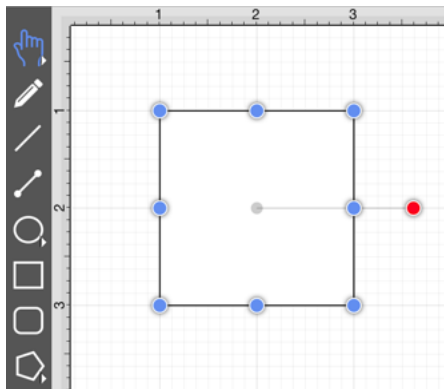
Images, text figures and compound figures all behave like shapes for selection, so we won't discuss them separately.

To select a line, tap on the line and its handle end points will appear.



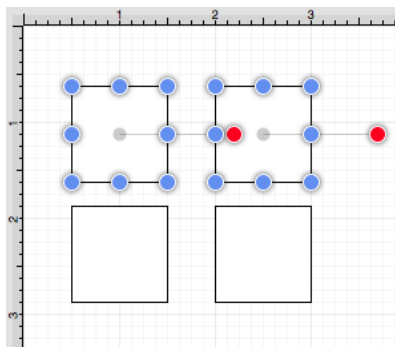
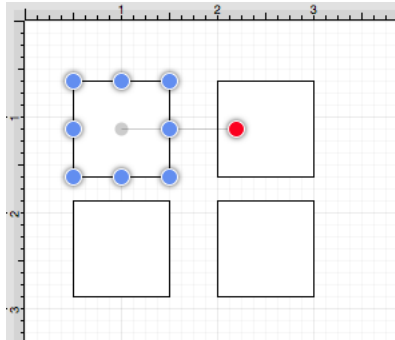
We understand that it is difficult to be as accurate as you are with a mouse using a desktop computer when using an iPad so TouchDraw is designed to allow for some margin of error; however you do need to try to tap as close to the line as possible. You will receive feedback that you have selected the line when the handles for the endpoints are displayed.

To select a shape, tap anywhere within the shape and it's handles will show up.



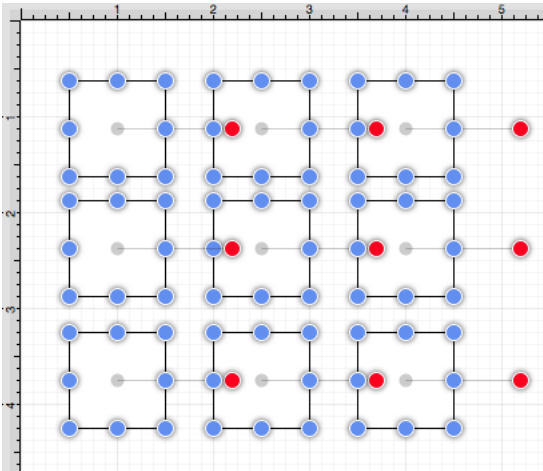
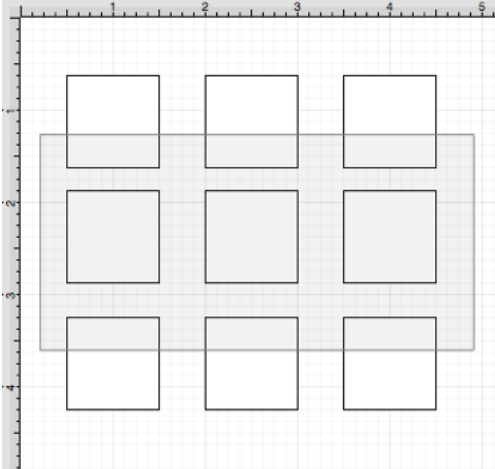
### Multiple Selections

By default, a previously selected shape will be deselected when another is selected; however, TouchDraw does support multiple selections. The [Function Key Feature](#) can be activated to make multiple selections. Press and hold on the empty portion of the [Drawing Toolbar](#) for ~1 second until it turns red and continue to hold a finger on the toolbar while using the other hand to tap on additional figures. This feature can be used to add or remove figures from the multiple selection.

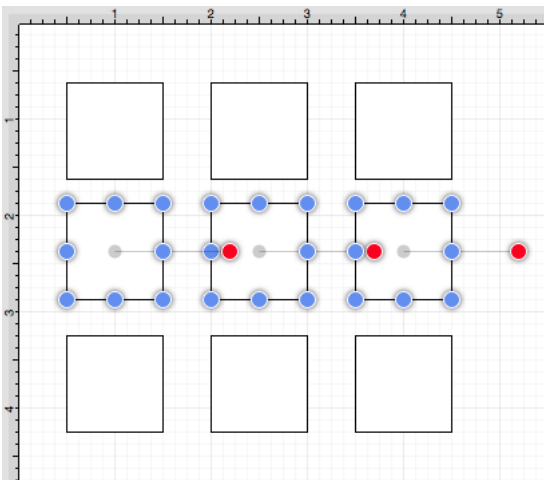
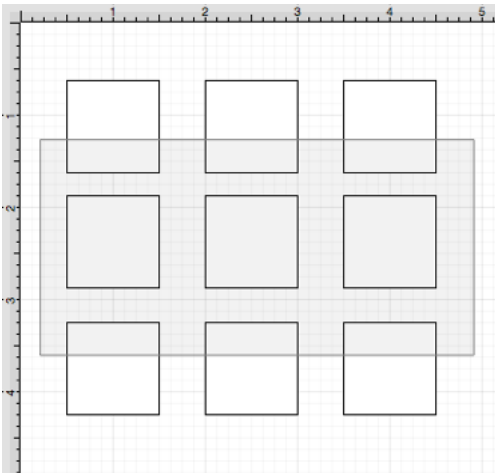


The **Selection Rectangle** may also be used to select multiple figures. Touch and drag the **Selection Rectangle**

from left to right or right to left over an area within the [Drawing Canvas](#) and then release the utilized finger 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.

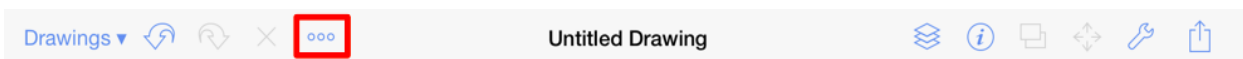


Dragging the **Selection Rectangle** from right to left from any point within the [Drawing Canvas](#) informs TouchDraw to select only the figures within the rectangle's bounds, as shown below.

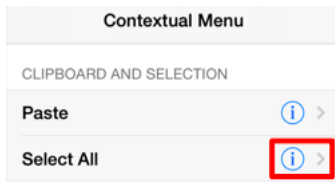


### Using the Contextual Menu

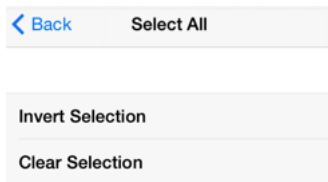
The [Contextual Menu](#) contains options for selecting all figures within a currently open drawing and inverting or clearing a current selection within the Drawing Canvas. Press on the **Contextual Menu Button** in the [Top Toolbar](#) to access these options.



Tap on the **Select All** option to select all figures within a drawing or press on the **Expand Button** (blue circle with right facing arrow) to access additional selections.



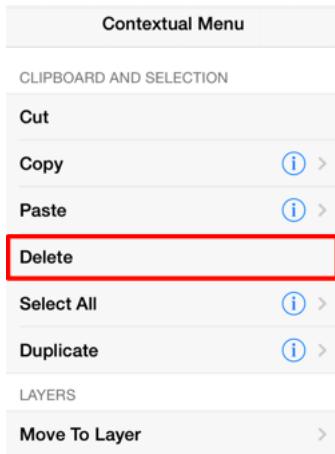
Use the **Invert Selection** option to invert the current selection or the **Clear Selection** option to deselect all currently selected figures within the Drawing Canvas.





## 5.1.4.2. Deleting a Figure

An object must be [selected](#) before it can be deleted. To delete a selected figure, touch and press anywhere in the [Drawing Canvas](#) for ~1 second to bring up the contextual menu or press on the **Contextual Menu Button** located in the [Top Toolbar](#). Tap on the **Delete** option to remove the currently selected figure from the drawing.



A figure can also be deleted by pressing on the **Delete Button** in the [Top Toolbar](#).



Please keep in mind that TouchDraw has support for [Undo and Redo](#). If a figure is deleted by accident, press the **Undo** button in the [Top Toolbar](#) to redisplay the object.



## 5.1.4.3. Saving and Exiting

Use the **Drawings Button** to save a drawing that is currently being edited and/or viewed and return to the [Drawing Chooser](#).

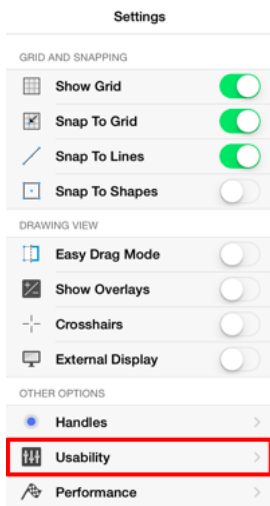


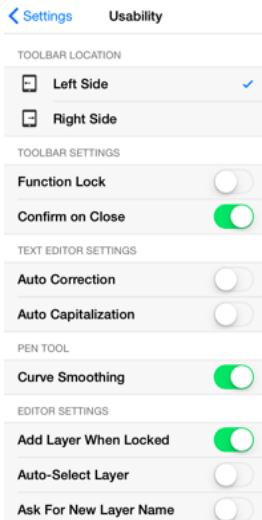
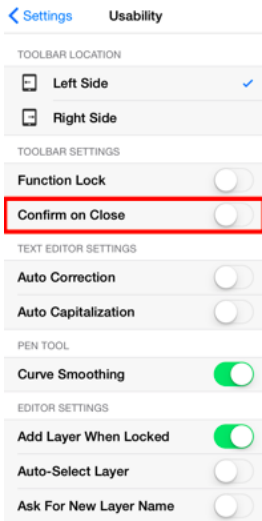
If changes have not been made to the currently viewed drawing and the **Confirm on Close** option is disabled, TouchDraw will return to the Drawing Chooser without saving.

To enable the **Confirm on Close** option, tap on the **Settings Button** in the [Top Toolbar](#).



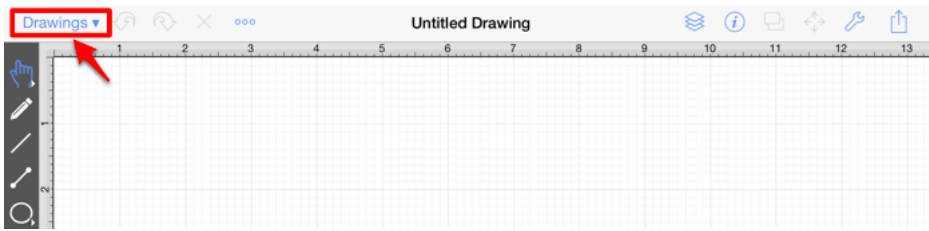
Tap on the [Usability Submenu](#) and then tap on the **Confirm on Close On/Off Toggle Slider**. It will appear with a green background when enabled.



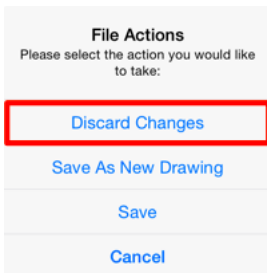


### 5.1.4.3.1. Discarding Changes

Use the **Discard Changes** feature to exit the [Drawing Editor](#) without saving any applied changes and return to the [Drawing Chooser](#). To access this option, press and hold on the **Drawing Button** until a popover window appears within the [Drawing Canvas](#).

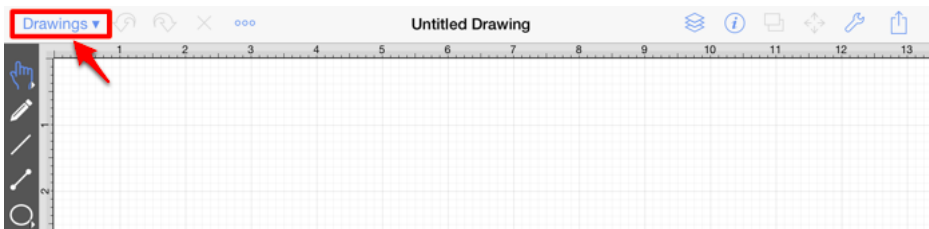


Tap on the **Discard Changes** option to exit without saving.

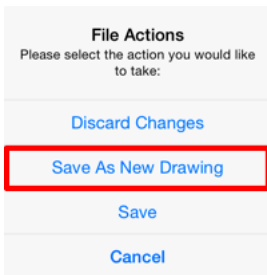


### 5.1.4.3.2. Saving as a New Drawing

Use the **Save as New Drawing** feature to exit the [Drawing Editor](#) and save any applied changes as a new drawing (as opposed to overwriting the existing drawing). To access this option, press and hold on the **Drawings Button** until a popover menu appears within the [Drawing Canvas](#).

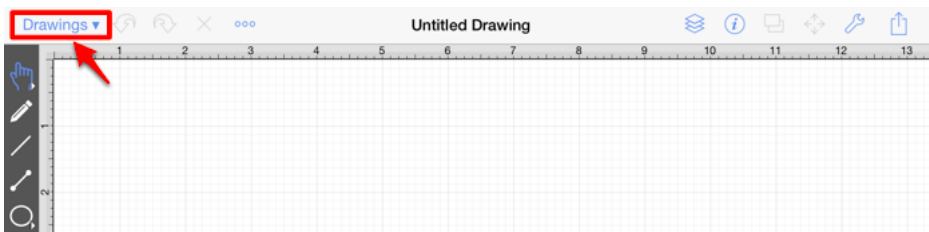


Tap on the **Save As New Drawing** option to save the drawing with a new file name and then return the [Drawing Chooser](#).

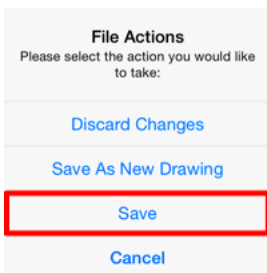


### 5.1.4.3.3. Saving Drawings Without Exiting

Use the **Save** feature to save current changes and avoid the concern of losing changes before exiting back to the [Drawing Chooser](#). To access this option, press and hold on the **Drawings Button** until a popover menu appears within the [Drawing Canvas](#).



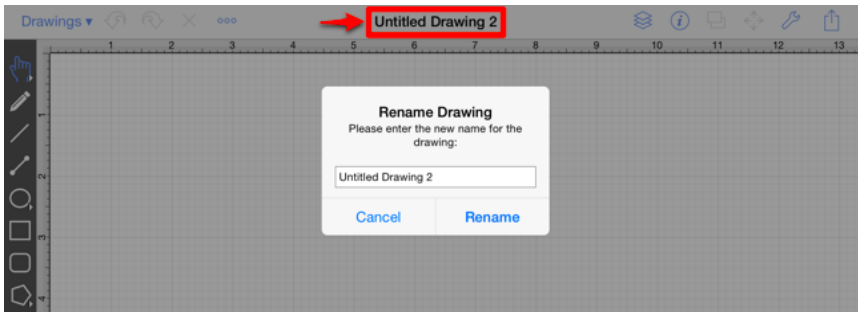
Tap on the **Save** option to save changes without exiting the [Drawing Editor](#).



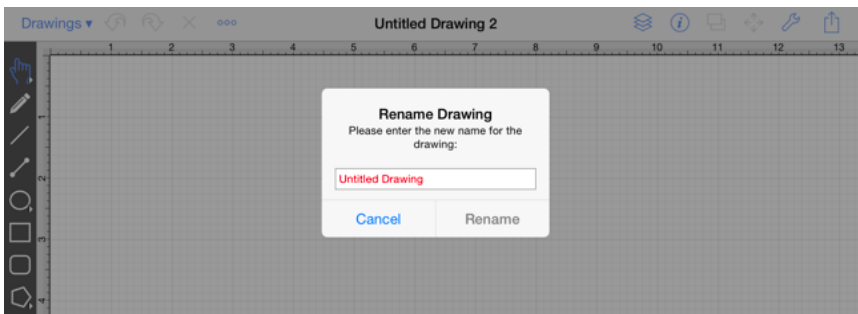
This action will not exit back to the **Drawing Chooser**.

## 5.1.4.4. Renaming a Drawing

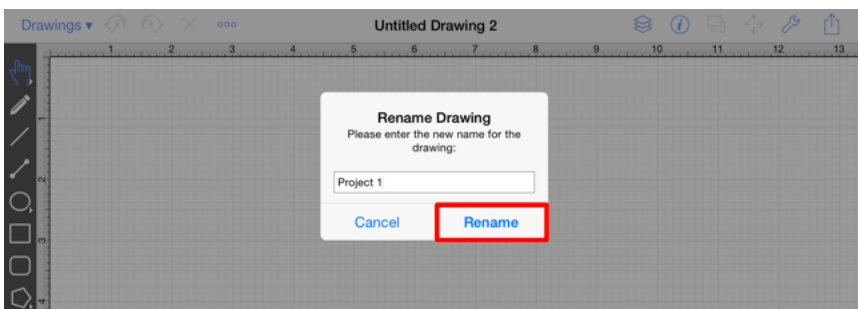
A **Double Tap** on the **Drawing Title** opens a prompt window for renaming the currently open drawing.



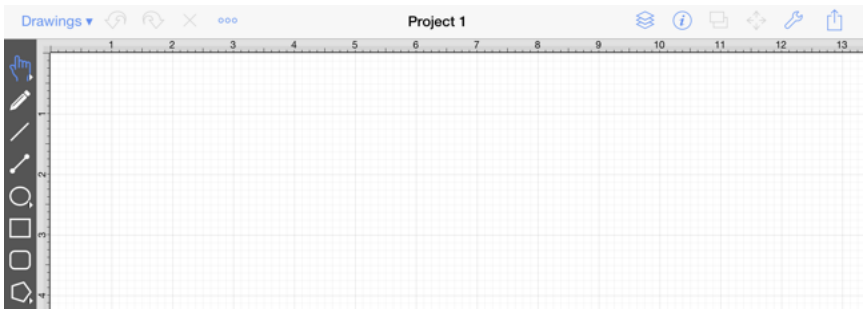
An already taken or invalid (contains unsupported characters) drawing name causes the current text in the prompt window to turn red as a notification that the entered name cannot be used.



After a new drawing name has been entered, **Press** on **Rename** in the bottom right hand corner of the prompt window.



The new drawing name will appear in the [Drawing Editor Toolbar](#).

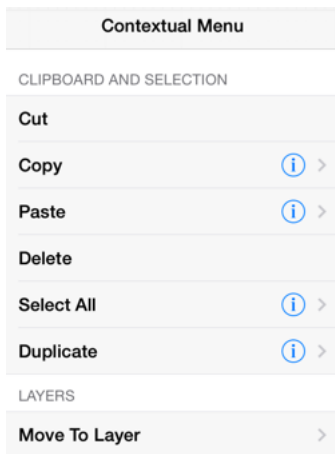


**Note:** If the entered name is invalid, TouchDraw will only allow you to **Cancel** out of the Rename Drawing prompt.

## 5.1.4.5. Using the Clipboard

The **Clipboard** holds the most recent change made to a figure within the drawing editor. Changes are stored on the clipboard when an item is [copied](#), [cut](#) or [undone](#). They are reapplied by choosing the [Paste](#) or [Redo](#) commands.

All **Clipboard** actions with the exception of [Undo](#) and [Redo](#) are accessible through the [Contextual Menu](#). Touch and press the [Drawing Canvas](#) for ~1 second or press on the **Contextual Menu Button** in the [Top Toolbar](#) to bring up the Contextual Menu. It will appear as shown below:



[Undo](#) and [Redo](#) actions are accessible through the [Top Toolbar](#), as shown below.



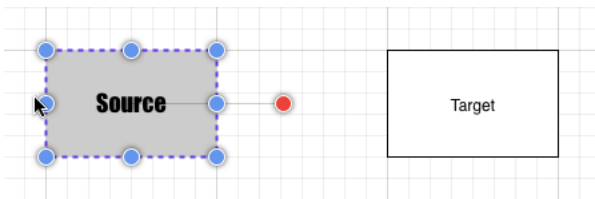
### 5.1.4.5.1. Paste Style

The **Paste Style** option allows formatting to be copied from one shape and pasted (applied) to another.

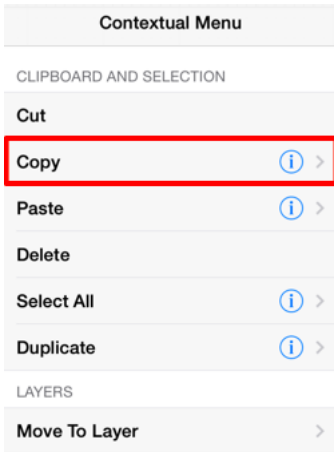
The process for this command is shown in the following example:

1. [Select](#) the source shape/figure with the formatting to be applied to another object.

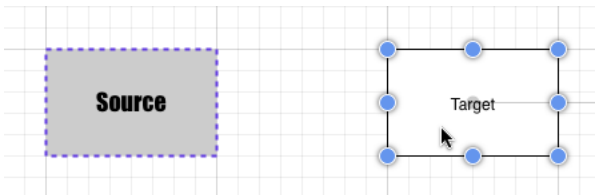




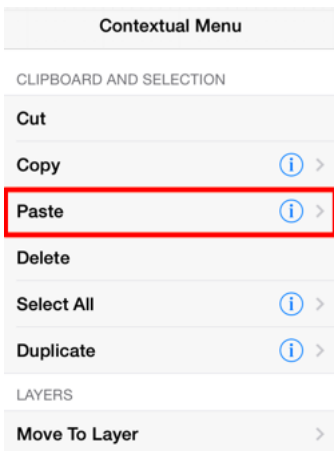
2. Open the [Contextual Menu](#) and [Copy](#) the shape to the clipboard.



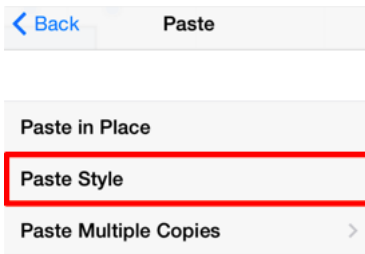
3. Select the target shape.



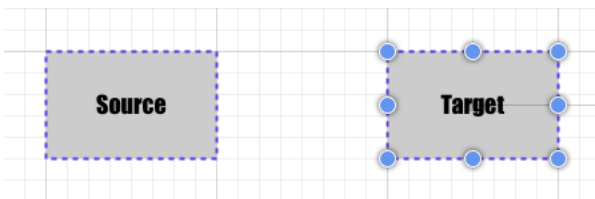
4. Open the [Contextual Menu](#) and press on the **Expand Button** (blue circle with right facing arrow) next to the **Paste** option.



5. Select the **Paste Style** option from [Paste Submenu](#).

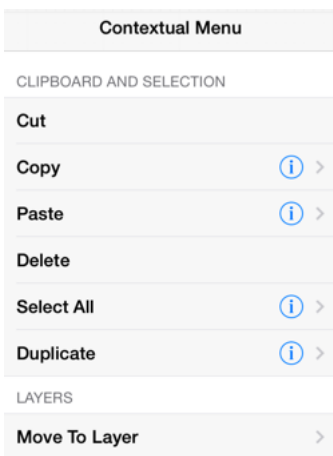


6. The formatting from the source figure is applied to the target figure.

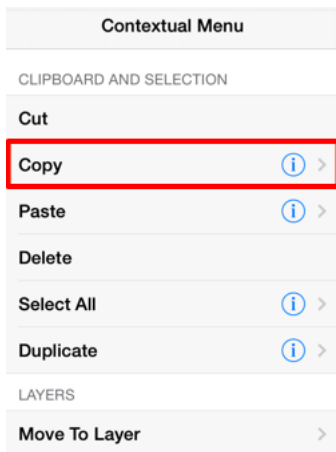


### 5.1.4.5.2. Copying a Figure

A figure or group of figures must be [selected](#) before copying can occur. After has been made, touch and press on the [Drawing Canvas](#) for ~1 second or press on the **Contextual Menu Button** in the [Top Toolbar](#) to bring up the [Contextual Menu](#), as shown below.

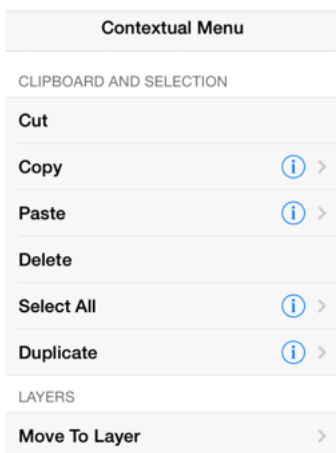


Tap on the **Copy** option to copy the currently selected figure or group of figures into the clipboard.

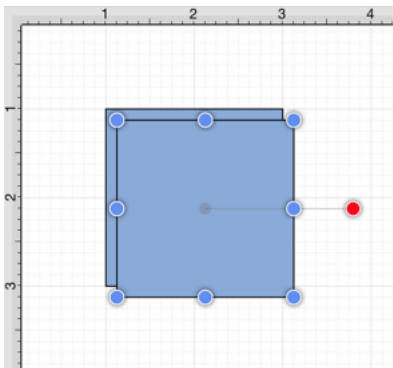
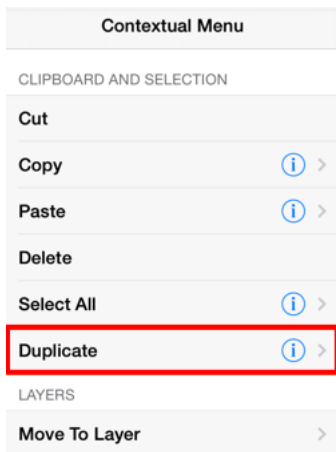


### 5.1.4.5.3. Duplicating a Figure

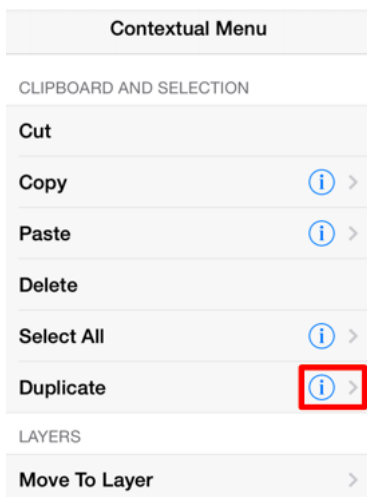
A figure can be duplicated to make sharing the same attributes easy. At least one figure must be selected for these options to appear in the [Contextual Menu](#). Options for duplicating a figure are accessed by either touching and pressing on the [Drawing Canvas](#) for ~1 second or pressing on the **Contextual Menu Button** in the [Top Toolbar](#), as shown below.



Tap on the **Duplicate** option to create a copy of a selected figure(s) and have it placed at an offset position in the [Drawing Canvas](#), as shown below.



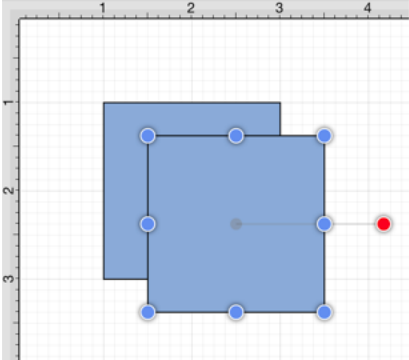
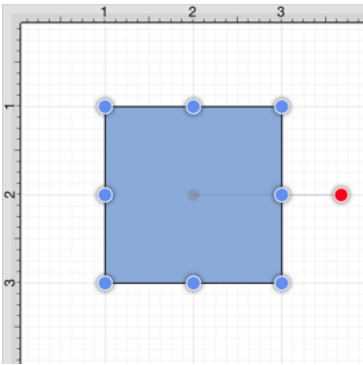
Press on the **Expand Button** (blue circle with right facing arrow) located to the right of the **Duplicate** option to access additional selections.



< Back Duplicate

Duplicate in Place

Tap on the **Duplicate in Place** option to create a copy of a selected figure(s) and have it placed in the same exact location as the original. Hold and drag the top figure to a new position in the Drawing Canvas to see both the original and the copy.

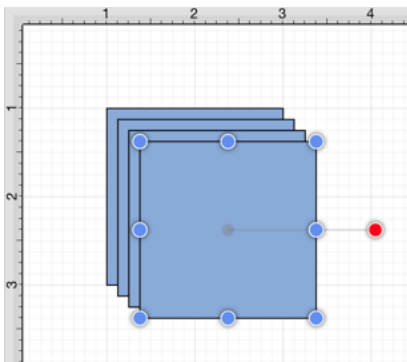
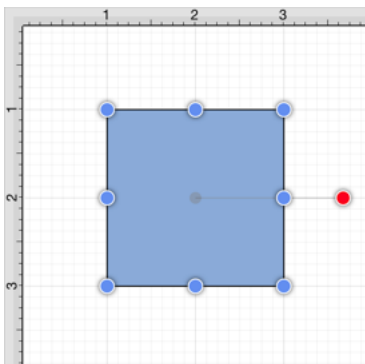


### 5.1.4.5.4. Cut and Paste

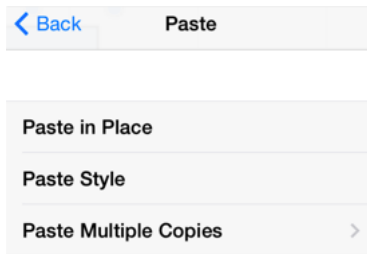
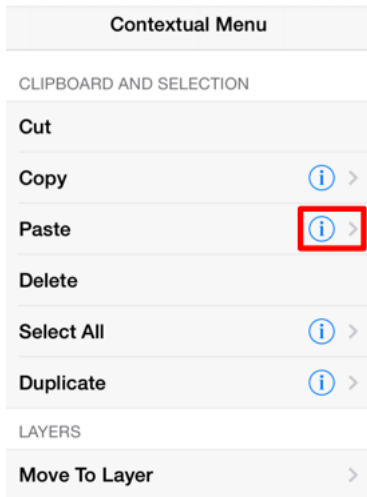
**Cutting and pasting** works in the same manner as copy and delete. A figure or group of figures must be **selected** to use one of these application functions. After a selection has been made, touch and press the **Drawing Canvas** for ~1 second or press on the **Contextual Menu Button** in the **Top Toolbar** to bring up the **Contextual Menu**, as shown below:

| Contextual Menu         |                     |
|-------------------------|---------------------|
| CLIPBOARD AND SELECTION |                     |
| Cut                     |                     |
| Copy                    | <a href="#">i</a> > |
| Paste                   | <a href="#">i</a> > |
| Delete                  |                     |
| Select All              | <a href="#">i</a> > |
| Duplicate               | <a href="#">i</a> > |
| LAYERS                  |                     |
| Move To Layer           | >                   |

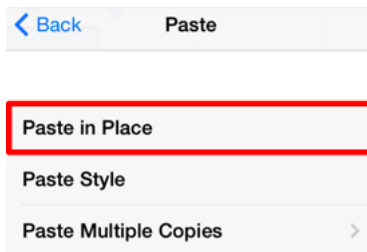
The **Cut** command removes the figure from the Drawing Canvas and adds it to the clipboard. The **Paste** button directs TouchDraw to paste the contents of the clipboard into the drawing. Pasting the clipboard contents multiple times into the Drawing Canvas causes the figure(s) to be placed in slightly offset positions as shown below.



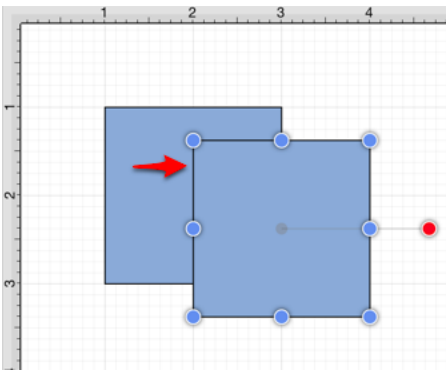
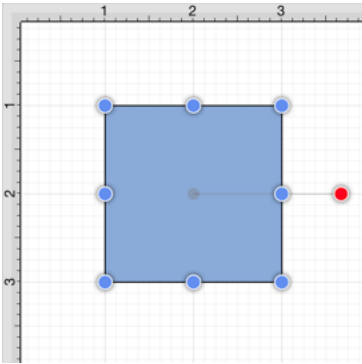
The [Paste Submenu](#) can be used to perform additional pasting actions.



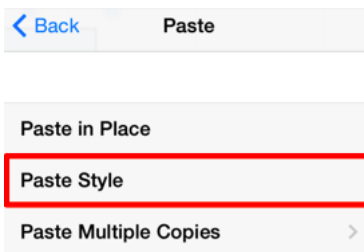
To paste a figure in the same exact location, open the [Contextual Menu](#), press on the **Expand Button** (blue circle with right facing arrow) located next to the **Paste** option, and then tap on the **Paste in Place** option.



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.

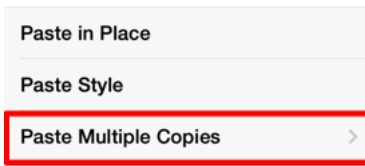
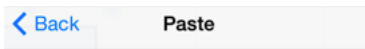


To paste the style of a figure, open the [Contextual Menu](#), press on the **Expand Button** to the right of the **Paste** option, and then tap on the **Paste Style** option. Refer to the [Paste Style](#) section of this documentation to learn more.

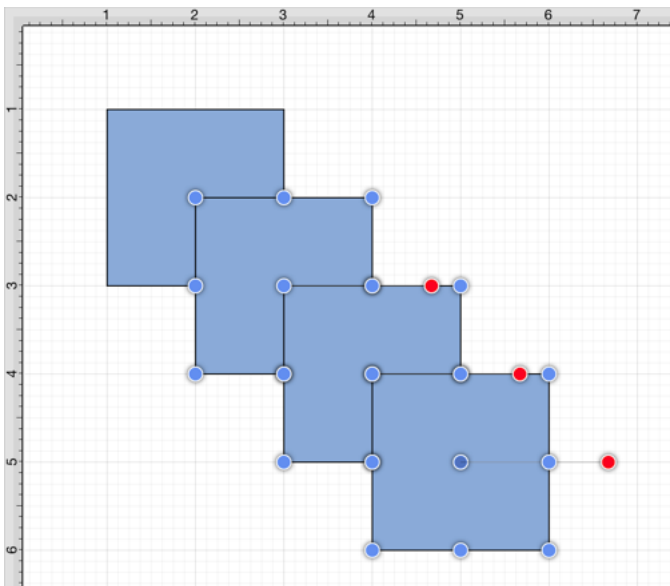


To paste multiple instance of a figure into the clipboard, open the [Contextual Menu](#), press on the **Expand Button** to the right of the **Paste** option, and tap on the **Paste MultipleCopies** option.

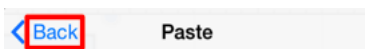




Multiple pastes of the clipboard content will cause each figure to be placed in slightly offset positions as shown below:



Press on the **Back** button in the upper left of the [Paste Submenu](#) to return to the Contextual Menu.



## 5.1.4.6. Undo and Redo

The **Undo** command reverts the last change that was made to a drawing. This button is disabled (dimmed) when no changes have been made and enabled as soon as something is altered in the [Drawing Editor](#).



The **Redo** command cancels the last undone change made to the [Drawing Canvas](#). This button is disabled (dimmed) when nothing has been undone and is enabled as soon as the **Undo** command has been used or something is altered.



**Note** As the iPad has limited available memory (RAM), TouchDraw limits the size of the undo stack to the last 20 operations, in order prevent iOS from shutting down TouchDraw for excessive memory usage.

## 5.1.5. Handling Figures

TouchDraw supplies a variety of options for handling figures within the [Drawing Editor](#). An individual figure 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.

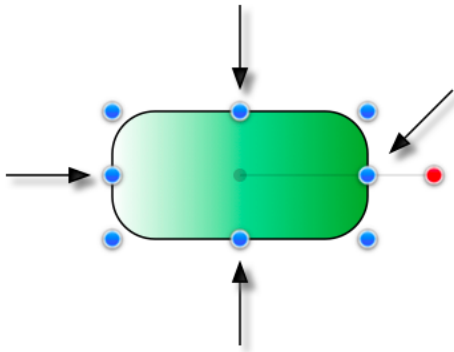
## 5.1.5.1. Moving a Figure

A figure must be [selected](#) to be moved to another location on the drawing canvas. Perform a **Drag** gesture to move an already selected figure or use a **Touch/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 **Touch/Drag** combination within bounds of any selected object to move the entire selection to a desired location. A move is completed when the **Touch/Drag** gesture 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.

## 5.1.5.2. Stretching a Figure

Most shapes have handles in the top center, bottom center, left middle and right middle that allow them to be stretched for increased width or height. The screenshot below demonstrates these handles for a rounded rectangle.



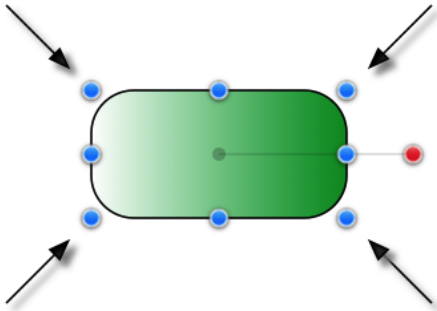
To stretch a figure, touch one of the shown handles and then drag the finger in the desired direction. The figure will stretch itself to fit to the new location of the handle as dragging takes place.

If the [Function Key Feature](#) is enabled when the figure is stretched, it will maintain it's current aspect ratio.

Multiple figures can be stretched in this same manner once they have been placed into a [group](#).

### 5.1.5.3. Resizing a Figure

In addition to the handles described in [Stretching a Figure](#), shapes also have handles in the upper left, upper right, lower left and lower right for resizing a [selected](#) figure. The screenshot shown below points out these handles for a rounded rectangle:



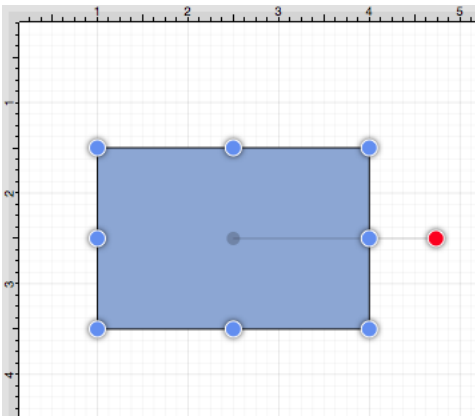
To **Resize a Figure**, touch one of the above shown handles and then drag with the same finger. The width and height of a figure will change dynamically as the handle is dragged.

If the [Function Key Feature](#) is enabled when a figure is resized, it will maintain it's current aspect ratio.

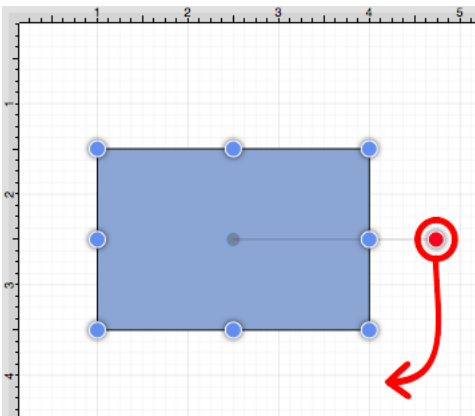
Multiple figures can be resized at once by placing them into a group.

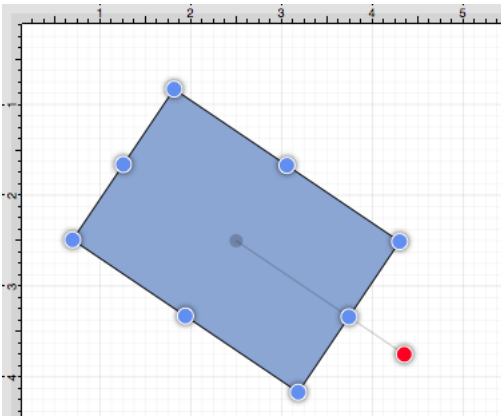
## 5.1.5.4. Rotating a Figure

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.



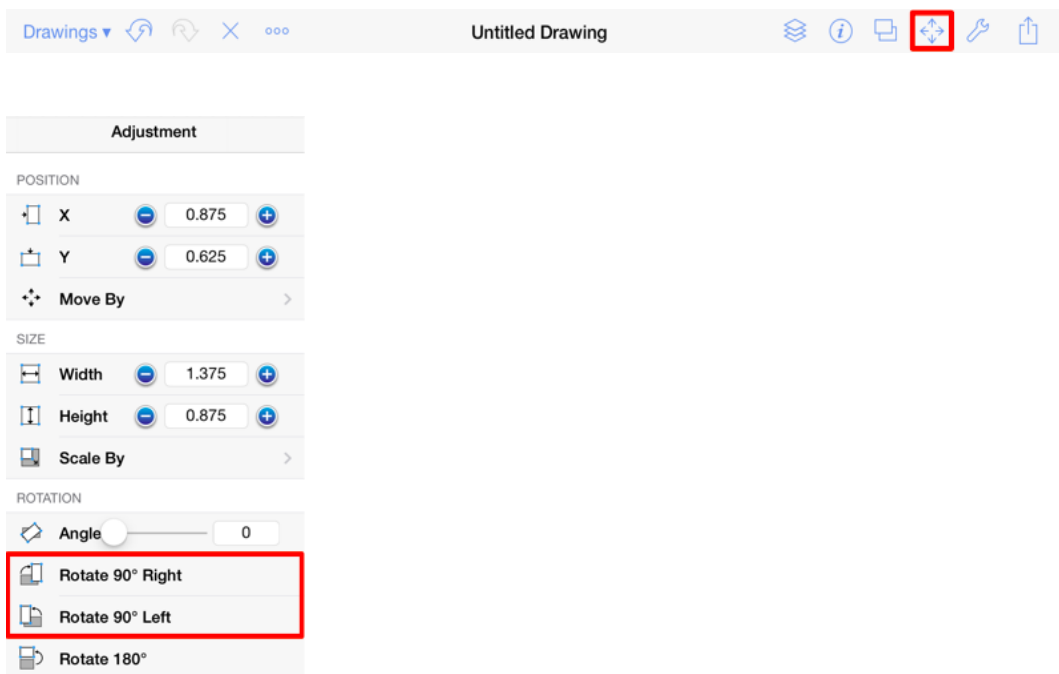
Perform a **Touch/Drag** gesture combination on the red handle to rotate the object in increments of  $1^\circ$  around its center of rotation point.





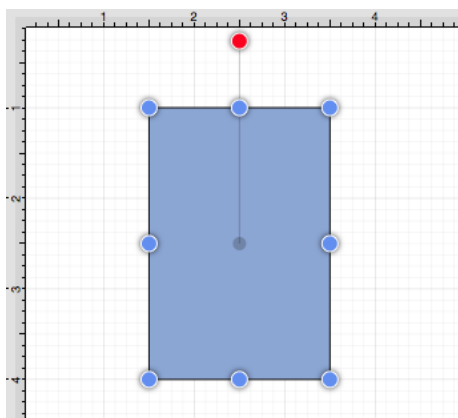
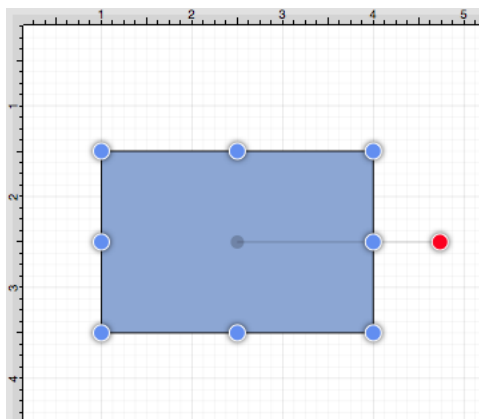
Activating the [Function Key Feature](#) while rotating a figure causes the action to occur in  $15^\circ$  increments.

A figure may be rotated at  $90^\circ$  increments to the right or left by using the **Rotate  $90^\circ$  Right** or **Rotate  $90^\circ$  Left** options in the [Adjustment Menu](#). To access this menu, press on the **Adjustment Button** in the [Top Toolbar](#).

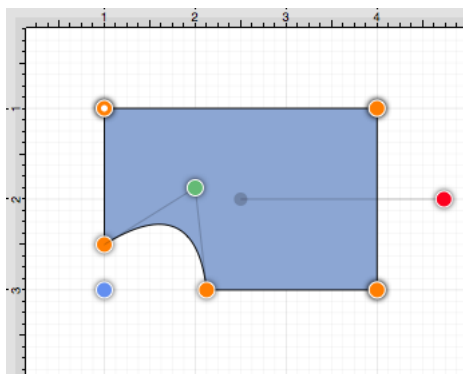


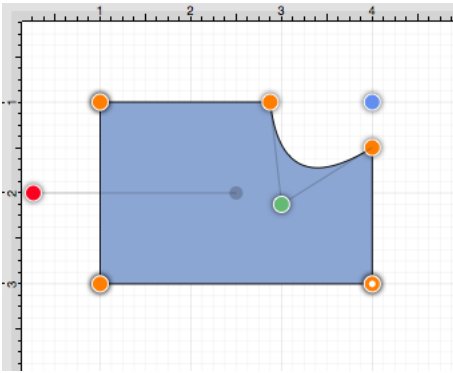
The example below shows what a figure looks like prior to and after being rotating 90 degrees to the left.





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.

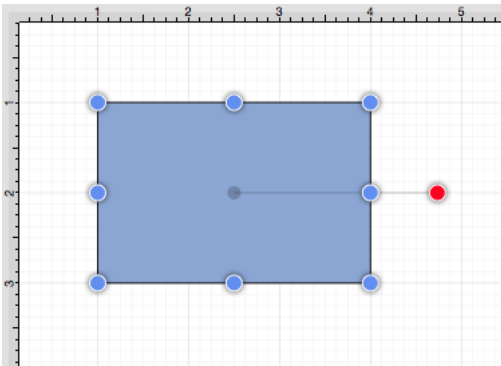




The **Center of Rotation** can be changed to a different point within a shape or reset after it has been altered. See [Changing the Center of Rotation](#) or [Resetting the Center of Rotation](#) for additional information.

### 5.1.5.4.1. 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.

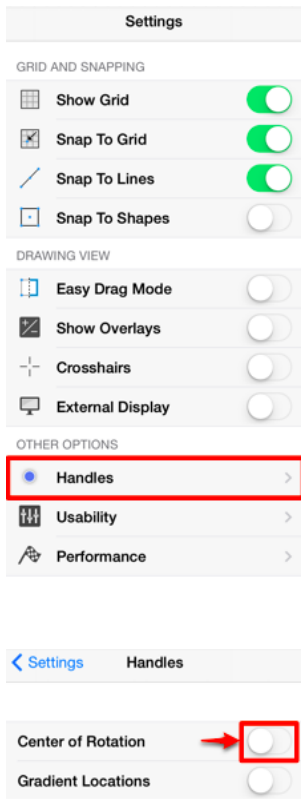


To enable the **Center of Rotation** option:

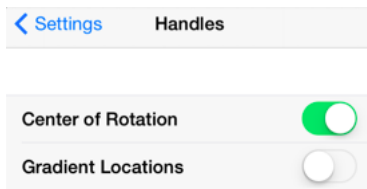
1. Press on the **Settings Button** to open the [Settings Menu](#).



2. Press on the **Handles Submenu**.



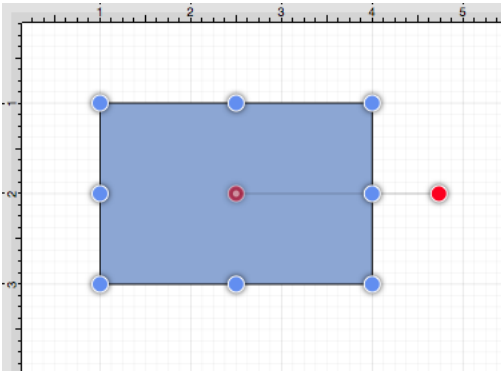
3. **Touch** the On/Off toggle setting and **Drag** to the right to enable the **Center of Rotation** option.



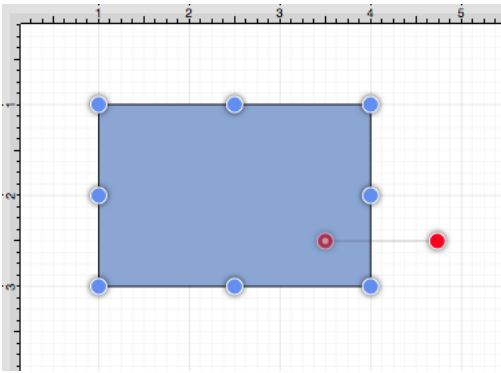
Press on the **Settings Button** to return to the main popup menu or tap anywhere in the [Drawing Editor](#) to close the menu.



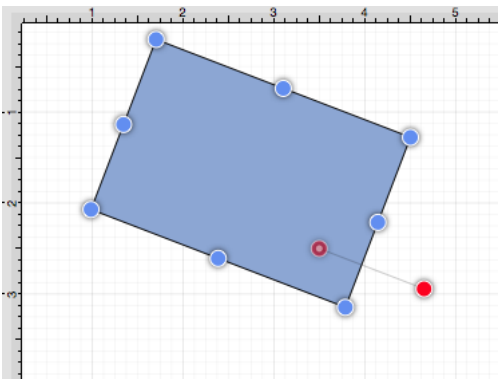
A new handle will replace the original semi-transparent circle once this option has been enabled.



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.

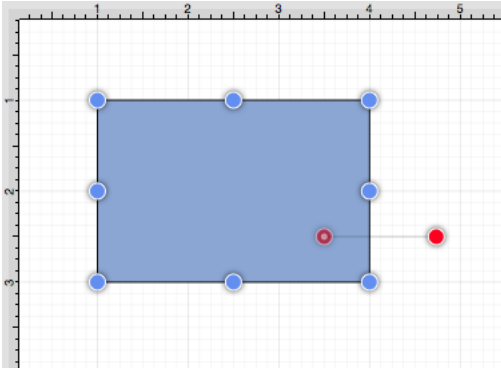


### 5.1.5.4.2. Resetting the Center of Rotation

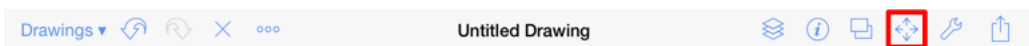
A selected shape will show a gray semi-transparent circle connected to the rotation handle. This gray circle indicates a selected shape's **Center of Rotation** and can be changed to any desired point within the shape's

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** :

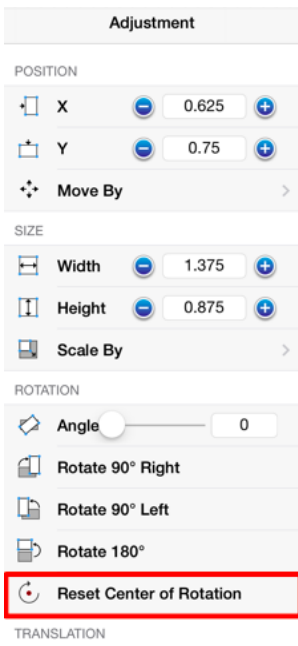
1. **Select** the desired shape.



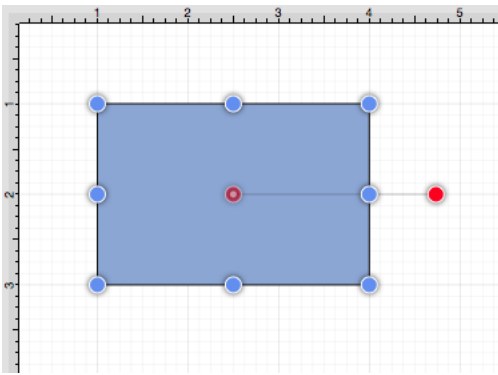
2. Press on the **Adjustment Button** located on the right side of the **Top Toolbar**.



3. Tap on the **Reset Center of Rotation** option in the **Rotation** section of the **Adjustment Menu**.

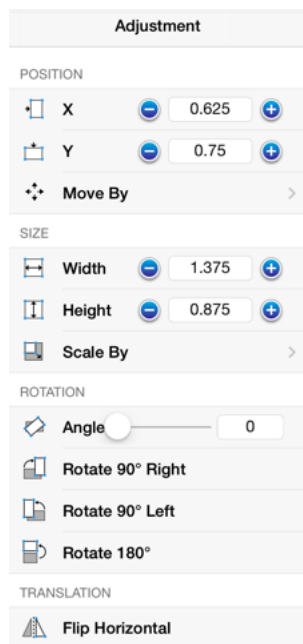
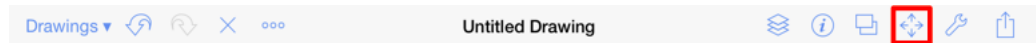


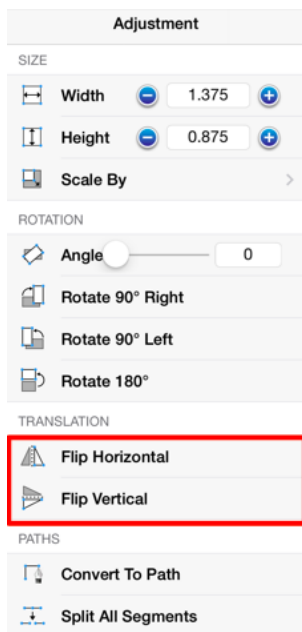
4. The point will be adjusted back to its natural center.



## 5.1.5.5. Flipping a Figure

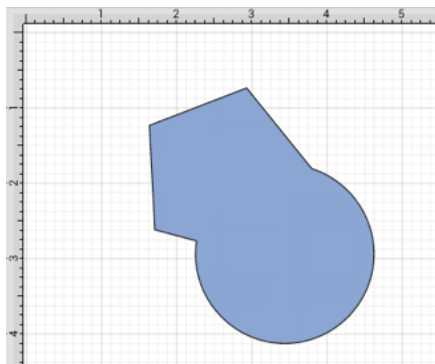
A figure can be flipped either horizontally or vertically in the [Drawing Canvas](#). These options can be found in the **Translation** section of the [Adjustment Menu](#). To view these menu options when in landscape mode, scroll through the menu view by touching and dragging in an upward direction. Please refer to the images below:



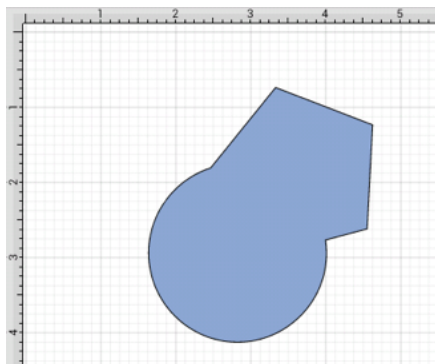


A figure must be [selected](#) to choose one of the above options.

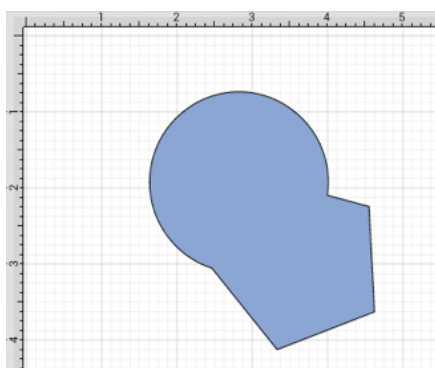
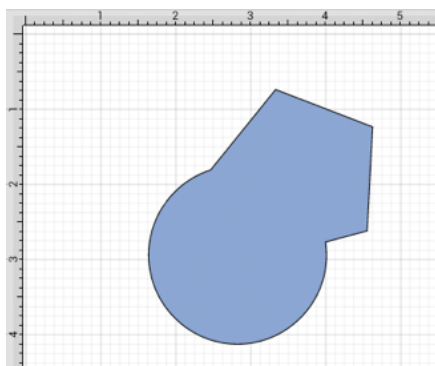
Tap on the **Flip Horizontally** option to interchange a figure horizontally. The images below show a before and after of this figure transition:







Tap on the **Flip Vertically** option to interchange a figure vertically. The images below show a before and after of this figure transition.

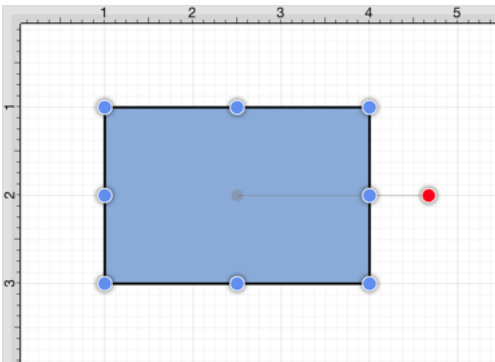


## 5.1.5.6. Scaling a Figure

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 and is located in the **Size Section** of the [Adjustment Menu](#).

To **Scale a Figure** or group of figures:

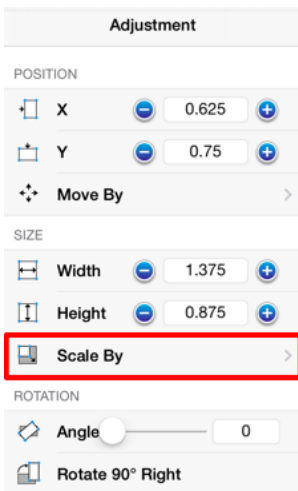
1. [Select](#) a figure(s) to be altered.



2. Press on the **Adjustment Button** in the [Top Toolbar](#).

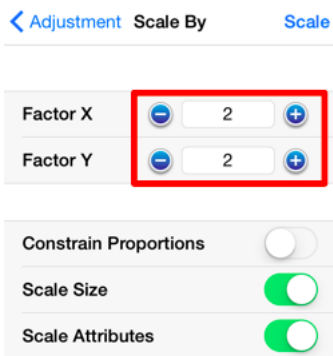


3. Tap on the **Scale By** option in the [Adjustment Menu](#).

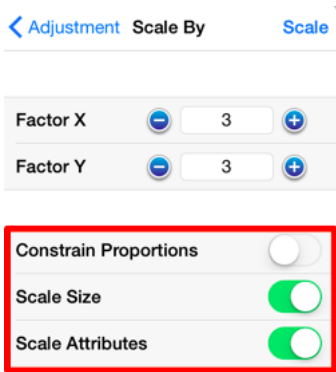




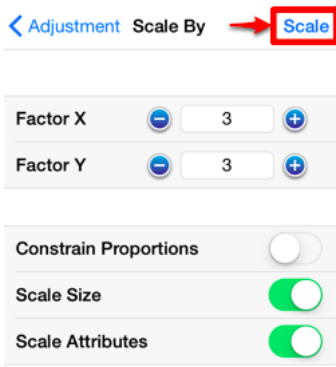
4. Enter the desired **X** and **Y** coordinates into the **Scale By** popover window by using the incremental buttons located on the right and left side of each field or by pressing on the number field to bring up the keyboard.



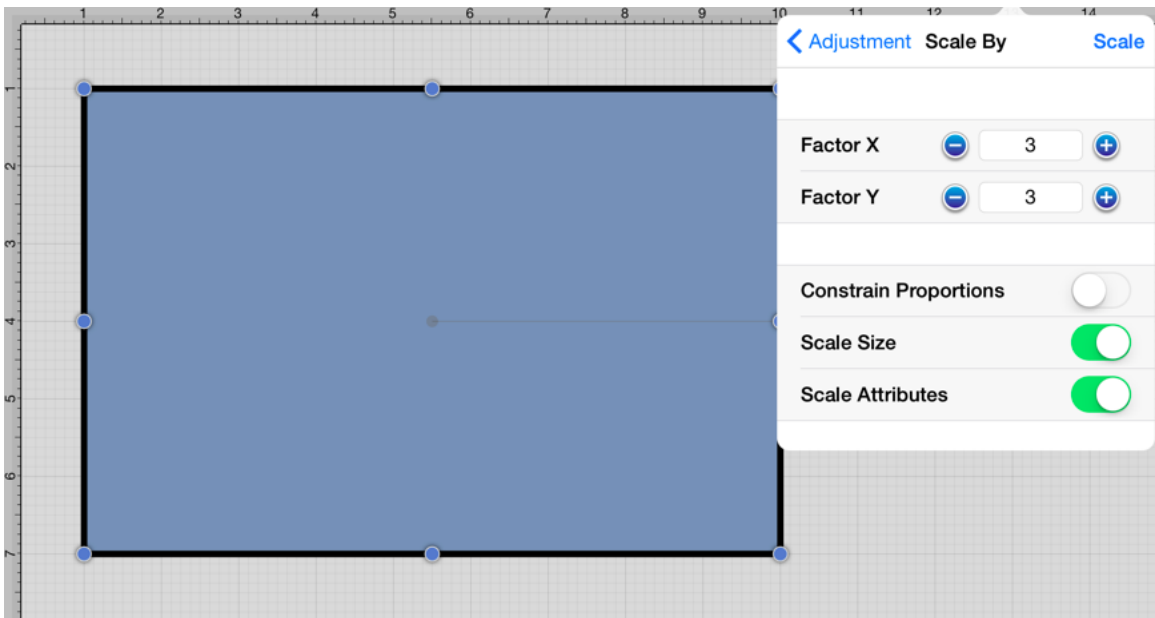
5. Three options are provided at the bottom of this screen: [Constrain Proportions](#), [Scale Size](#), and [Scale Attributes](#). Each option informs the application to perform a different action during scaling. To enable or disable an option, tap on the On/Off toggle slider located to the right of the option.



6. Press on the **Scale Button** when finished.

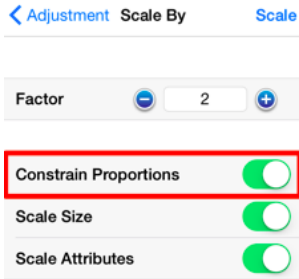


7. The selected figure will be scaled according to the entered coordinates and selected options. It will appear in scaled form with the **Scale By** popover window remaining available to make further changes.



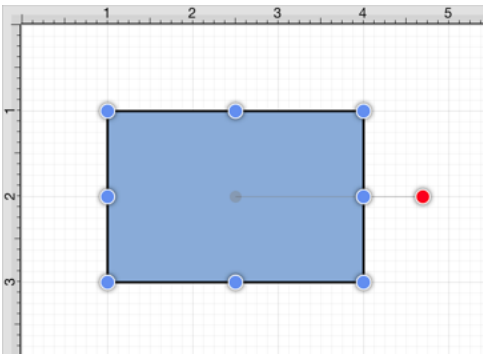
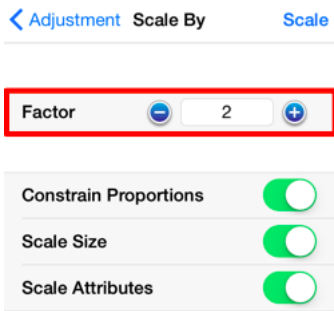
### 5.1.5.6.1. Constrain Proportions

The **Constrain Proportions** option may be used to scale the width and height of the selected figure(s) by the same factor within the [Drawing Canvas](#). This prevents the figure(s) from becoming proportionally skewed during scaling. If enabled, the On/Off toggle slider will appear with a green background, as shown below:

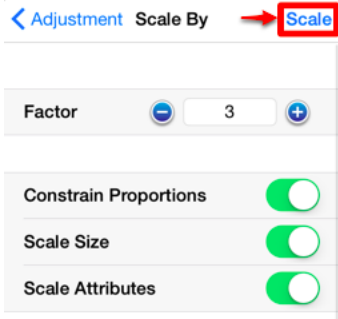


[Scale Size](#) must be enabled for the selected figure(s) to be scaled appropriately.

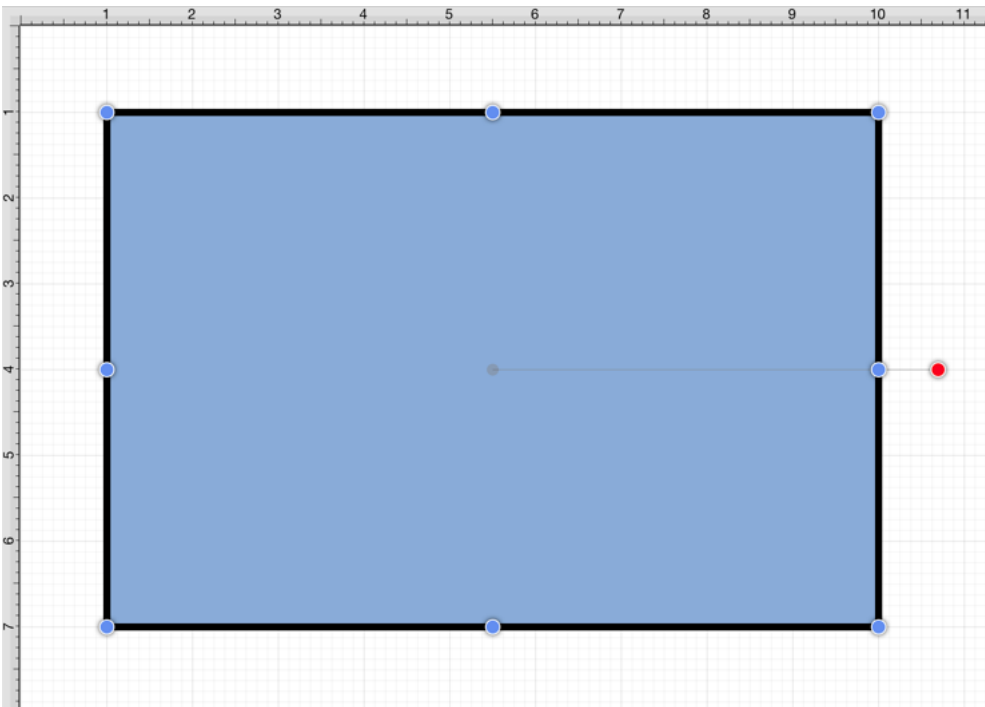
With this option you will only enter one value rather than a scaling value for the width and height of the figure(s). Proportions will be constrained based on the entered **Factor** value for both axes.



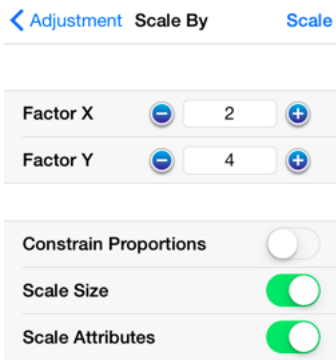
In this example, the value 4 is entered as the **Scaling Factor** for the selected figure. Tap on **Scale** in the upper right corner to finish scaling the selected figure(s).



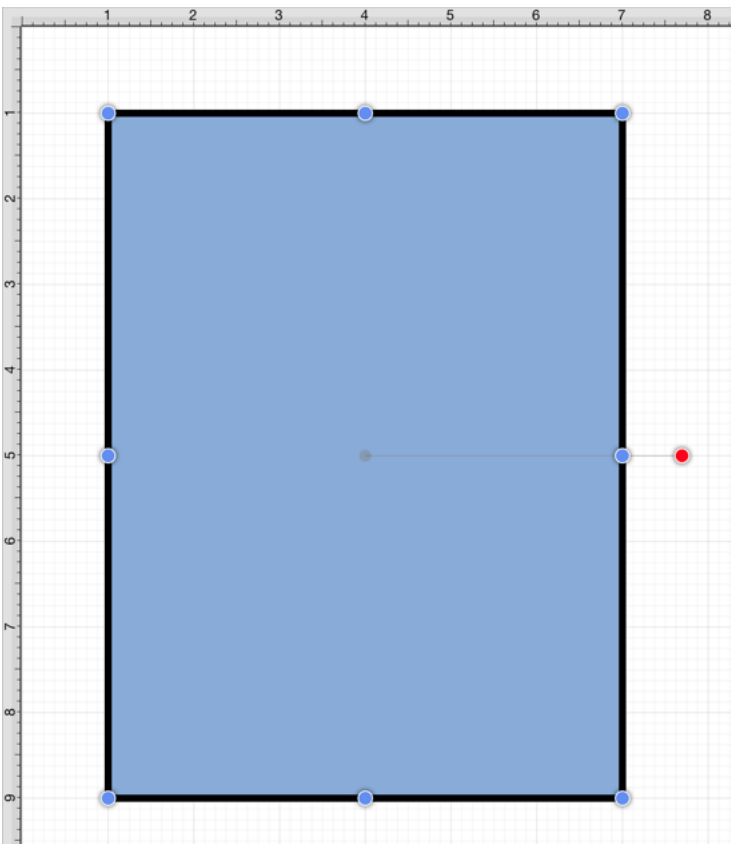
With **Constrain Proportions** enabled, the figure will remain proportionally correct after it has been scaled. The example figure will now appear as shown below:



If this option is disabled (gray background), you will be able to enter an individual scaling factor for the width and height of the selected figure(s).



For example, scaling the **x axis** by 2 and the **y axis** by 4 would result in the figure below:

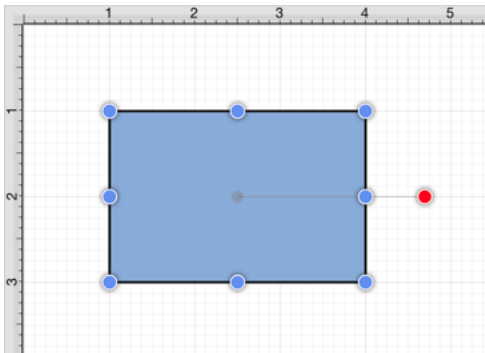


### 5.1.5.6.2. Scale Size

The **Scale Size** option informs TouchDraw to scale the size of the selected figure(s) based on the entered **Factor X** and **Factor Y** values or **Factor** value when **Constrain Proportions** is enabled. If enabled, the On/Off toggle slider will appear with a green background, as shown below:

< Adjustment Scale By Scale

|  |                                     |                                |                                  |
|--|-------------------------------------|--------------------------------|----------------------------------|
| Factor X                                       | <input type="button" value="-"/>    | <input type="text" value="2"/> | <input type="button" value="+"/> |
| Factor Y                                       | <input type="button" value="-"/>    | <input type="text" value="2"/> | <input type="button" value="+"/> |
| Constrain Proportions <input type="checkbox"/> |                                     |                                |                                  |
| Scale Size                                     | <input checked="" type="checkbox"/> |                                |                                  |
| Scale Attributes                               | <input checked="" type="checkbox"/> |                                |                                  |



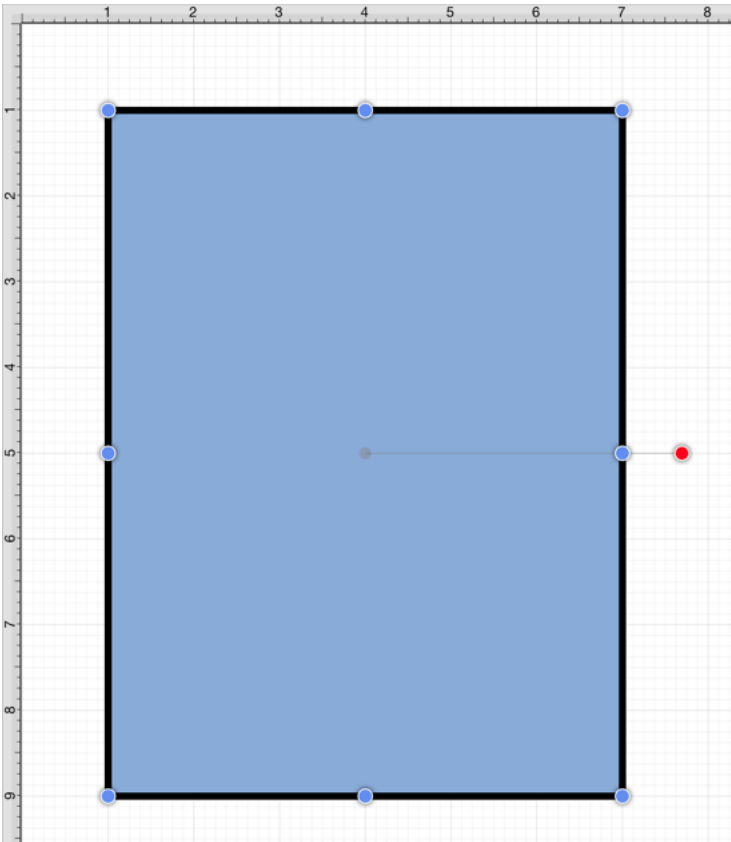
This option must be enabled for the selected figure(s) to be scaled by the entered values.

< Adjustment Scale By Scale

|  |                                     |                                |                                  |
|--|-------------------------------------|--------------------------------|----------------------------------|
| Factor X                                       | <input type="button" value="-"/>    | <input type="text" value="2"/> | <input type="button" value="+"/> |
| Factor Y                                       | <input type="button" value="-"/>    | <input type="text" value="4"/> | <input type="button" value="+"/> |
| Constrain Proportions <input type="checkbox"/> |                                     |                                |                                  |
| Scale Size                                     | <input checked="" type="checkbox"/> |                                |                                  |
| Scale Attributes                               | <input checked="" type="checkbox"/> |                                |                                  |

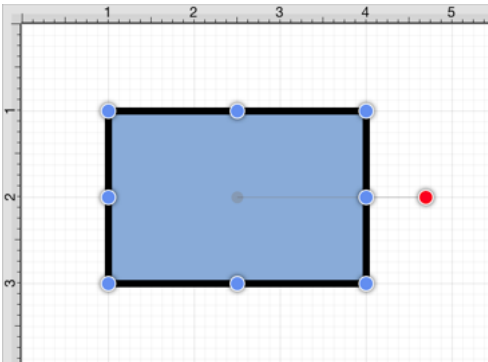
If **Factor Y** is changed to 4 for the above figure, it will appear as shown below:





If the **Scale Size** option is disabled (gray background), 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:

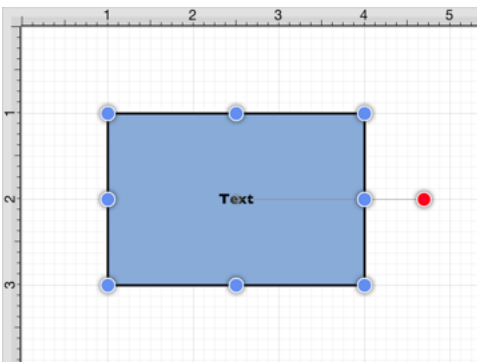
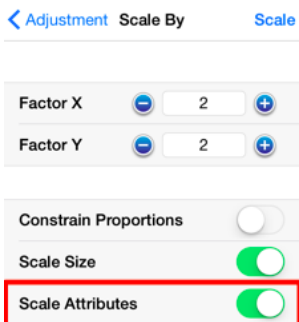




**Note:** Please note that if all three options have been disabled, then the selected figure(s) will not be scaled.

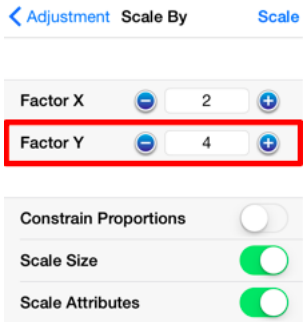
### 5.1.5.6.3. Scale Attributes

The **Scale Attributes** option informs TouchDraw to scale the attributes ([stroke](#), [text](#), etc) of the selected figure(s) based on the entered **Factor X** and **Factor Y** values or **Factor** value when [Constrain Proportions](#) is enabled. If enabled, the On/Off toggle slider will appear with a green background, as shown below:

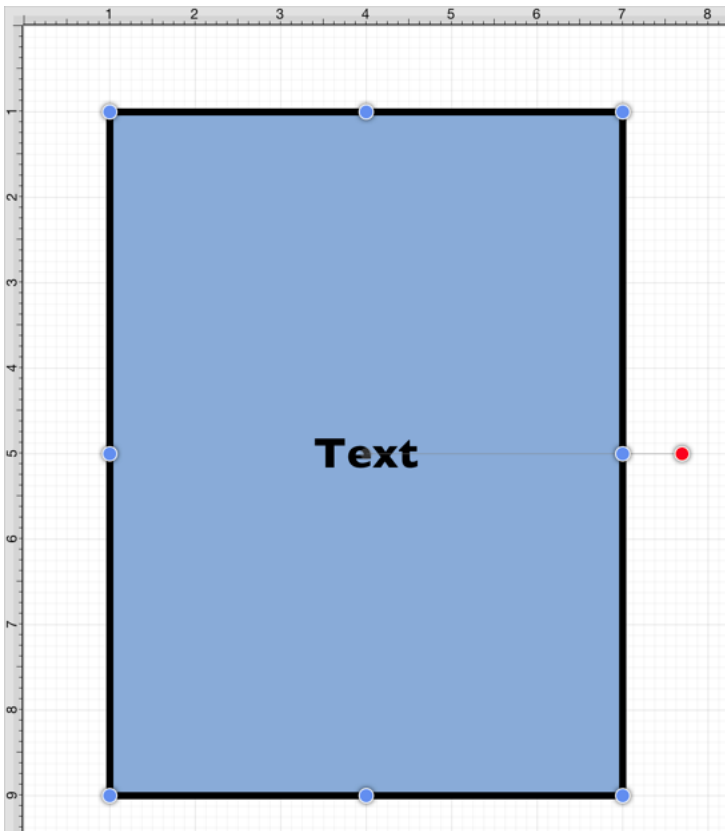


If the [Scale Size](#) option has been enabled as well, then the selected figure's size and attributes will be scaled

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:

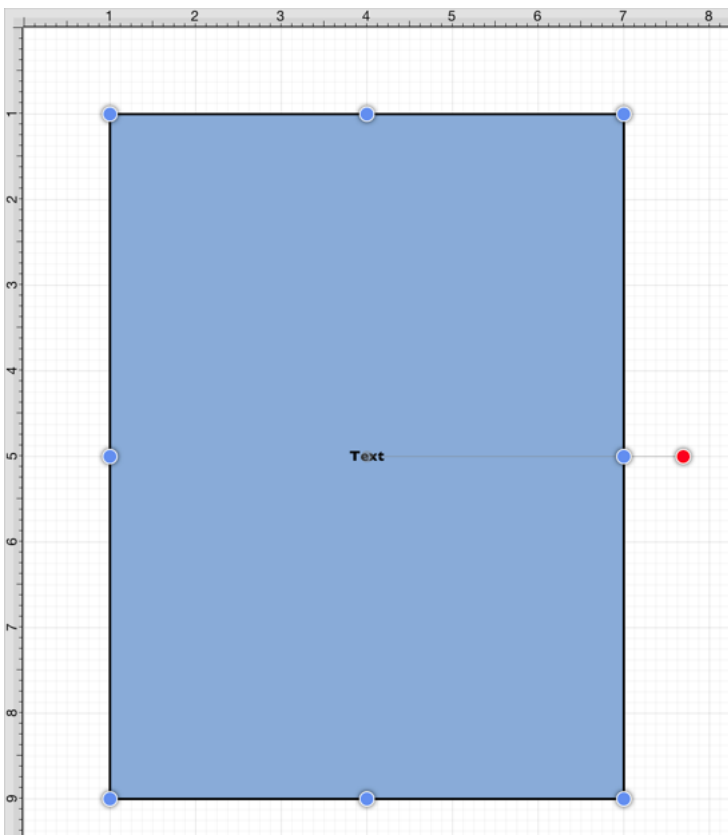


When the **Scale Attributes** option is disabled (gray background), only the **size** of the selected figure(s) will be scaled by the entered **Factor** values.

< Adjustment Scale By Scale

|                       |                                     |                                |                                  |
|-----------------------|-------------------------------------|--------------------------------|----------------------------------|
| Factor X              | <input type="button" value="-"/>    | <input type="text" value="2"/> | <input type="button" value="+"/> |
| Factor Y              | <input type="button" value="-"/>    | <input type="text" value="4"/> | <input type="button" value="+"/> |
| Constrain Proportions | <input type="checkbox"/>            |                                |                                  |
| Scale Size            | <input checked="" type="checkbox"/> |                                |                                  |
| Scale Attributes      | <input type="checkbox"/>            |                                |                                  |

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.

< Adjustment Scale By Scale

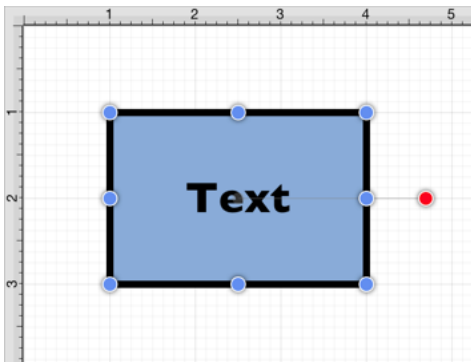
Factor X  2

Factor Y  4

Constrain Proportions ☐

Scale Size ☐

Scale Attributes ☒



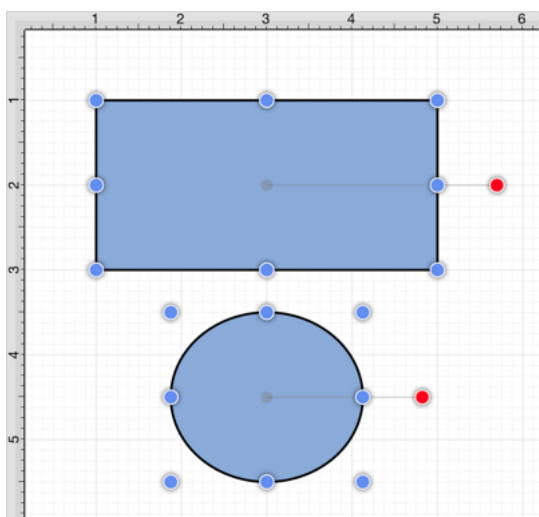
Please note that if all three options have been disabled, then the selected figure(s) will not be scaled.

## 5.1.5.7. 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 [Adjustment Menu](#).

To **Shift a Figure** or group of figures:

1. [Select](#) a figure or grouping of figures to be shifted.



2. Press on the **Adjustment Button** in the [Top Toolbar](#).



3. Tap on the **Move By** option.

Adjustment

POSITION

X 0.625

Y 0.75

Move By

SIZE

Width 1.375

Height 0.875

Scale By

ROTATION

Angle 0

Rotate 90° Right

4. Enter the desired **X** and **Y** grid coordinates in the **Move By** popover window by using the incremental buttons located on the right and left side of each field or by pressing on the number field to bring up the keyboard.

< Adjustment Move By Move

Delta X 1

Delta Y 1

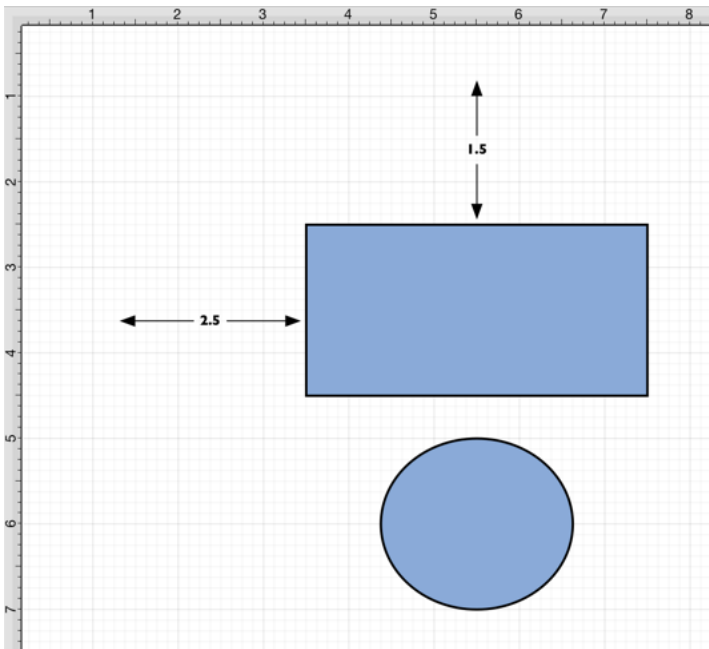
5. Press on the **Move Button** to finish the shift.

< Adjustment Move By Move

Delta X 2.5

Delta Y 1.5

6. The selected figure or group of figures will shift in accordance to the entered coordinates and the **Move By** popover window remains open to allow for further changes.



Press on the **Adjustment Button** in the **Move By** popover window to return to the [Adjustment Menu](#) or tap anywhere within the [Drawing Canvas](#) to close the menu.





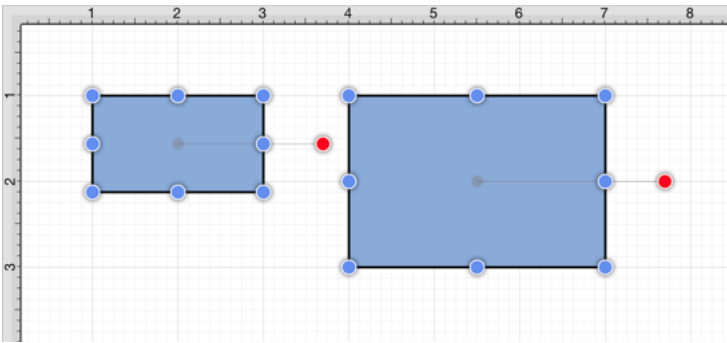
## 5.1.6. Arranging Figures

TouchDraw allows figures within the drawing view 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.

## 5.1.6.1. 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 the [Function Key Feature](#) to select multiple figures. To group a set of figures:

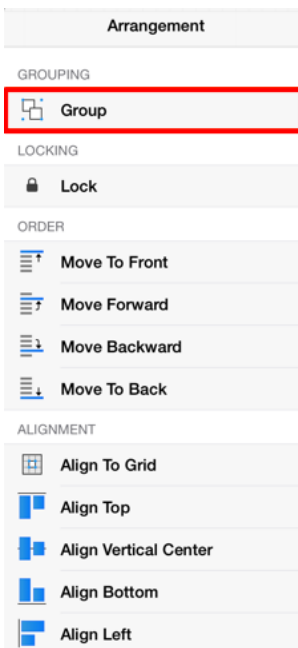
1. [Select](#) the figures to be grouped.



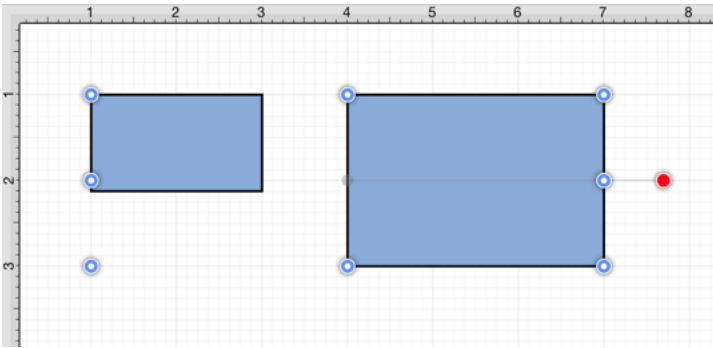
2. Press on the **Arrangement Button** in the [Top Toolbar](#).



3. Tap on the **Group** option. The [ungroup](#) option will only appear in the [Arrangement Menu](#) if a set of already grouped figures has been selected.

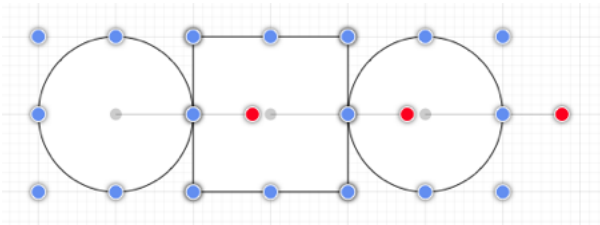


4. Two selected figures will appear as shown below after they have been grouped.

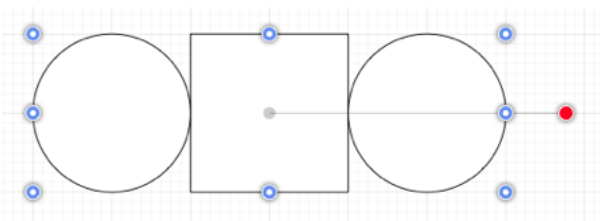


Paths are an exception to the multiple selection rule because a path or path shape can be added to a group by itself. This allows for path interaction without having to worry about the occurrence of reshaping when grabbing one of the available handles.

The screenshots below show a before and after for creating a group from multiple selected figures.



Multiple selected figures will appear as shown below once they have been grouped.

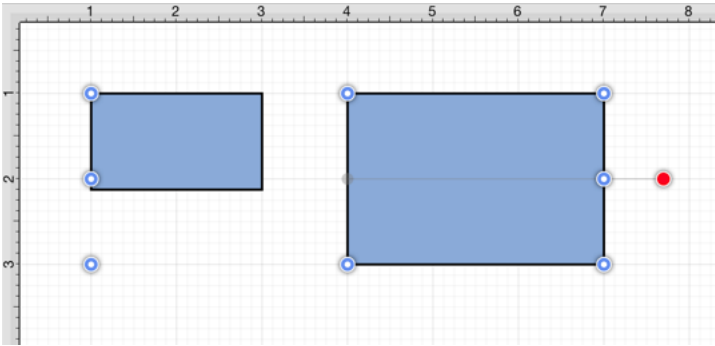


New bounds handles will appear after the selected figures are grouped. These handles correspond to the group as a whole rather than each individual figure. A new rotation handle is provided for making an entire group rotation. The standard "blue" handles are replaced by "blue handles with dots" to provide a visual indicator as to whether the entire group or a separate figure has been selected.

## 5.1.6.2. Ungrouping Figures

A **Group** must be selected for the ungrouping option to be enabled. To ungroup a set of grouped figures:

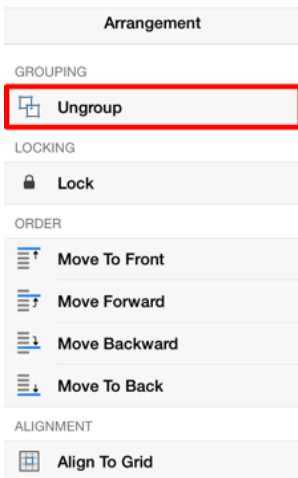
1. **Select** the set of figures to be ungrouped.



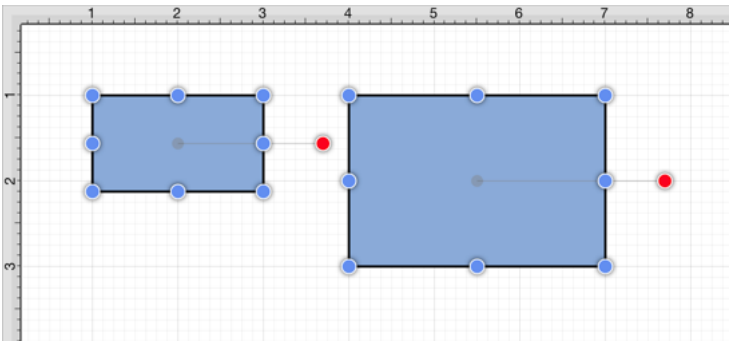
2. Press on the **Arrangement Button** in the **Top Toolbar**.



3. Tap on the **Ungroup** option. The **group** option will only appear in the **Arrangement Menu** if a set of ungrouped figures has been selected.



4. Two selected figures will appear as shown below after they have been ungrouped.

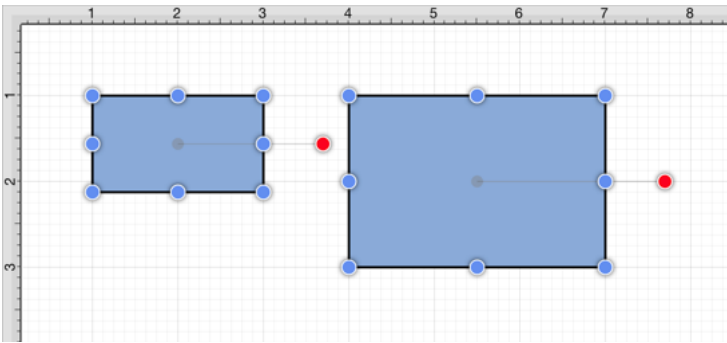


**Note:** Any transformations made to the group (such as rotating, resizing, etc...) will be retained by previously grouped objects after the ungrouping action has been completed. Grouping provides a nice way to quickly make bulk changes to multiple figures or all objects within a drawing.

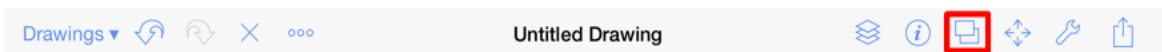
### 5.1.6.3. Locking Figures

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. To lock a figure(s):

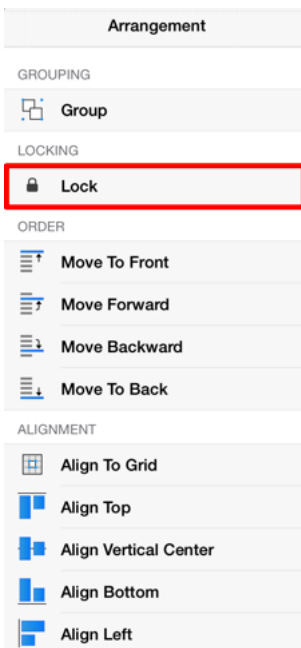
1. [Select](#) the figure(s) to be locked.



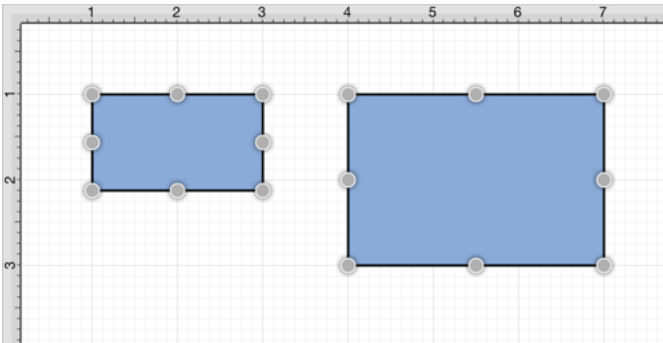
2. Press on the **Arrangement Button** in the [Top Toolbar](#).



3. Tap on the **Lock** option. The [unlock](#) option will only appear in the [Arrangement Menu](#) if a set of already locked figures has been selected.

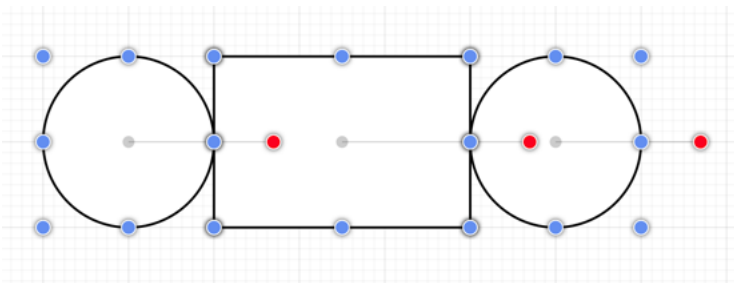


4. The locked figures will appear as shown below.

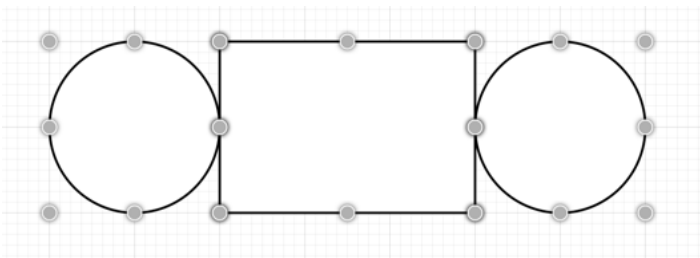


Use the [Function Key Feature](#) to select multiple figures for locking.

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.

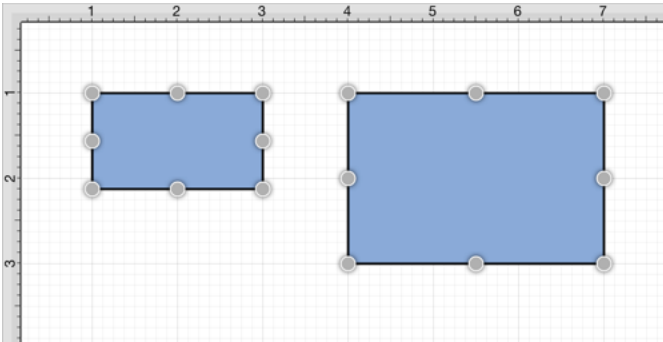


The handles appear gray after a figure(s) or group of figures are locked. This handle attribute change serves as a visual indicator of the selected figure(s) being locked.

## 5.1.6.4. Unlocking Figures

A figure(s) or group of figures can be unlocked to allow for [moving](#) and [resizing](#). To unlock an individual or set of locked figures:

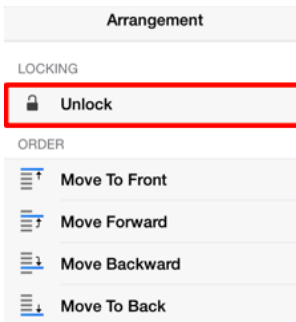
1. [Select](#) the figures to be unlocked.



2. Press on the **Arrangement Button** in the [Top Toolbar](#).

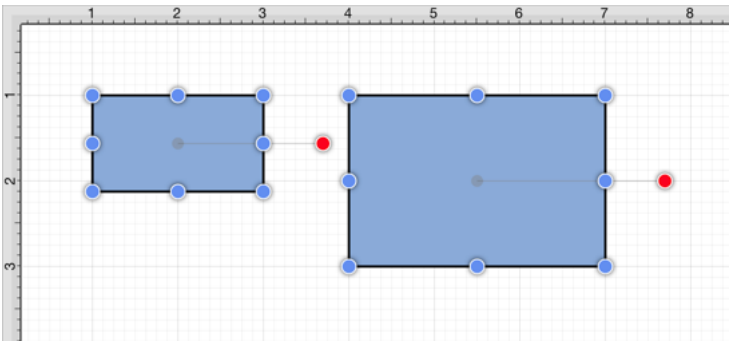


3. Tap on the **Unlock** option. The [lock](#) option will only appear in the [Arrangement Menu](#) if the selected figures are currently unlocked.



4. The unlocked figures will appear as shown below.





**Note:** This **Arrangement Menu** option will only be enabled when a locked figure or group of figures has been [selected](#) within the [Drawing Canvas](#).

## 5.1.7. Aligning Figures

TouchDraw 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](#)

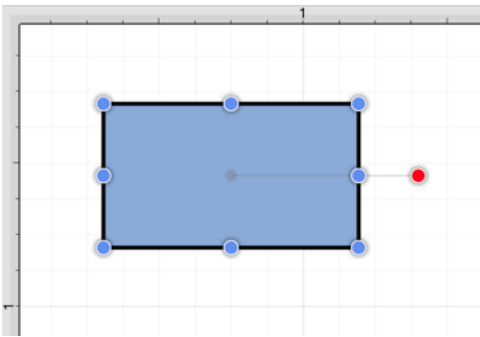
### Grid Alignment

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.

## 5.1.7.1. Align to Grid

The **Align to Grid** option is available to align figures with the grid. A minimum of one figure must be [selected](#) to use this option. The [Snap to Grid](#) option must be turned on if figures are drawn with the grid turned off and need to be aligned with the grid. To align a figure or set of figures to the grid:

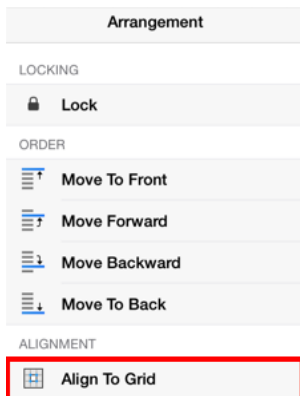
1. [Select](#) the objects to be aligned.



2. Press on the **Arrangement Button** in the [Top Toolbar](#).

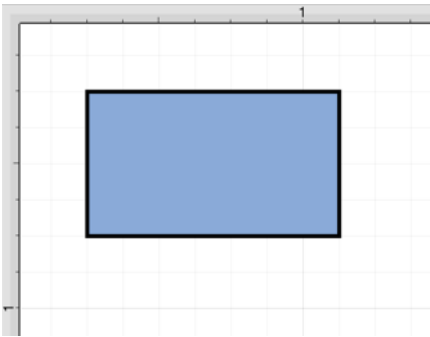
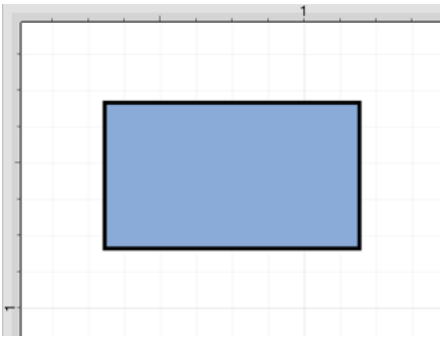


3. Tap on the **Align to Grid** option.



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.

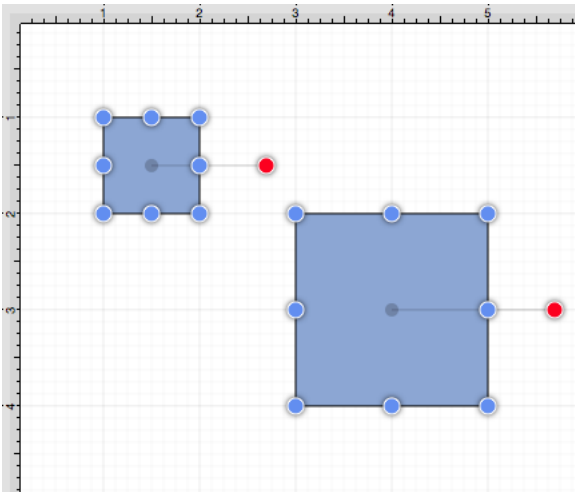
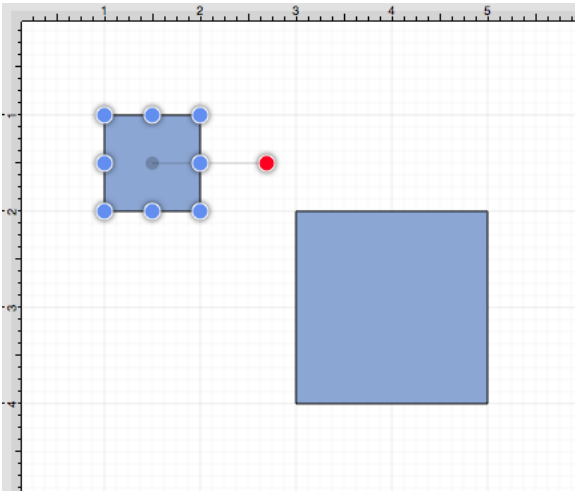


**Note:** The [Snap To Grid](#) option must be disabled to place a figure anywhere within the grid lines on the [Drawing Canvas](#). This option must be enabled for the **Align to Grid** option to provide the results shown above.

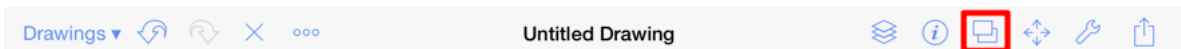
## 5.1.7.2. Align Top

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. In the example below, the upper right square was selected first. To align selected figures with the top position of the first selected figure:

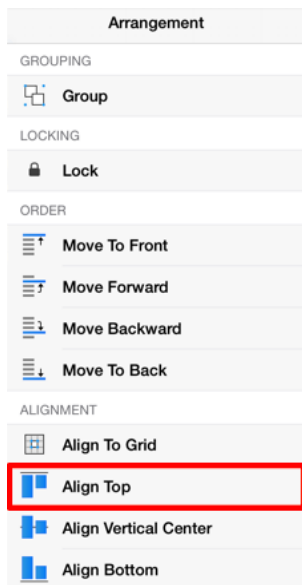
1. **Select** the figures to be aligned.



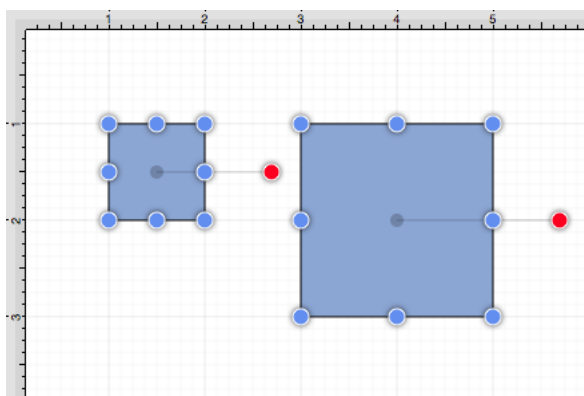
2. Press on the **Arrangement Button** in the **Top Toolbar**.



3. Tap on the **Align Top** option.



4. The second selected figure is aligned with the top (Y position) of the first selected figure, as shown below.

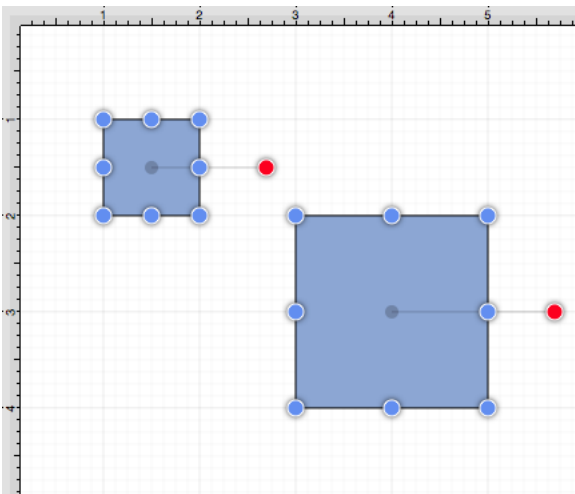
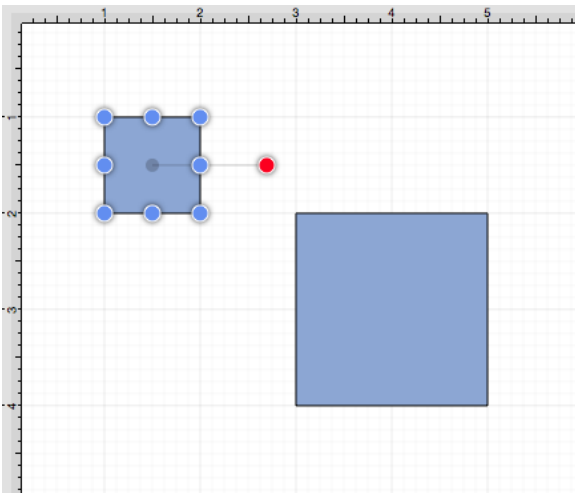


**Note:** Use the [Function Key Feature](#) to select multiple figures. Tap anywhere on the [Drawing Canvas](#) to close the Arrangement Menu.

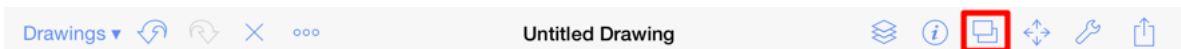
### 5.1.7.3. Align Vertical Center

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. In the example below, the upper left square is selected first. To align the vertical center of a set of figures:

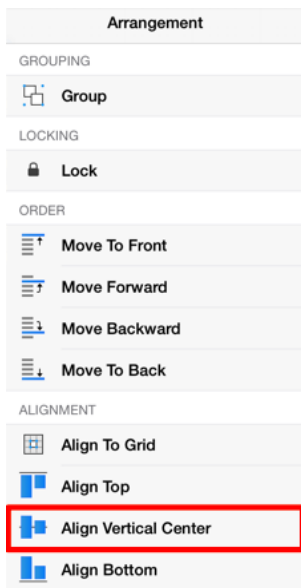
1. **Select** the figures to be aligned.



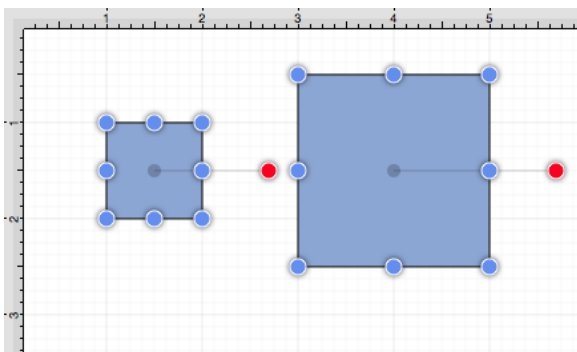
2. Press on the **Arrangement Button** in the **Top Toolbar**.



3. Tap on the **Align Vertical Center** option.



4. The second figure is aligned to match the vertical center (Y position + 1/2 of the height of all figures) of the **first** selected figure, as shown below.



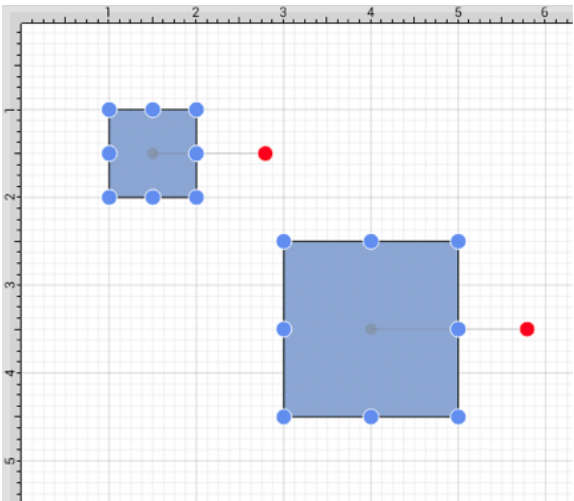
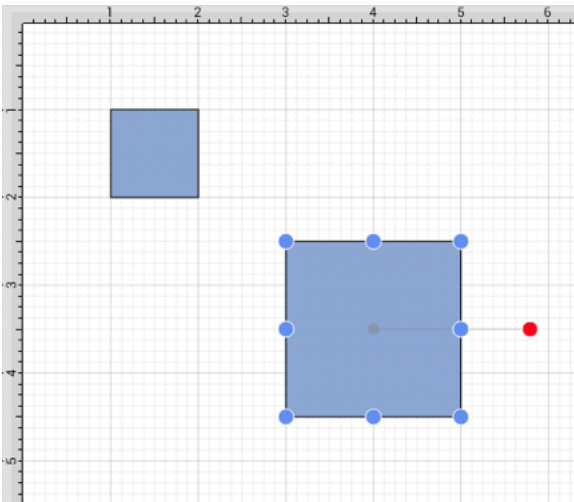
**Note:** Use the [Function Key Feature](#) to select multiple figures. Tap anywhere on the [Drawing Canvas](#) to close the Arrangement Menu.



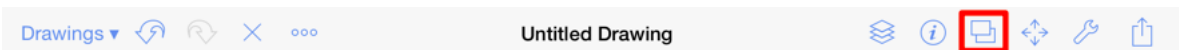
## 5.1.7.4. Align Bottom

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. In the example below, the lower right square is selected first. To align figures with the bottom position of the **first** selected figure:

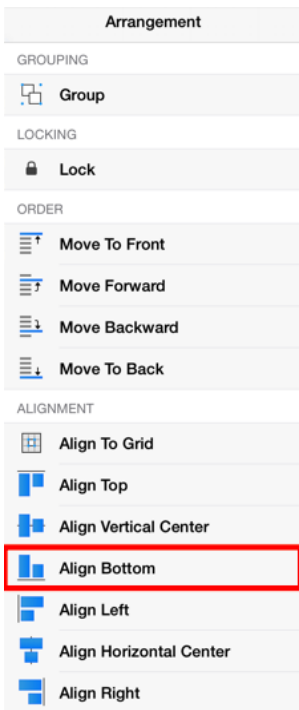
1. **Select** each figure to be aligned.



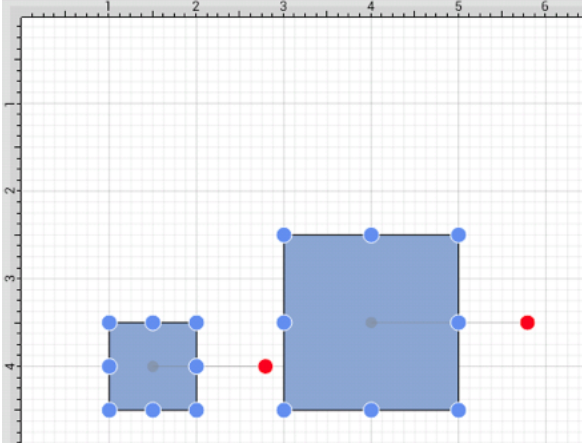
2. Press on the **Arrangement Button** in the **Top Toolbar**.



3. Tap on the **Align Bottom** option.



4. The second figure is aligned to match the the bottom (Y position + Height) of the **first** selected figure.

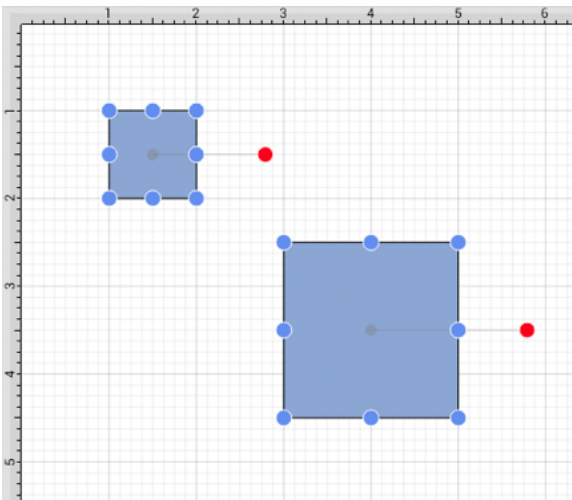
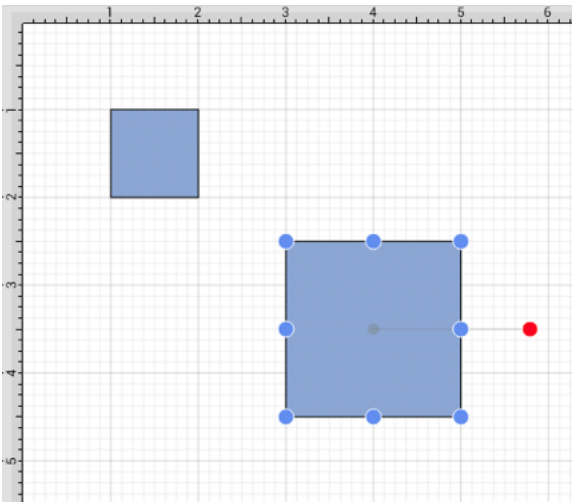


**Note:** Use the [Function Key Feature](#) to select multiple figures. Tap anywhere on the [Drawing Canvas](#) to close the Arrangement Menu.

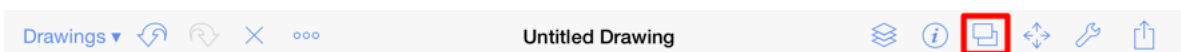
## 5.1.7.5. Align Left

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. In the example below, the lower right square is selected first. To align figures with the left position of the **first** selected figure:

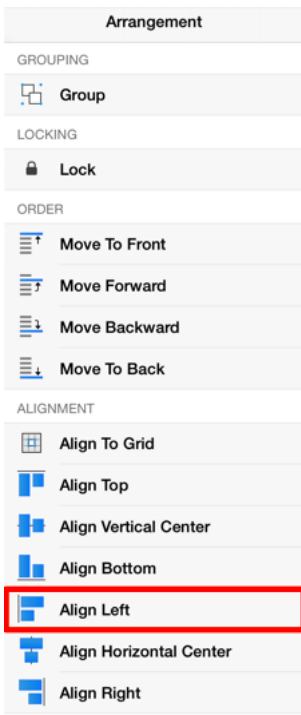
1. [Select](#) the figures to be aligned.



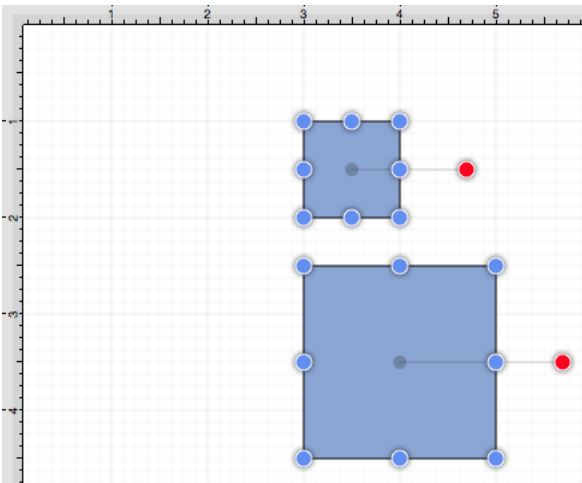
2. Press on the **Arrangement Button** in the [Top Toolbar](#).



3. Tap on the **Align Left** option. When in landscape mode, scroll through the menu view by touching and dragging upward on the [Arrangement Menu](#) to see this option.

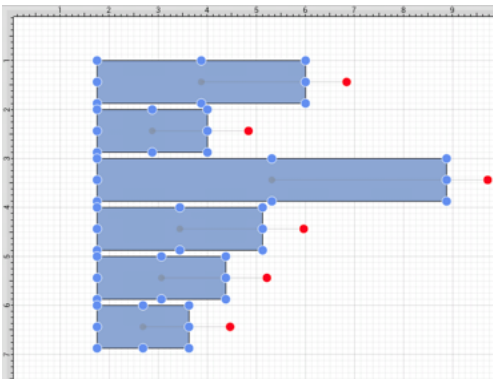
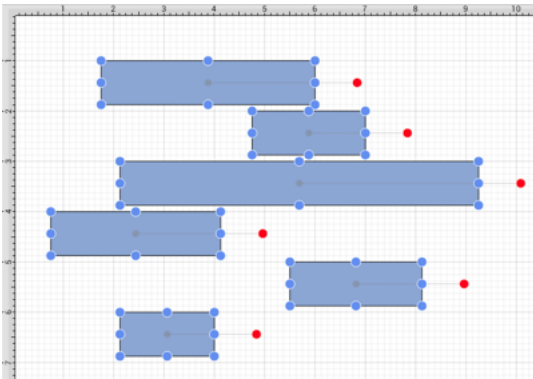


4. Additionally selected figures are adjusted to match the the bottom (X Position) of the **first** selected figure.



**Note:** Use the [Function Key Feature](#) to select multiple figures. Tap anywhere on the [Drawing Canvas](#) to close the Arrangement Menu.

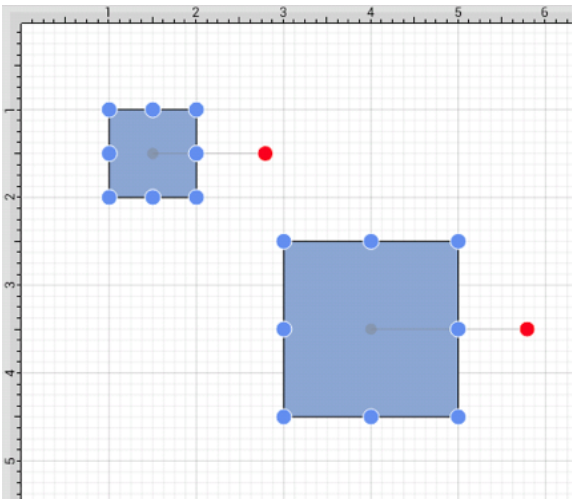
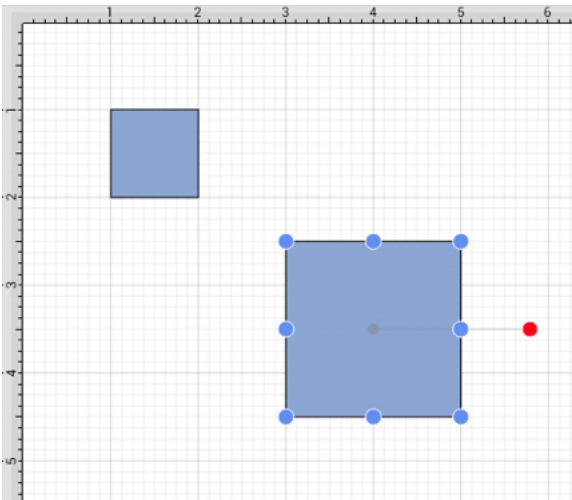
The following figures show an example of using the **Align Left** action.



## 5.1.7.6. 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. In the example below, the lower right square is selected first. To align figures with the horizontal center of the first selected figure:

1. **Select** the figures to be aligned.

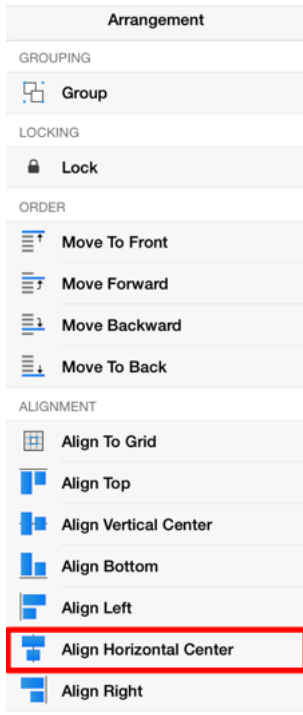


2. Press on the **Arrangement Button** in the **Top Toolbar**.

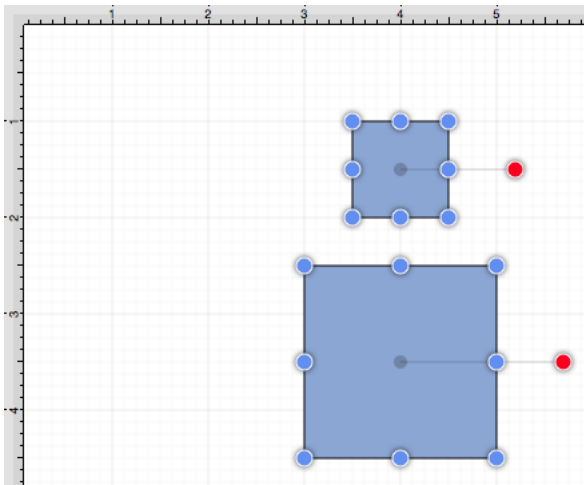


3. Tap on the **Align Horizontal Center** option. When in landscape mode, scroll through the menu view by

touching and dragging upward on the [Arrangement Menu](#) to see this option.



4. Additionally selected figures are adjusted to match the the bottom (X position + 1/2 of the width) of the **first** selected figure.

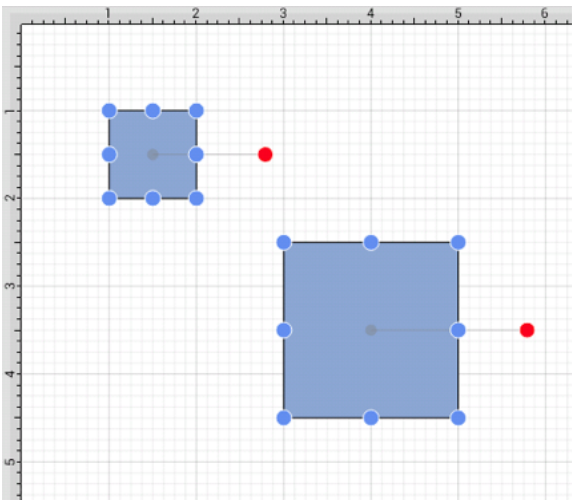
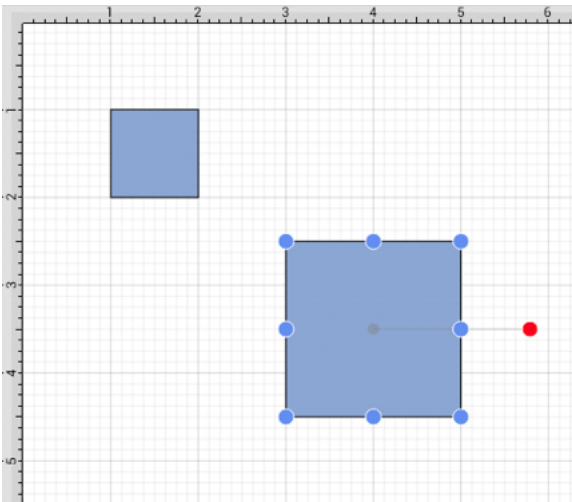


**Note:** Use the [Function Key Feature](#) to select multiple figures. Tap anywhere on the [Drawing Canvas](#) to close the Arrangement Menu.

## 5.1.7.7. 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. In the example below, the lower right square is selected first. To align figures with the right position of the first selected figure:

1. **Select** the figures to be aligned.

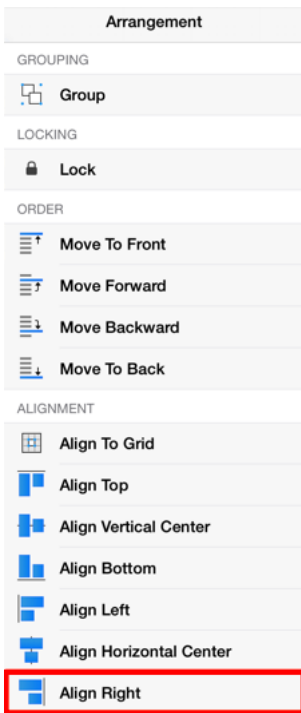


2. Press on the **Arrangement Button** in the **Top Toolbar**.

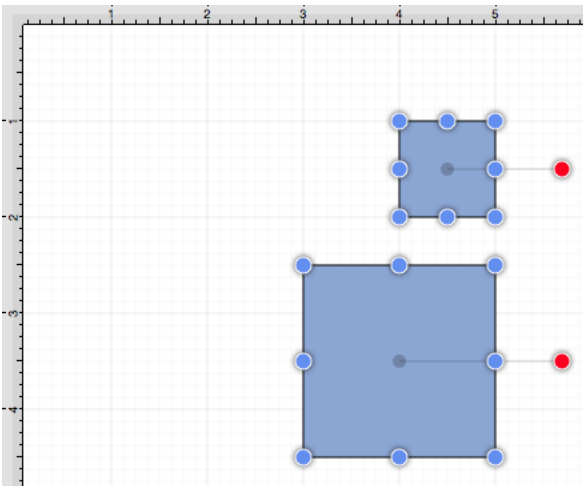


3. Tap on the **Align Right** option. When in landscape mode, scroll through the menu view by touching and dragging upward on the **Arrangement Menu** to see this option.





4. Additionally selected figures are adjusted to match the the bottom (X position + 1/2 of the width) of the **first** selected figure.



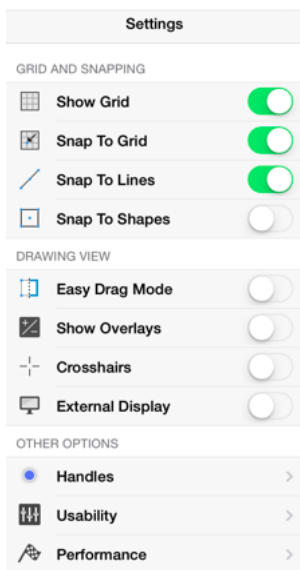
**Note:** Use the [Function Key Feature](#) to select multiple figures. Tap anywhere on the [Drawing Canvas](#) to close the Arrangement Menu.

## 5.1.8. Snapping Figures

TouchDraw 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](#)
- [Shapes](#)
- [Pixels](#)
- [Points](#)

The [Settings Menu](#) provides access to these settings and can be used to make changes for the currently active [Drawing Canvas](#).



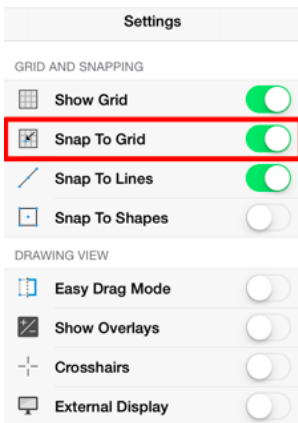
## 5.1.8.1. Snap to Grid

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. To enable/disable this option:

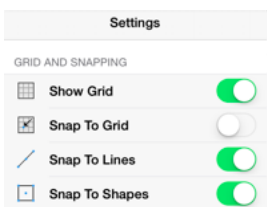
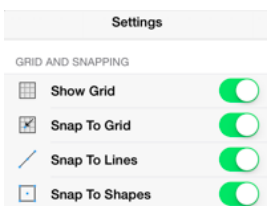
1. Press on the **Settings Button** in the [Top Toolbar](#).



2. Tap on the **Snap to Grid** on/off slider to enable or disable the option. The slider will appear with a green background when this option is enabled.



The **Snap to Grid** option will have a green background when enabled or a gray background when disabled.



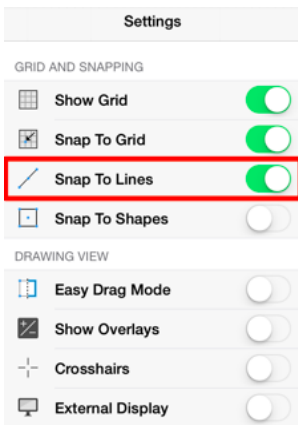
## 5.1.8.2. Snap to Lines

The **Snap to Lines** option allows dragged handles to be snapped to the endpoints or the midpoints of lines in the drawing canvas. To enable/disable this option:

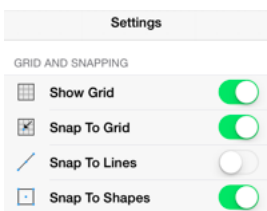
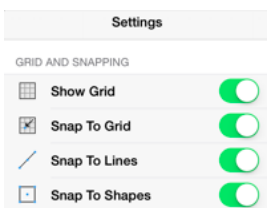
1. Press on the **Settings Button** in the [Top Toolbar](#).



2. Tap on the **Snap to Lines** on/off slider to enable or disable the option. The slider will appear with a green background when this option is enabled.



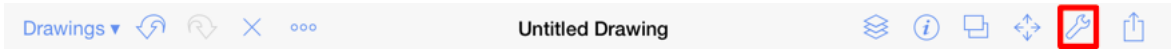
The **Snap to Lines** option will have a blue background when enabled or a gray background when disabled.



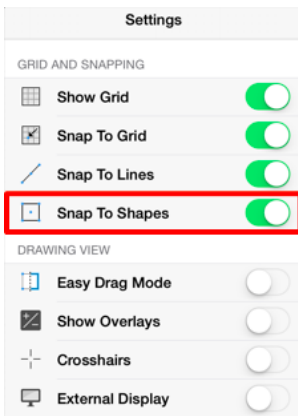
### 5.1.8.3. Snap to Shapes

The **Snap to Shapes** option snaps a figure to a selected shape vertex or center point. This option is enabled by default in TouchDraw. To enable/disable this option:

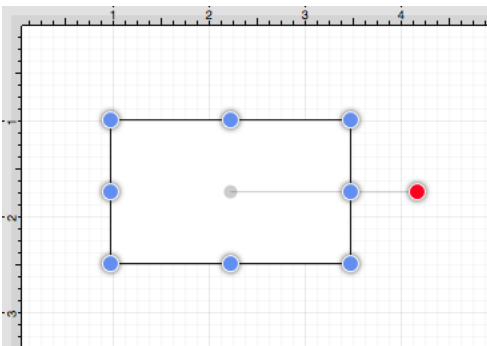
1. Press on the **Settings Button** in the [Top Toolbar](#).

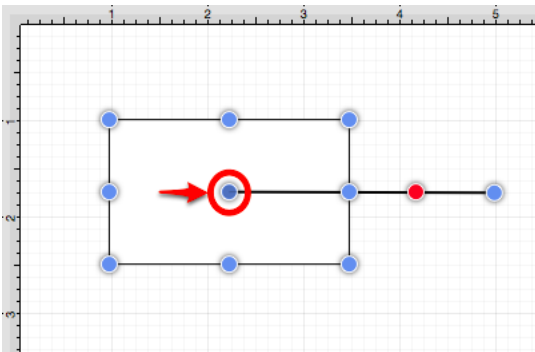
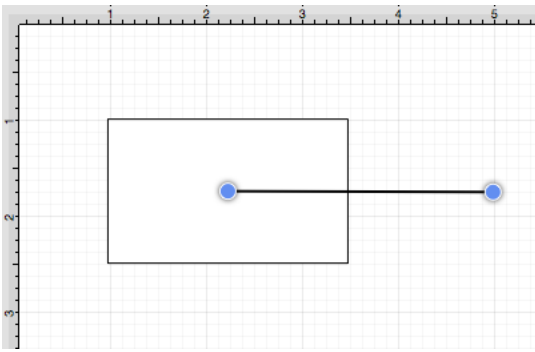


2. Tap on the **Snap to Shapes** on/off slider to enable or disable the option. The slider will appear with a green background when this option is enabled.

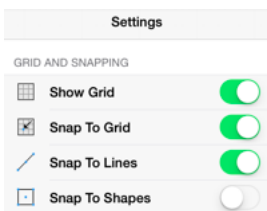
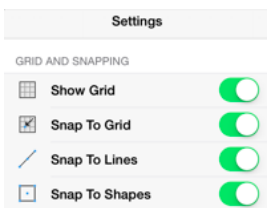


3. To see this option in action, disable the [Snap to Grid](#) option, make certain **Snap to Shapes** is enabled, and then draw a [Star](#) or [Rectangle](#). Once the shape is completed, select the [Line Tool](#) and try to draw a line from one of the vertexes of the shape or its center point. The drawn line will snap to one of these locations.





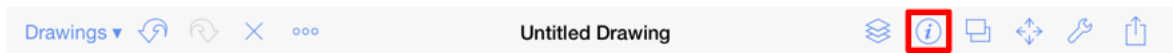
The **Snap to Shapes** option will have a green background when enabled or a gray background when disabled.



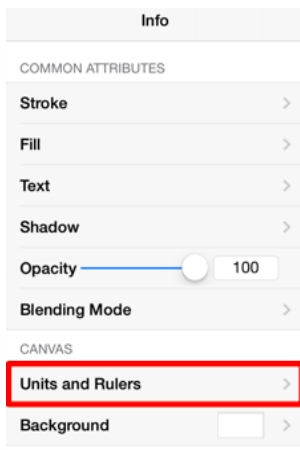
## 5.1.8.4. Snap to Pixels

The **Snap to Pixels** 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. To change the grid unit of measurement:

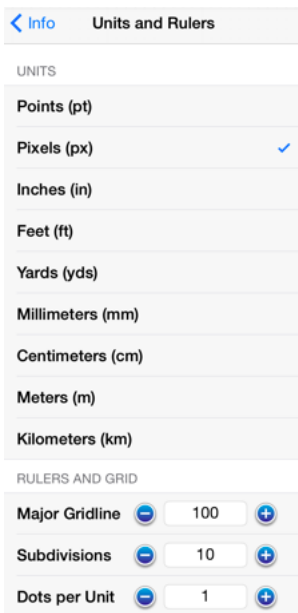
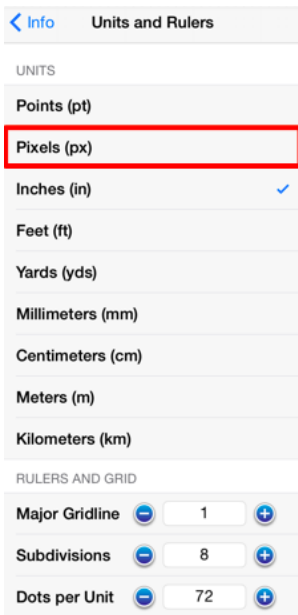
1. Press on the **Info Button** in the [Top Toolbar](#).



2. Tap on the **Units and Rulers** option to open the [Units and Rulers Submenu](#). When in landscape mode, scroll through the menu view by touching and dragging in an upward direction on the [Info Menu](#) to view this option.

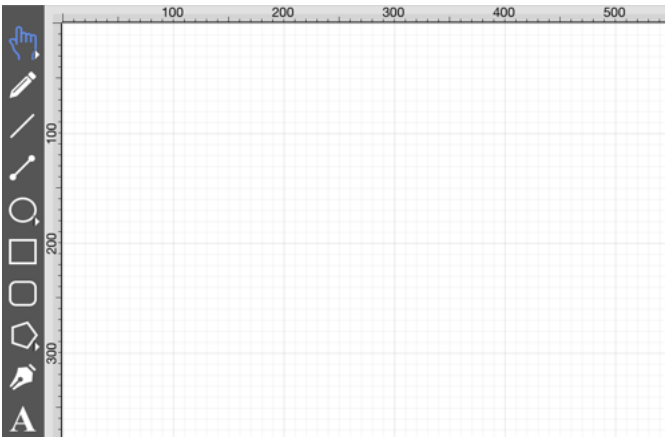


3. By default, Inches is the selected unit of measurement. Tap on the **Pixels** option to change the grid to pixels.



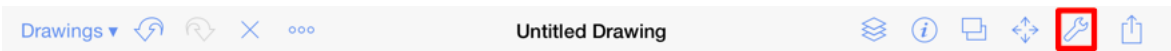
4. The grid will appear as shown below.



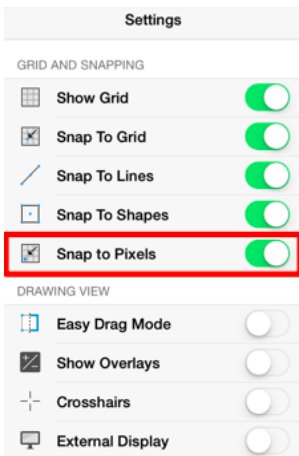


To enable/disable the **Snap to Pixels** option:

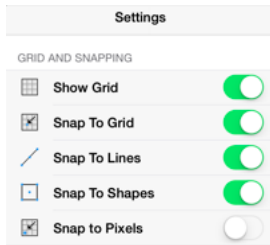
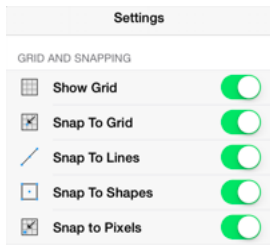
1. Press on the **Settings Button** in the **Top Toolbar**.



2. Tap on the **Snap to Pixels** on/off slider to enable or disable the option. The slider will appear with a green background when this option is enabled.



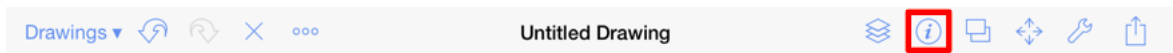
The **Snap to Pixels** option will have a green background when enabled or a gray background when disabled.



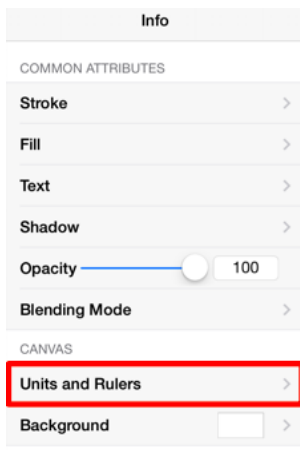
## 5.1.8.5. Snap to Points

The **Snap to Points** option aligns objects to points on the grid for simplified modification and increased accuracy. This option remains disabled until the unit of measure for the drawing is changed to points. To change the grid unit of measurement:

1. Press on the **Info Button** in the [Top Toolbar](#).



2. Tap on the **Units and Rulers** option to open the [Units and Rulers Submenu](#). When in landscape mode, scroll through the menu view by touching and dragging in an upward direction on the [Info Menu](#) to view this option.



3. By default, Inches is the selected unit of measurement. Tap on the **Points** option to change the grid to points.

< Info Units and Rulers

UNITS

|                  |   |
|------------------|---|
| Points (pt)      |   |
| Pixels (px)      |   |
| Inches (in)      | ✓ |
| Feet (ft)        |   |
| Yards (yds)      |   |
| Millimeters (mm) |   |
| Centimeters (cm) |   |
| Meters (m)       |   |
| Kilometers (km)  |   |

RULERS AND GRID

|                |    |
|----------------|----|
| Major Gridline | 1  |
| Subdivisions   | 8  |
| Dots per Unit  | 72 |

< Info Units and Rulers

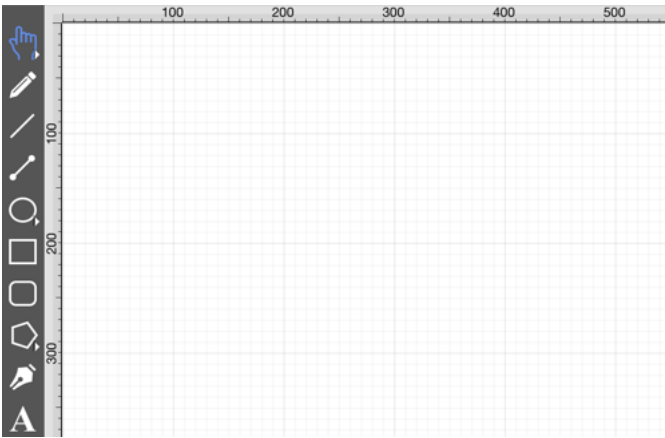
UNITS

|                  |   |
|------------------|---|
| Points (pt)      | ✓ |
| Pixels (px)      |   |
| Inches (in)      |   |
| Feet (ft)        |   |
| Yards (yds)      |   |
| Millimeters (mm) |   |
| Centimeters (cm) |   |
| Meters (m)       |   |
| Kilometers (km)  |   |

RULERS AND GRID

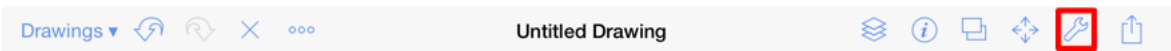
|                |     |
|----------------|-----|
| Major Gridline | 100 |
| Subdivisions   | 10  |
| Dots per Unit  | 1   |

4. The grid will appear as shown below.

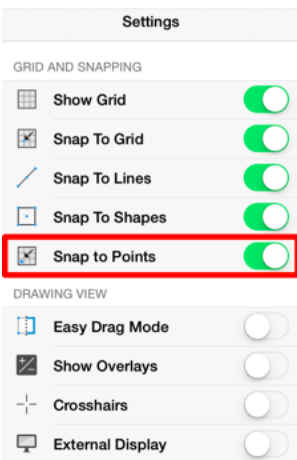


To enable/disable the **Snap to Points** option:

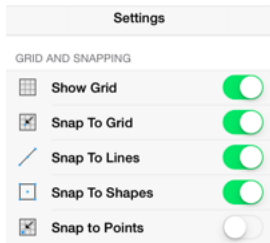
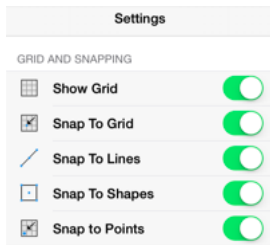
1. Press on the **Settings Button** in the **Top Toolbar**.



2. Tap on the **Snap to Points** on/off slider to enable or disable the option. The slider will appear with a green background when this option is enabled.



The **Snap to Points** option will have a green background when enabled or a gray background when disabled.



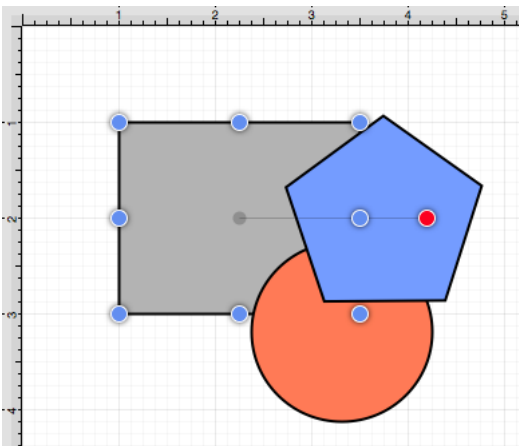
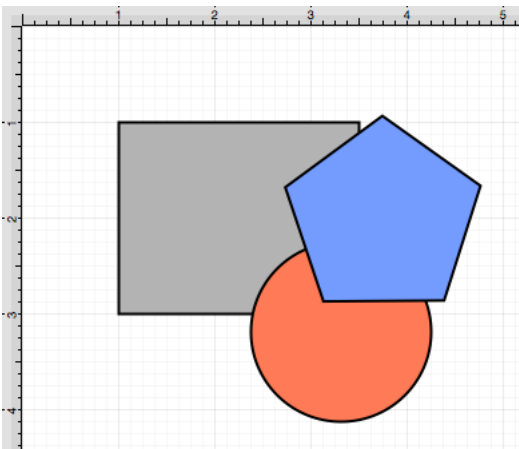
## 5.1.9. Ordering Figures

TouchDraw 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.

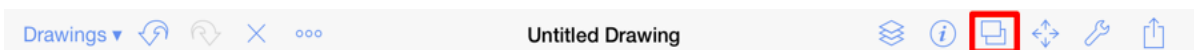
## 5.1.9.1. Move To Front

The **Move 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. To bring a figure(s) to the front of a layer:

1. [Select](#) the figure(s) to be moved to the front of the current layer. In this example, the rectangle has been selected.

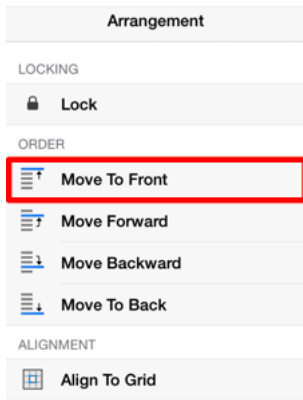


2. Press on the **Arrangement Button** in the [Top Toolbar](#).

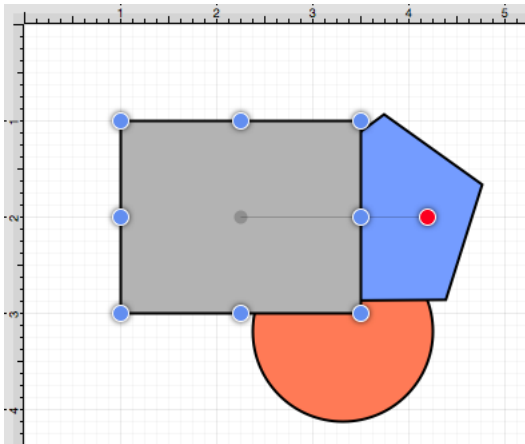


3. Tap on the **Move To Front** option to bring the selected figure(s) to the front of the layer.





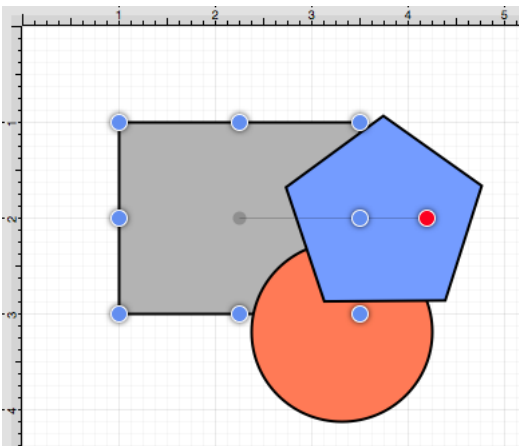
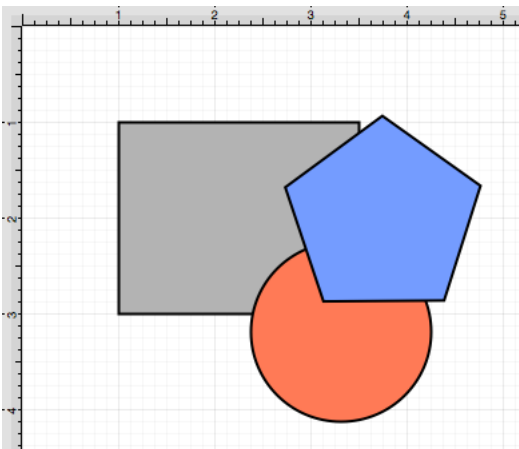
4. The following image displays the position of the selected rectangle after using the **Move To Front** option.



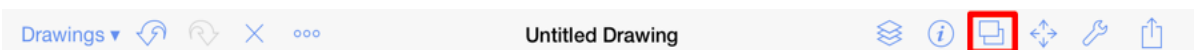
## 5.1.9.2. Move Forward

The **Move 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. To bring a figure(s) forward within a layer:

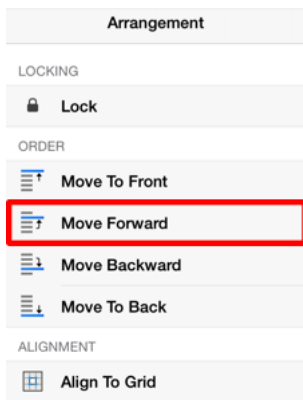
1. **Select** the figure(s) to be moved one step closer within the layer. In this example, the circle has been selected.



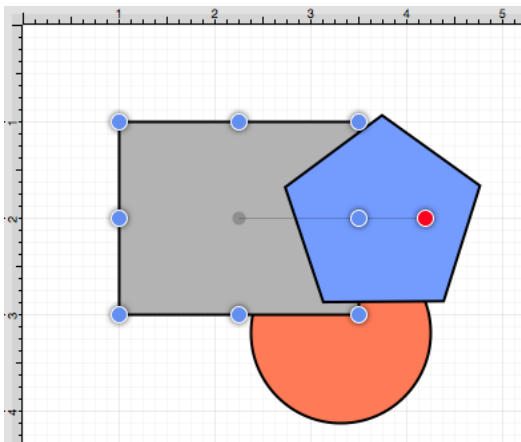
2. Press on the **Arrangement Button** in the **Top Toolbar**.



3. Tap on the **Move Forward** option.



4. The following image displays the position of the selected rectangle in this example after using the **Move Forward** option.

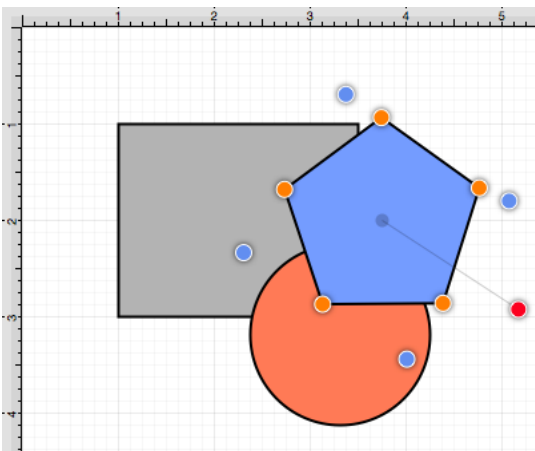
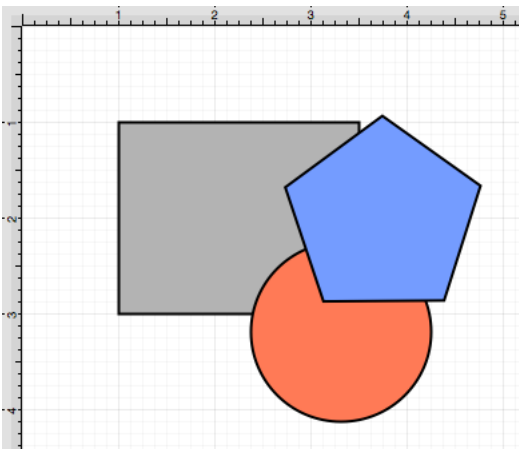


**Note:** The **Move Forward** option can be chosen multiple times to continue moving a selected figure(s) to the front of a [layer](#).

### 5.1.9.3. Move Backward

The **Move 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. To send a figure(s) back one step within a layer:

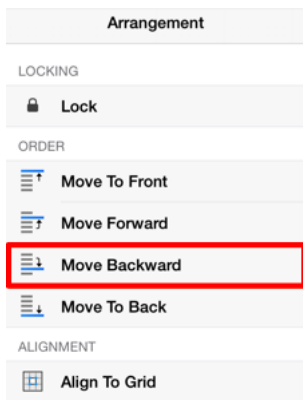
1. [Select](#) the figure(s) to be moved one step back in the current layer. In this example, the pentagon has been selected.



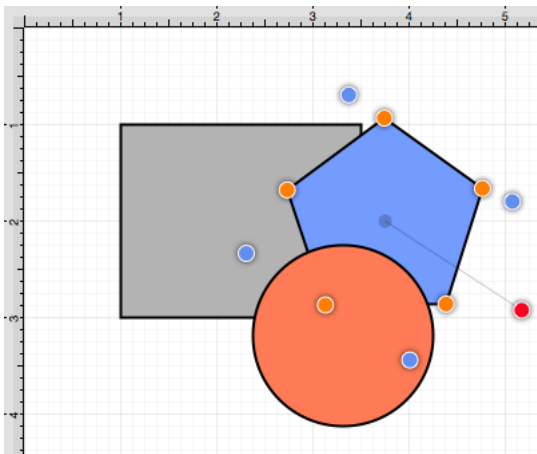
2. Press on the **Arrangement Button** in the [Top Toolbar](#).



3. Tap on the **Move Backward** option.



4. The following image displays the position of the selected pentagon in this example after using the **Move Backward** option. It has been moved to the back of the circle, but remains in front of the rectangle.

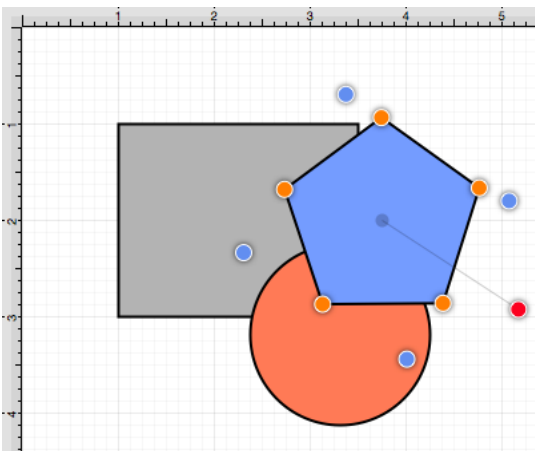
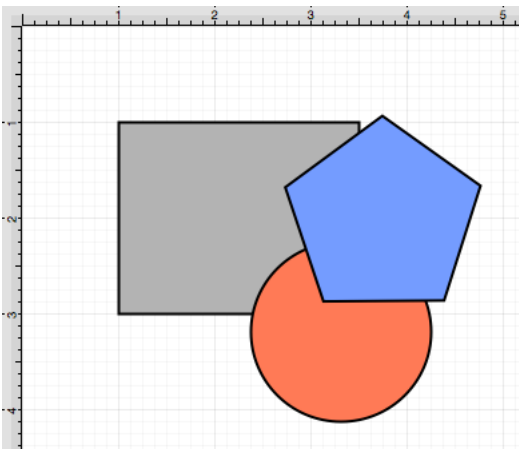


**Note:** The **Move Backward** option can be chosen multiple times to continue moving a selected figure(s) to the back of a [layer](#).

## 5.1.9.4. Move To Back

The **Move 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. To send a figure(s) to the back of a layer:

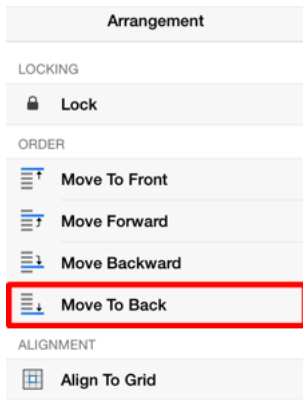
1. [Select](#) the figure(s) to be moved to the back of the current layer. In this example, the pentagon has been selected.



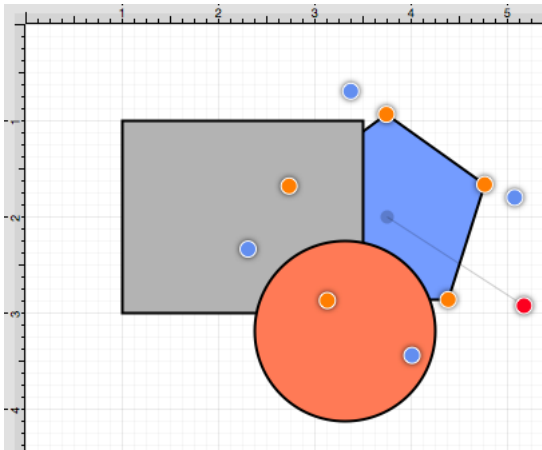
2. Press on the **Arrangement Button** in the [Top Toolbar](#).



3. Tap on the **Move To Back** option.



4. The following image displays the position of the selected pentagon in this example after using the **Move To Back** option. It has been moved to the back of all other figures.



## 5.1.10. Distributing Figures

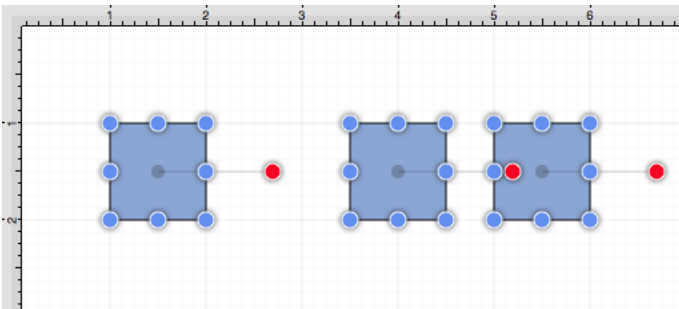
TouchDraw offers options for apportioning figures evenly in relation to each other. A set of figures can be laid out to have equal spacing between each figure measured either [horizontally](#) or [vertically](#).



## 5.1.10.1. 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**. To distribute a set of figures horizontally:

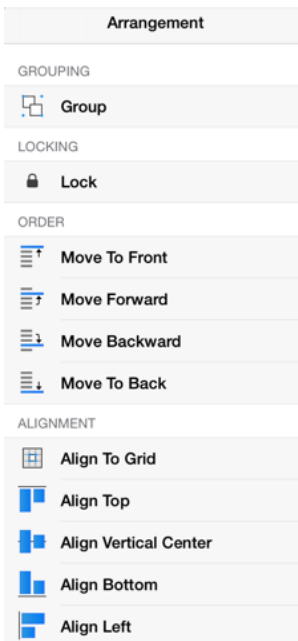
1. **Select** the figure(s) to be distributed horizontally.

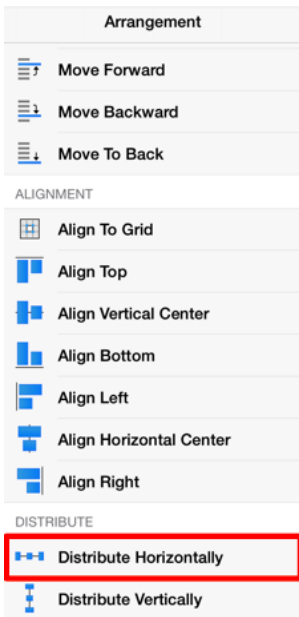


2. Press on the **Arrangement Button** in the **Top Toolbar**.

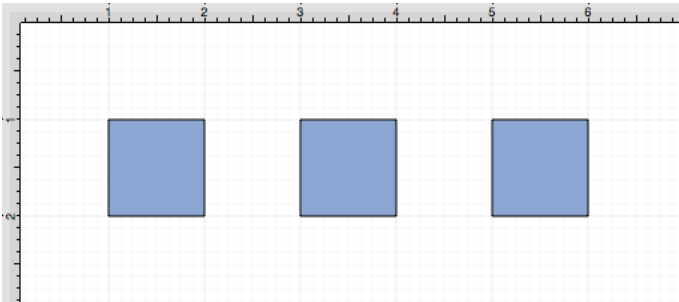
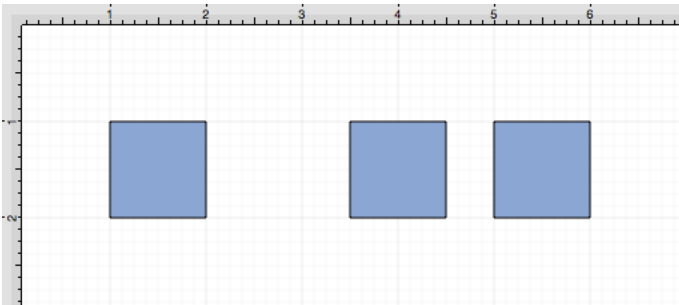


3. Tap on the **Distribute Horizontally** option. When in landscape mode, scroll through the menu view by touching and dragging in an upward direction on the **Arrangement Menu** to view this option.





The following images display the positions of a selected set of figures prior to and after using the **Distribute Horizontally** option.



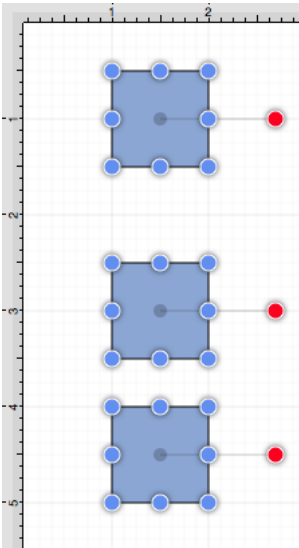
In the above example, the first and middle figures were originally 2.5 inches apart. The spacing between the middle and last figure totaled 1.5 inches. After this option has been applied, the horizontal space between each

figure is adjusted to 2 inches to provide three evenly spaced figures.

## 5.1.10.2. 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**. To distribute a set of figures vertically:

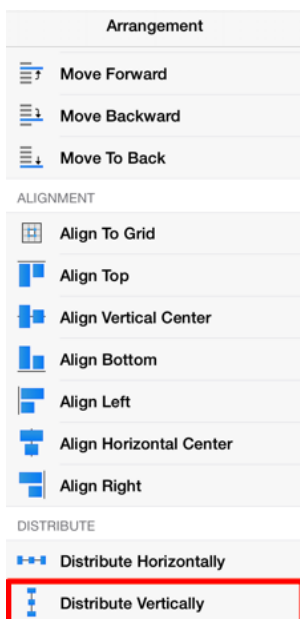
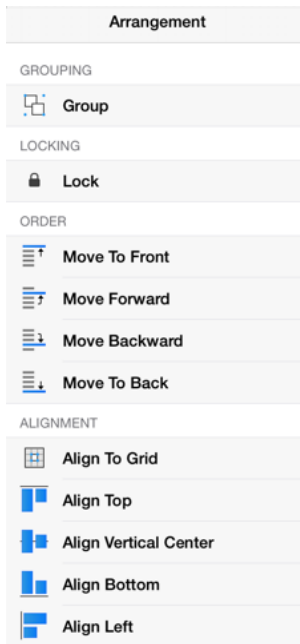
1. **Select** the figures to be distributed vertically.



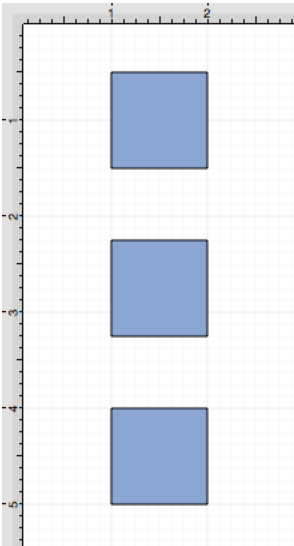
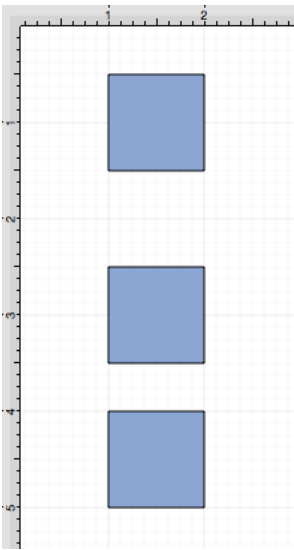
2. Press on the **Arrangement Button** in the **Top Toolbar**.



3. Tap on the **Distribute Vertically** option. When in landscape mode, scroll through the menu view by touching and dragging in an upward direction on the **Arrangement Menu** to view this option.



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.

## 5.1.11. Combining Shapes

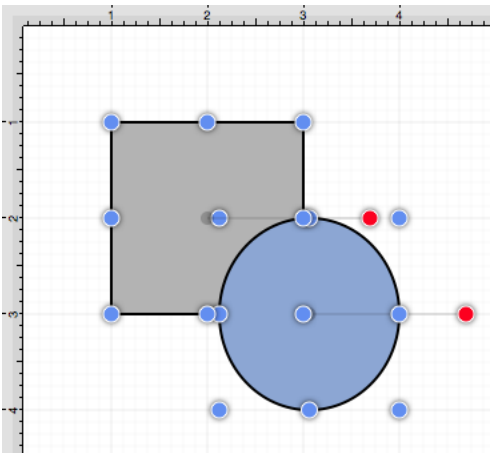
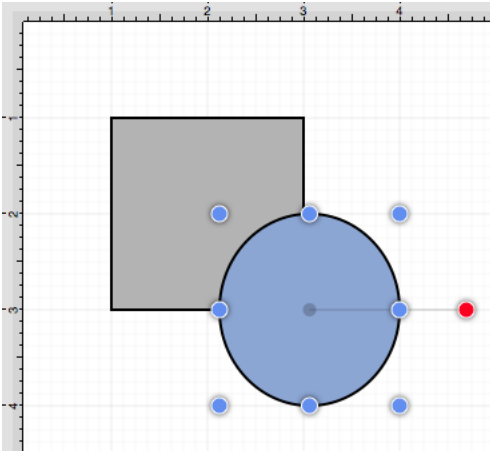
TouchDraw offers multiple options for combining two shapes within the [Drawing Canvas](#). Options for selected shapes include:

- [Add](#)
- [Subtract](#)
- [Intersect](#)
- [Exclude](#)

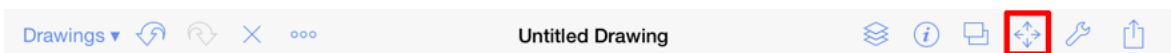
## 5.1.11.1. Add

The **Add** option combines two shapes into one figure and remains disabled until two figures have been [selected](#). To **Add** two or more selected shapes:

1. The properties of the first selected shape will be applied to the combined shape. Select the figures to be combined. In this example, the oval is selected first.

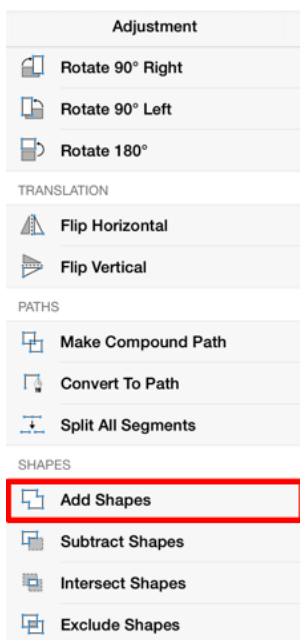
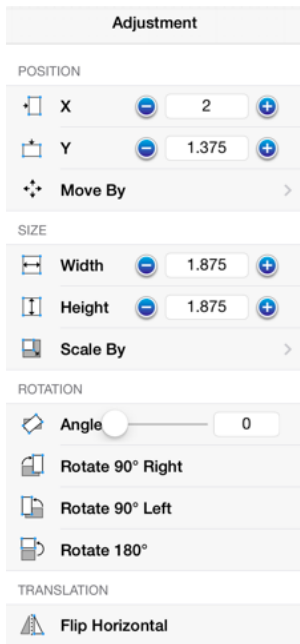


2. Press on the **Adjustment Button** in the [Top Toolbar](#).

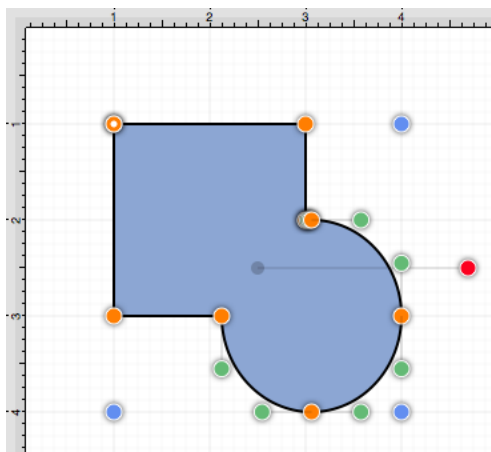
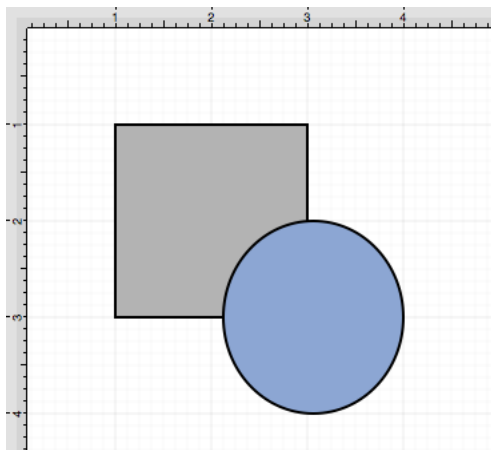


3. To view the **Add Shapes** option in the [Adjustment Menu](#) when in landscape mode, scroll through the menu view by touching and dragging in an upward direction. Tap on the **Add Shapes** option.





4. The following images display two selected shapes prior to and after using the **Add Shapes** option.

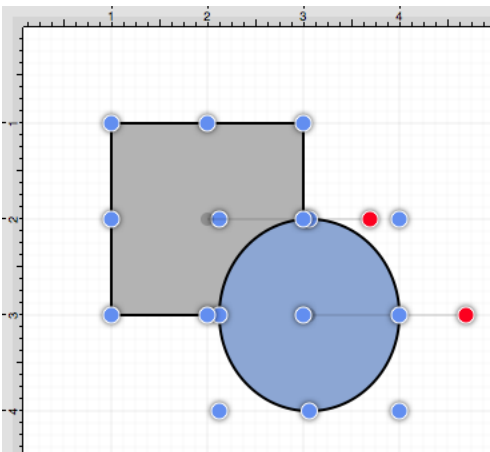
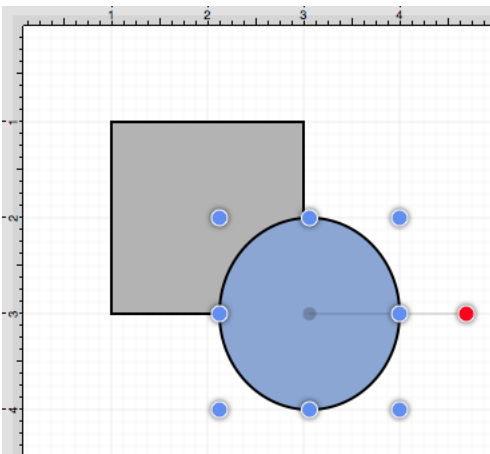


**Note:** The selection of two non-intersecting shapes has no effect on their appearance, but does cause the figures to be treated as one shape.

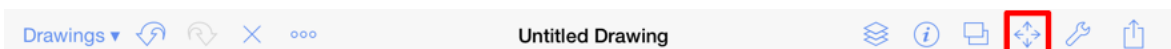
## 5.1.11.2. Subtract

The **Subtract** 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](#). To **Subtract** two or more selected shapes:

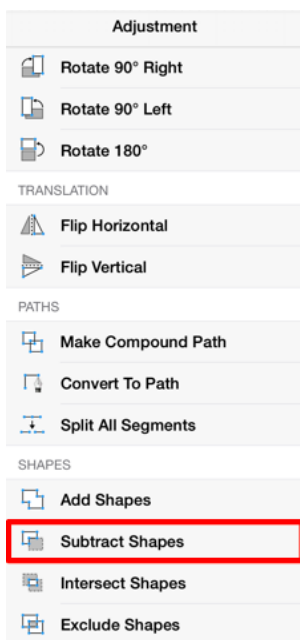
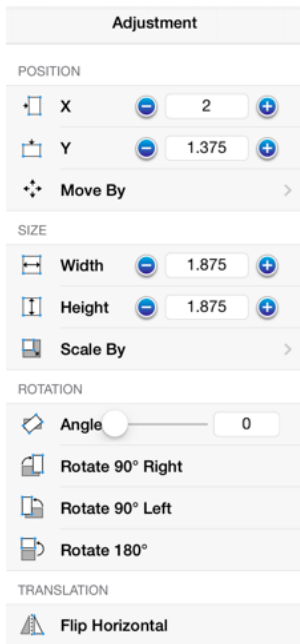
1. [Select](#) the shapes to be combined. The properties of the first selected shape will be applied to the combined shape. In this example, the oval is selected first.



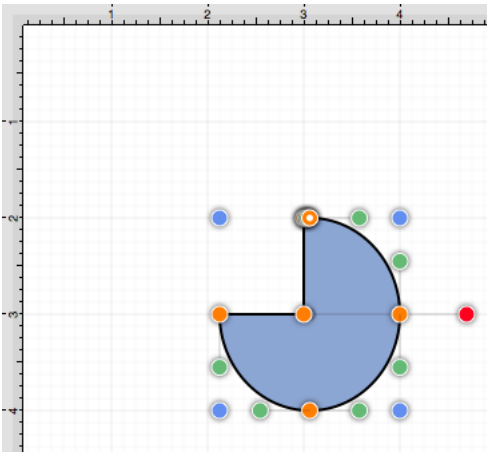
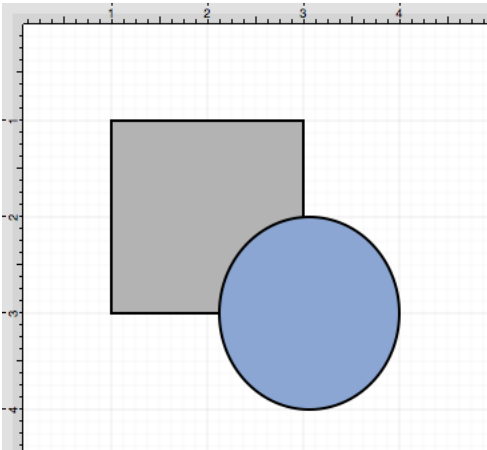
2. Press on the **Adjustment Button** in the [Top Toolbar](#).



3. To view the **Subtract Shapes** option in the [Adjustment Menu](#) when in landscape mode, scroll through the menu view by touching and dragging in an upward direction. Tap on the **Subtract Shapes** option.



4. The following images display two selected shapes prior to and after using the **Subtract Shapes** option.

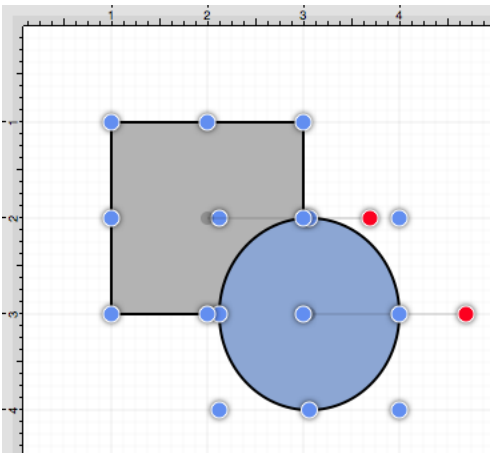
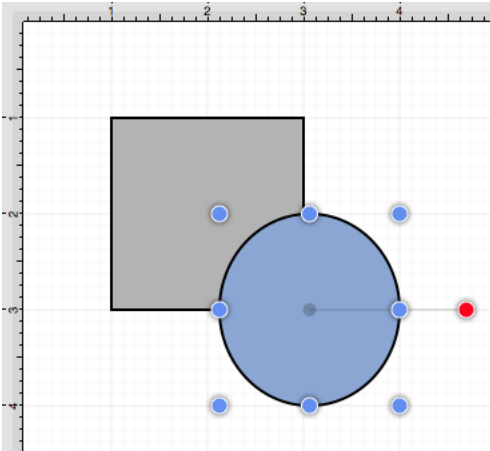


**Note:** The selection of two non-intersecting shapes causes the second shape to be removed entirely.

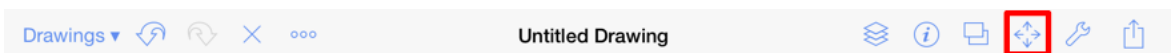
### 5.1.11.3. Intersect

The **Intersect** option removes all non-intersecting portions of selected figures from the [Drawing Canvas](#). This option remains disabled until two figures have been [selected](#). To **Intersect** two or more selected shapes:

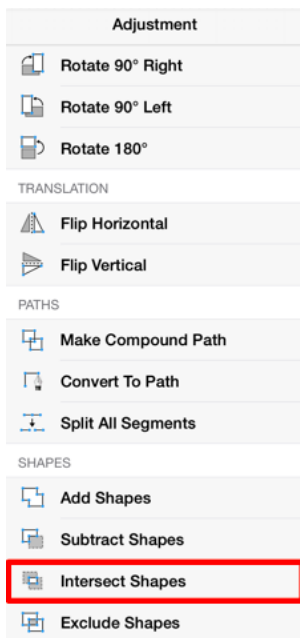
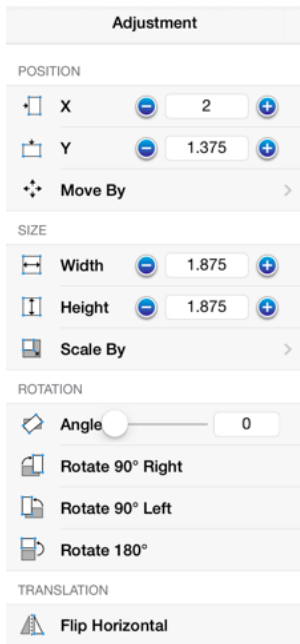
1. [Select](#) the shapes to be combined. The properties of the first selected shape will be applied to the combined shape. In this example, the oval is selected first.



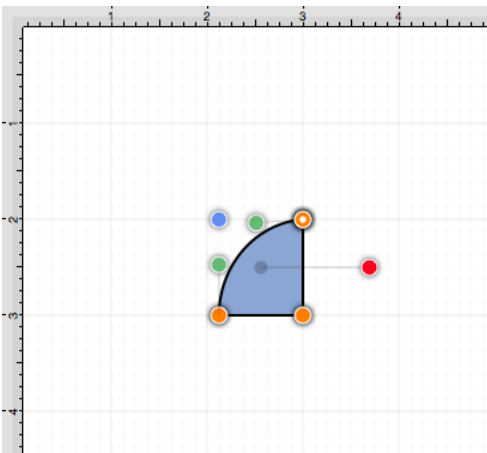
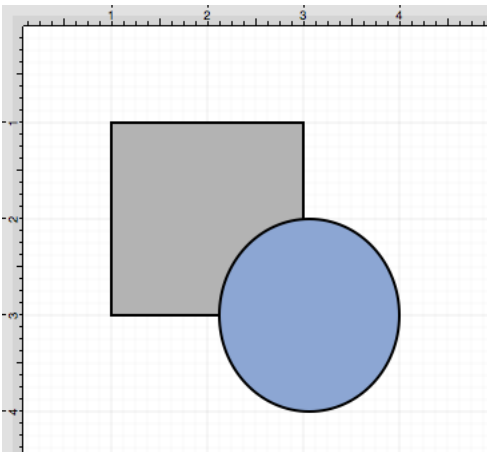
2. Press on the **Adjustment Button** in the [Top Toolbar](#).



3. To view the **Intersect Shapes** option in the [Adjustment Menu](#) when in landscape mode, scroll through the menu view by touching and dragging in an upward direction. Tap on the **Intersect Shapes** option.



4. The following images display two selected shapes prior to and after using the **Intersect Shapes** option.

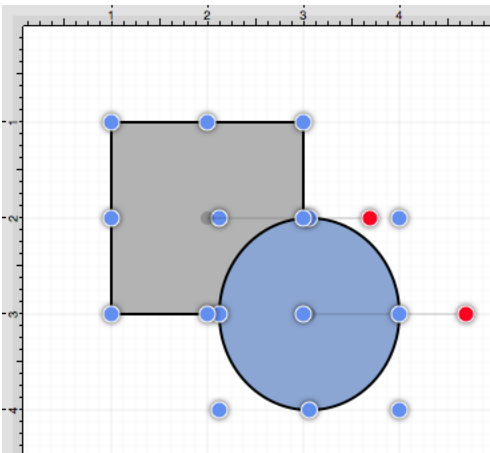
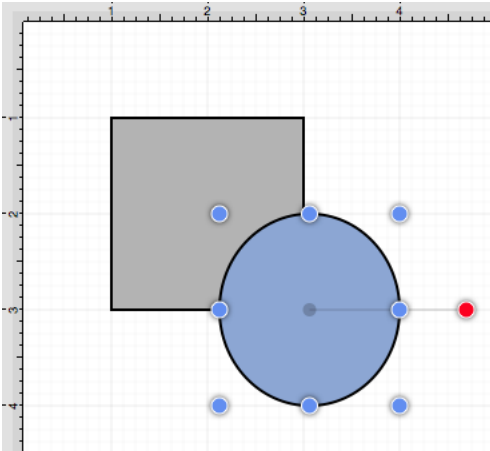




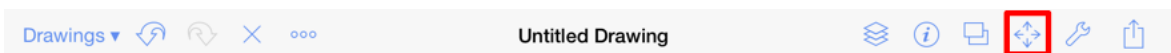
## 5.1.11.4. Exclude

The **Exclude** option removes the intersecting portions of selected figures from the [Drawing Canvas](#). This option remains disabled until two figures have been [selected](#). To **Exclude** selected shapes:

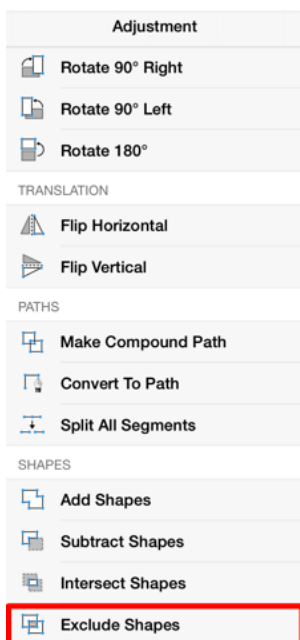
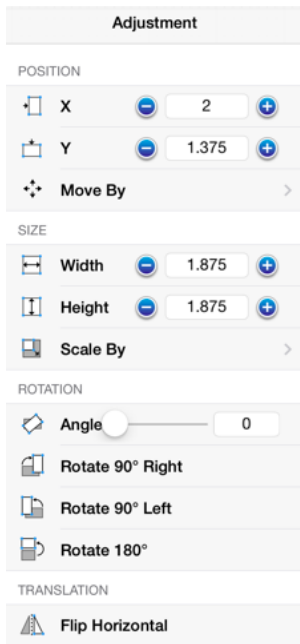
1. [Select](#) the shapes to be combined. The properties of the first selected shape will be applied to the combined shape. In this example, the oval is selected first.



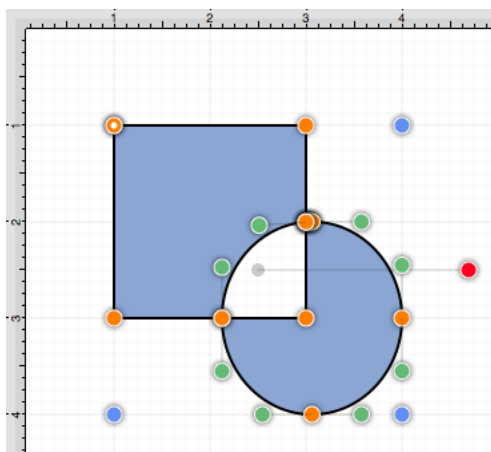
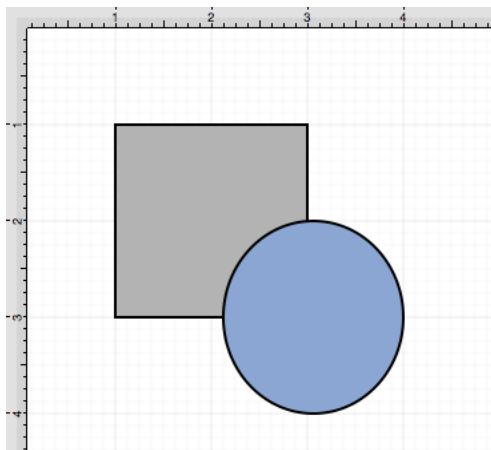
2. Press on the **Adjustment Button** in the [Top Toolbar](#).



3. To view the **Exclude Shapes** option in the [Adjustment Menu](#) when in landscape mode, scroll through the menu view by touching and dragging in an upward direction. Tap on the **Exclude Shapes** option.



4. The following images display two selected shapes prior to and after using the **Exclude Shapes** option.



**Note:** The selection of two non-intersecting shapes has no effect on appearance, but does cause the figures to be treated as one shape.

## 5.1.12. Handling Colors

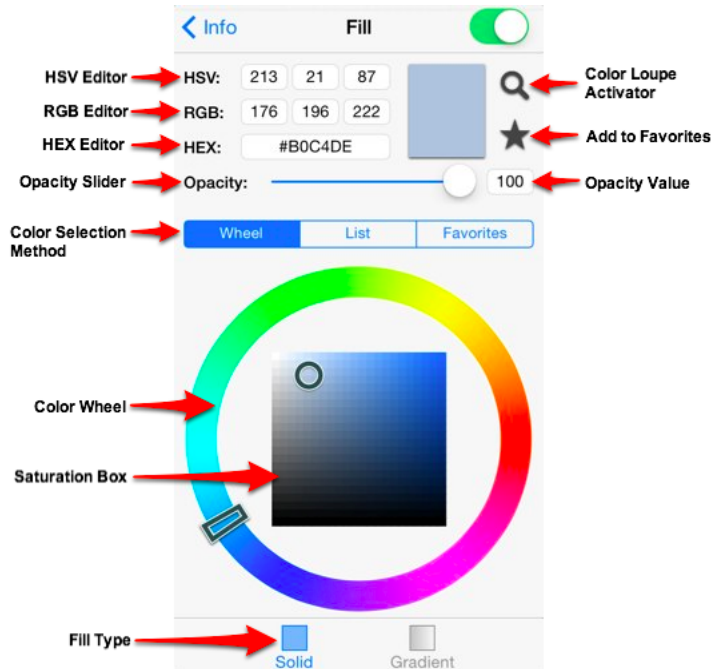
TouchDraw provides multiple ways to select and change the color attributes of figures or text within the [Drawing Canvas](#). Color attributes can be changed for these items:

- [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](#).

## 5.1.12.1. 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  |
|----------------|--|
| HSV Editor     | The <b>HSV Editor</b> control can be used to alter the hue, saturation, and value of a color being selected.                     |
| RGB Editor     | The <b>RGB Editor</b> control can be used to alter the amount of red, green, and blue of the color being selected.               |
| HEX Editor     | The <b>HEX Editor</b> control shows the hex value of a selected color and can be used to change the color by editing this value. |
| Opacity Slider | The <b>Opacity Slider</b> can be used to alter the opaqueness (opposite of transparency) of a selected color.                    |

| Control Name                          | Description  |
|---------------------------------------|--|
| Color Selection Method                | The <b>Color Selection Method</b> controls offer three methods for selecting a color: - <a href="#">Color Wheel</a> - <a href="#">Colors List</a> - <a href="#">Favorites List</a>   |
| <a href="#">Color Loupe Activator</a> | The <b>Color Loupe Activator</b> activates the loupe feature allowing colors to be picked from a figure, drawing or other object visible within the <a href="#">Drawing Canvas</a> . It provides a quick and easy way to set a figure color to a previously used color within the drawing. |
| <a href="#">Add to Favorites</a>      | The <b>Add to Favorites</b> button can be used to add the current color selection to a favorites list for easier access during future changes.   |
| Opacity Value                         | The <b>Opacity Value</b> control shows the current opacity (inverse of transparency) value for the Opacity Slider and can be used to manually edit the value.  |

### 5.1.12.1.1. Color Wheel

The **Color Wheel** is the most common way to select a color within TouchDraw. 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, as shown below.

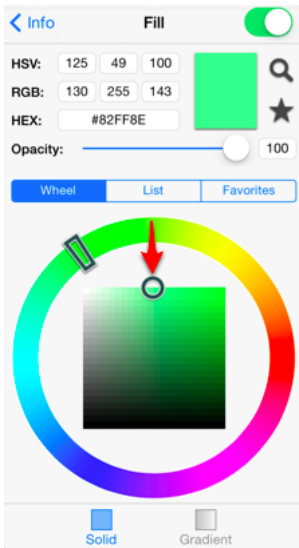


To use the **Color Wheel** for making a color selection, press on the **Wheel Button** located under the Opacity Slider.



Tap on the desired hue in the **Color Wheel** and then tap on the desired lightness or darkness value in the **Saturation Box**.

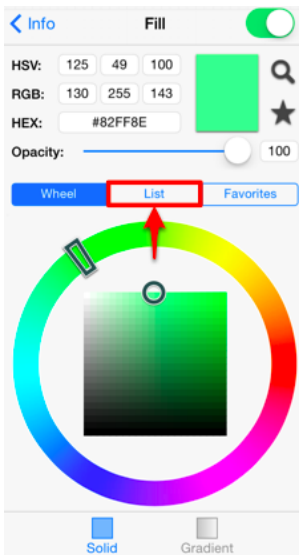




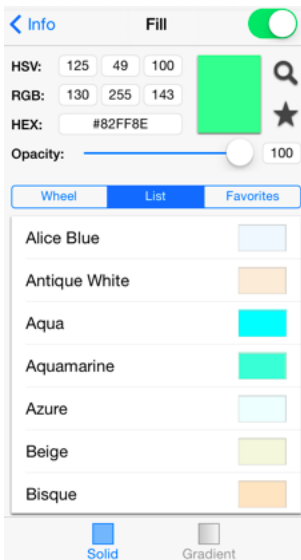
### 5.1.12.1.2. Color List

The **Color List** is an alternative method for selecting a color within TouchDraw. The list consists of pre-configured color options which are chosen by pressing on the desired name button. A **Color Preview Pane** located in the upper right hand corner of the **Color List Window** shows the current selection.

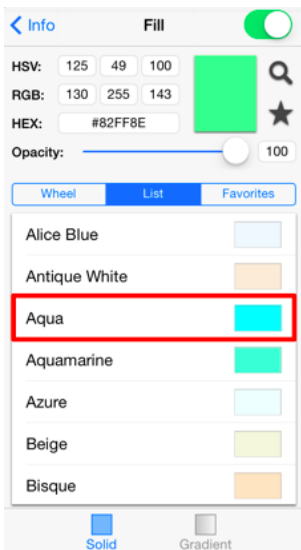
Press on the **List Button** in the [Color Picker](#) to access the Color List, as shown below.







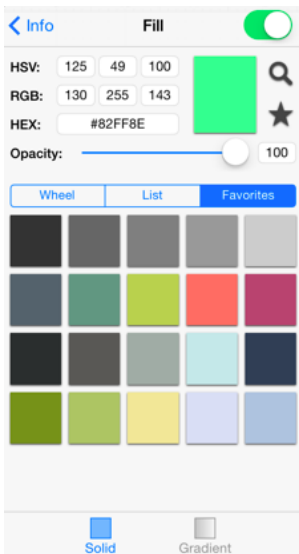
The color shown in the preview pane changes as a new hue is chosen from the list, as shown below. Aqua is chosen in this example.



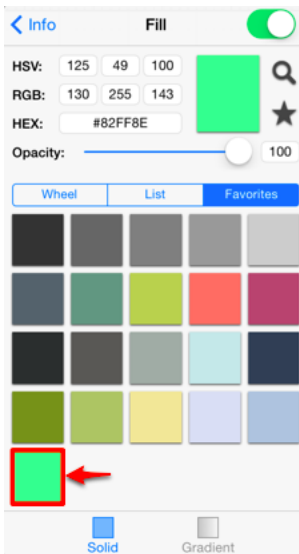
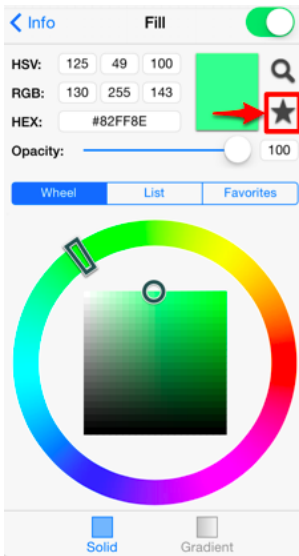
### 5.1.12.1.3. Favorites List

The **Favorites List** is an alternative method for selecting a color within TouchDraw. A color created with the [Color Wheel](#) or chosen from the [Color List](#) can be added to the Favorites List for faster selection during attribute editing. Press on the **Favorites Button** in the [Color Picker](#) to access this feature and then tap on the desired color button to choose a hue for currently selected or new figure(s). The **Color Preview Pane** will

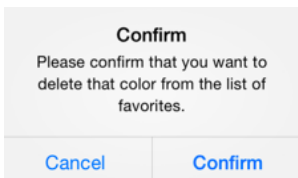
show the currently selected color and changes as a new hue is selected.



Press on the **Add to Favorites Button** located in the upper portion of the **Color Picker** to add a color to the favorites list. The color will appear in the lower portion of the Color List, as shown below. In this example, a blue hue is selected from the color wheel and then added to favorites.



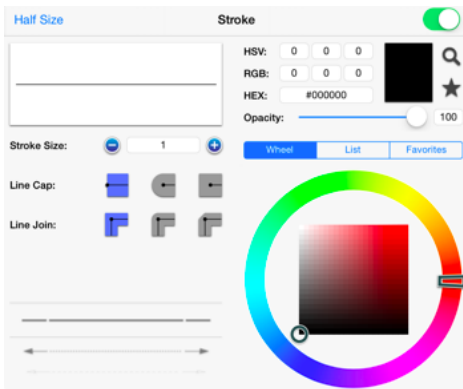
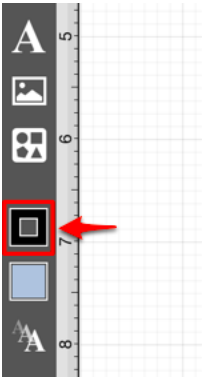
Perform an **extended Press** on a color button to remove a hue from the Favorites List. Press on the **Confirm Button** to complete the deletion or press on the **Cancel Button** to exit this action.



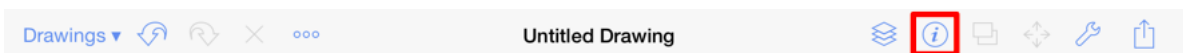
## 5.1.12.2. Stroke Color

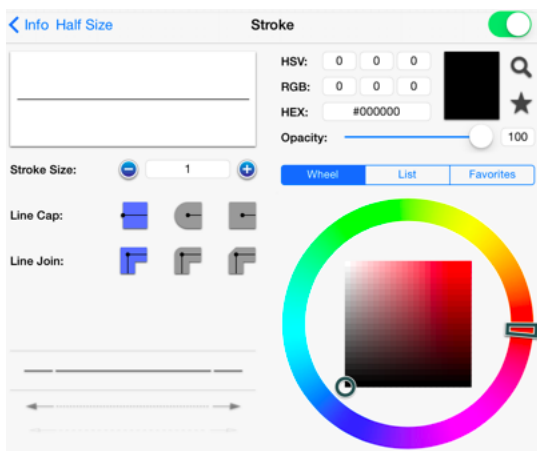
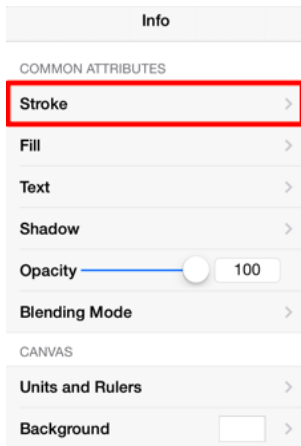
The **Stroke Color** of a selected figure can be changed to meet a desired preference. It can be altered for a [selected](#) figure(s) or in instances where no figures have been selected. If a figure has not been selected, the color change applies to any figure added after the change. This attribute can be altered in one of the following ways:

1. Press on the **Stroke Button** located in the [Drawing Toolbar](#).



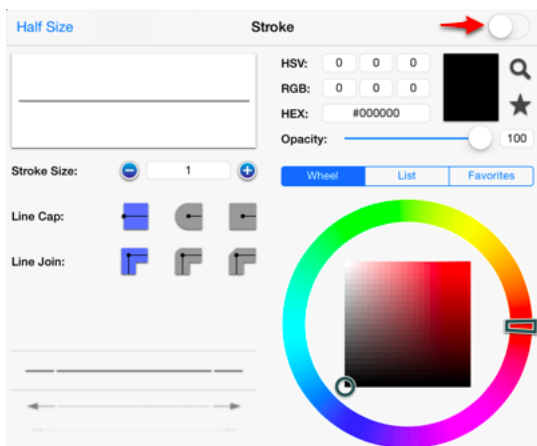
2. Press on the **Info Button** in the [Top Toolbar](#).

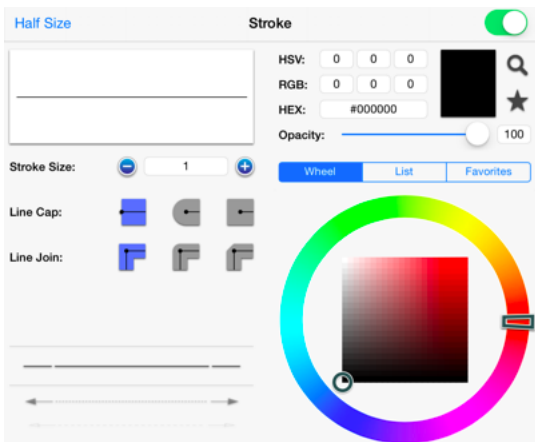




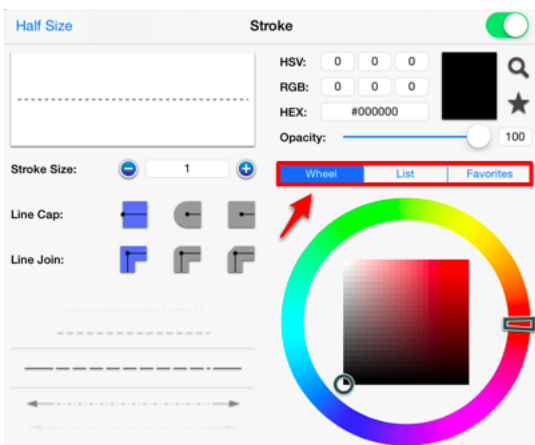
To alter the **Stroke Color**:

1. Tap 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.

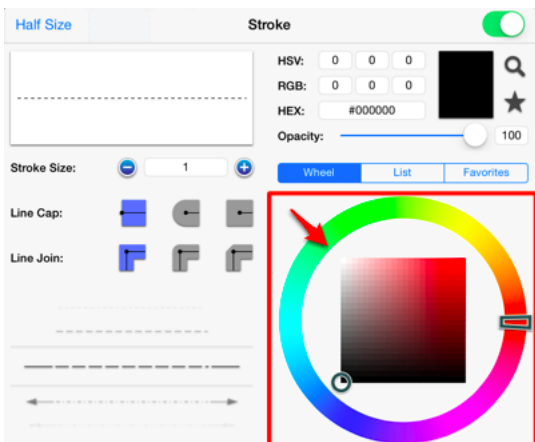




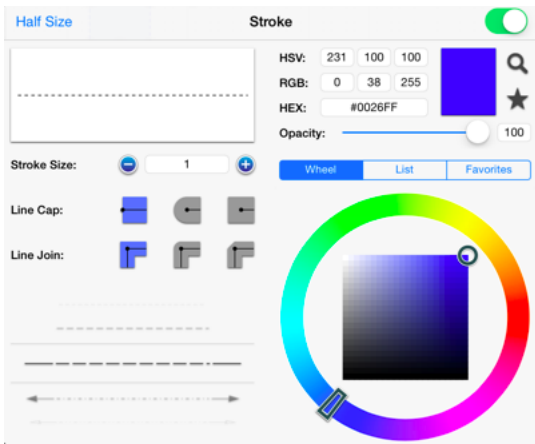
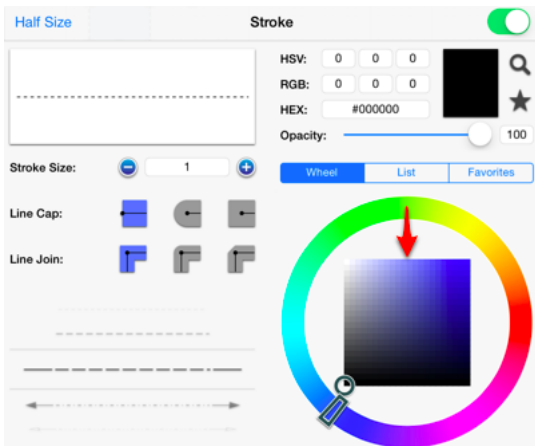
2. Next, press on the desired color selection method (Wheel, List, or Favorites). In this example, the wheel is chosen.



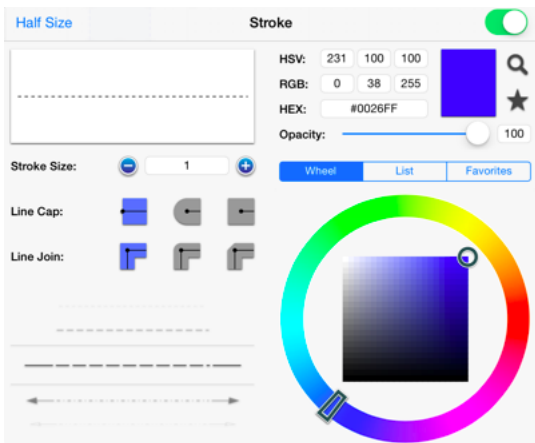
3. Tap on a color range within the outside of the wheel view.



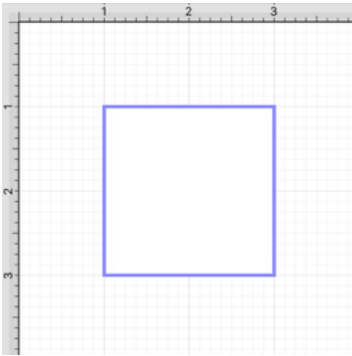
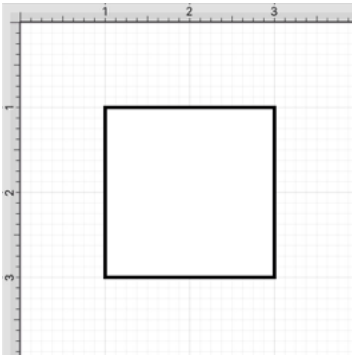
4. Choose the desired lightness or darkness of the selected color in the center (saturation) square.



5. Scroll through the [Stroke Style](#) options (arrowhead, dashed, solid, etc.) by touching and dragging in an upward or downward direction on a section of the wheel to make a selection or **Press** on additional options (opacity, line join, etc.) within the **Stroke Window** to make further attribute changes.



6. Tap anywhere within the [Drawing Editor](#) to close the window.



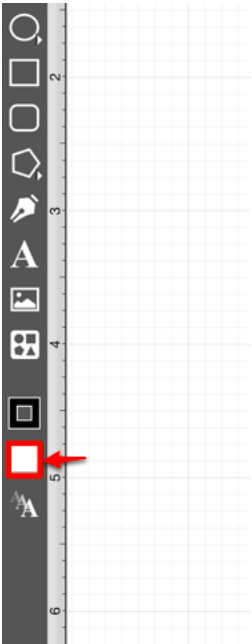
**Note:** A color change will be seen instantaneously when a stroke figure is [selected](#). If no figures have been selected, the color change will apply to all subsequently created stroke figures.

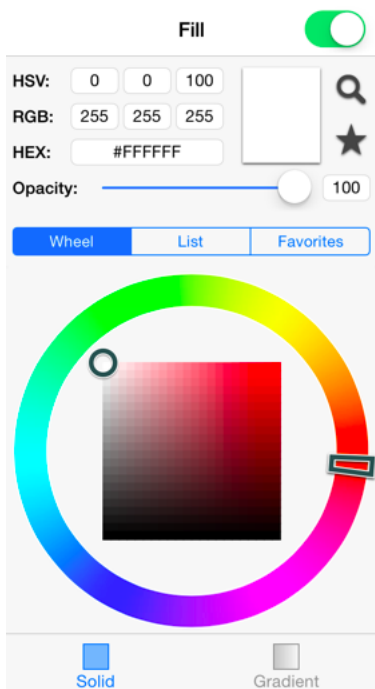


### 5.1.12.3. Fill Color

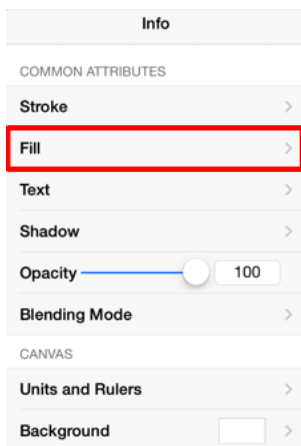
The **Fill Color** of a selected figure can be changed to meet a desired preference. It can be altered for a [selected](#) figure(s) or in instances where no figures have been selected. If a figure has not been selected, the color change applies to any figure added after the change. This attribute can be altered in one of the following ways:

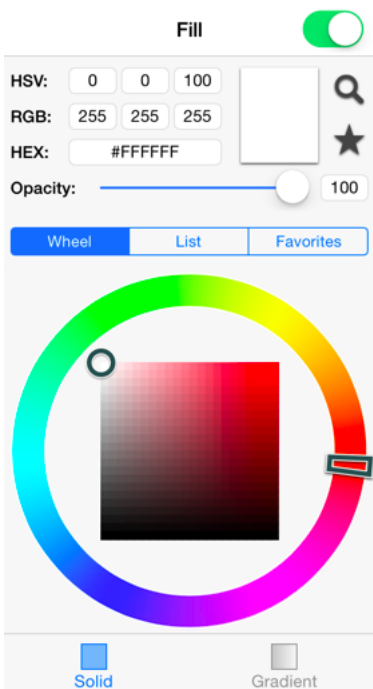
1. Press on the **Fill Button** located in the [Drawing Toolbar](#).





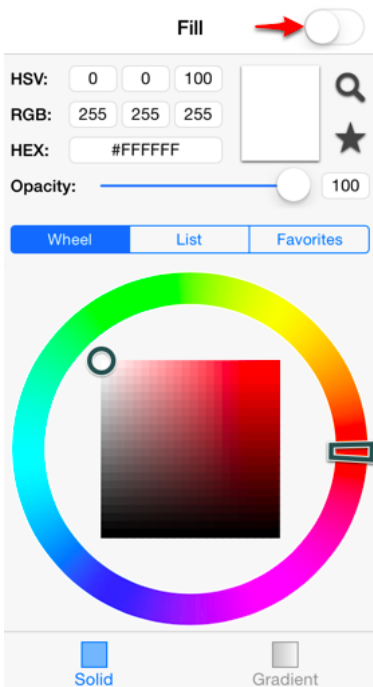
2. Press on the **Info Button** in the [Top Toolbar](#).

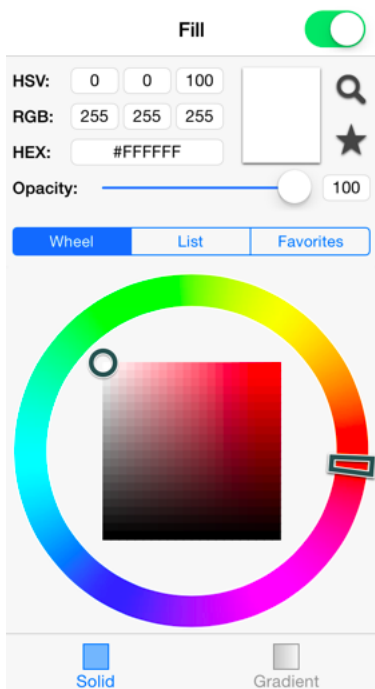




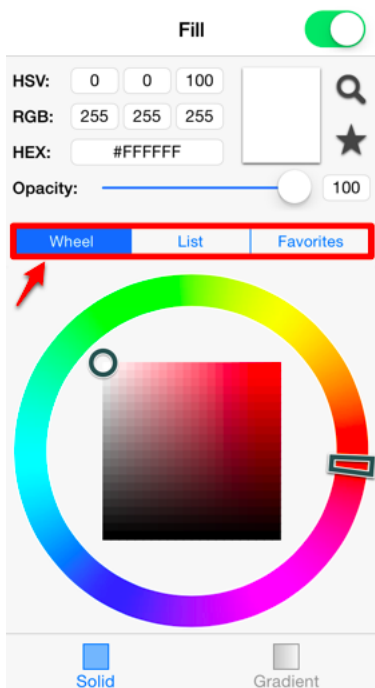
To alter the **Fill Color**:

1. Tap on the **On/Off** toggle slider in the upper right hand corner of the **Fill Window** to turn on the **Fill** option. The slider will appear with a green background when this option is enabled.

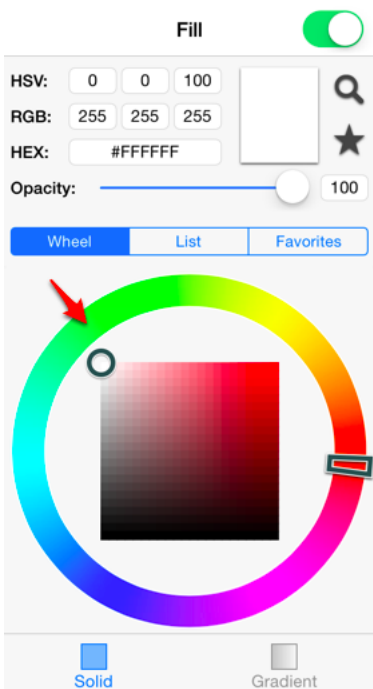




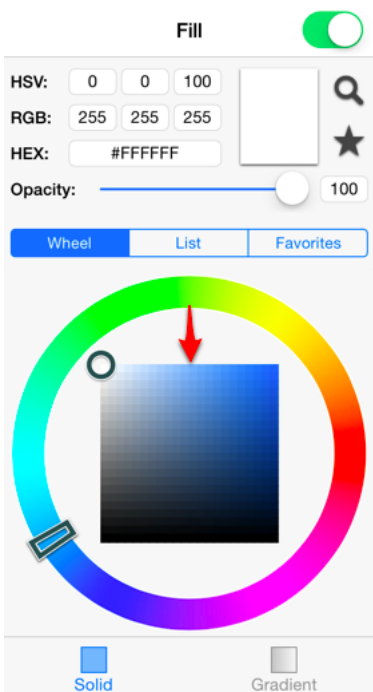
2. Next, press on the desired color selection method (Wheel, List, or Favorites). In this example, the wheel is chosen.

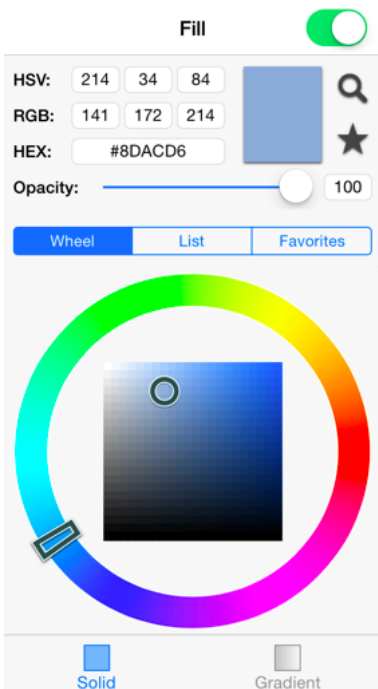


3. Tap on a color range within the outside of the wheel view.



4. Choose the desired lightness or darkness of the selected color in the center (saturation) square.

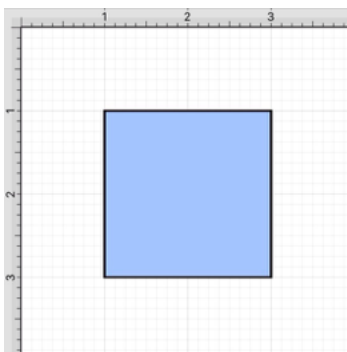
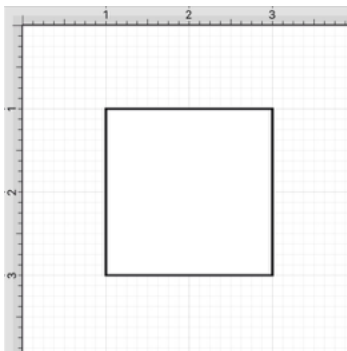




5. Perform a **Touch/Drag** gesture combination or **Press** on additional options such as the opacity slider within the **Fill Window** to make further attribute changes.



6. Tap anywhere within the [Drawing Editor](#) to close the window. The following screenshots show a figure that has been changed to a light blue fill.

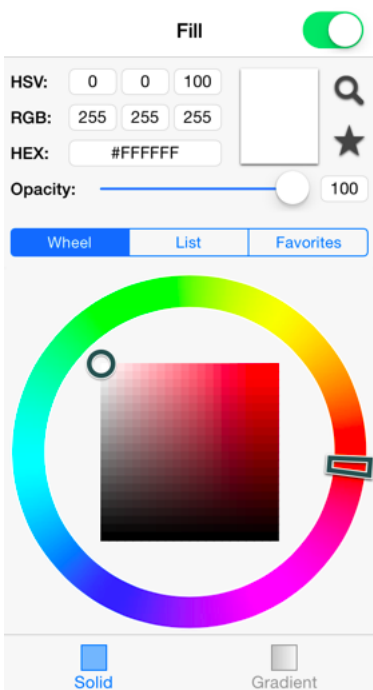
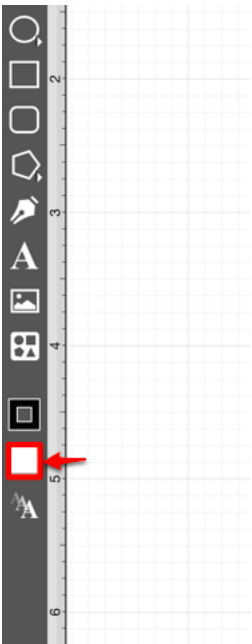


**Note:** A color change will be seen instantaneously when a stroke figure is [selected](#). If no figures have been selected, the color change will apply to all subsequently created stroke figures.

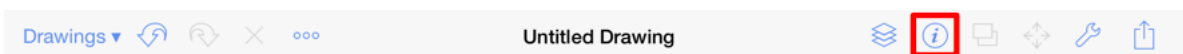
### 5.1.12.3.1. Solid

The **Solid** fill style option is located in the bottom of the [Fill Window](#). This attribute sets the fill of a [selected](#) or any created figure(s) to a solid color and can be accessed in one of the following ways:

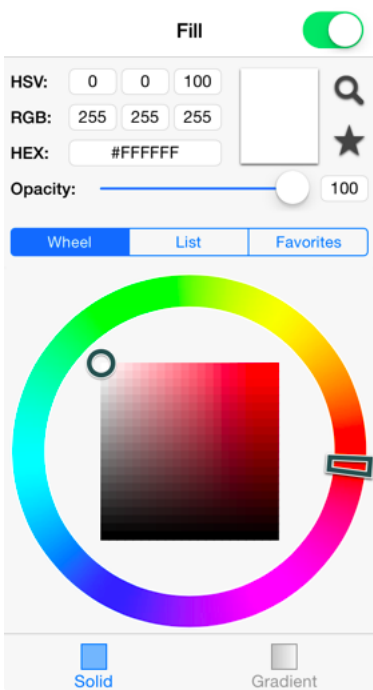
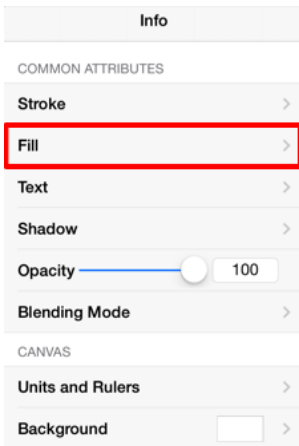
1. Press on the **Fill Button** located in the [Drawing Toolbar](#).



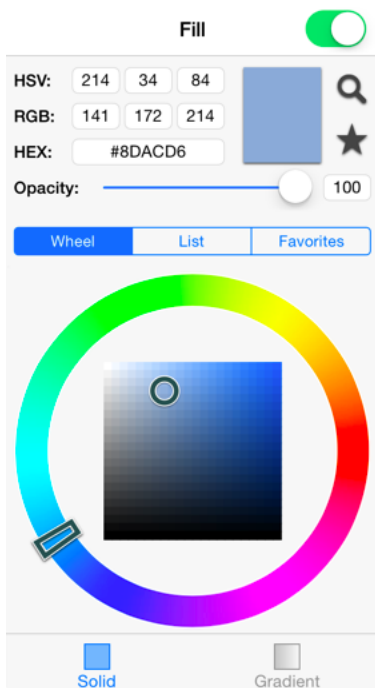
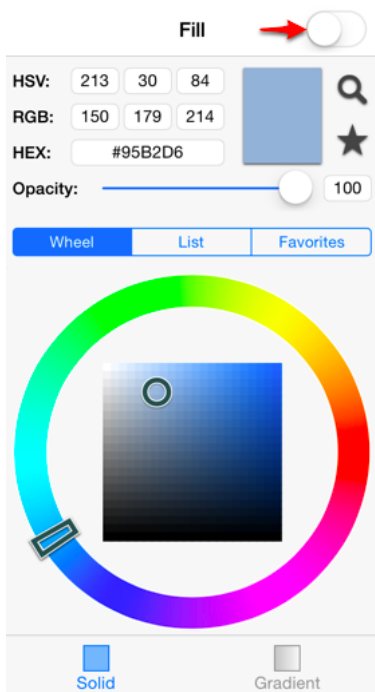
2. Press on the **Info Button** in the [Top Toolbar](#).





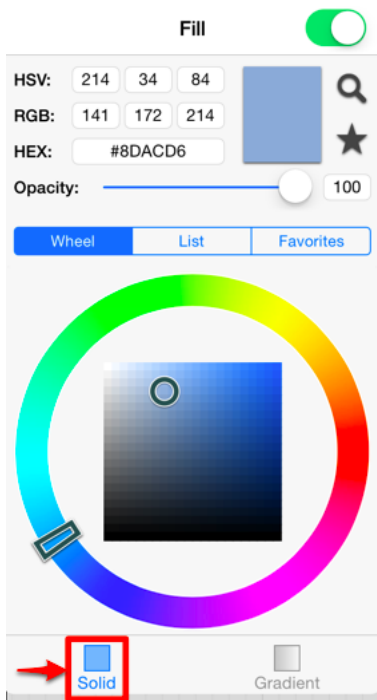


The **Fill** option must be enabled for a style change to be applied to any currently selected or new figures. **Tap** on the **On/Off** toggle slider in the upper right hand corner of the **Fill Window** to enable this option. The slider will appear with a green background when this option is enabled.

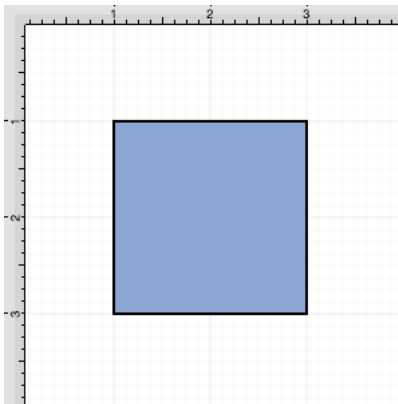


To change the **Fill Type** to solid:

1. Press on the **Solid Button** at the bottom of the **Fill Window** (if not already selected).



2. Tap anywhere in the [Drawing Editor](#) to close the popover window. The following example shows a figure with the **Fill Style** set to solid and **Color** set to blue:

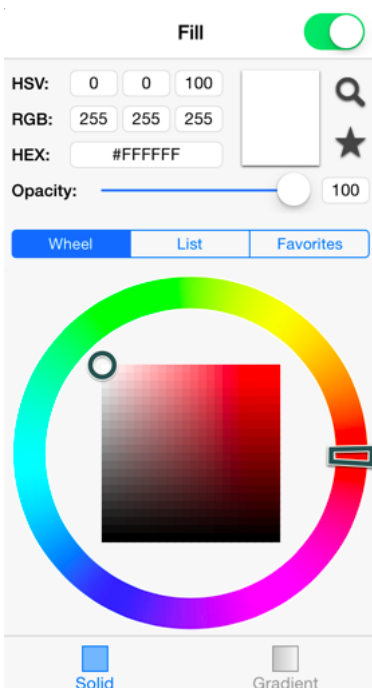
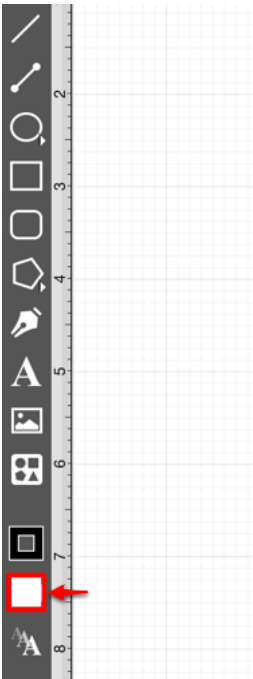


**Note:** A style change will be seen instantaneously when a figure is [selected](#). If figures have not been selected, the style change will apply to all subsequently created figures.

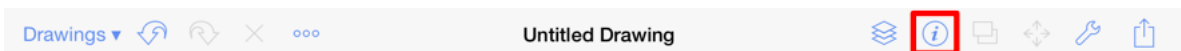
### 5.1.12.3.2. Linear Gradient

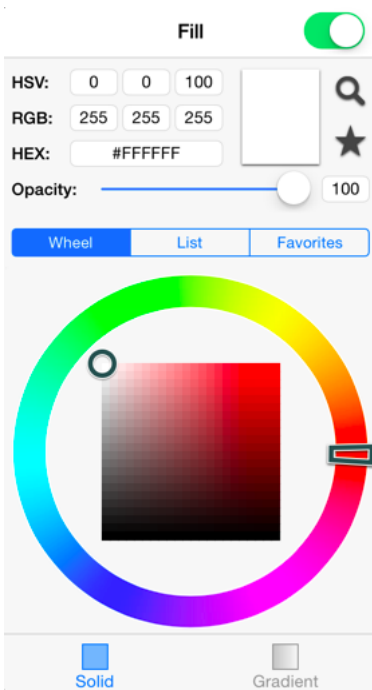
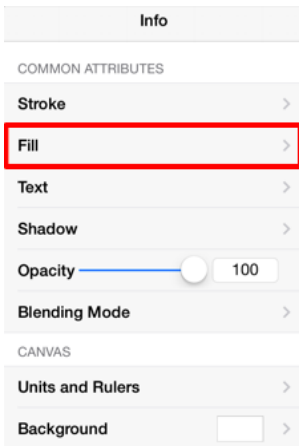
The **Linear Gradient** fill style option is located in the bottom of the [Fill Window](#). This attribute transitions the fill from a specific start color to the specified end color at a designated angle within a [selected](#) or created figure(s) and can be accessed in one of the following ways:

1. Press on the **Fill Button** located in the [Drawing Toolbar](#).

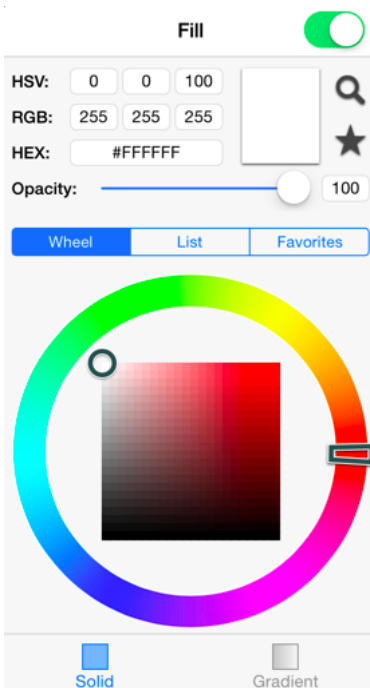
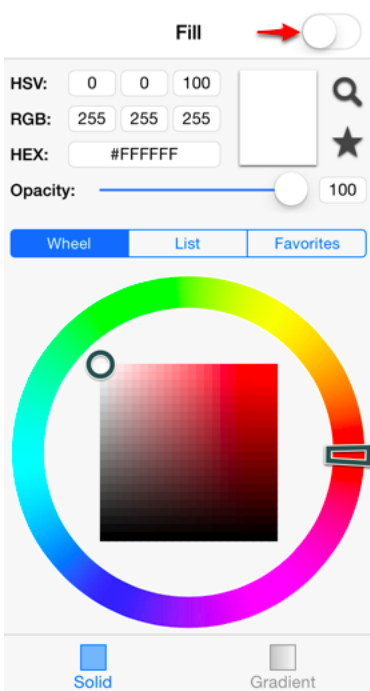


2. Press on the **Info Button** in the [Top Toolbar](#).



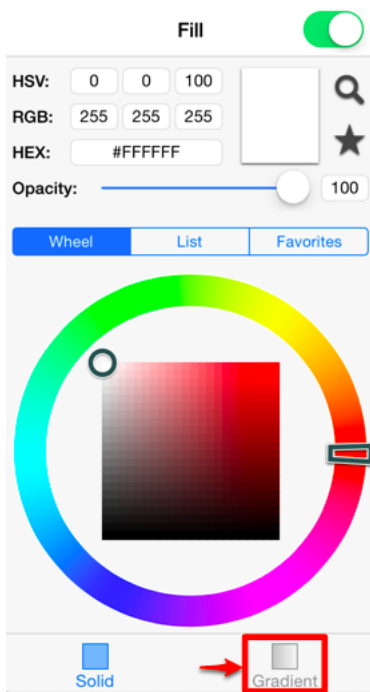


The **Fill** option must be enabled for a style change to be applied to any currently selected or new figures. **Tap** on the **On/Off** toggle slider in the upper right hand corner of the **Fill Window** to enable this option. The slider will appear with a green background when this option is enabled.

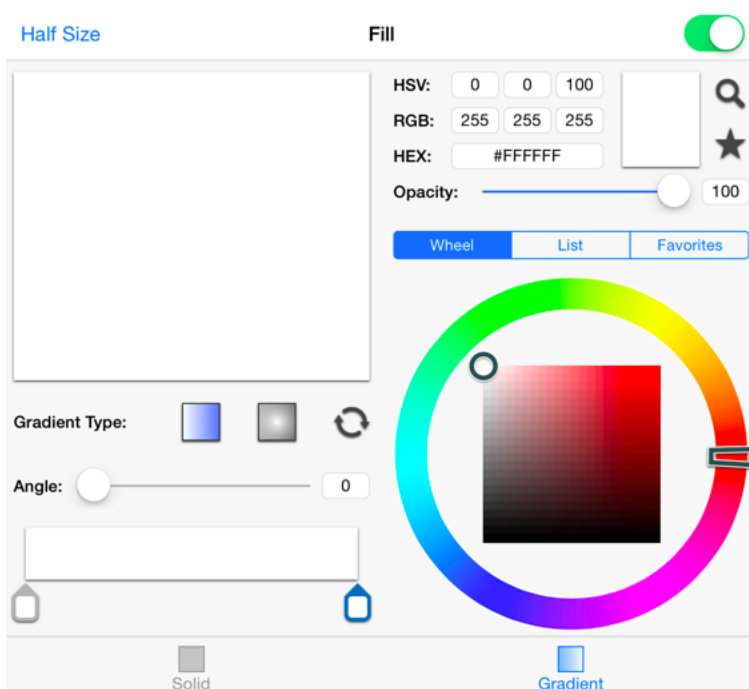


To change the **Fill Type** to Linear Gradient:

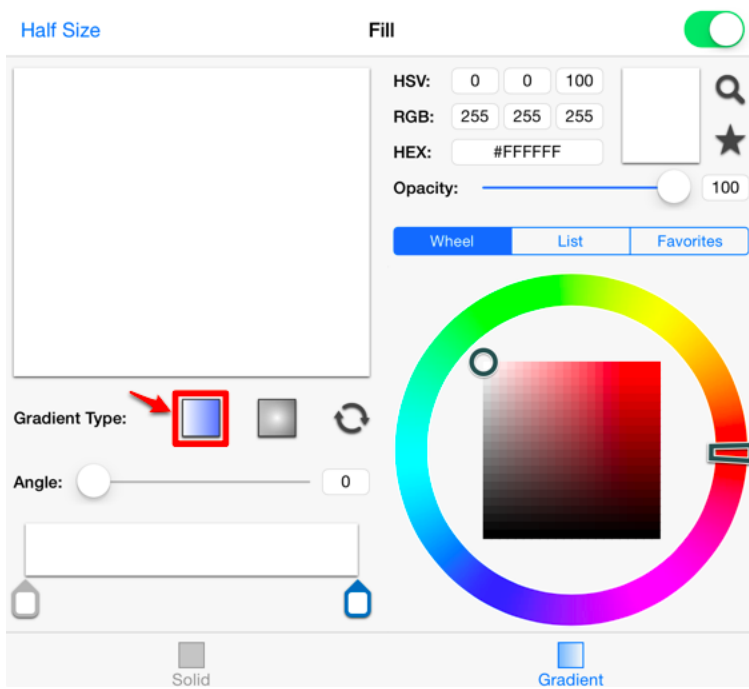
1. Press on the **Gradient Button** at the bottom of the **Fill Window** (if not already selected).



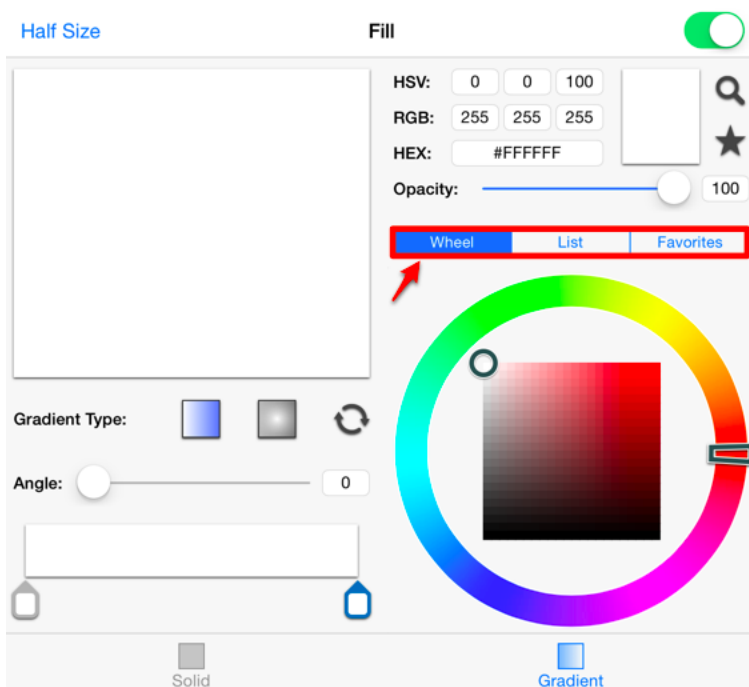
2. The **Fill Window** will expand, as shown below.



3. The expanded **Fill Window** automatically defaults to a **Linear Gradient Type** unless another option has previously been chosen.

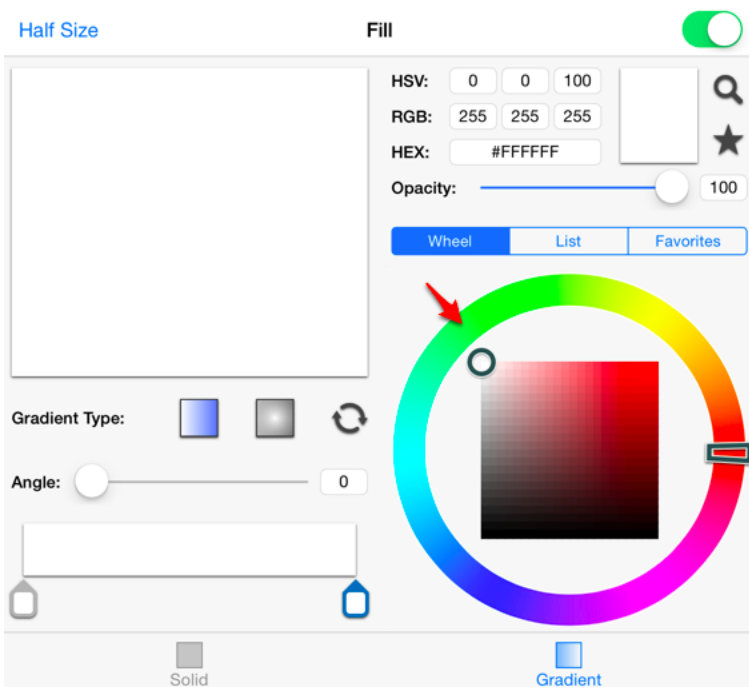


4. Next, press on the desired color selection method (Wheel, List, or Favorites). In this example, the wheel is chosen.

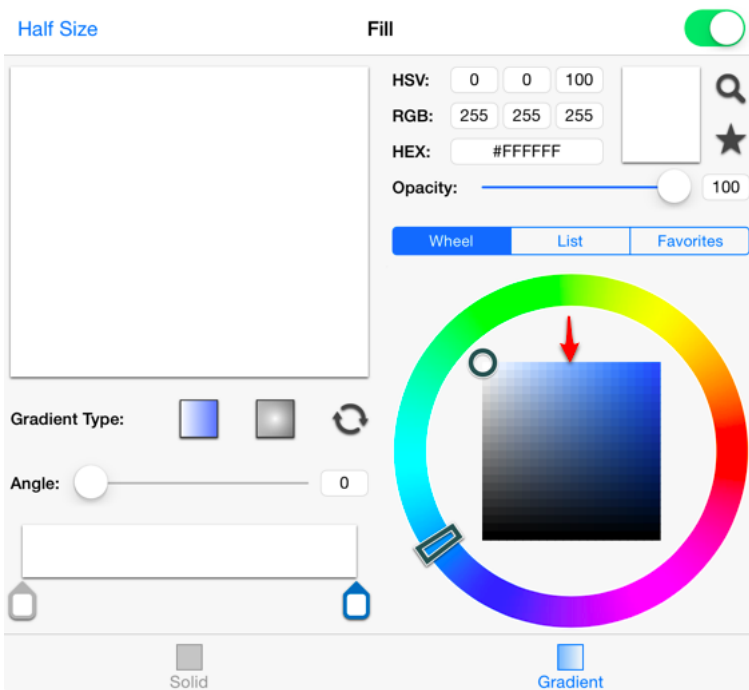


5. Tap on a color range within the outside of the wheel view.

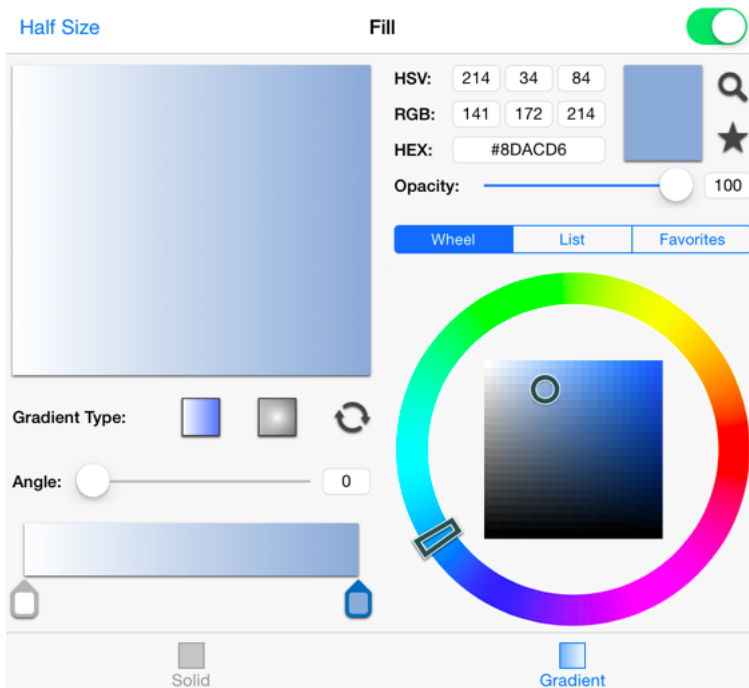




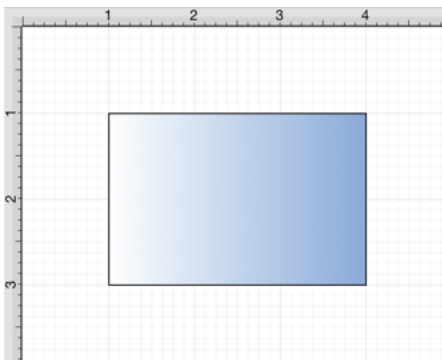
6. Tap on the desired lightness or darkness of the selected color in the center (saturation) square.



7. Perform a **Touch/Drag** gesture combination or **Press** on any additional options (angle, opacity, etc.) within the popover window to make further attribute changes.

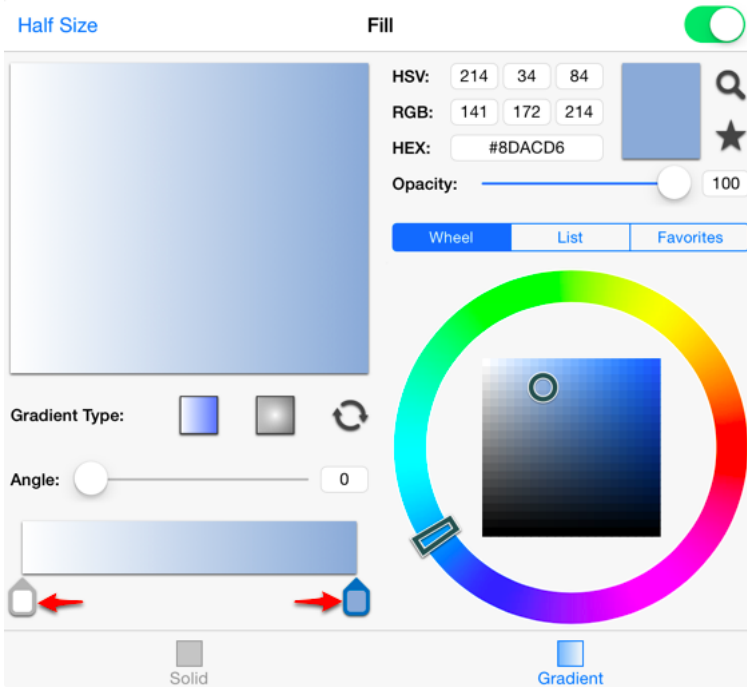


8. Tap anywhere within the [Drawing Editor](#) to close the window. The following example shows a rectangle with the **Fill Style** set to linear gradient and **Color** set to blue:

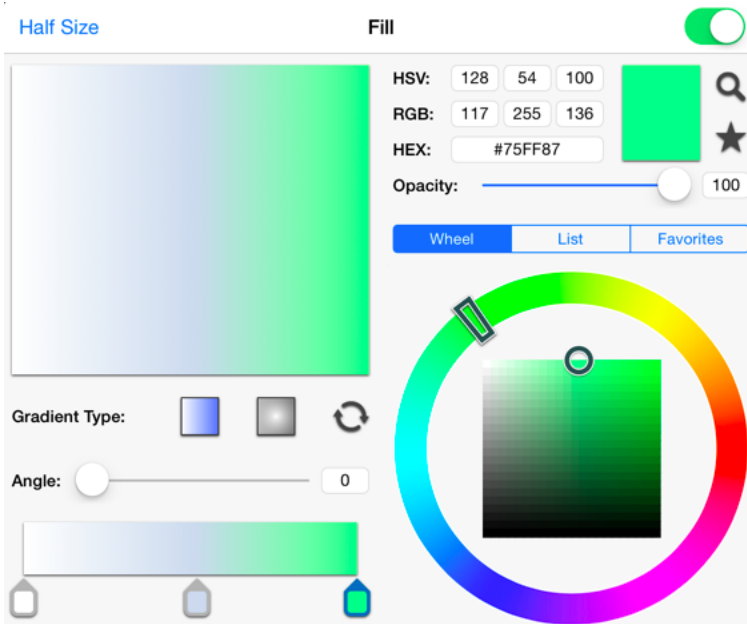


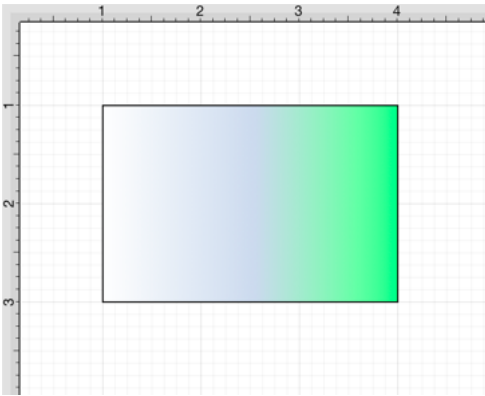
### Working with Linear Gradients

The angle and gradient handles located in the bottom right corner of the **Fill Window** can be used to insert multiple colors at varying angles within a figure. Perform a **Touch/Drag** gesture combination to move a gradient handle to a different position on the slider. **Tap** on the slider to add another gradient handle for additional color variations.



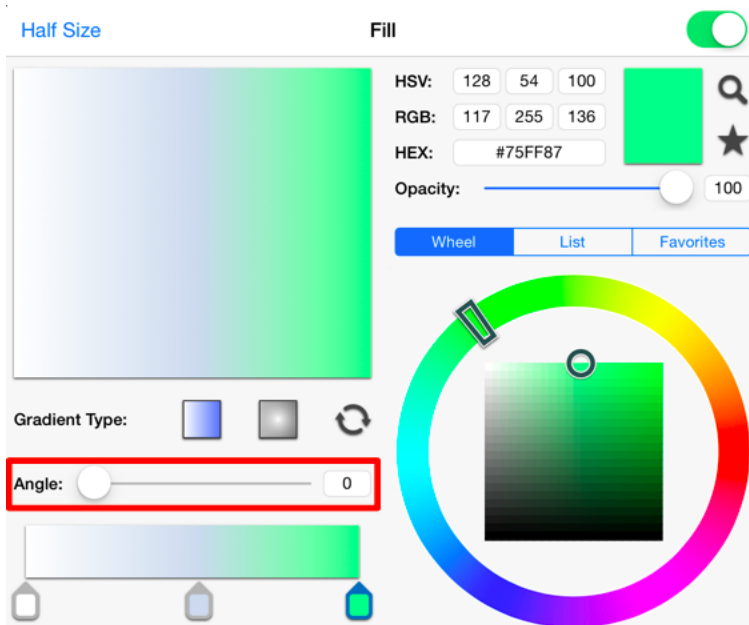
More than one color can be added by setting each individual gradient handle to one of the desired colors. Tap anywhere within the [Drawing Editor](#) to close the window. The following example shows a rectangle with the **Fill Style** set to linear gradient and these colors: white, blue, and green:



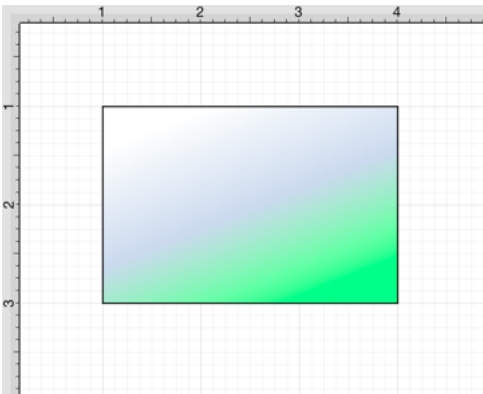
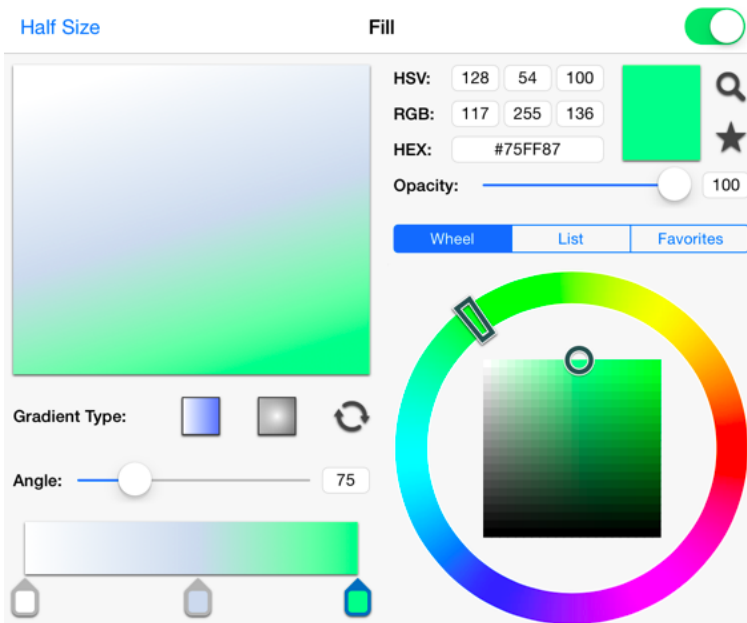


### Angle

Use a **Touch/Drag** gesture combination to move the **Angle Slider** to a desired value or type in a value by tapping on the field located to the right of the slider.

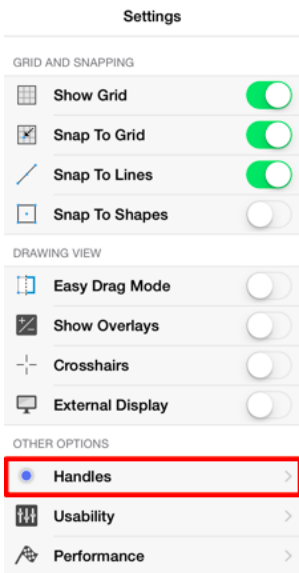


In the example below, a value of 75 has been entered for the angle.

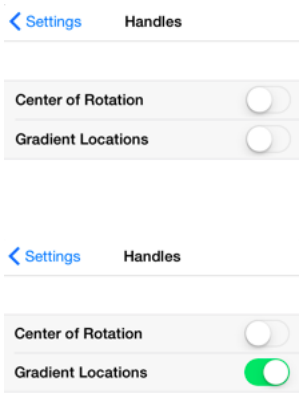


### Using the Gradient Locations Option

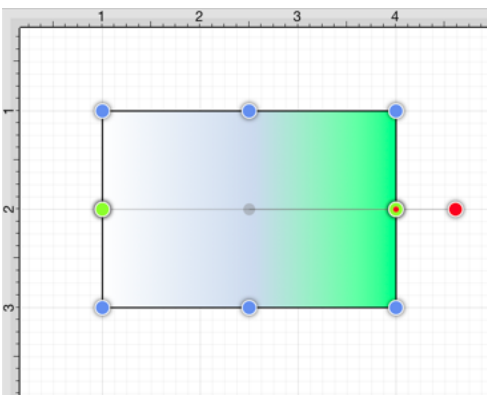
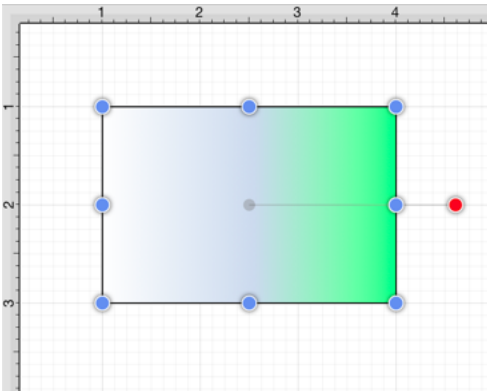
You may also enable the **Gradient Locations** option to view the handles for adjusting the *angle* and *color progression* attributes of a figure within the [Drawing Canvas](#). To do so, tap on the **Settings Button** in the [Top Toolbar](#) and then tap on the [Handles Submenu](#).



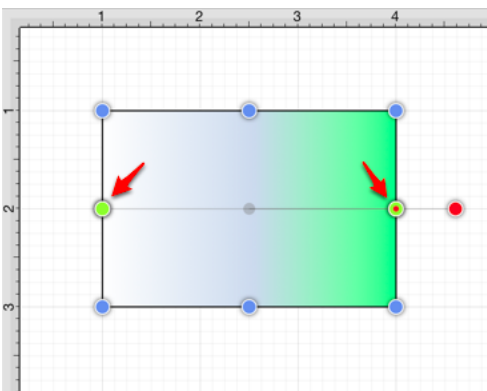
The **Gradient Locations** option resides in the [Handles Submenu](#) as shown below. It will have a gray background when disabled. To enable this option, tap on the On/Off toggle slider and it will move to the right and change to a green background to show that the option has been enabled.

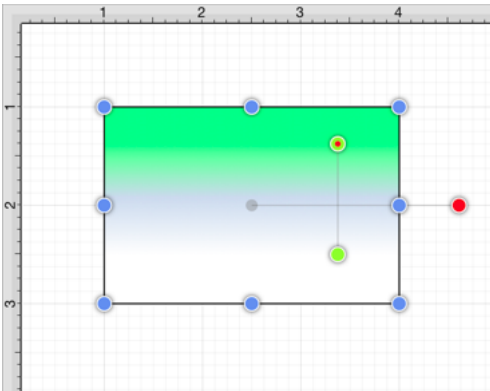


Once this option is enabled, you will see two additional handles on each selected figure. These may be used to adjust the angle and progression of colors for the linear gradient. Below you will see what a figure looks like when this option has not been enabled and then after it is enabled.



The two handles may be moved to any location within or outside of a figure to change the angle or fill pattern. To do so, press and hold on the handle. Then drag the handle in any desired direction without lifting your finger. The left gradient handle is selected in the example below. It is moved upward and to the right within the figure.



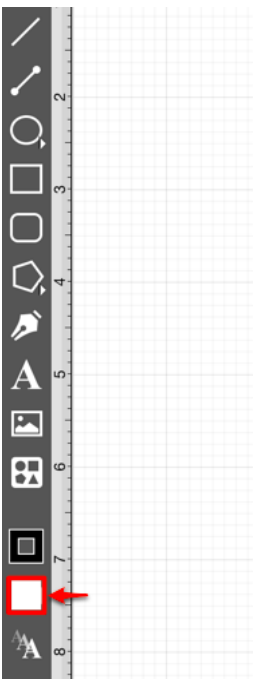


A style change will be seen instantaneously when a figure is [selected](#). If figures have not been selected, the style change will apply to all subsequently created figures.

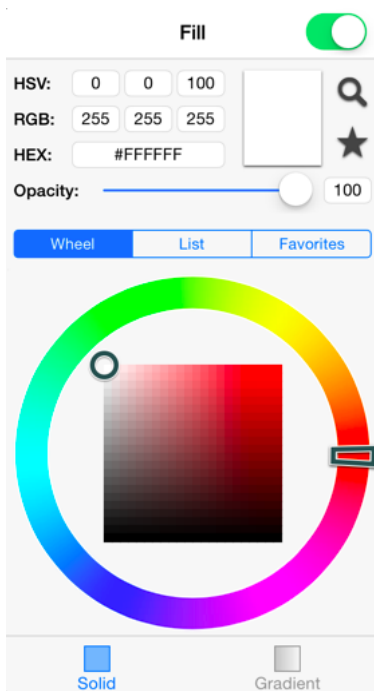
### 5.1.12.3.3. Radial Gradient

The **Radial Gradient** fill style option is located in the bottom of the [Fill Window](#). 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. This attribute can be accessed in one of the following ways:

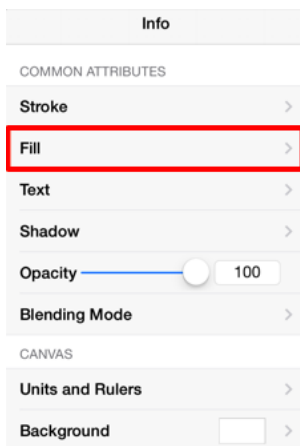
1. Press on the **Fill Button** located in the [Drawing Toolbar](#).

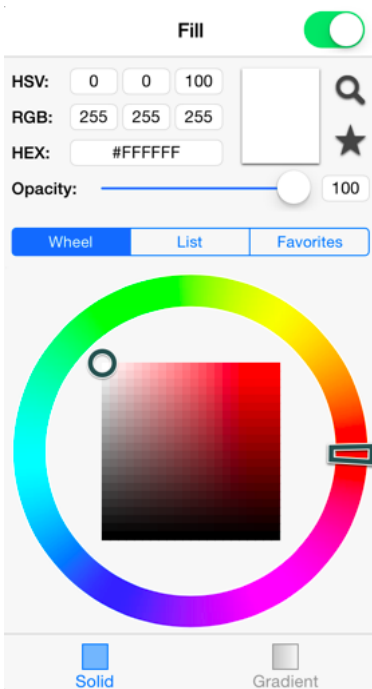




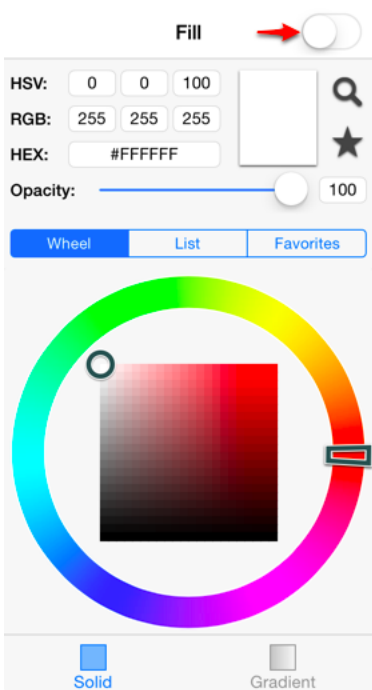


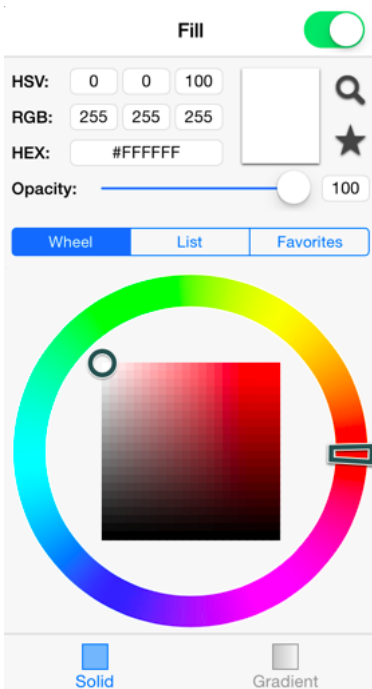
2. Press on the **Info Button** in the [Top Toolbar](#).





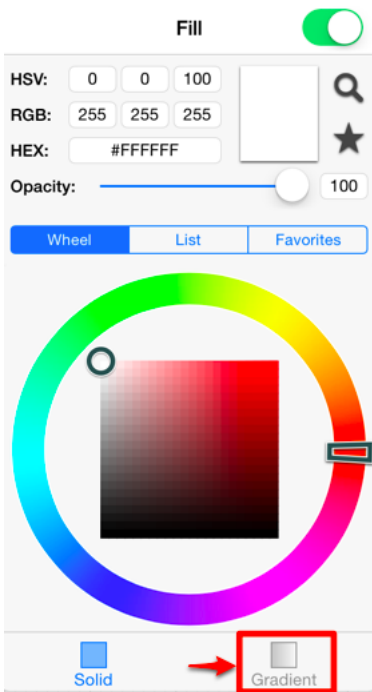
The **Fill** option must be enabled for a style change to be applied to any currently selected or new figures. **Tap** on the **On/Off** toggle slider in the upper right hand corner of the **Fill Window** to enable this option. The slider will appear with a green background when this option is enabled.



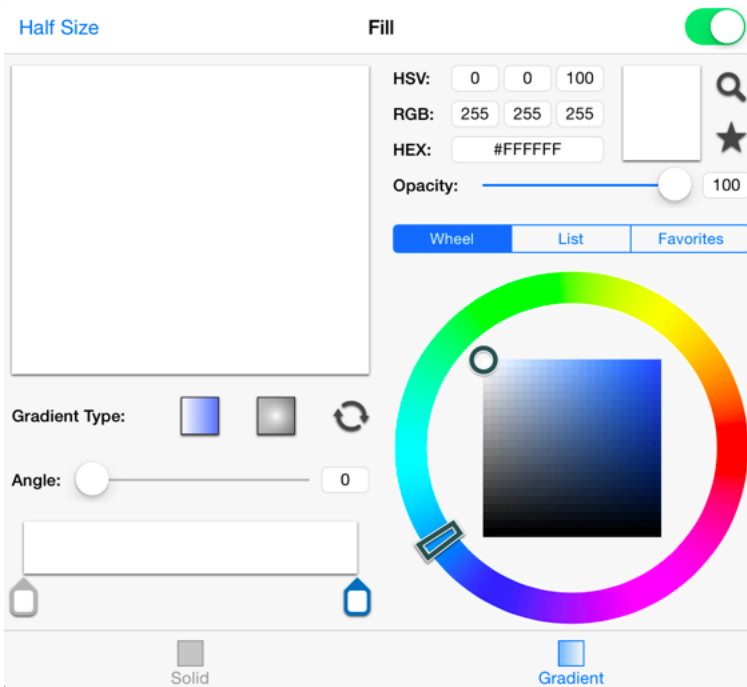


To change the **Fill Type** to Radial Gradient:

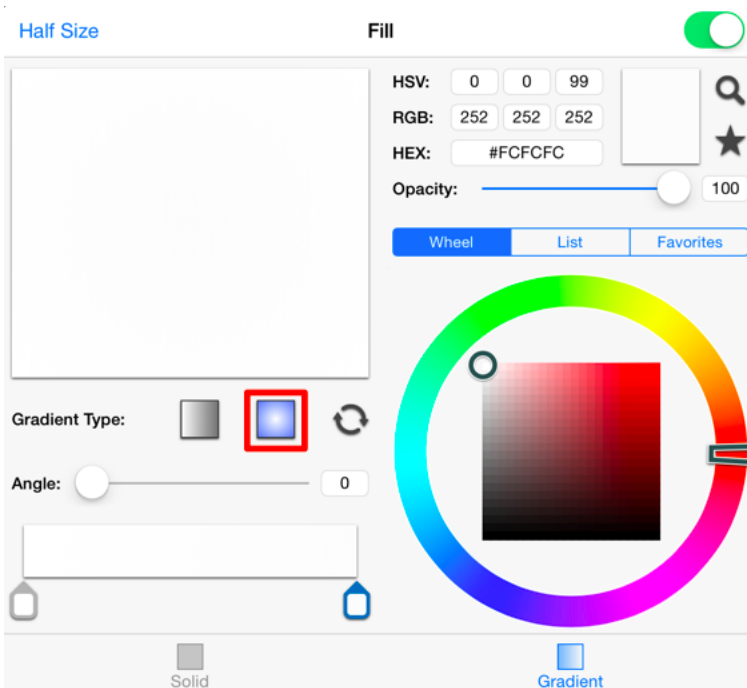
1. Press on the **Gradient Button** at the bottom of the **Fill Window** (if not already selected).



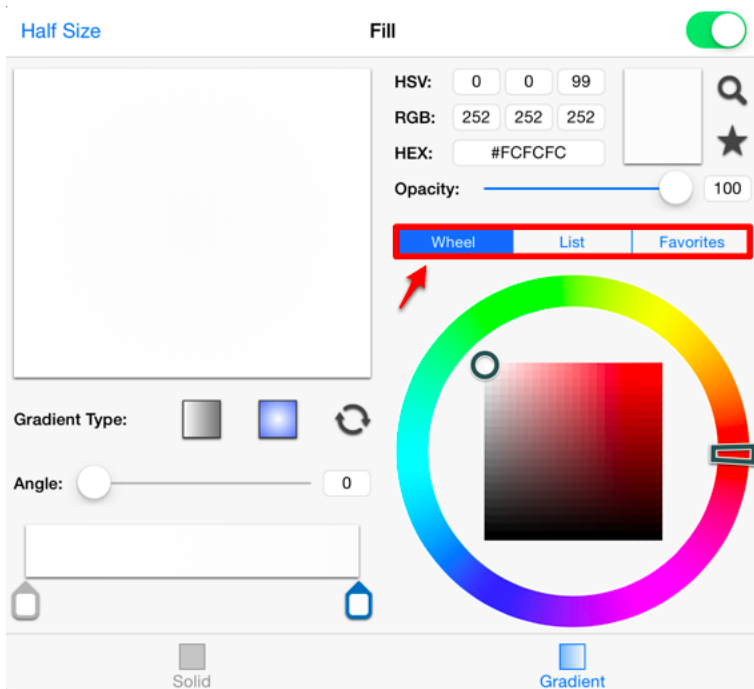
2. The **Fill Window** will expand, as shown below.



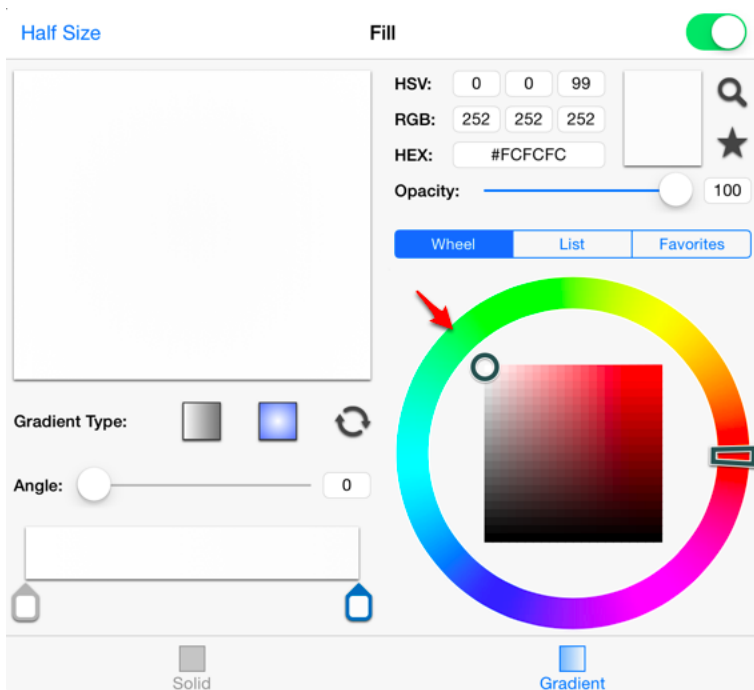
3. The expanded **Fill Window** automatically defaults to a **Linear Gradient Type** unless another option has previously been chosen. Press on the **Radial Gradient Type Button** to select this option.



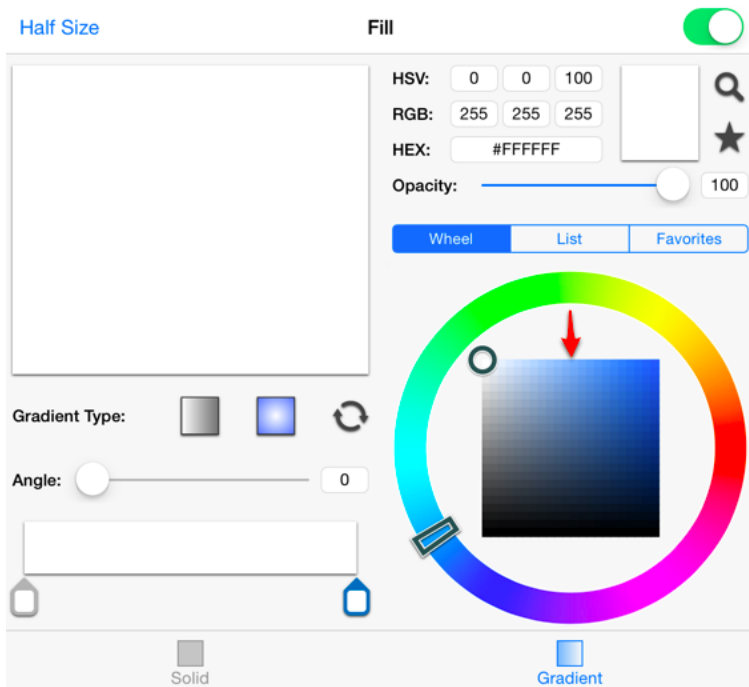
4. Next, press on the desired color selection method (Wheel, List, or Favorites). In this example, the wheel is chosen.



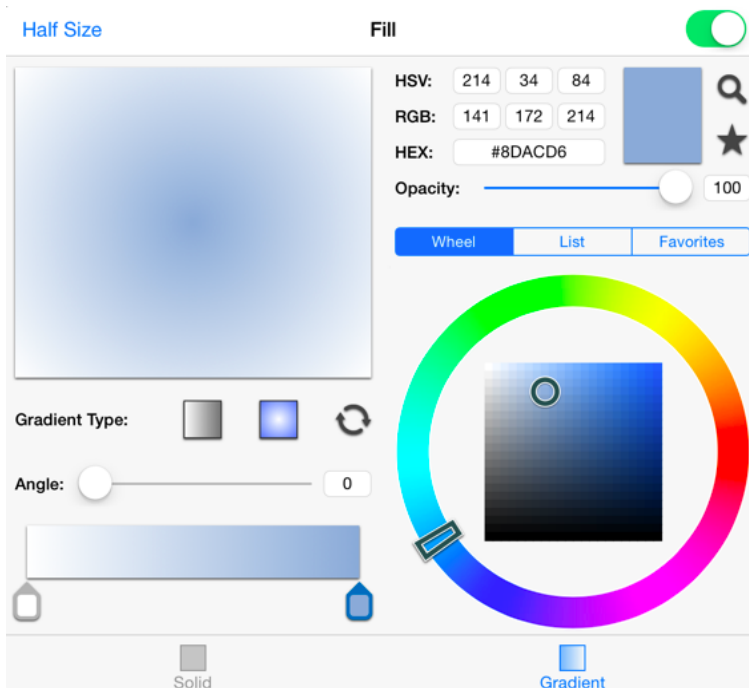
5. Tap on a color range within the outside of the wheel view.



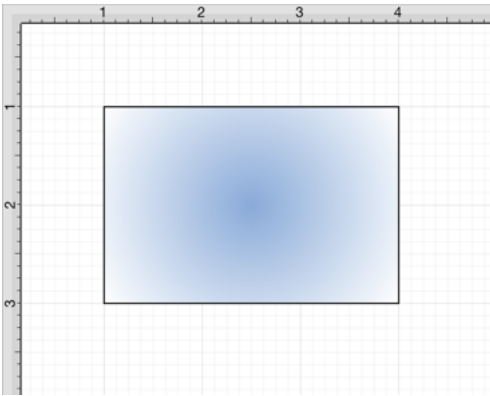
6. Tap on the desired lightness or darkness of the selected color in the center (saturation) square.



7. Perform a **Touch/Drag** gesture combination or **Press** on any additional options (opacity, etc.) within the popover window to make further attribute changes.

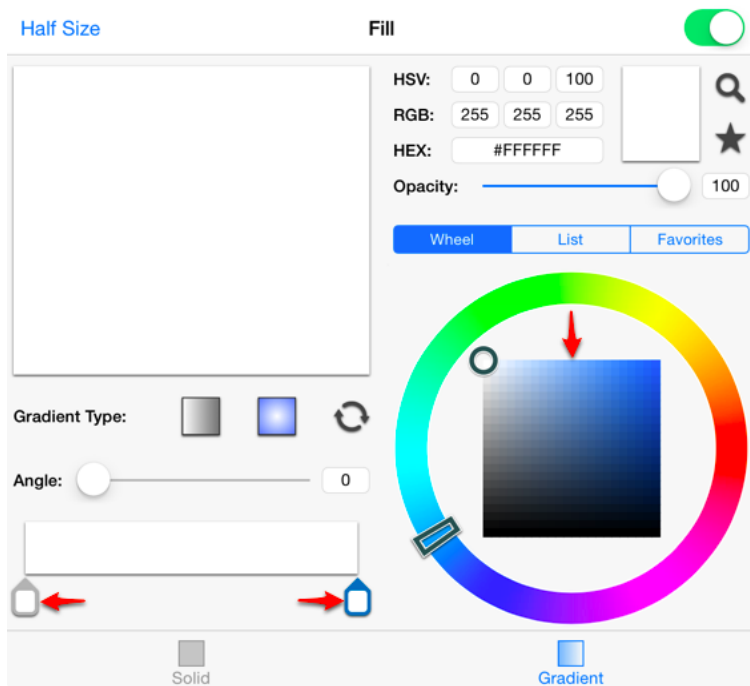


8. Tap anywhere within the [Drawing Editor](#) to close the window The following example shows a rectangle with the **Fill Style** set to radial gradient and [Color](#) set to blue:

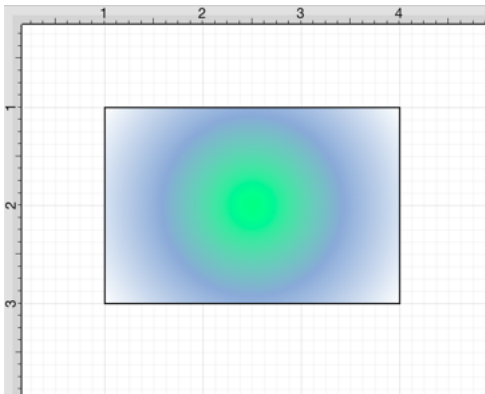
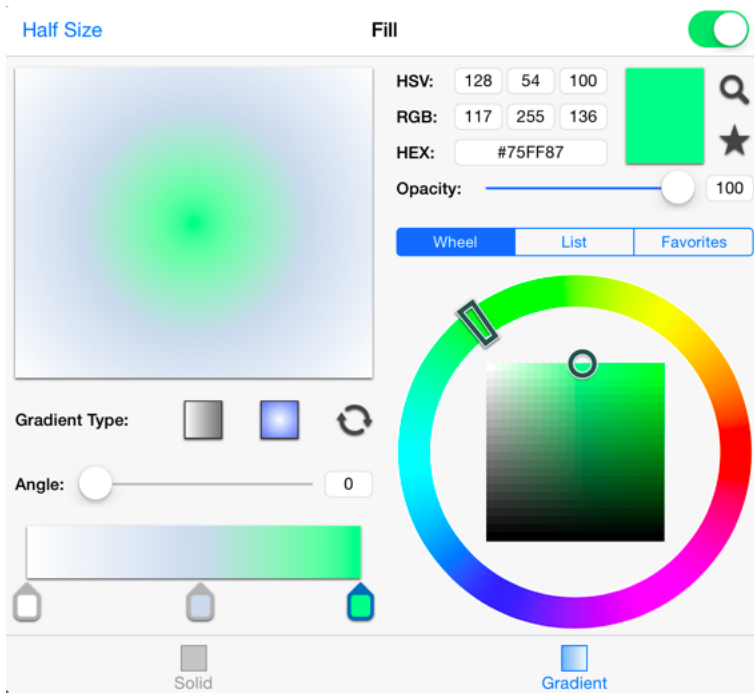


### Working with Radial Gradients

The angle and gradient handles located in the bottom right corner of the **Fill Window** can be used to insert multiple colors at varying angles within a figure. Perform a **Touch/Drag** gesture combination to move a gradient handle to a different position on the slider. **Tap** on the slider to add another gradient handle for additional color variations.



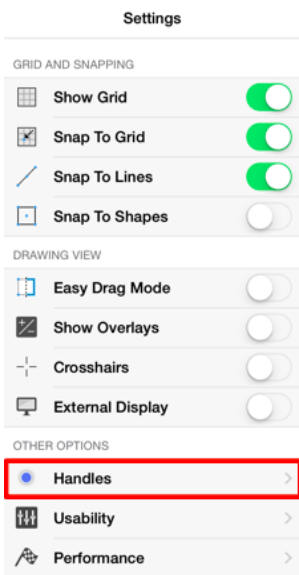
More than one color can be added by setting each individual gradient handle to one of the desired colors. In the example below, three gradient handles are used with these colors: white, blue, and green.



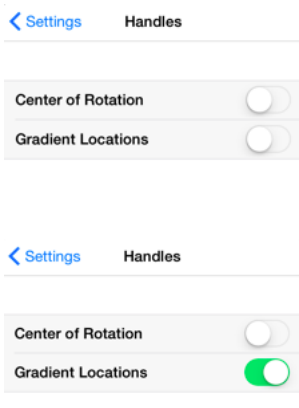
### Gradient Handles Option

You may also enable the **Gradient Locations** option to view the handles for adjusting the *angle* and *color progression* attributes of a figure within the [Drawing Canvas](#). To do so, tap on the **Settings Button** in the [Top Toolbar](#) and then tap on the [Handles Submenu](#).

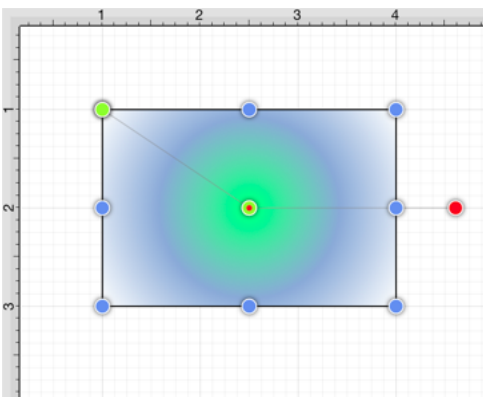
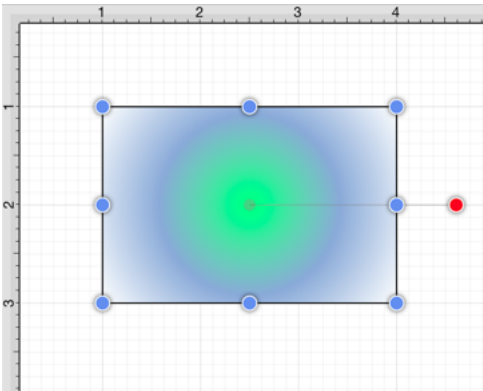




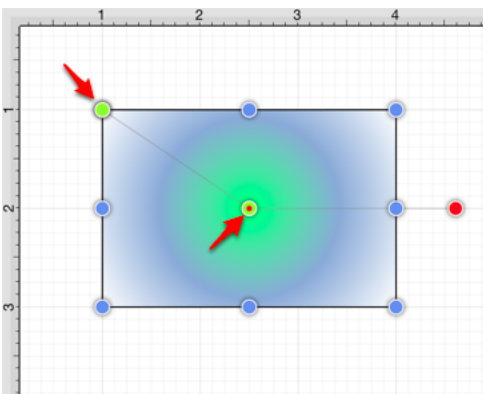
The **Gradient Locations** option resides in the [Handles Submenu](#) as shown below. It will have a gray background when disabled. To enable this option, tap on the On/Off toggle slider and it will move to the right and change to a green background to show that the option has been enabled.

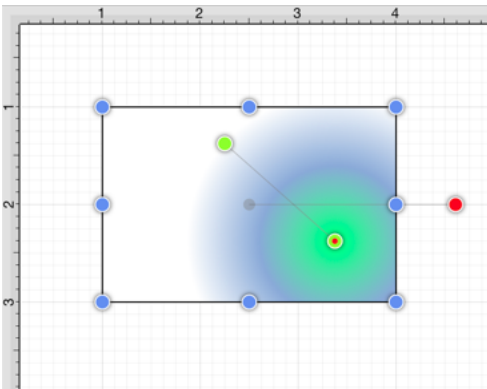


Once this option is enabled, you will see two additional handles on each selected figure. These may be used to adjust the angle and progression of colors for the radial gradient. Below you will see what a figure looks like when this option has not been enabled and then after it is enabled.



The two handles may be moved to any location within or outside of a figure to change the angle or fill pattern. To do so, press and hold on the handle. Then drag the handle in any desired direction without lifting your finger. The top gradient handle is selected in the example below. It is moved downward and to the right within the figure.



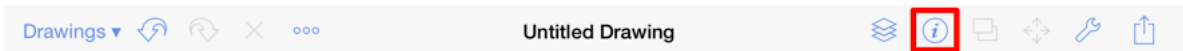


A style change will be seen instantaneously when a figure is [selected](#). If figures have not been selected, the style change will apply to all subsequently created figures.

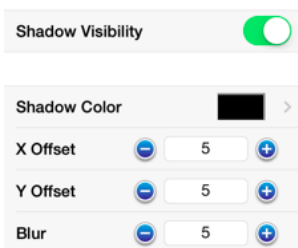
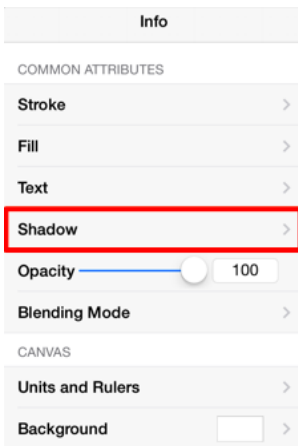
## 5.1.12.4. Shadow Color

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:

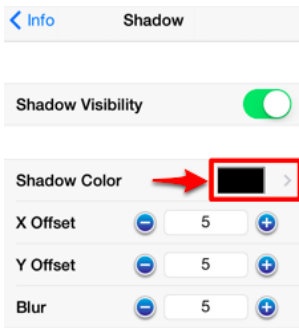
1. Press on the **Info Button** in the [Top Toolbar](#).



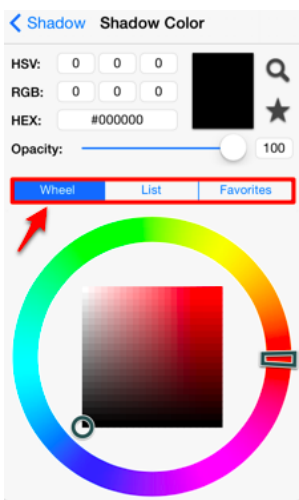
2. Tap on the **Shadow** option to open the following popover window.



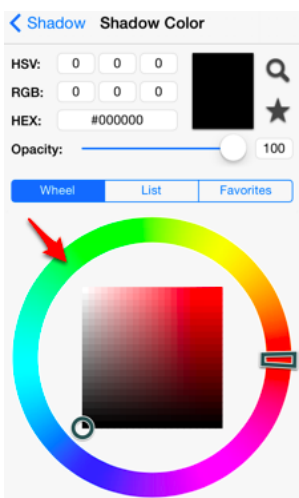
3. Press on the **Shadow Color Button** to open the **Shadow Color Window**.

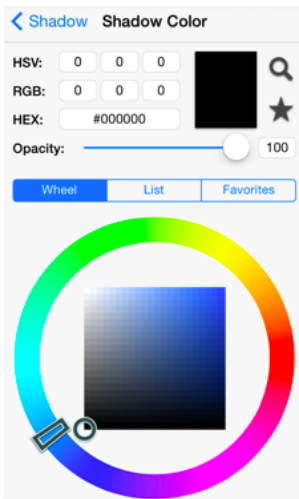


4. Next, press on the desired color selection method (Wheel, List, or Favorites). In this example, the wheel is chosen.

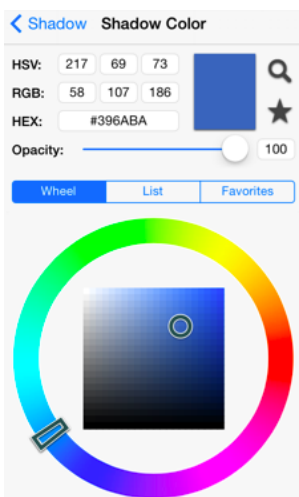
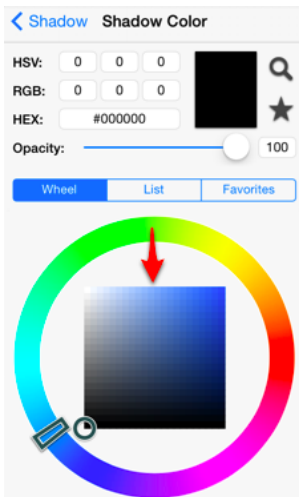


5. Tap on a color range within the outside of the wheel view.

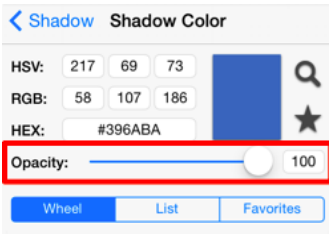




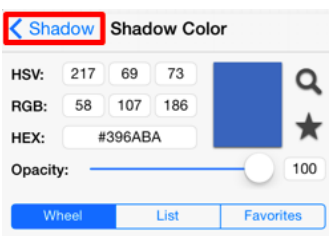
6. Choose a desired lightness or darkness of the selected color in the center (saturation) square.



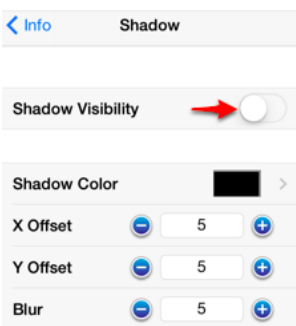
7. Perform a **Touch/Drag** gesture combination on the **Opacity Slider** to change the degree to which the shadow can be seen through.

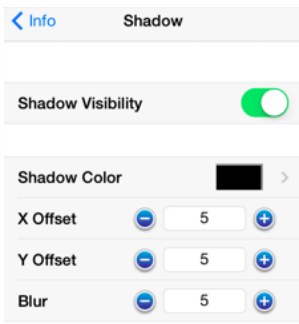


8. Press on the **Shadow Button** to return to the **Shadow Window** or tap anywhere within the **Drawing Editor** to close the window.



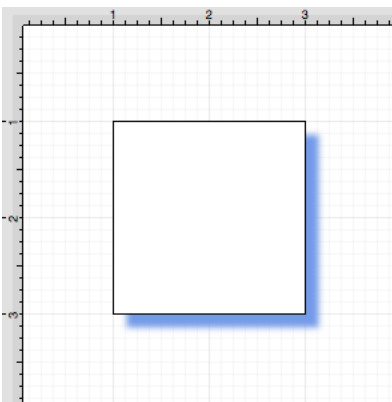
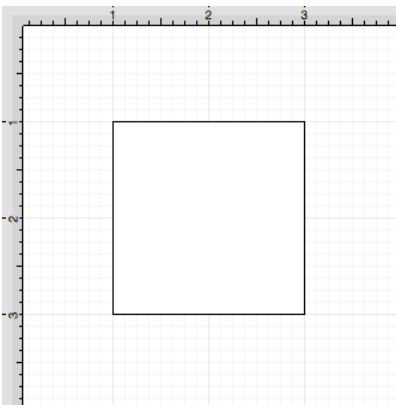
Changes made to this attribute are only reflected on current or new figures within the **Drawing Canvas** when the **Shadow** option has been enabled. Tap on the **Shadow** option in the **Info Menu** and perform a **Touch/Drag** gesture combination or simply **Tap** on the **On/Off** toggle slider to turn on the option. Refer to the screenshots below:





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.

The following examples show a square prior to adding a shadow and after the color has been altered.

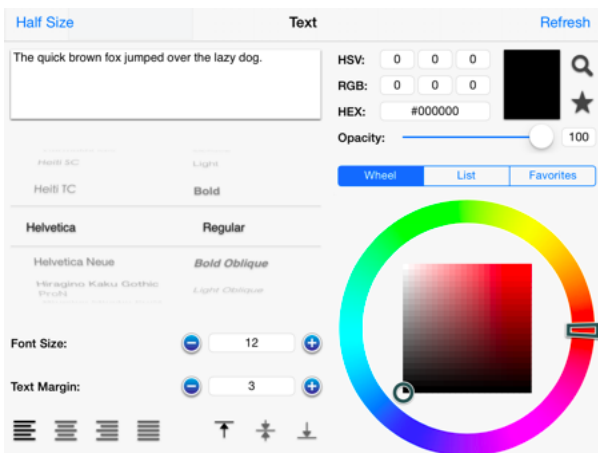
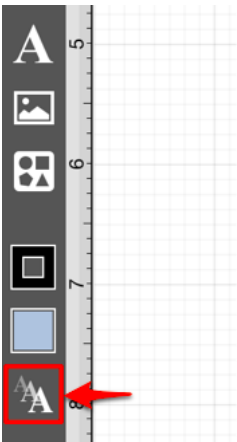




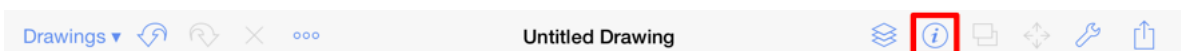
## 5.1.12.5. Text Color

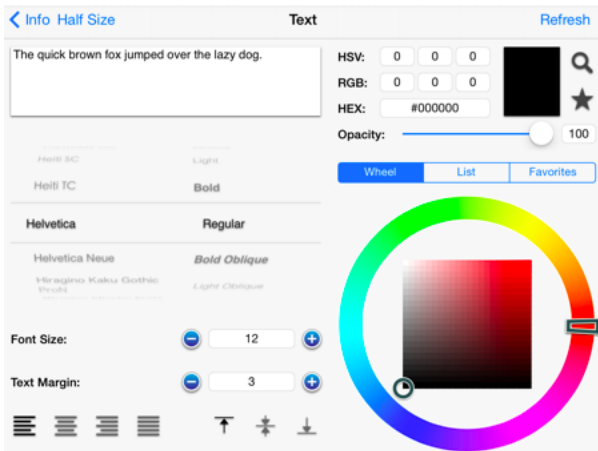
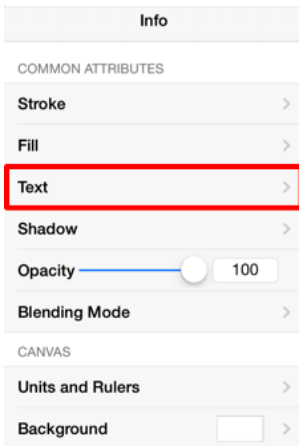
The **Text Color** of a selected figure can be changed to meet a desired preference. It can be altered for a [selected](#) figure(s) or in instances where no figures have been selected. If a figure has not been selected, the color change applies to any figure added after the change. This attribute can be altered in one of the following ways:

1. Press on the **Text Button** located in the [Drawing Toolbar](#).



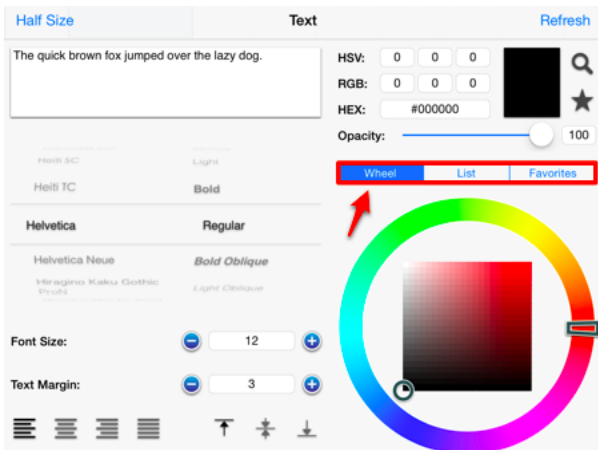
2. Press on the **Info Button** in the [Top Toolbar](#).



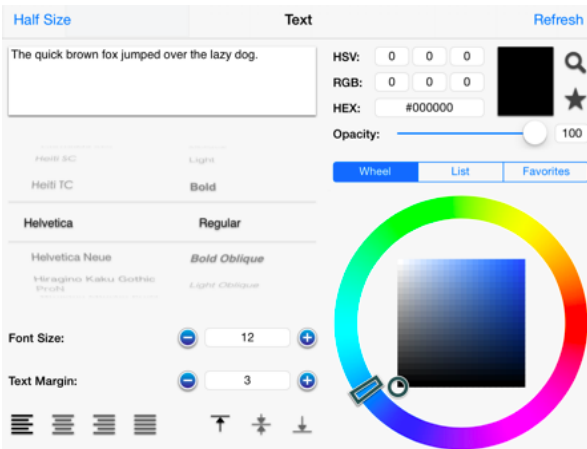
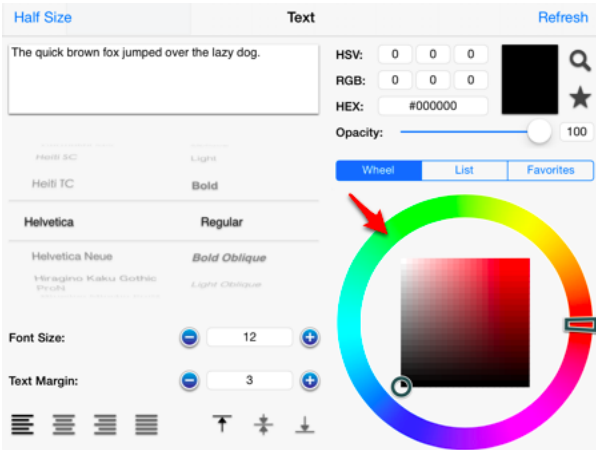


To alter the **Text Color**:

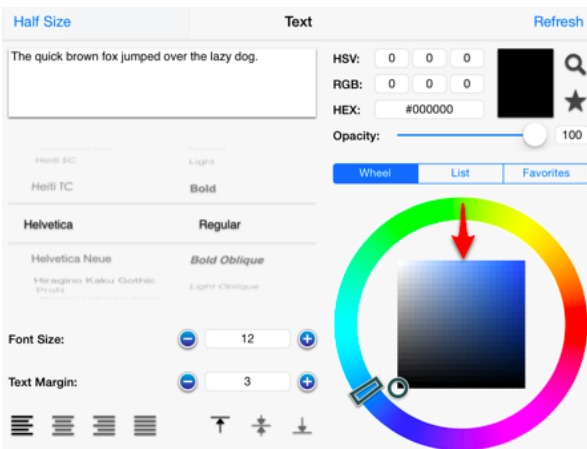
1. Press on the desired color selection method (Wheel, List, or Favorites). In this example, the wheel is chosen.

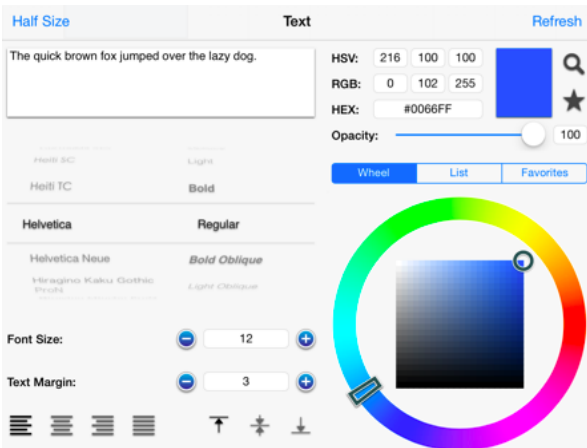


2. Tap on a color range within the outside of the wheel view.

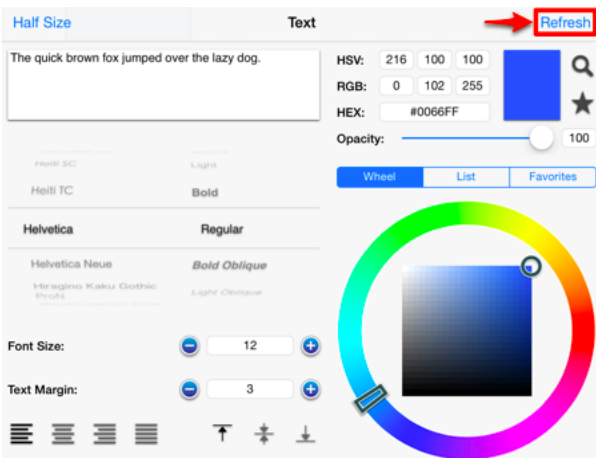


3. Choose the desired lightness or darkness of the selected color in the center (saturation) square.

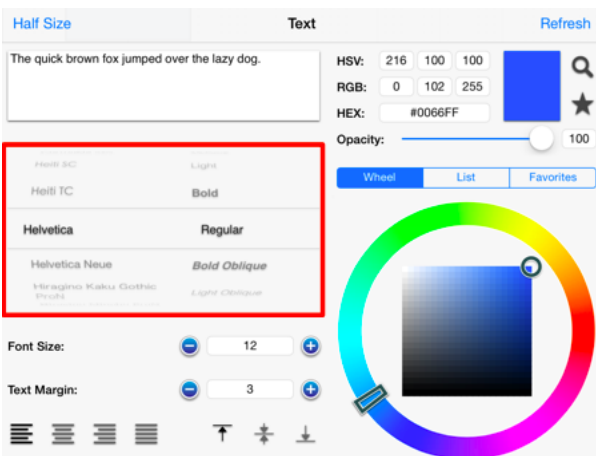


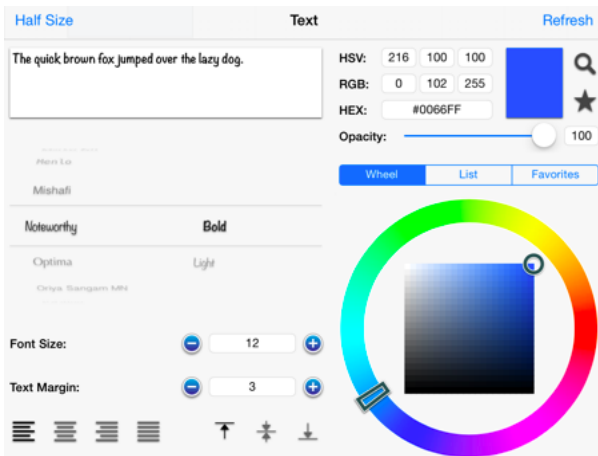


4. Press on the **Refresh Button** if changes do not appear automatically.

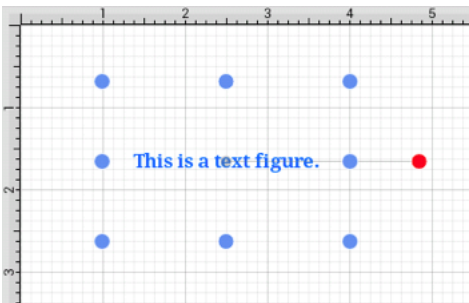
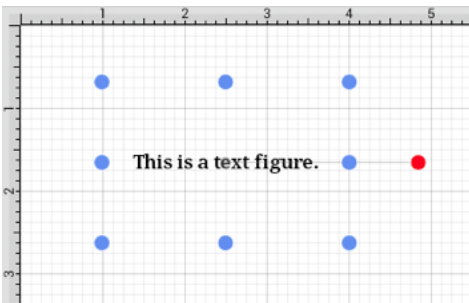


5. Scroll through the **Font Family** and **Font Style** options by touching and dragging in an upward or downward direction on the wheel to make a selection or **Press** on additional options (opacity slider, fill type, etc.) within the popover window to make further attribute changes.





6. Tap anywhere within the [Drawing Editor](#) to close the window.

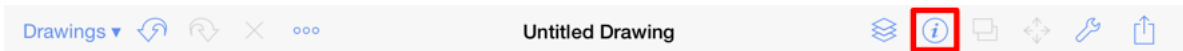


**Note:** A color change will be seen instantaneously when text is [selected](#). If text has not been selected, the color change will apply to all subsequent text entries.

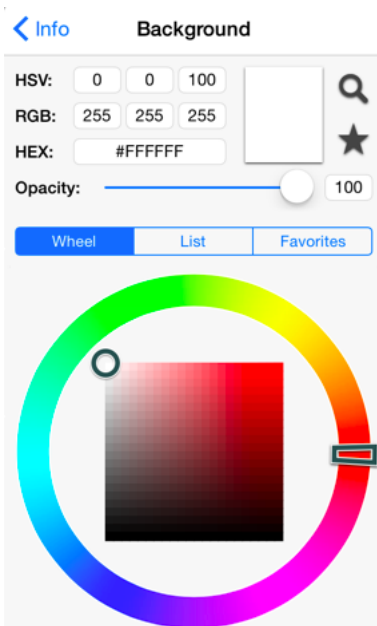
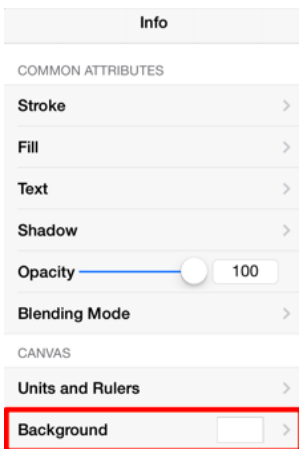
## 5.1.12.6. Canvas Background Color

The **Canvas Background Color** can be changed to meet a desired preference. Follow the steps below to alter this attribute:

1. Press on the **Info Button** in the [Top Toolbar](#).

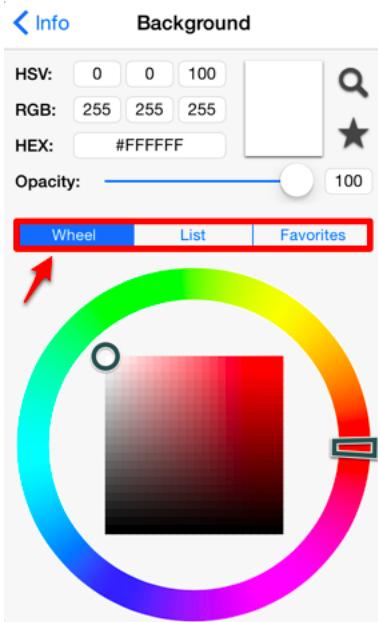


2. Tap on the **Background** option in the [Info Menu](#) to open the following popover window.

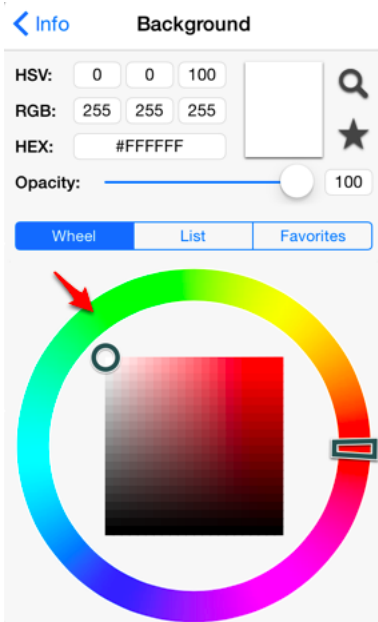


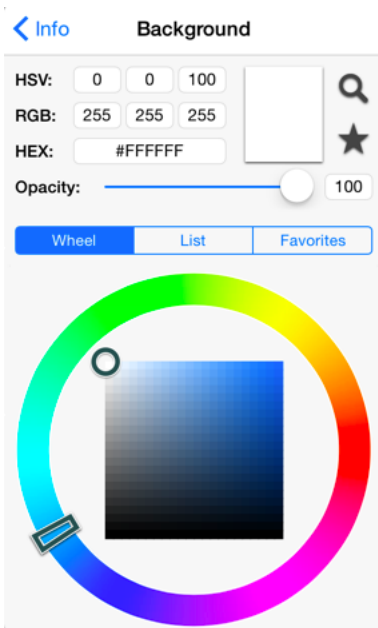
3. Next, press on the desired color selection method (Wheel, List, or Favorites). In this example, the wheel

is chosen.

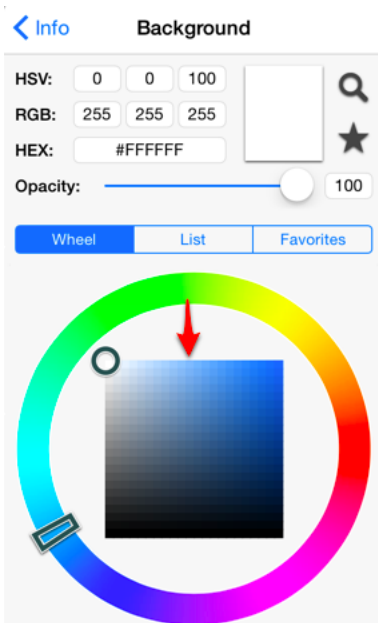


4. Tap on a color range within the outside of the wheel view.

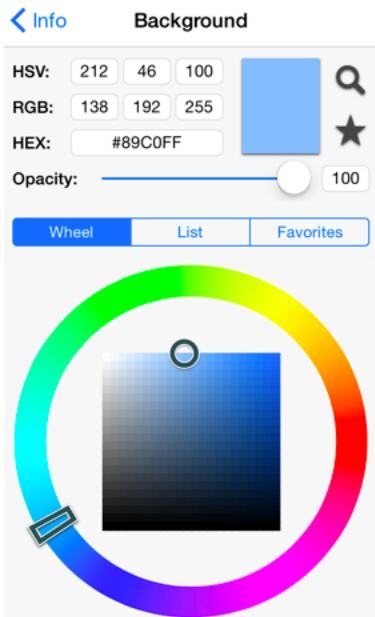




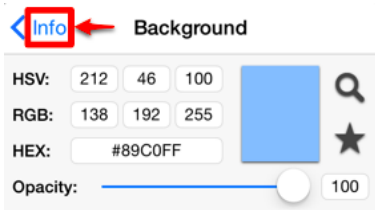
5. Choose the desired lightness or darkness of the selected color in the center (saturation) square.



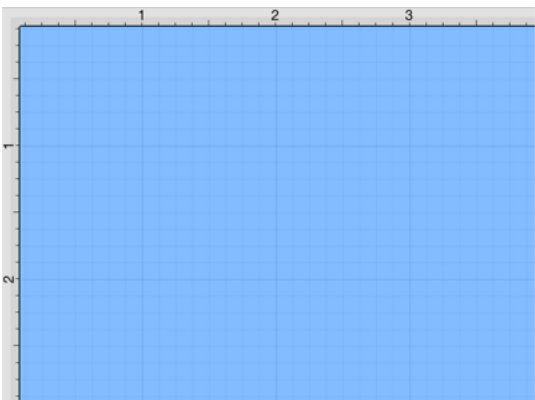




6. Press on the **Info Button** to return to the [Info Menu](#) or tap anywhere within the [Drawing Editor](#) to close the window.



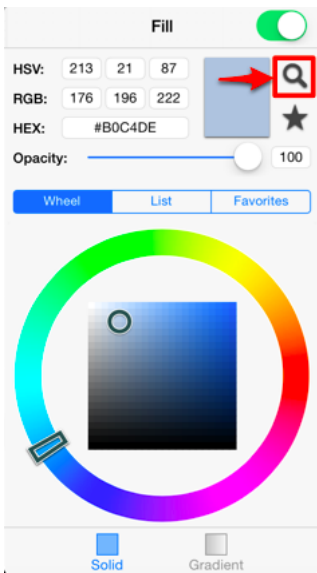
7. The **Canvas Background Color** change will appear instantaneously.



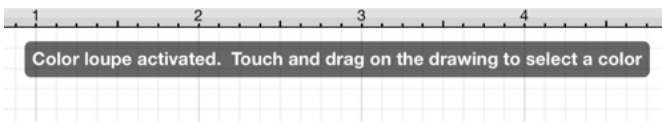
**Note:** Move the **Opacity Slider** to zero to make the **Canvas Background Color** transparent within the [Drawing Editor](#).

## 5.1.12.7. Color Loupe

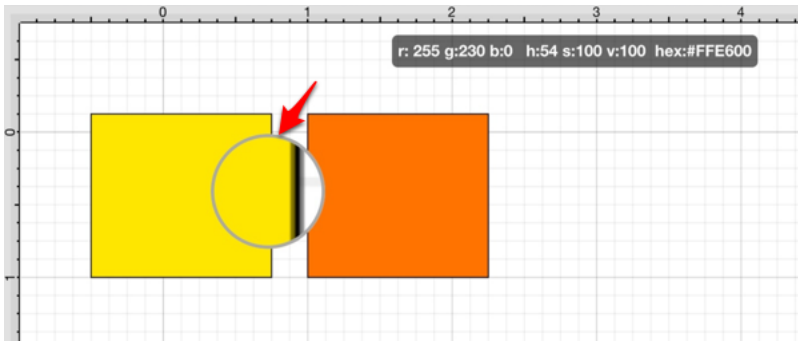
The **Color Loupe** (which in some applications is called an eye-dropper tool), is activated by pressing the **Loupe Button** in the **Color Wheel**. It allows colors to be picked from a figure, drawing or other object visible within the currently visible **Drawing Canvas**. It provides a quick and easy way to set a figure color to a previously used color within the drawing.



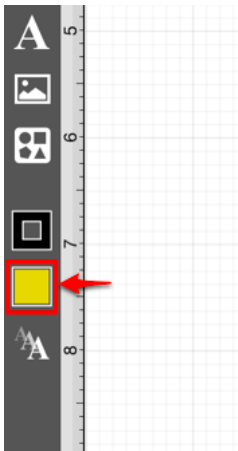
After the **Color Loupe** has been activated, the **Standard Color Picker** will disappear and a message will appear at the top of the drawing view as a visual indicator of this feature being activated.



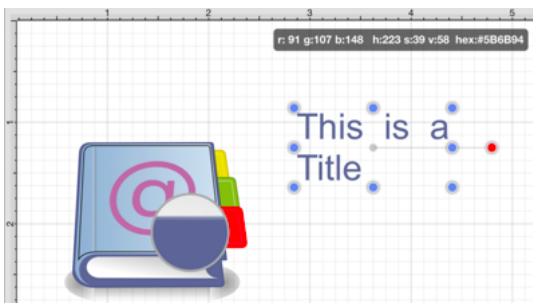
To select a color, perform a **Touch/Drag** gesture combination in an area of the Drawing Canvas. A **Magnifying Glass** will appear to allow for fine control over selecting an exact pixel color within the drawing. Once a desired pixel color has been selected, lift the finger to complete color selection and to apply it. A **single tap** can also be performed to copy a specific color used for an existing object within the Drawing Canvas.



The selected pixel color will appear as the current selection in the appropriate **Color Button** located in the [Drawing Toolbar](#). In the example above, the fill color is set for a figure and the color selection appears in the **Fill Color Button**, as shown below.



The following screenshot demonstrates what would be seen during color selection. In the screenshot below, the font color is being selected from an image for setting the color of title text.



The magnifying glass will appear right above where the **Touch/Drag** gesture combination is occurring. When viewing the screenshot above, imagine that the gesture is taking place right below the magnifying glass, and it

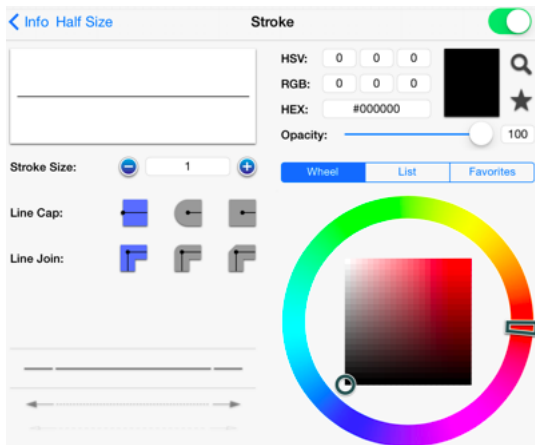
is magnifying what is underneath the utilized finger.

## 5.1.13. Handling Strokes

TouchDraw provides multiple options for altering the attributes of a stroke (line) for existing or new figures(s) within the [Drawing Canvas](#). The **Stroke Window**, accessible through the [Info Menu](#), can be used to change:

- [Stroke Size](#)
- [Line Caps](#)
- [Line Joins](#)
- [Line or Endpoint Styles](#)
- [Line Colors](#)

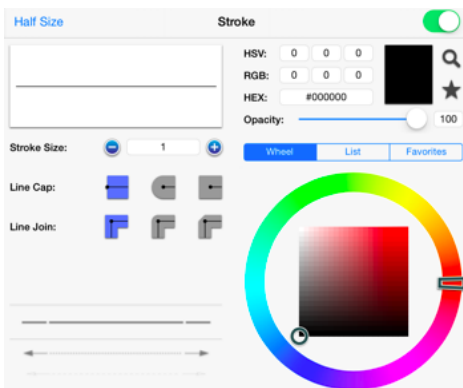
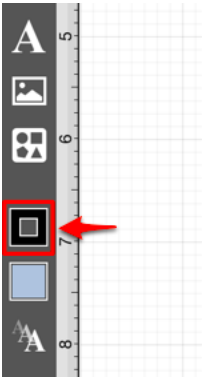
The **Stroke Window** appears as shown below:



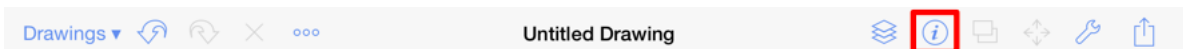
## 5.1.13.1. Stroke Visibility

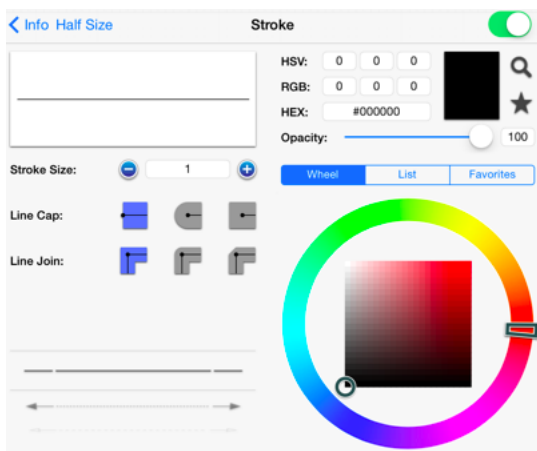
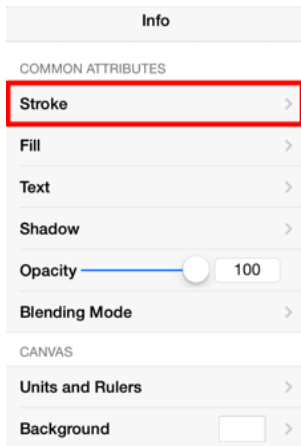
The **Stroke Visibility** option is an **On/Off** toggle slider used to set the visibility of strokes/lines of a figure(s). If the visibility option is turned off, the border/line of a selected or added figure(s) is not drawn at all. The **Stroke Visibility** toggle can be accessed in one of two ways:

1. Press on the **Stroke Button** in the [Drawing Toolbar](#).

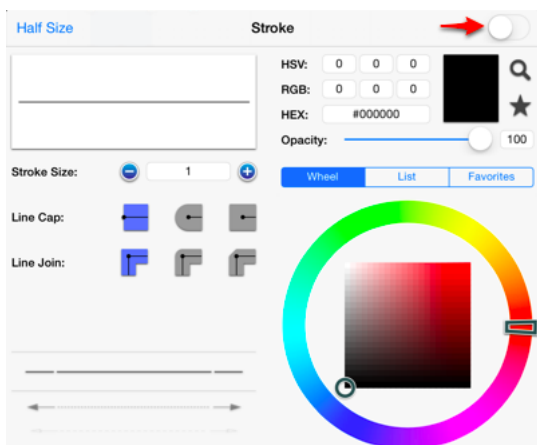


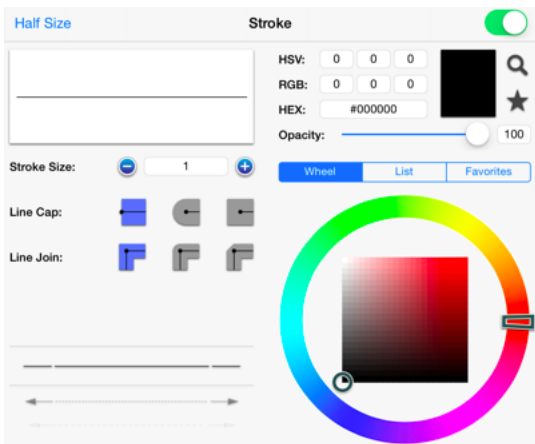
2. Press on the **Info Button** in the [Top Toolbar](#).





To enable **Stroke Visibility**, tap on the **On/Off** toggle slider in the upper right hand corner of the **Stroke Window**. The slider will appear with a green background when this option is enabled.

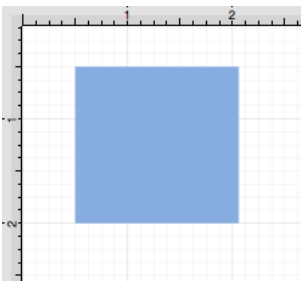
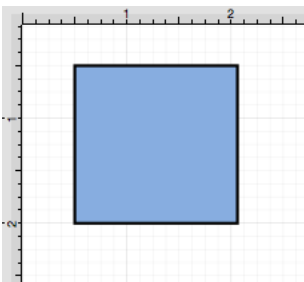




Press on the **Info Button** located in the top upper left corner of the **Stroke Window** to return to the [Info Menu](#) or tap anywhere within the [Drawing Editor](#) to close this window after changes have been made.



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:



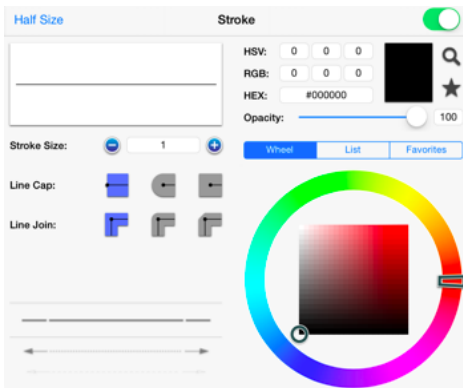
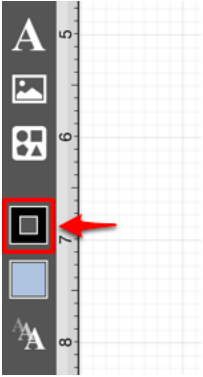
**Note:** Stroke attribute changes will not be reflected in a selected or added figure(s) until this option has been turned on.



## 5.1.13.2. Stroke Size

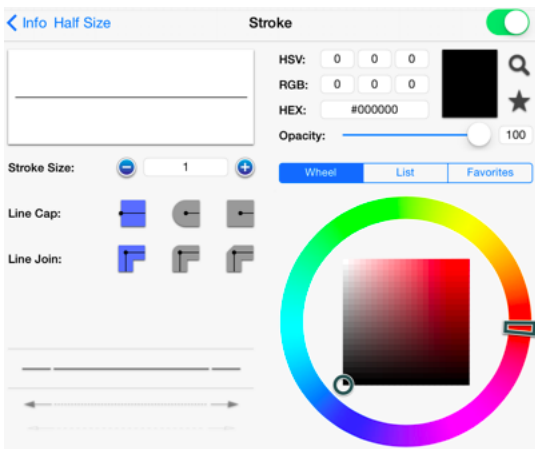
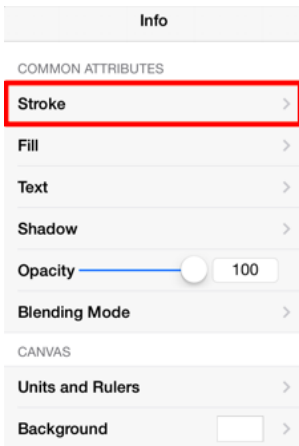
The **Stroke Size** of a figure (width of a stroke \_in pixels\_) can be altered by accessing the **Stroke Window**. This attribute window can be opened in one of the following ways:

1. Press on the **Stroke Button** located in the [Drawing Toolbar](#).



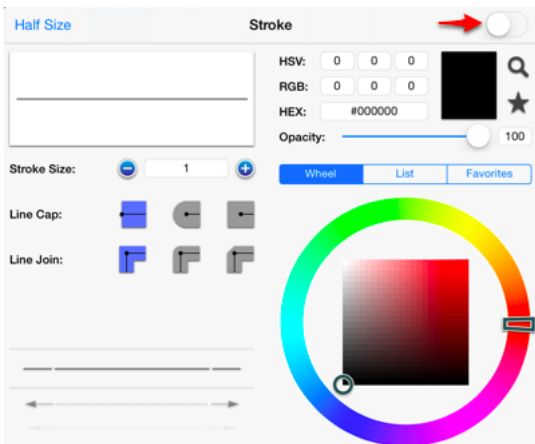
2. Press on the **Info Button** in the [Top Toolbar](#).

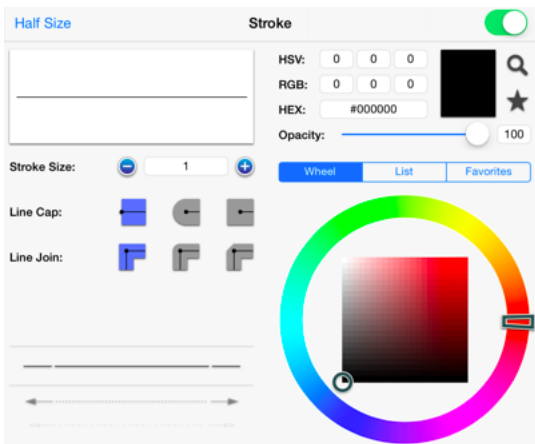




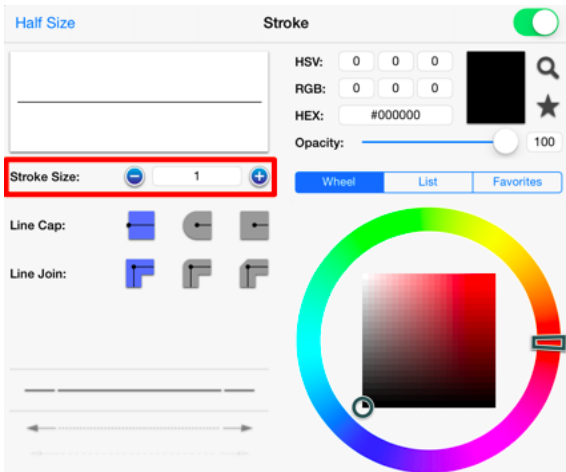
To alter the **Stroke Size**:

1. Tap on the **On/Off** toggle slider in upper right hand corner of the **Stroke Window** to turn on the option. The slider will appear with a green background when this option is enabled.





2. Press on the **Plus/Minus Buttons** to increase or decrease the size by increments of one or perform a **Single Tap** on the text entry field to open the keyboard and type in a value.



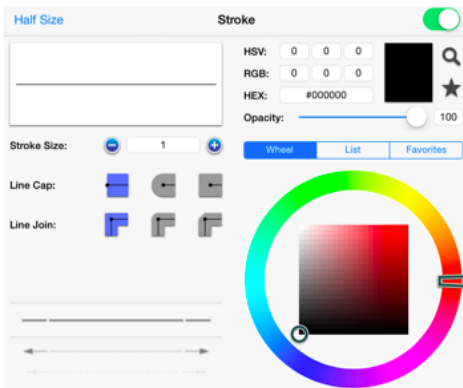
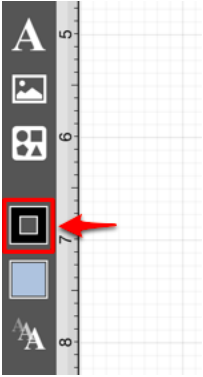
3. Tap anywhere within the [Drawing Editor](#) to close this window after changes have been made.

**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.

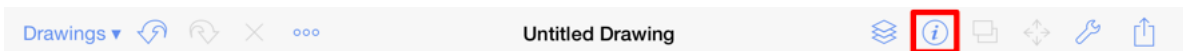
### 5.1.13.3. Line Cap

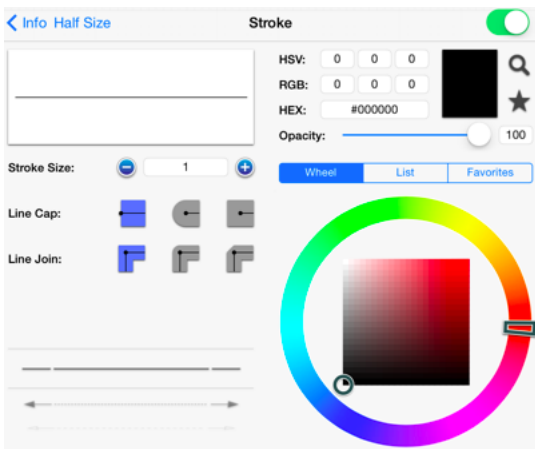
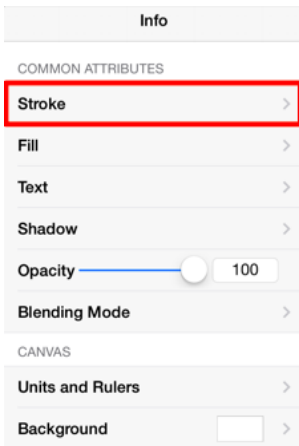
The **Line Cap** (Butt, Rounded, or Square) of a figure can be altered by accessing the **Stroke Window**. This attribute window can be opened in one of the following ways:

1. Press on the **Stroke Button** located in the [Drawing Toolbar](#).



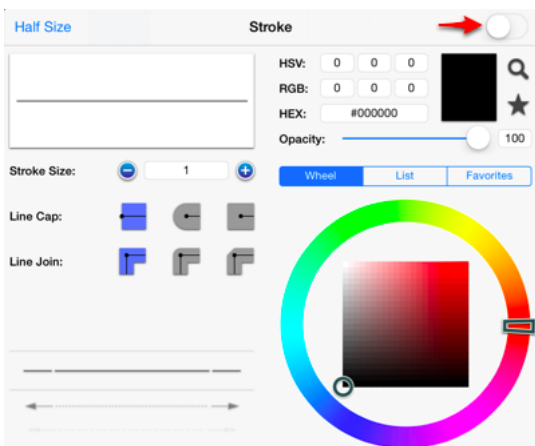
2. Press on the **Info Button** in the [Top Toolbar](#).

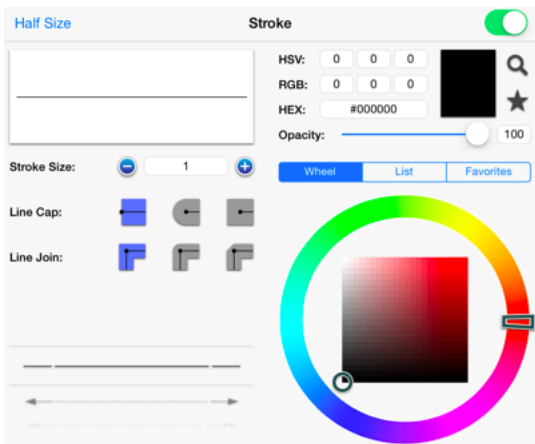




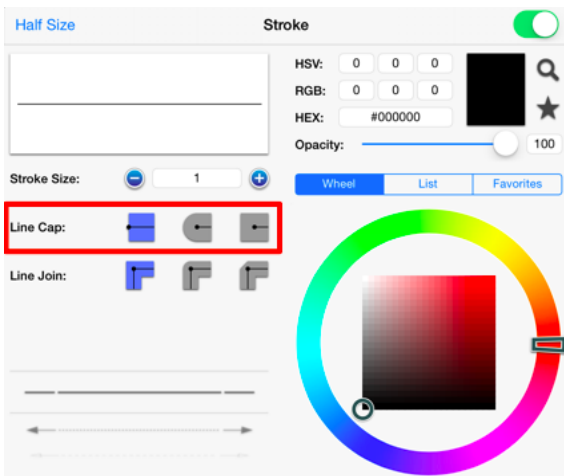
To alter the **Line Cap Type**:

1. Tap on the **On/Off** toggle slider in the upper right hand corner of the **Stroke Window** to turn on the option. The slider will appear with a green background when this option is enabled.

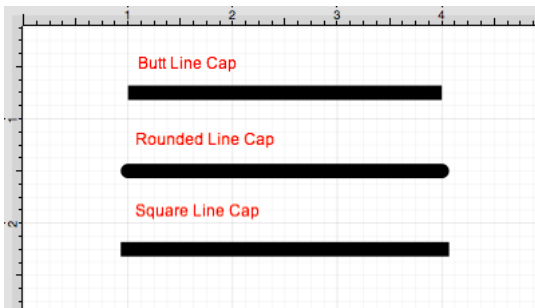




2. Press on the desired **Line Cap Type Button**.



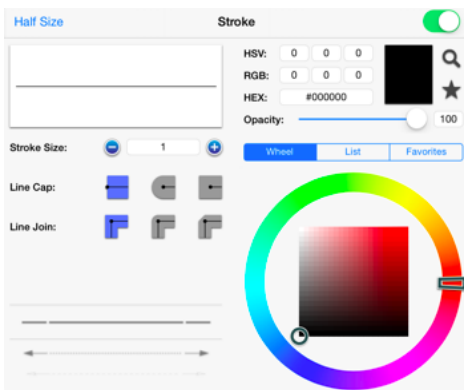
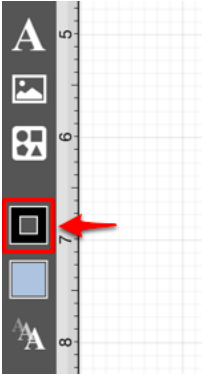
3. Tap anywhere within the [Drawing Editor](#) to close this window after changes have been made. For example, the image below shows what a [Line](#) would look like with a **Butt**, **Rounded**, and **Square Line Cap**.



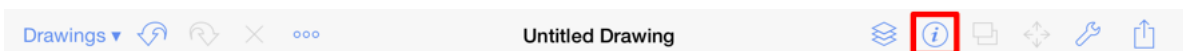
## 5.1.13.4. Line Join

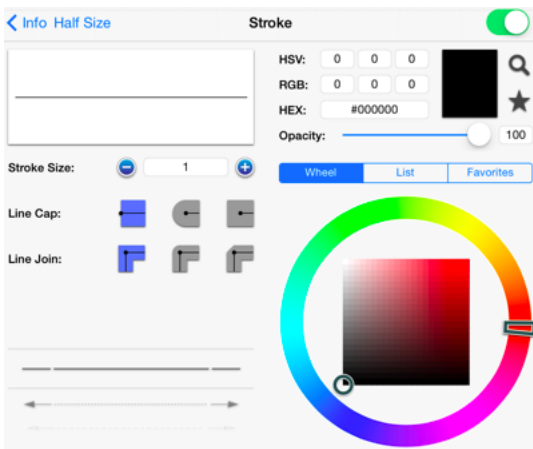
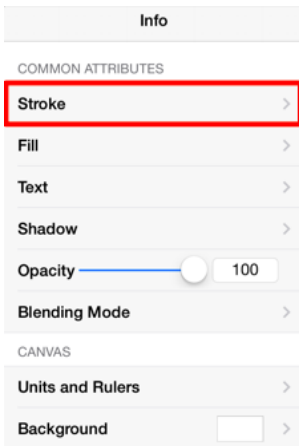
The **Line Join** (Mitered, Rounded, or Bevelled) of a figure can be altered by accessing the **Stroke Window**. This attribute window can be opened in one of the following ways:

1. Press on the **Stroke Button** located in the [Drawing Toolbar](#).



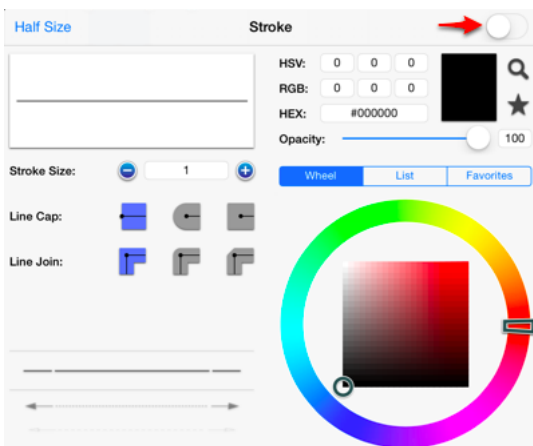
2. Press on the **Info Button** in the [Top Toolbar](#).



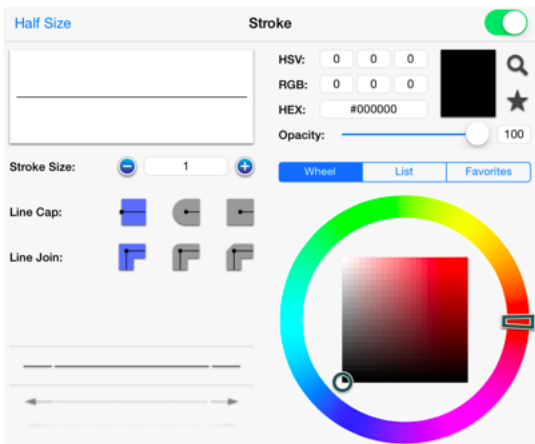


To alter the **Line Cap Type**:

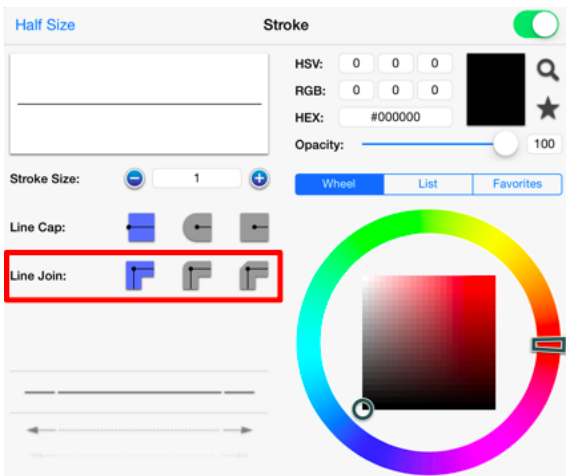
1. Tap on the **On/Off** toggle slider in the upper right hand corner of the **Stroke Window** to turn on the option. The slider will appear with a green background when this option is enabled.



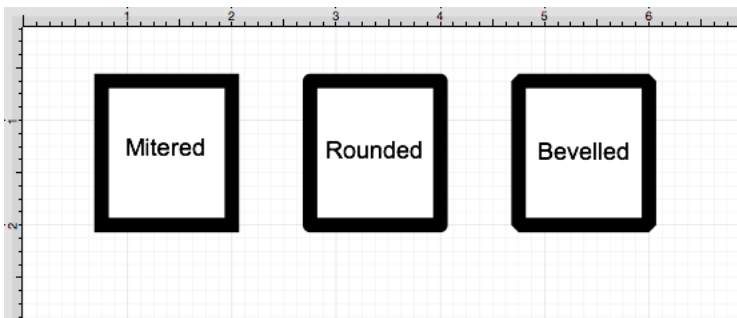




2. Press on the desired **Line Join Type Button**.



3. Tap anywhere within the [Drawing Editor](#) to close this window after changes have been made. The image below shows what a [Square](#) would look like with a **Mitered, Rounded, Bevelled Line Join**.

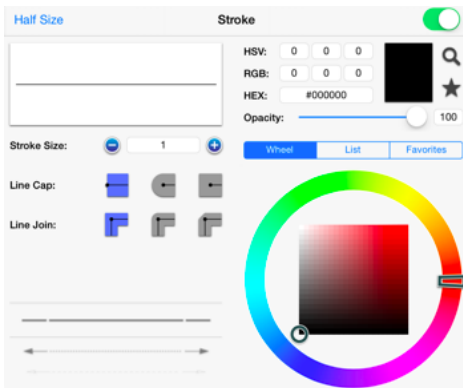
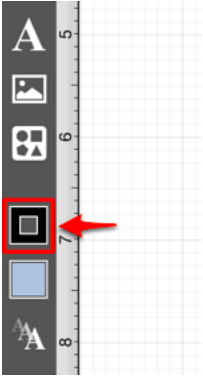


**Note:** A Line Join change will be seen instantaneously when a stroke figure is [selected](#). If no figures have been selected, the Line Join change will apply to all subsequently created stroke figures.

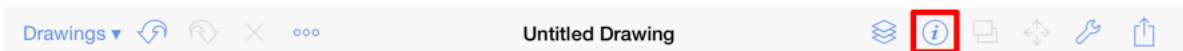
## 5.1.13.5. Stroke Style

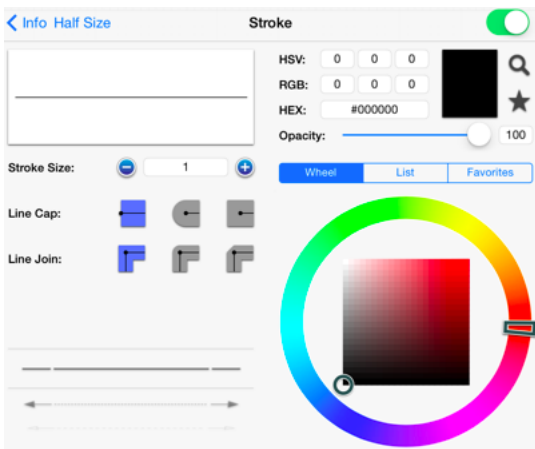
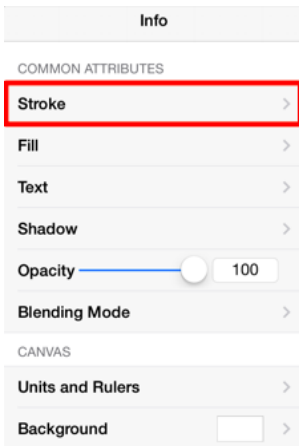
The **Stroke Style** or line dash pattern and end decorations of a figure can be altered by accessing the **Stroke Window**. This attribute window can be opened in one of the following ways:

1. Press on the **Stroke Button** located in the [Drawing Toolbar](#).



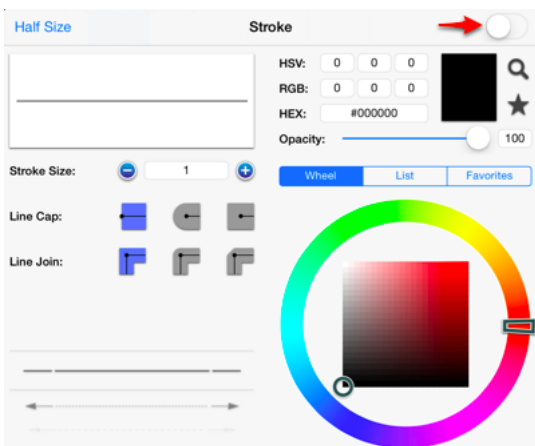
2. Press on the **Info Button** in the [Top Toolbar](#).

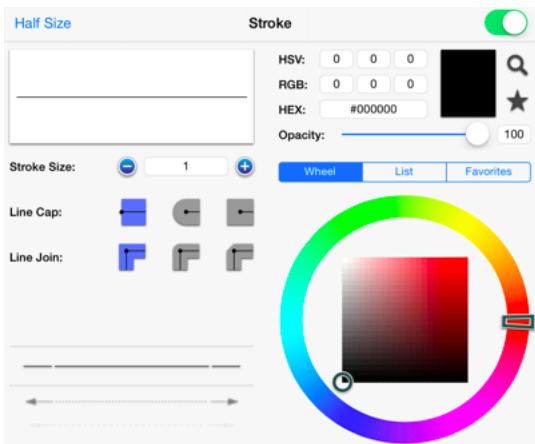




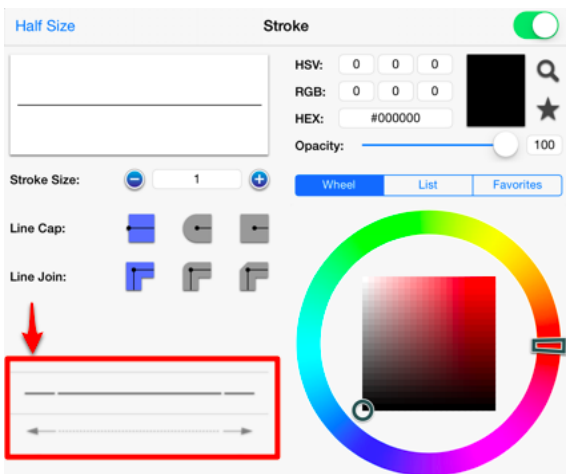
To alter the **Stroke Style**:

1. Tap on the **On/Off** toggle slider in the upper right hand corner of the **Stroke Window** to turn on the option. The slider will appear with a green background when this option is enabled.

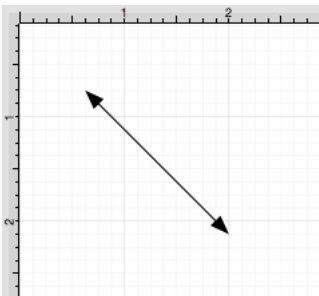




2. Scroll through available style options (arrowhead, dashed, solid, etc.) by touching and dragging in an upward or downward direction on the desired section (Beginning, Middle, or End) of the **Line Style Selection Wheel**.



3. Tap anywhere within the [Drawing Editor](#) to close this window after changes have been made. In the example below, a line figure has been created and the start/end styles have been changed to a solid arrow.



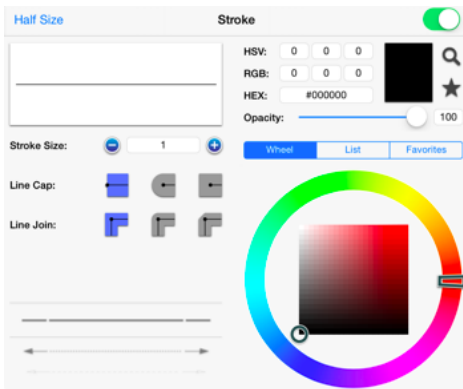
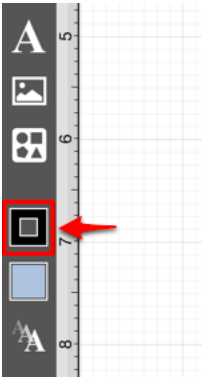
**Note** A Line Style change will be seen instantaneously when a stroke figure is [selected](#). If no figures have been selected, the Line Style change will apply to all subsequently created stroke figures.



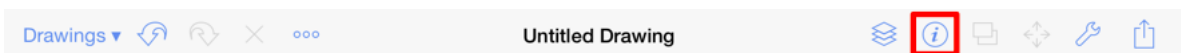
## 5.1.13.6. Line Color

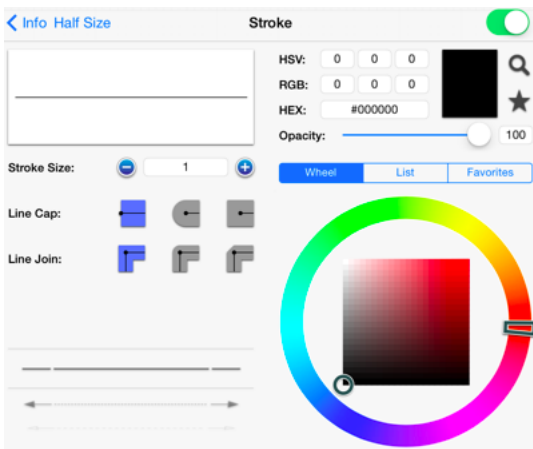
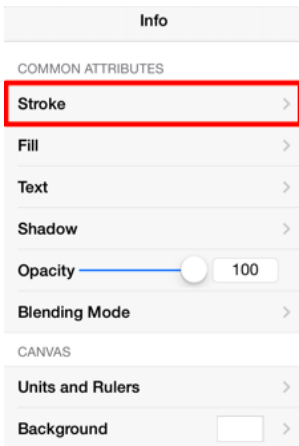
The **Line (Stroke) Color** of a selected figure can be changed to meet a desired preference. The **Line Color** can be altered for a [selected](#) figure(s) or in instances where no figures have been selected. If a figure has not been selected, the color change applies to any figure added after the change. This attribute can be altered in one of the following ways:

1. Press on the **Stroke Button** located in the [Drawing Toolbar](#).



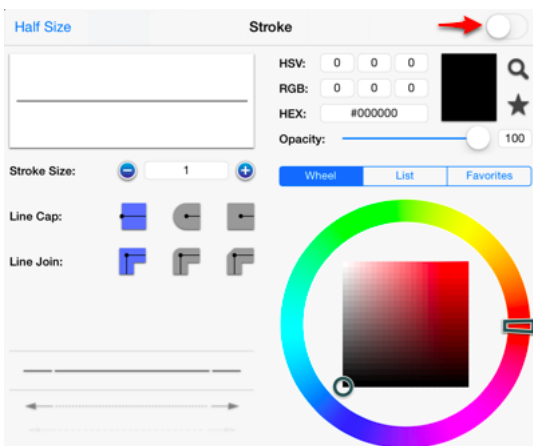
2. Press on the **Info Button** in the [Top Toolbar](#).

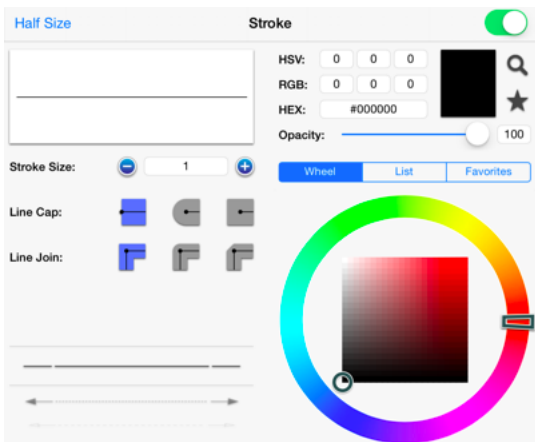




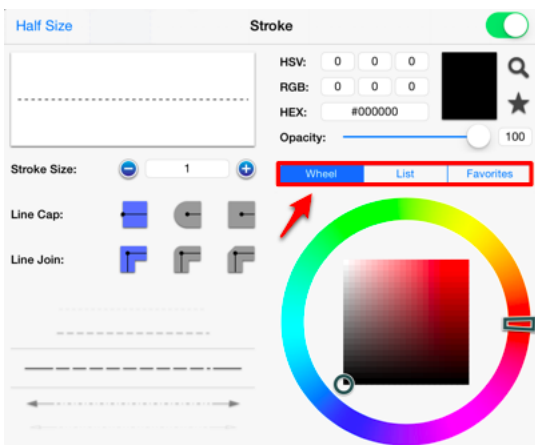
To alter the **Line (Stroke) Color**:

1. Tap on the **On/Off** toggle slider in the upper right hand corner of the **Stroke Window** to turn on the option. The slider will appear with a green background when this option is enabled.

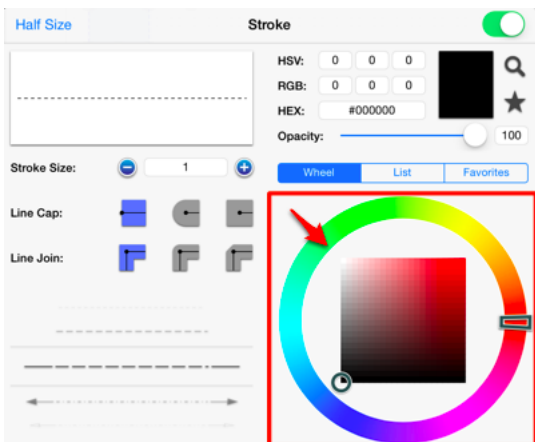




2. Next, press on the desired color selection method (Wheel, List, or Favorites). In this example, the wheel is chosen.

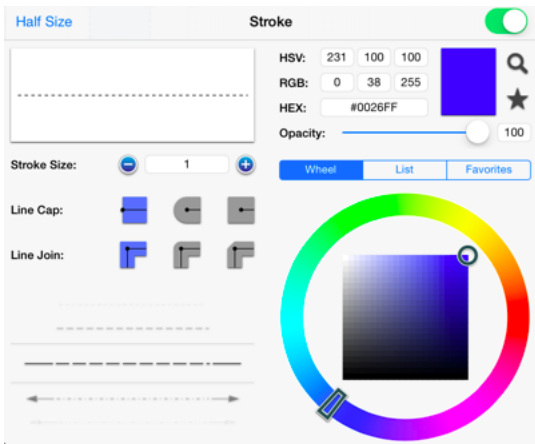
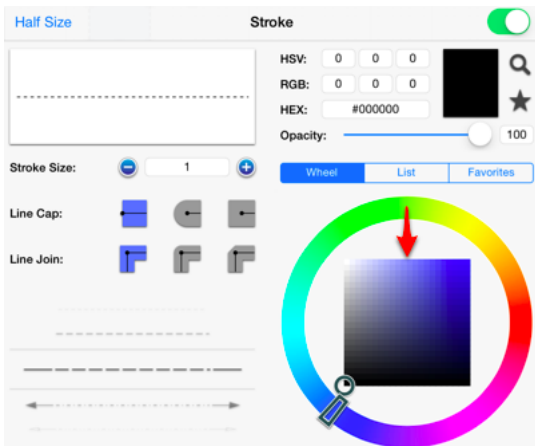


3. Tap on a color range within the outside of the wheel view.

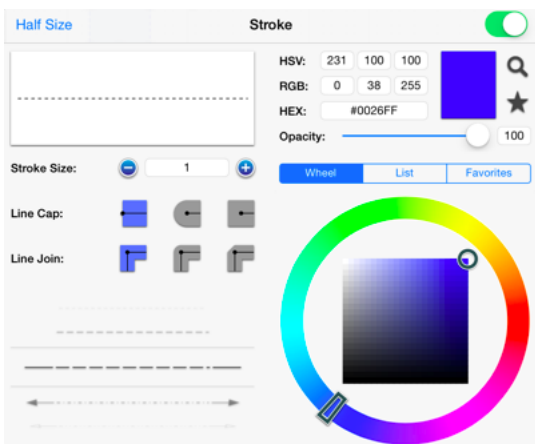


4. Choose the desired lightness or darkness of the selected color in the center (saturation) square.

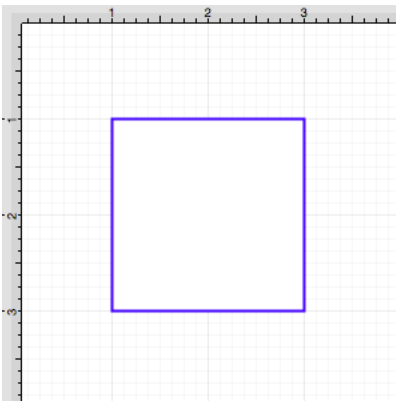
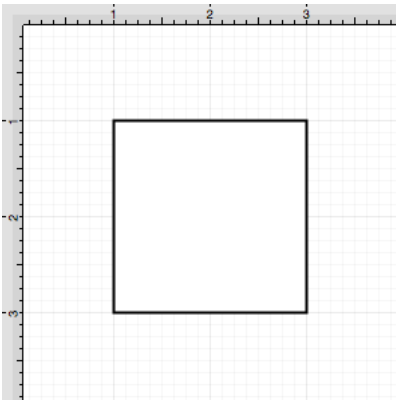




5. Perform a **Touch/Drag** gesture combination or **Press** on additional options (opacity, line join, etc.) within the **Stroke Window** to make further attribute changes.



6. Tap anywhere within the [Drawing Editor](#) to close the window. The following example shows a figure with a white fill, a stroke size of 2, and a line color that has been changed from black to blue.



**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.

## 5.1.14. 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 \(Custom Shapes\)](#)

While an abundance of fonts are available within TouchDraw for use with the [Text Tool](#) and when adding text to a created figure, you may also install a custom font for selection during text changes. Any desired font can be installed by accessing your device through iTunes and making a selection. Please refer to the [Installing a Custom TrueType Font](#) section of the documentation to learn more about this feature.

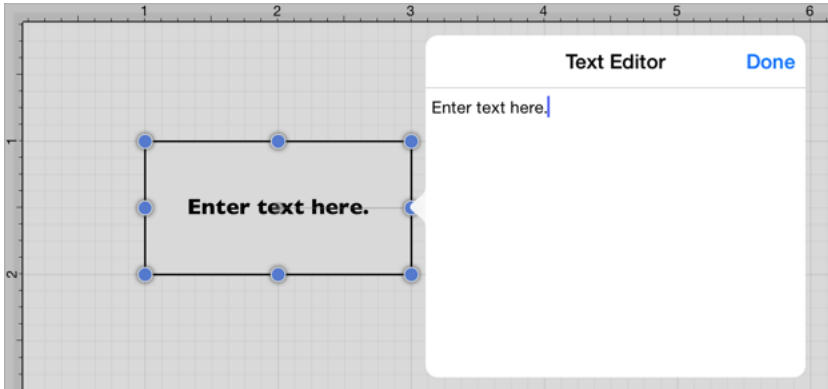
The attributes for entered text can be changed to meet specific preferences and include:

- [Font Family](#)
- [Font Size](#)
- [Font Style](#)
- [Font Color](#)
- [Text Alignment](#)
- [Text Margin](#)

[Variables](#) may also be used to input a certain pre-formatted value as part of the displayed text within a figure.

## 5.1.14.1. Editing Text

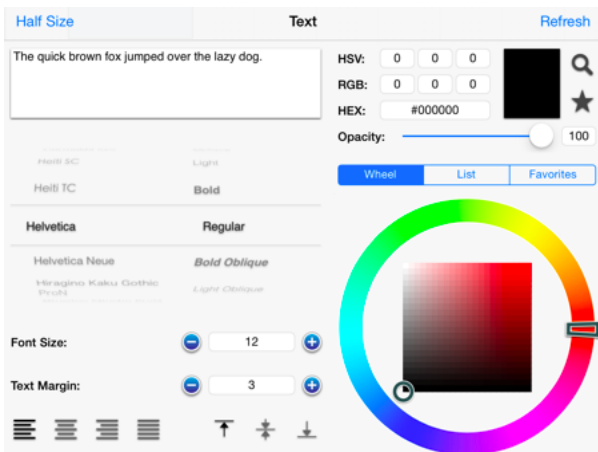
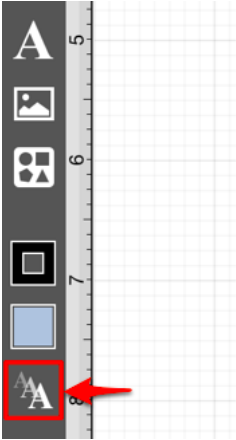
The **Text Editor** popover window must be opened to edit the text content of a [selected](#) figure. To open the text editor, perform a **Double Tap** on the desired figure for editing. After double tapping, the **Text Editor** will appear as shown below.



Entered text will be reflected within the drawing view in real time to provide instant feedback regarding how it will appear, wrap, etc.. within the figure. **Tap** in any location outside of the supplied popover or **Press** on the **Done Button** to dismiss the editor.

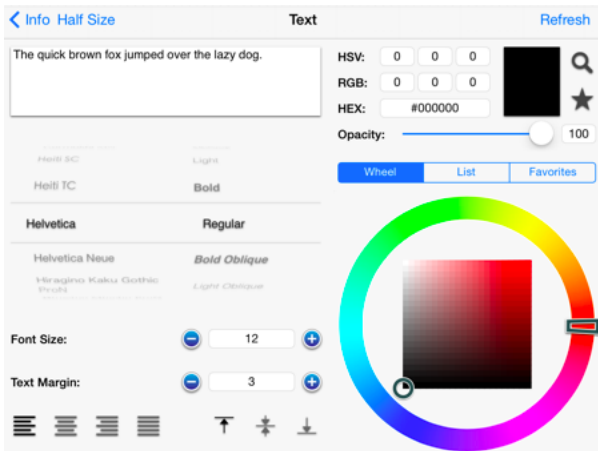
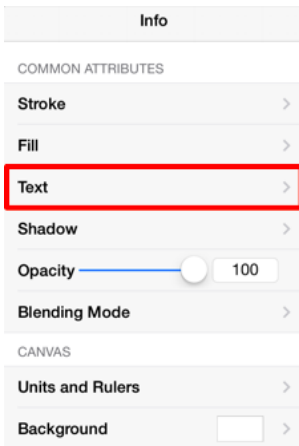
If you prefer the first value to automatically appear in uppercase, be certain to turn on the **Auto Capitalization** feature by pressing on [Settings](#) and then selecting [Usability](#).

1. Press on the **Text Button** in the **Drawing Toolbar**.



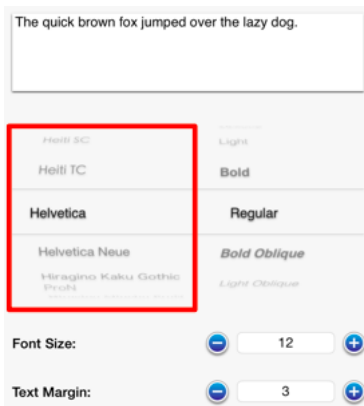
2. Press on the **Info Button** in the **Top Toolbar**.



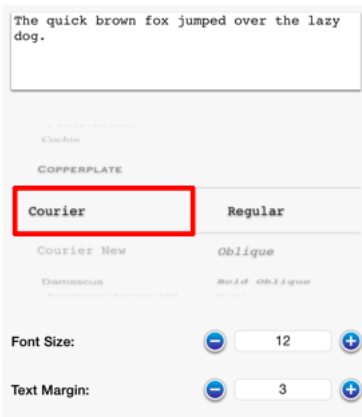


To alter the **Font Family**:

1. To scroll through available options, touch and drag in an upward or downward direction on the **Font Selection Wheel**.



2. Press on the desired **Font Family** to make a selection.



3. The current selection will appear between the two solid lines within the **Font Selection Wheel**, as shown below.



4. Changes in the **Text Popover Window** appear automatically; however, if the change does not appear in real time, press on the **Refresh Button** located in the upper right hand corner.



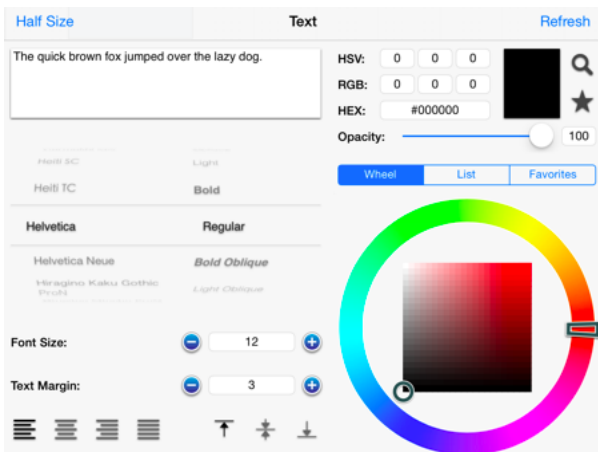
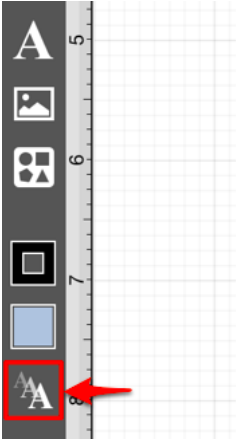
5. Tap anywhere within the [Drawing Editor](#) to close this window or press on the **Info Button** located in the upper left hand corner to return to the [Info Menu](#).



### 5.1.14.3. 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):

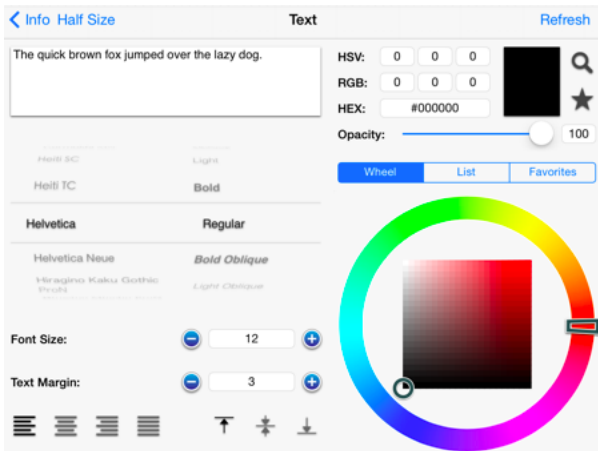
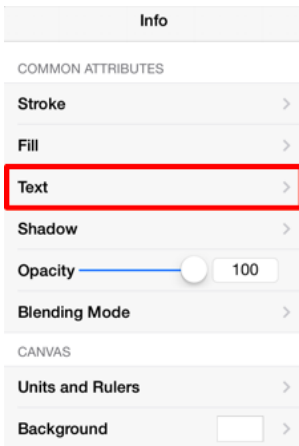
1. Press on the **Text Button** in the [Drawing Toolbar](#).



2. Press on the **Info Button** in the [Top Toolbar](#).

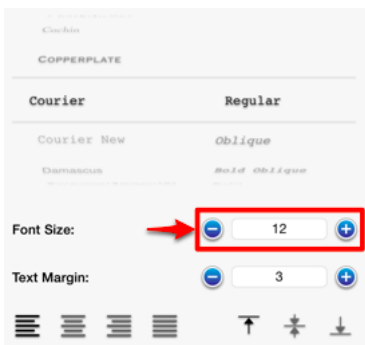






To alter the **Font Size**:

1. Tap on the **Plus/Minus Buttons** in the **Text Window** to increase/decrease the size by increments of 1 or press on the number field to enter a new size with the keyboard.



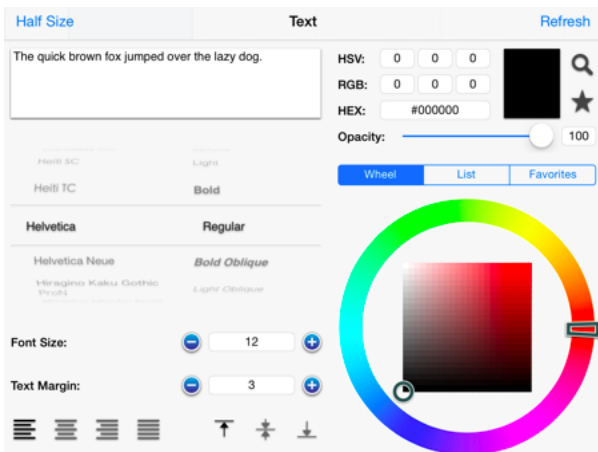
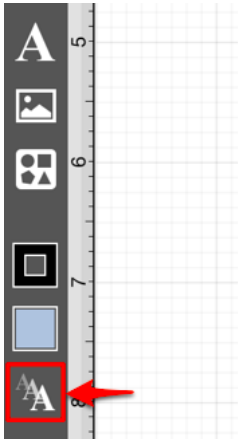
2. Press on the **Info Button** to return to the **Info Menu** or tap anywhere in the **Drawing Editor** to close the window.



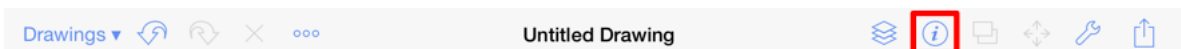
#### 5.1.14.4. Font Styles

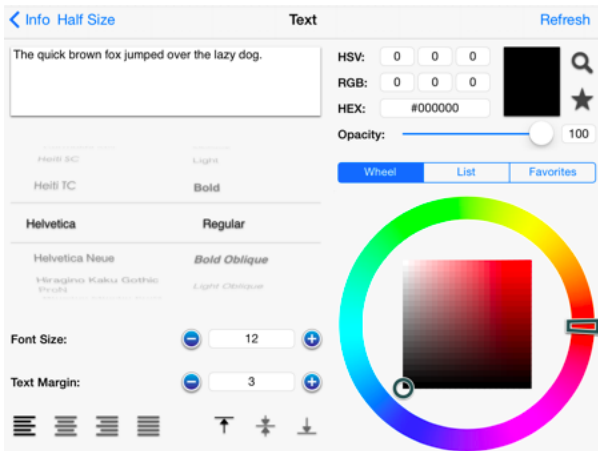
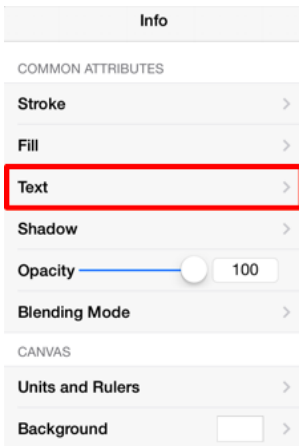
A figure must be [selected](#) to alter the **Font Style** of entered text. Use one of the following methods to change the font style for a selected figure(s):

1. Press on the **Text Button** in the **Drawing Toolbar**.



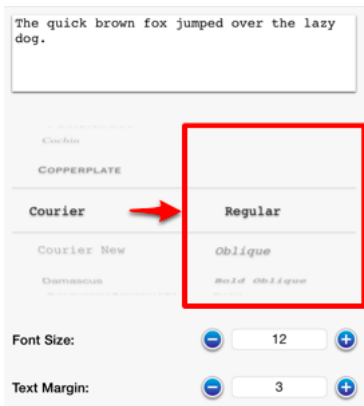
2. Press on the **Info Button** in the **Top Toolbar**.





To alter the **Font Style**:

1. The right side of the **Font Selection Wheel** lists the available styles of a selected **Font Family**, as shown below.

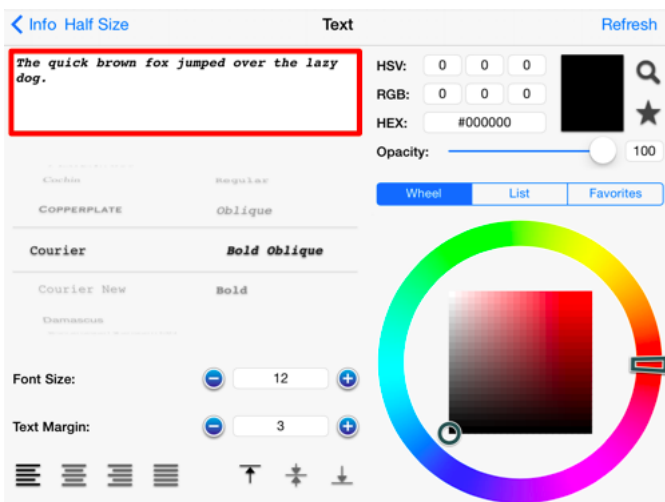


2. To scroll through available style options, touch and drag in an upward or downward direction on this

portion of the **Font Selection Wheel** . In this example, the style is changed to **Regular** as indicated by the blue highlighting.



3. A preview section located in the upper right hand corner of the **Text Window** shows how the text will appear according to current attribute selections.



4. All changes occur in real time when a figure(s) is selected. If a figure(s) is not selected, all changes are applied to newly created figures. The **Refresh Button** can be used in cases where changes do not appear in real time.



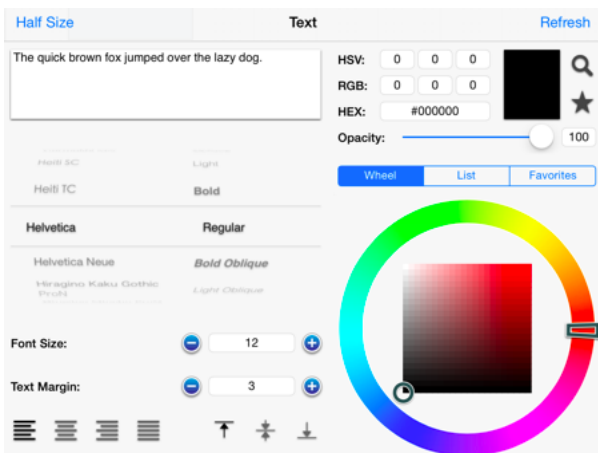
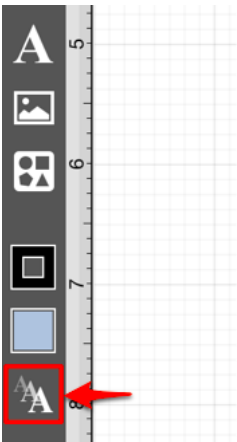
5. Tap anywhere within the **Drawing Editor** to close this window or press on the **Info Button** located in the upper left hand corner to return to the **Info Menu**.



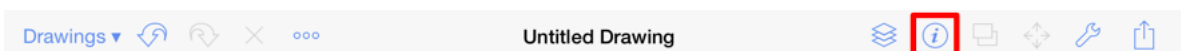
## 5.1.14.5. Font Color

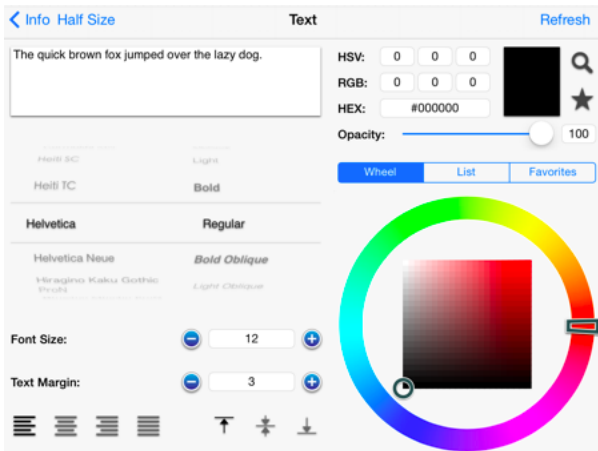
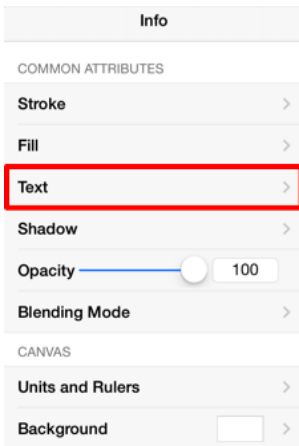
The **Font Color** of a selected figure can be changed to meet a desired preference. It can be altered for a [selected](#) figure(s) or in instances where no figures have been selected. If a figure has not been selected, the color change applies to any figure added after the change. This attribute can be altered in one of the following ways:

1. Press on the **Text Button** in the [Drawing Toolbar](#).



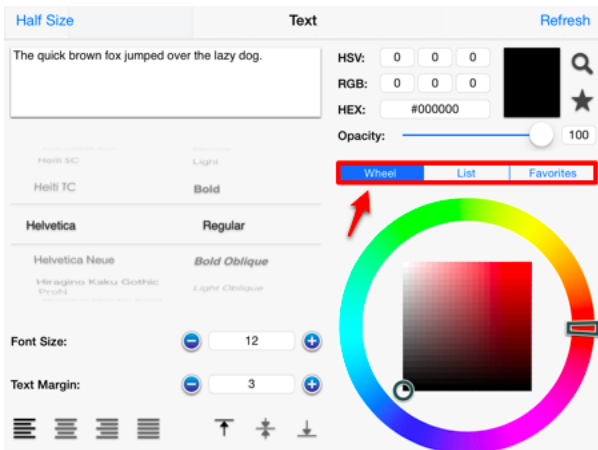
2. Press on the **Info Button** in the [Top Toolbar](#).



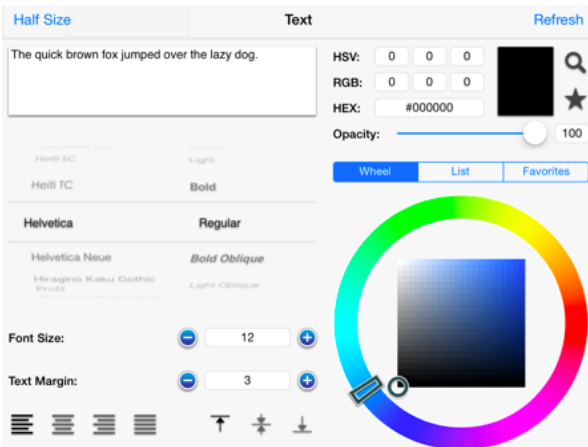
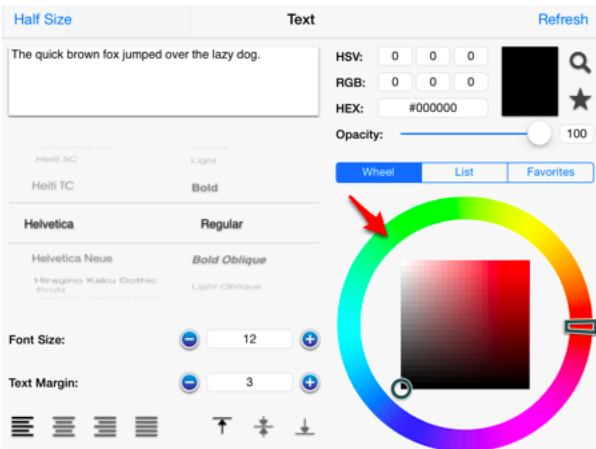


To alter the **Font Color**:

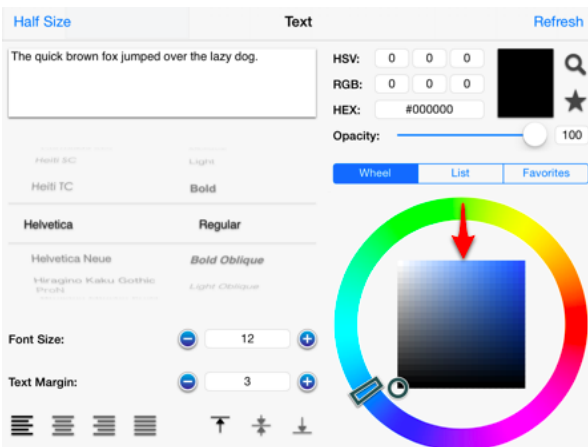
1. Press on the desired color selection method (Wheel, List, or Favorites). In this example, the wheel is chosen.



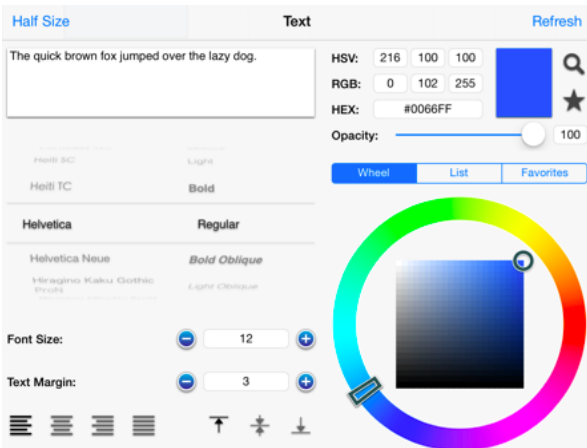
2. Tap on a color range within the outside of the wheel view.



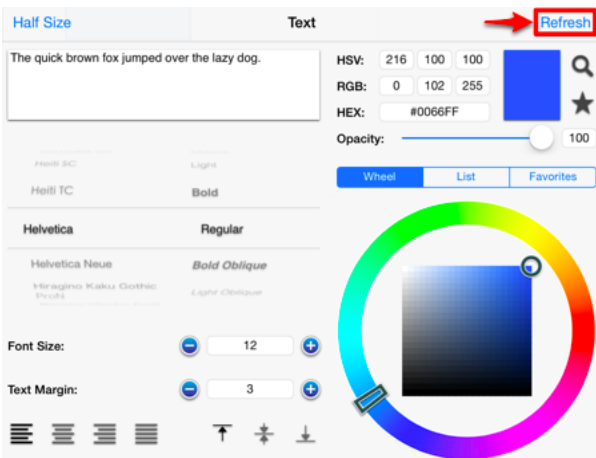
3. Choose the desired lightness or darkness of the selected color in the center (saturation) square.



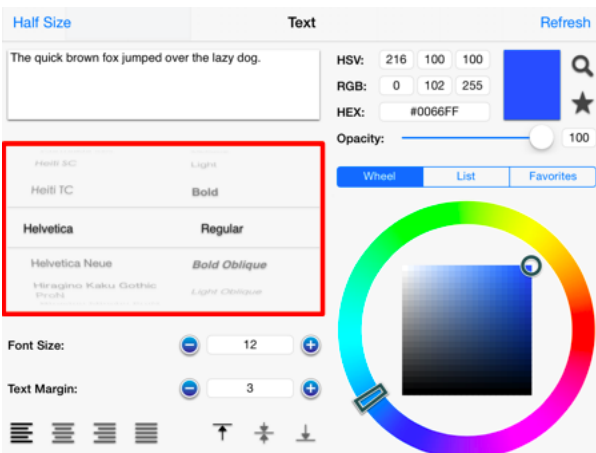


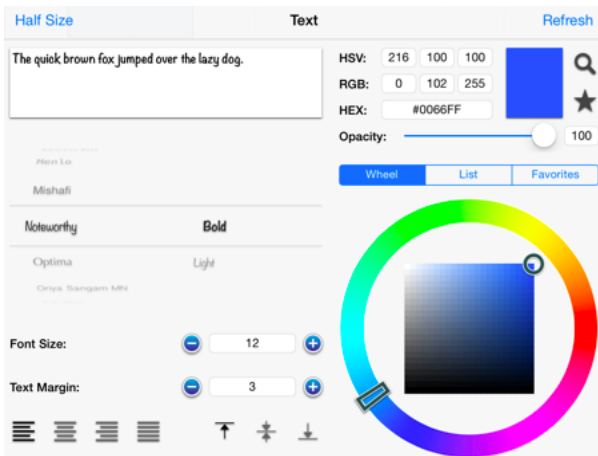


4. Press on the **Refresh Button** if changes do not appear automatically.

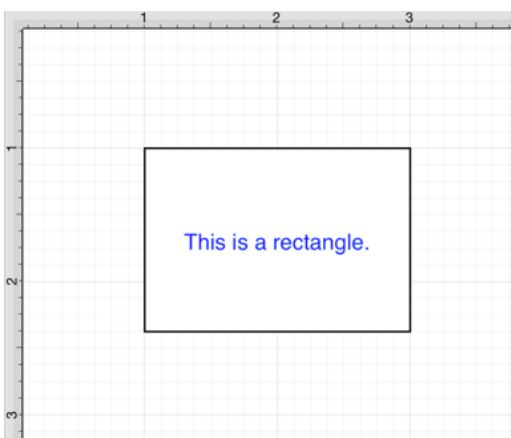
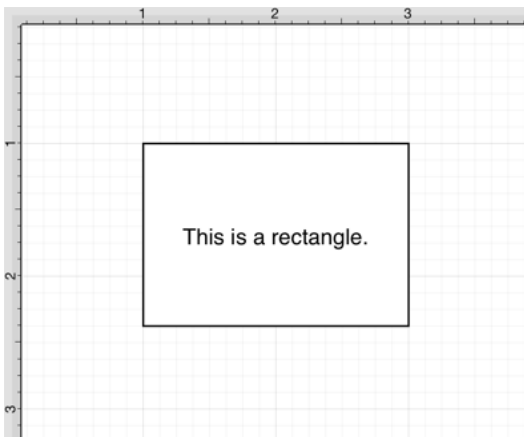


5. Perform a **Touch/Drag** gesture combination or **Press** on additional options (opacity slider, fill type, etc.) within the **Text Window** to make further attribute changes.





6. Tap anywhere within the [Drawing Editor](#) to close the window. The example below shows a figure with text that has been changed from black to blue.



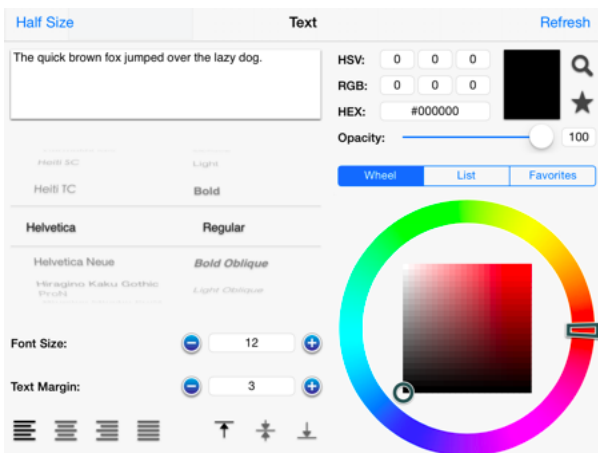
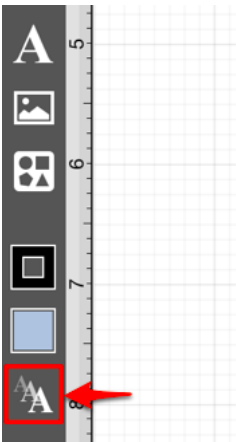
**Note:** A color change will be seen instantaneously when text is [selected](#). If text has not been selected, the color change will apply to all subsequent text entries.



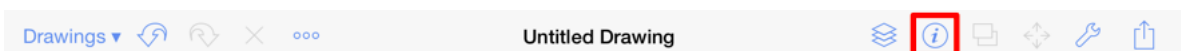
## 5.1.14.6. Text Alignment

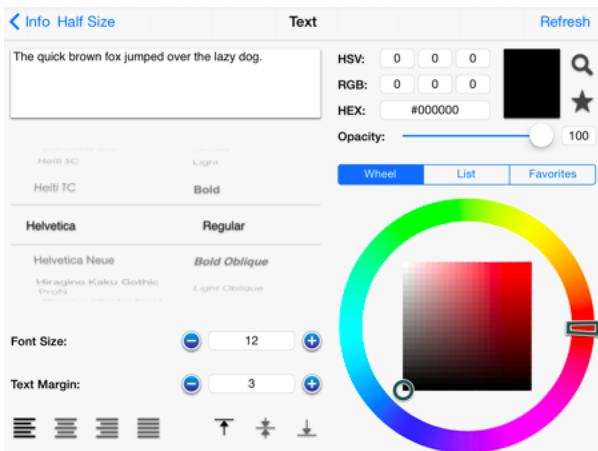
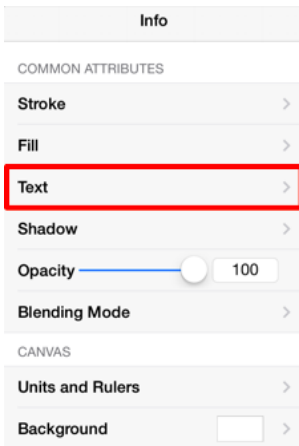
The **Text Alignment** option alters the vertical and horizontal positioning of text within its bounding box. A figure must be [selected](#) to alter the alignment position of entered text. Use one of the following methods to change the text alignment for a selected figure(s):

1. Press on the **Text Button** in the [Drawing Toolbar](#).



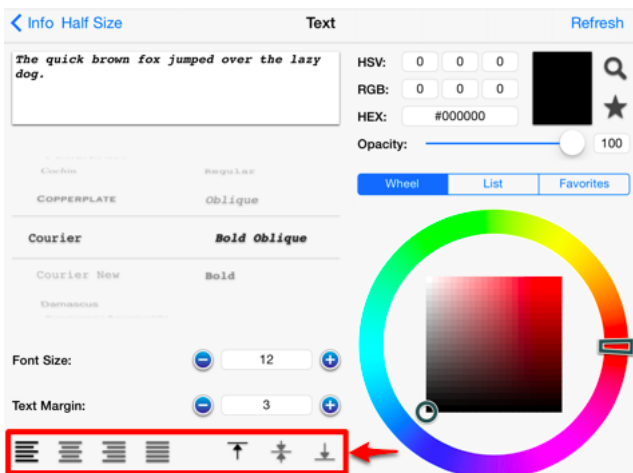
2. Press on the **Info Button** in the [Top Toolbar](#).





To alter the **Text Alignment**:

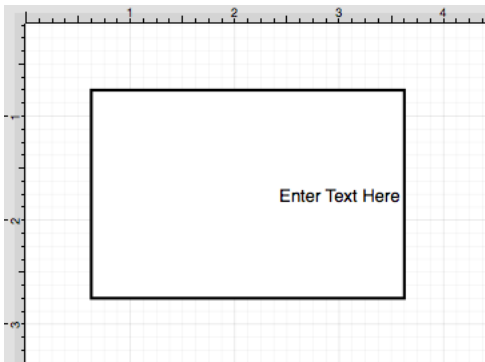
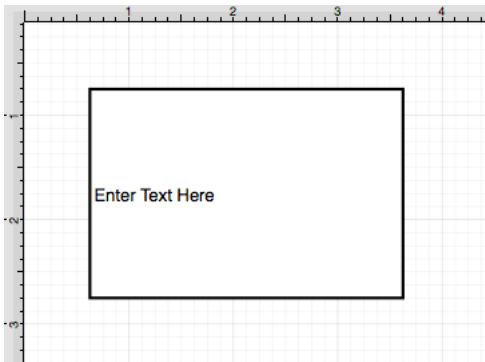
1. Press on one of the horizontal or vertical alignment buttons to make a selection. The currently selected alignment setting will appear in black.



2. Press on the **Info Button** in the upper right hand corner to return to the [Info Menu](#) or tap anywhere within the [Drawing Editor](#) to close the window.



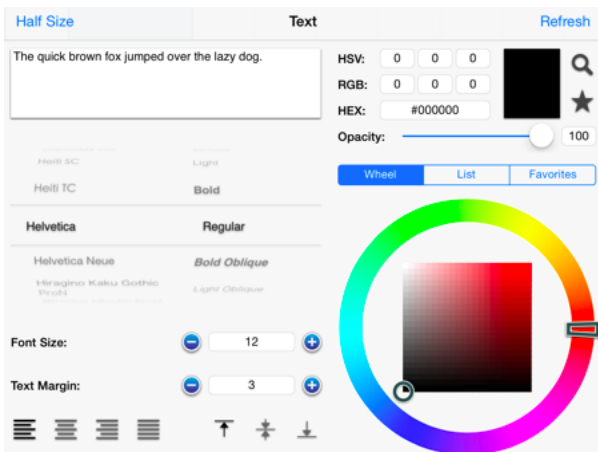
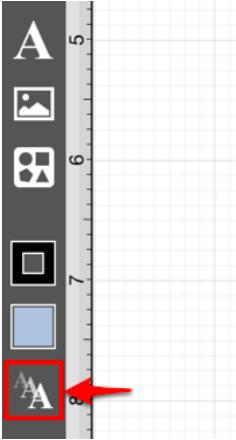
3. The following example shows the alteration of text within a figure from a left horizontal alignment to a right horizontal alignment.



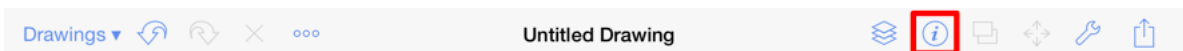
## 5.1.14.7. Text Margin

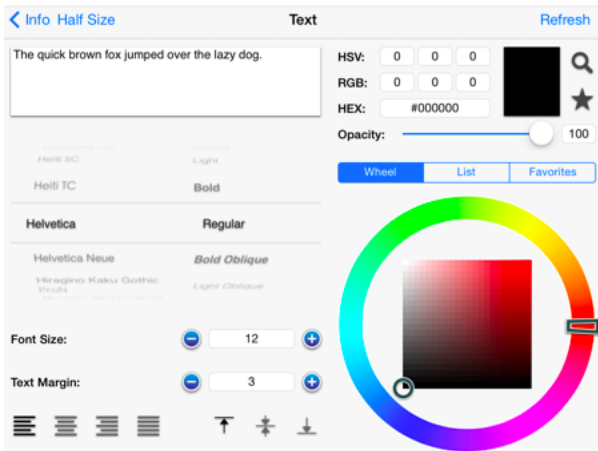
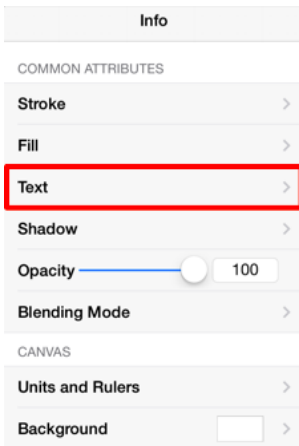
A figure must be [selected](#) to alter the **Text Margin** of entered text. Use one of the following methods to change the text margin for a selected figure(s):

1. Press on the **Text Button** in the [Drawing Toolbar](#).



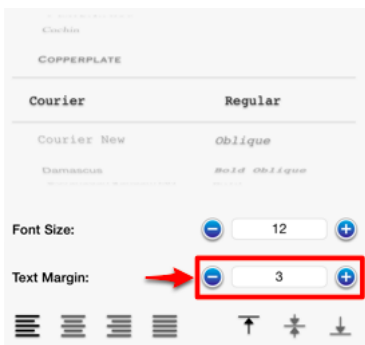
2. Press on the **Info Button** in the [Top Toolbar](#).





To alter the **Text Margin**:

1. Tap on the **Plus/Minus Buttons** in the **Text Window** to increase/decrease the margin by increments of 1 or press on the number field to enter a new margin value with the keyboard.



2. Press on the **Info Button** to return to the **Info Menu** or tap anywhere in the **Drawing Editor** to close the window.



[< Info](#) [Half Size](#) [Text](#) [Refresh](#)

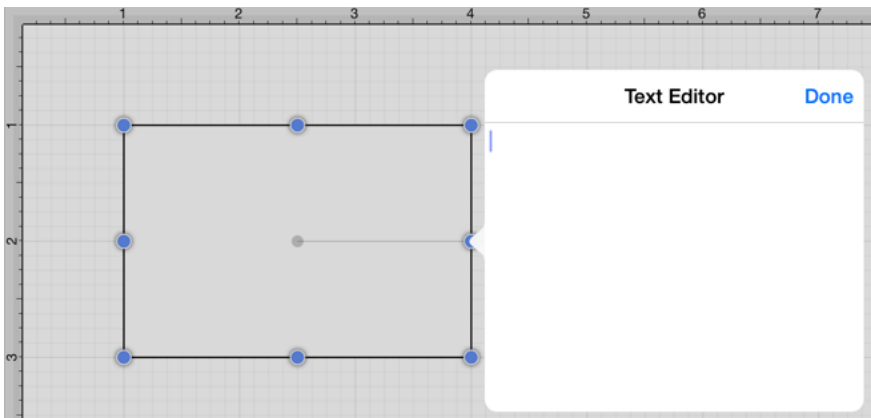
## 5.1.14.8. Adding Variables to Text

A **Variable** can be added to text within a figure through the **Text Editor** popover window by hand keying the desired variable as part of the text.

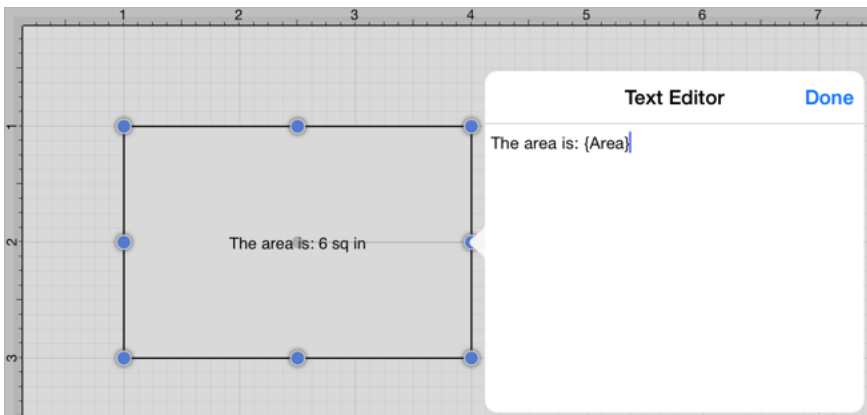
On a subsequent page, there is a [list of available variables](#).

In the following example, the **Area** variable is included as part of the [selected](#) rectangle's text.

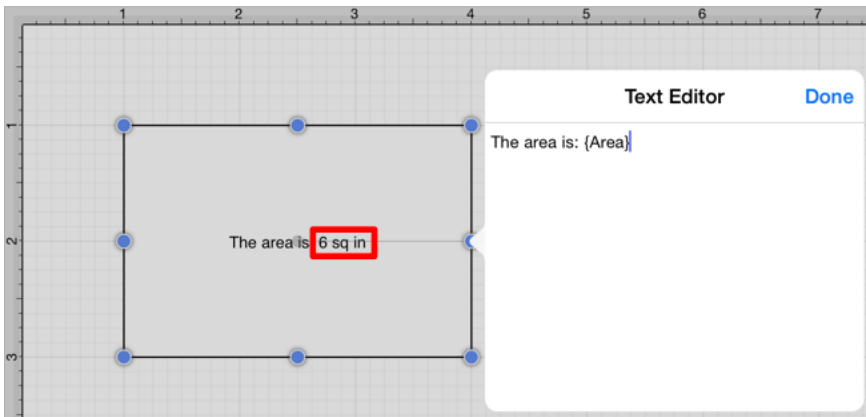
1. Double Tap on a desired figure to open the **Text Editor**.



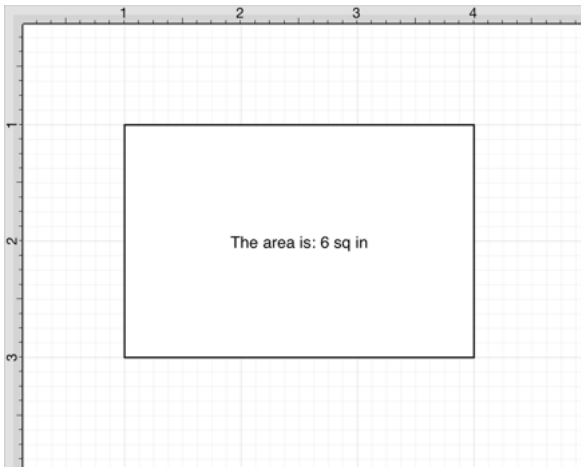
2. Enter the text appropriate text with the keypad .



3. The selected variable shows as the actual value within the selected figure as it is entered. Press on the **Done Button** located in the upper right corner of the **Text Editor** to close it.



4. The final text within the selected figure appears as shown below.



**Note:** The first letter of the entered variable must be capitalized for the value to appear in the selected figure.

## 5.1.14.8.1. Available Variables

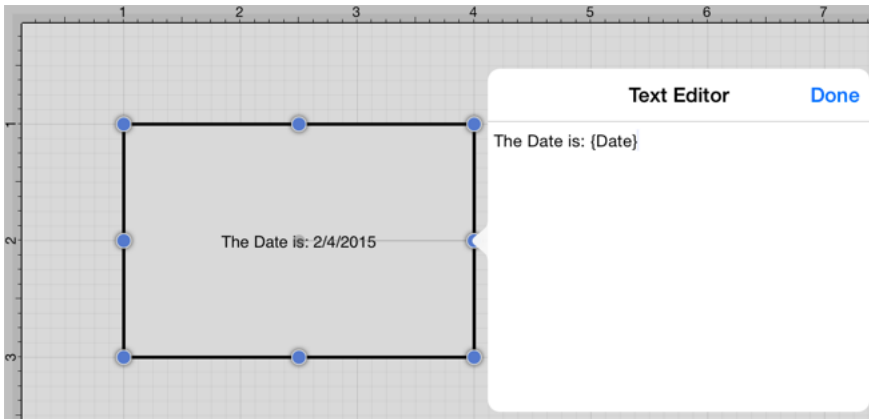
TouchDraw supports inserting **Variables** into a text area. Entered variables are replaced with the actual value when the drawing is rendered. The table below provides a list of currently supported **Text Variables**:

| Variable Name | Variable Type | Description  |
|---------------|---------------|--|
|               | Pre-formatted | The minimum X-axis position of the figure bounds + the units abbreviation. |
|               | Pre-formatted | The maximum X-axis position of the figure bounds + the units abbreviation. |

| Variable Name | Variable Type | Description  |
|---------------|---------------|--|
|               |               |  |
|               | Pre-formatted | The minimum Y-axis position of the figure bounds + the units abbreviation.   |
|               | Pre-formatted | The maximum Y-axis position of the figure bounds + the units abbreviation.   |
|               | Pre-formatted | The length of the line (if the text is added to a line or line connection) + the units abbreviation.   |
|               | Pre-formatted | The width of the figure bounds + the units abbreviation.   |
|               | Pre-formatted | The height of the figure bounds + the units abbreviation.  |
|               | Pre-formatted | The area of the figure + the units abbreviation.   |
|               | 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. |
|               | 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.                 |
|               | Pre-formatted | The name of the current drawing.   |
|               | Pre-formatted | The abbreviation of the unit of measure specified for the drawing.   |
|               | Pre-formatted | The full name of the unit of measure specified for the drawing.  |
|               | Pre-formatted | The name of the layer that the figure is currently in.   |
|               | Date          | The current date.  |

## 5.1.14.8.2. 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:



The first letter of the entered variable must be capitalized for the value to appear in the selected figure.

TouchDraw 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  |
|-----------------------|---|---|
| <code>{Date:d}</code> | <b>Default</b> - Short Date Formatting    | 6/15/2009 (US) 15/06/2009 (France) 2009/06/15 (Japan)   |
| <code>{Date:D}</code> | Long Date Formatting                      | Monday, June 15, 2009 (US) 15 2009 . (Russia) Montag, 15. Juni 2009 (Germany)                       |
| <code>{Date:f}</code> | 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)          |
| <code>{Date:F}</code> | 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) |
| <code>{Date:g}</code> | 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)                             |
| <code>{Date:G}</code> | General Date/Time (long                   | 6/15/2009 1:45:30 PM (US) 15/06/2009 13:45:30 (Spain) 2009/6/15 13:45:30 (China)                    |

## TouchDraw for iPad

| Variable | Description                             | Examples  |
|----------|---|---|
|          | time) Formatting                        |   |
| {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  |
| {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) |

## TouchDraw for iPad

| Variable | Description           | Examples  |
|----------|-----------------------|---|
| {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   |
| {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                           | 6/15/2009 13:45:30.617 -> 617 6/15/2009   |

## TouchDraw for iPad

| Variable        | Description  | Examples   |
|-----------------|--|--|
|                 | and time value.  | 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<br>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<br>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<br>13:45:30.0000005 -> 000000      |
| {Date:ffffffff} | The ten millionths of a second in a date and time value.                   | 6/15/2009 13:45:30.6175425 -> 6175425 6/15/2009<br>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<br>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<br>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<br>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<br>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<br>13:45:30.000005 -> (no output)    |
| {Date:FFFFFF}   | If non-zero, the millionths of a second in a date and time value.          | 6/15/2009 13:45:30.617542 -> 617542 6/15/2009<br>13:45:30.0000005 -> (no output) |
| {Date:FFFFFFFF} | If non-zero, the ten   | 6/15/2009 13:45:30.6175425 -> 6175425 6/15/2009                                  |



## TouchDraw for iPad

| Variable                | Description                                      | Examples  |
|-------------------------|--|---|
|                         | millionths of a second in a date and time value. | 13:45:30.0001150 -> 000115  |
| {Date:g} ,<br>{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) |
| {Date:s}                | The second, from 0 through 59.                   | 6/15/2009 1:45:09 PM -> 9   |
| {Date:ss}               | The second, from 00                              | 6/15/2009 1:45:09 PM ->   |

## TouchDraw for iPad

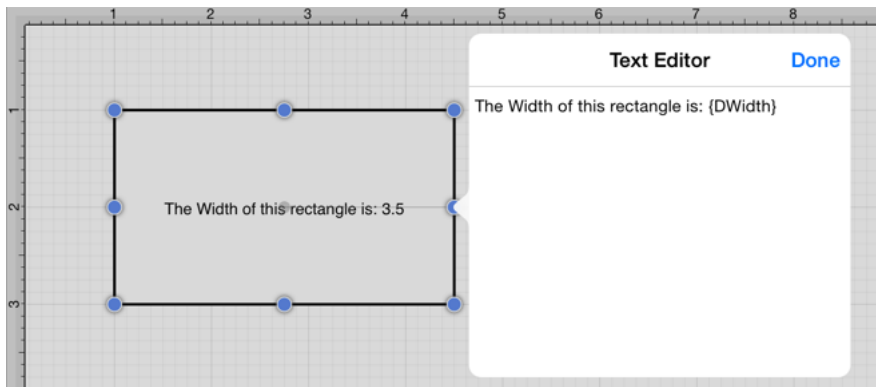
| Variable     | Description  | Examples  |
|--------------|--|---|
|              | through 59.  |   |
| {Date:t}     | The first character of the AM/PM designator.                         | 6/15/2009 1:45:30 PM -> P (US) 6/15/2009 1:45:30 PM -> (Japan) 6/15/2009 1:45:30 PM -> (France)                     |
| {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   |
| {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  |

| Variable | Description | Examples          |
|----------|-------------|-------------------|
|          |             | PM -> - (Algeria) |

### 5.1.14.8.3. 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:



Both the D and first letter of the entered variable must be capitalized for the value to appear in the selected figure.

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 =<br>1234.5678<br>Variable =<br>Result = 01234<br>Width = 0.45678 |

## TouchDraw for iPad

| Format Specifier | Name                | Description   | Examples   |
|------------------|---------------------|---|--|
|                  |                     |   | Variable = Result<br>= 0.46  |
| #                | Digit Placeholder   | Replaces the pound sign with the corresponding digit if one is present; otherwise, no digit appears in the result string. | Width =<br>1234.5678<br>Variable =<br>{DWidth:#####}<br>Result = 1234<br>Width = 0.45678<br>Variable =<br>{DWidth:###}<br>Result = .46 |
| .                | Decimal Point       | Determines the location of the decimal separator in the result string.  | Width = 0.45678<br>Variable = Result<br>(US) = 0.46<br>Width = 0.45678<br>Variable =<br>Result (Germany)<br>= 0,46                     |
| ,                | Group Separator     | Inserts a group separator character between each group.   | 2147483647 ("#<br>#,") =<br>2,147,483,647<br>(US) 2147483647<br>("# #,") =<br>2.147.483.647<br>(Estonia)                               |
| ,                | Number Scaling      | Divides a number by 1000 for specified commas.  | 2147483647<br>("#, #,") = 2,147<br>(US) 2147483647<br>("#, #,") = 2.147<br>(Estonia)   |
| %                | Percent Placeholder | Multiplies a number by 100 and inserts a localized percentage symbol in the result  | 0.03697<br>("%, #0.00") =  |

## TouchDraw for iPad

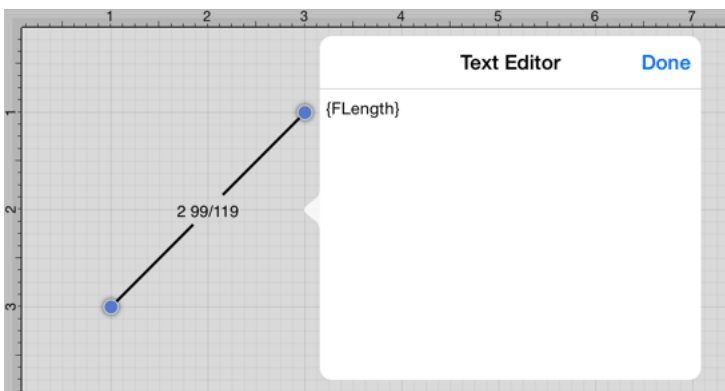
| Format Specifier           | Name                     | Description  | Examples   |
|----------------------------|--------------------------|--|--|
|                            |                          | string.  | %36.97 (US)<br>0.03697<br>("%, #0.00") =<br>%36,97 (Greece)<br>0.03697 ("#<br>#.0%") = 37.0%<br>(US) 0.03697 ("#<br>#.0%") = 37,0%<br>(Greece) |
| ‰                          | Per Mille Placeholder    | Multiplies a number by 1000 and inserts a localized per mille symbol in the result string.   | 0.03697 ("#<br>0.00‰") =<br>36.97‰ (US)<br>0.03697 ("#<br>0.00‰") =<br>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 ("#<br>0.0e0") = 98.8e4<br>1503.92311 ("0.0<br># # e +00") =<br>1.504e+03<br>18901385E-16<br>("0.0e +00") =<br>1.9e-16                  |
| 'string', "string"         | Literal String Delimiter | Indicates that the enclosed characters should be copied to the result string without changes.  | 68 ("# ' degrees")<br>= 68 degrees 68<br>("# ' degrees") =<br>68 degrees   |
| ;                          | Section Separator        | Defines sections using separate format strings for positive, negative, and zero numbers.   | 12.345 ("# 0.0#;<br>(#0.0#); -\0-") =<br>12.35 0 ("# 0.0#;   |

| Format Specifier | Name                 | Description   | Examples  |
|------------------|----------------------|---|---|
|                  |                      |   | $(\#0.0\#); -\backslash 0-") =$<br>$-0- -12.345 (" \#$<br>$0.0\#; (\#0.0\#);$<br>$-\backslash 0-") = (12.35)$<br>$12.345 (" \# 0.0\#;$<br>$(\#0.0\#)") = 12.35$<br>$0 (" \# 0.0\#;$<br>$(\#0.0\#)") = 0.0$<br>$-12.345 (" \# 0.0\#;$<br>$(\#0.0\#)") = (12.35)$ |
| Other            | All Other Characters | The character is copied to the result string unchanged. | $68 (" \# ^{\circ}) = 68 ^{\circ}$  |

### 5.1.14.8.4. Formatting Fractional Values

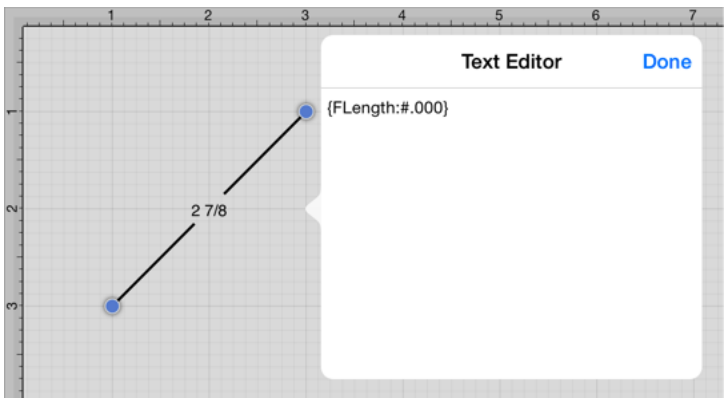
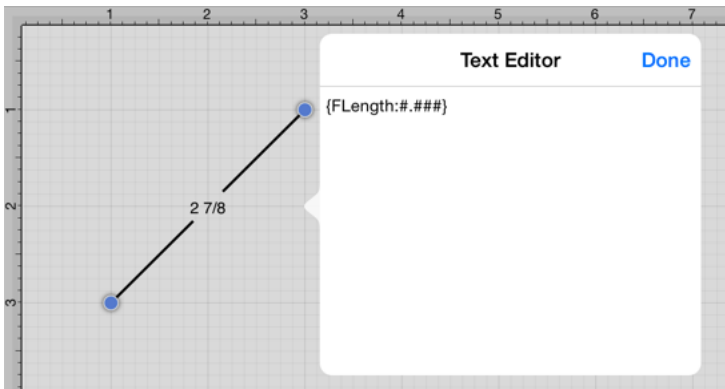
The **Fractional Variable** can be inserted as part of entered text to show the value of another variable in fractional form within the text of a figure. Refer to the [Text Variable Table](#) for a list of all supported variables.

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 =   Result = 5   Length = 4 148/249   Variable =   Result = 4 63/100 |
| #                | Digit Placeholder | Replaces the pound sign   | Length = 4 148/249   Variable =  |

## TouchDraw for iPad

| Format Specifier | Name                 | Description   | Examples   |
|------------------|----------------------|---|--|
|                  |                      | with the corresponding digit if one is present; otherwise, no digit appears in the result string. | {FLength:#####} Result = 5    Length = 4 148/249<br>Variable = {FLength:###} Result = 4 63/100 |
| .                | Decimal Point        | Determines the location of the fractional separator in the result string.                         | Length = 4 148/249    Variable =    Result (US) = 4 63/100                                     |
| Other            | All Other Characters | The character is copied to the result string unchanged.   | 68 (" # °") = 68 °   |



## 5.1.15. Handling Paths

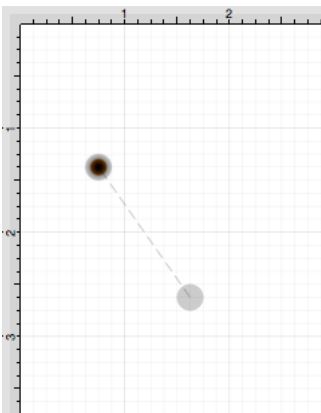
TouchDraw supplies multiple actions for altering handles or segments within a created path. A handle may be [inserted](#) or [deleted](#) at any point within the path and a figure can be [split](#) at a selected handle. Segments may be [removed](#) from a figure or converted to a [line](#), [quadratic curve](#), or [cubic curve](#) segment by adding or deleting corresponding control points. These additional actions are available for altering an existing figure:

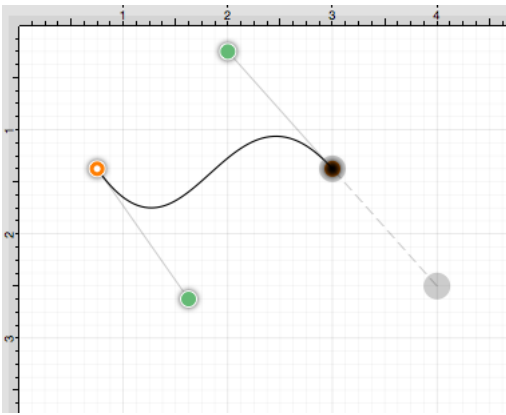
- [Opening a Path](#)
- [Closing a Path](#)
- [Joining Lines and Paths](#)
- [Trimming Lines and Paths](#)
- [Splitting Segments](#)
- [Creating](#) and [Separating](#) Compound Paths
- Conversion of [Shape](#) or [Text](#) Figure(s) to Paths

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 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.

### Touch/Drag

A **Touch/Drag** gesture 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.



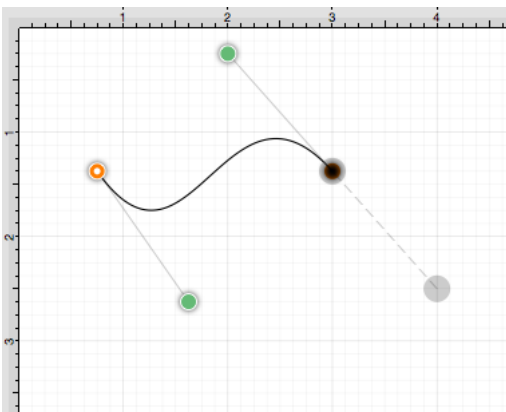


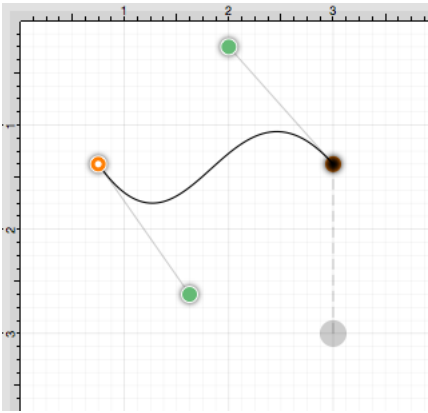
Option/Tap

**Double Tap and Hold** on the empty portion of the [Drawing Toolbar](#) to activate the option gesture combination. The drawing toolbar will turn blue if this combination has been performed correctly, as shown below.



An **Option/Tap** 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.



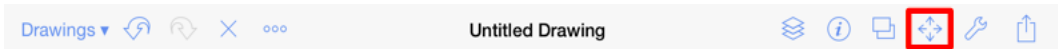
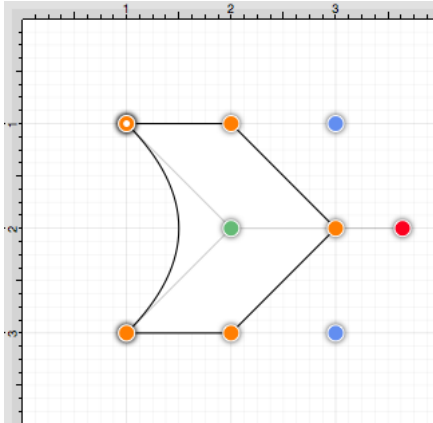


Option/Touch/Drag

An **Option/Touch/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.

1. **Select** the path to be opened

- 



Adjustment

POSITION

X

1

Y

1.25

Move By

SIZE

Width

0.75

Height

1.375

Scale By

ROTATION

Angle

0

Rotate 90° Right

Rotate 90° Left

Rotate 180°

TRANSLATION

Flip Horizontal

Adjustment

SIZE

Width

2

Height

2.125

Scale By

ROTATION

Angle

0

Rotate 90° Right

Rotate 90° Left

Rotate 180°

TRANSLATION

Flip Horizontal

Flip Vertical

PATHS

Open Path

Split All Segments

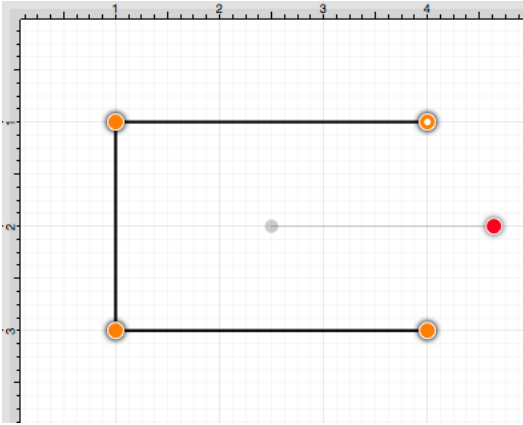
4. The end/start handle of the closed path is separated into two individual handles. Once a path has been opened, the connecting segments are treated as individual path segments. They can be moved or expanded to any point on the [Drawing Canvas](#), have handles added, be converted to a [quadratic](#) or [cubic curve](#) segment, and be combined with additional paths.



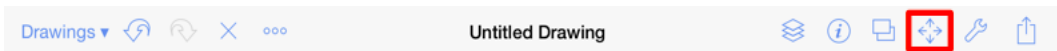
## 5.1.15.2. Closing a Path

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:

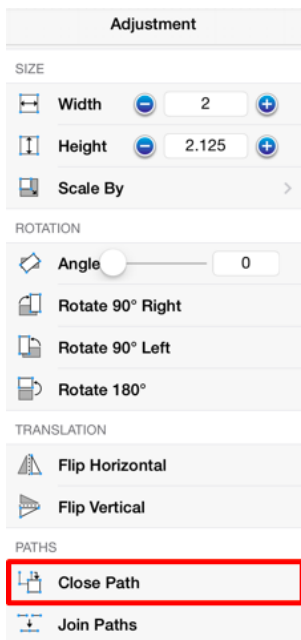
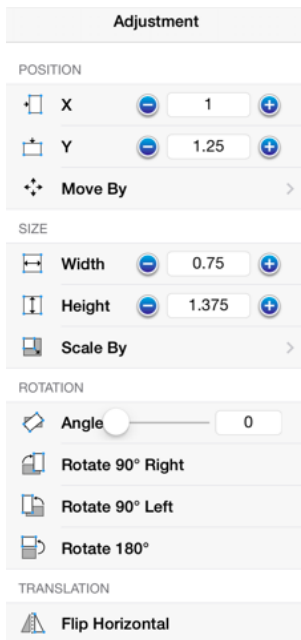
1. **Select** the path to be closed.



2. Press on the **Adjustment Button** in the **Top Toolbar**.

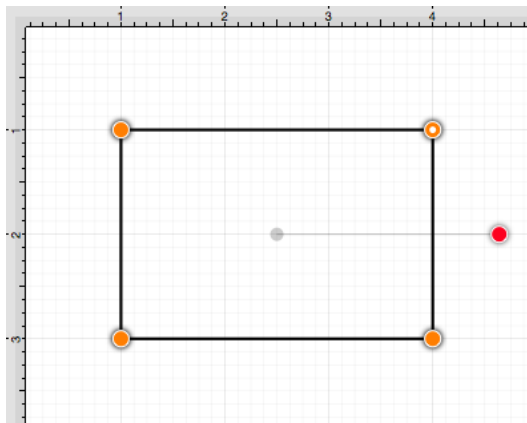


3. To access the **Close Path** option in the **Adjustment Menu** when in landscape mode, scroll through the menu view by touching and dragging in an upward direction. Tap on the **Close Path** option to select it and then tap anywhere within the **Drawing Editor** to close the menu.



4. A straight line segment will be drawn from the last segment end point to the start handle of the chosen path.



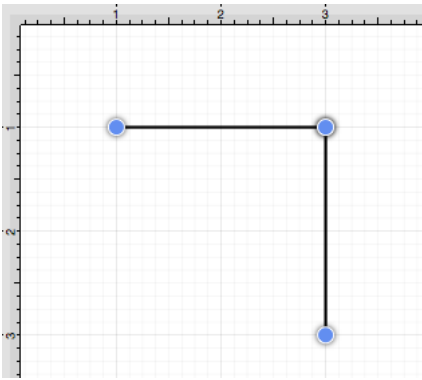
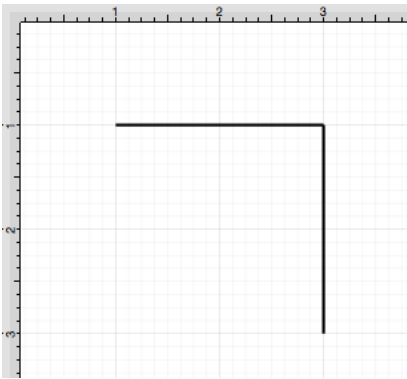


**Note:** A straight line segment can be converted to a [quadratic](#) or [cubic](#) curve segment by using the [Contextual Menu](#).

### 5.1.15.3. Joining Lines and Paths

The **Join 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:

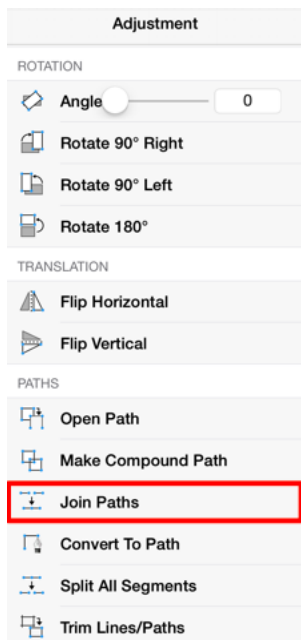
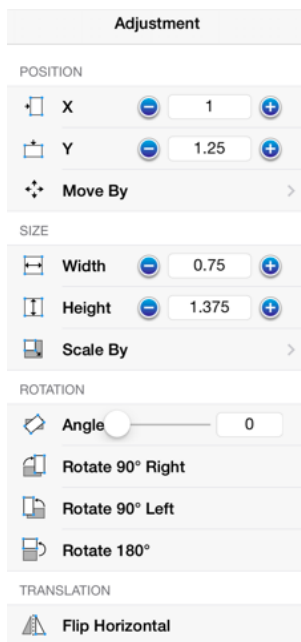
1. Create two lines on the **Drawing Canvas** using the **Line Tool** and then select both line figures by using the **Function Key Feature**.



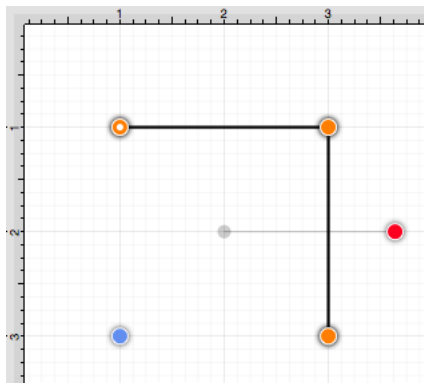
2. Press on the **Adjustment Button** in the **Top Toolbar**.



3. To access the **Join Paths** option in the **Adjustment Menu** when in landscape mode, scroll through the menu view by touching and dragging in an upward direction. Tap on the **Join Paths** option to select it and then tap anywhere within the **Drawing Editor** to close the menu.



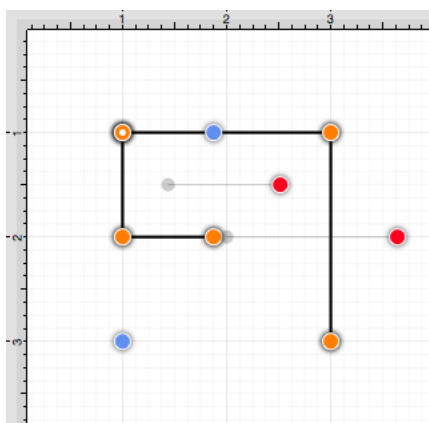
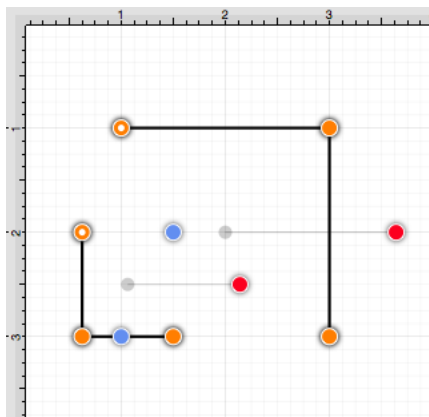
4. The line end points are joined to create two path segments with corresponding end points (orange), a start handle (orange circle with white center), and a rotation handle (red). To learn more about the types of handles used within TouchDraw, refer to the [Handles Reference Table](#).



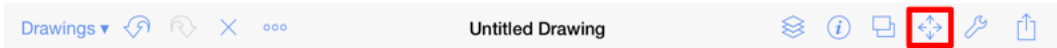
Additional lines can be included as part of the join by adding another line object and repeating the above steps.

Two or more path end points may also be combined with the **Join Paths** menu option. Follow the steps below to join two path end points:

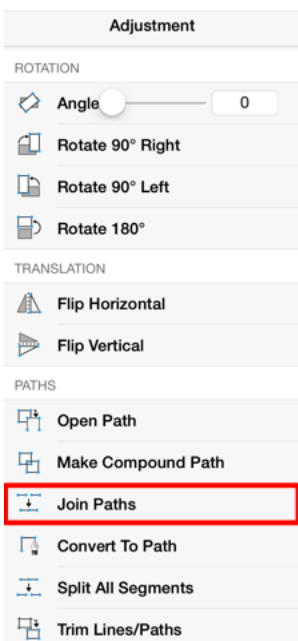
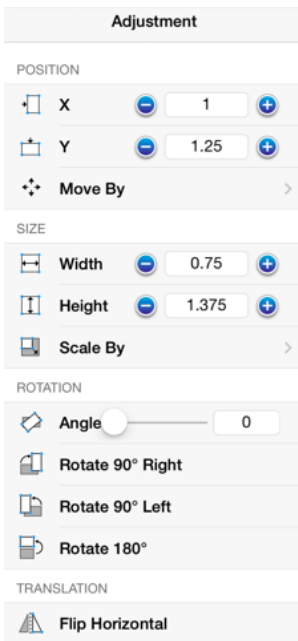
1. Create two paths with at least one shared segment end point on the Drawing Canvas using the [Path Tool](#) and then select both paths by using the [Function Key Feature](#).



2. Press on the **Adjustment Button** in the [Top Toolbar](#).

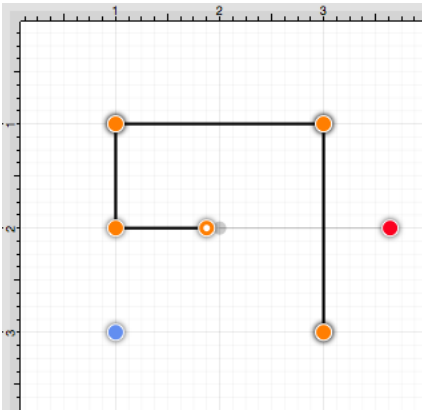


3. Perform a **Touch/Drag** gesture combination in a downward manner to access the **Join Paths** option in the [Adjustment Menu](#). Tap on the **Join Paths** option to select it and then tap anywhere within the [Drawing Editor](#) to close the menu.



4. 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](#).



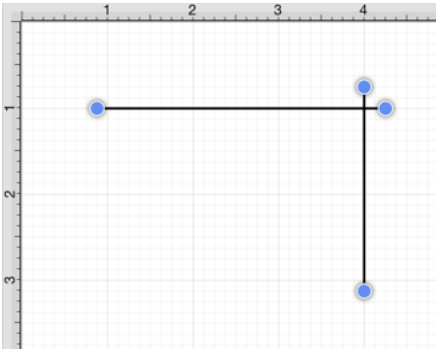
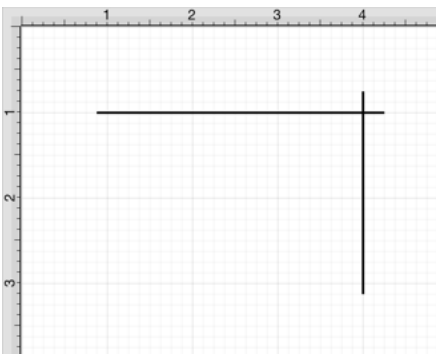
**Note:** Intersecting path and line end points can be joined in the same manner as shown above.

## 5.1.15.4. Trimming Lines and Paths

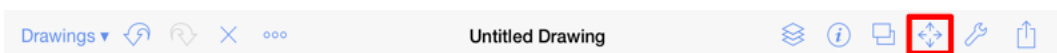
The **Trim Lines/Paths** option trims a line or path when it intersects near it's end with another shape or line. TouchDraw considers "near" to be when an intersection is within the first or last eighth ( $1/8$ th) of the line. If the intersection is within the middle  $6/8$ ths, then the line is not trimmed.

Follow the steps below to trim the ends of intersecting lines or paths:

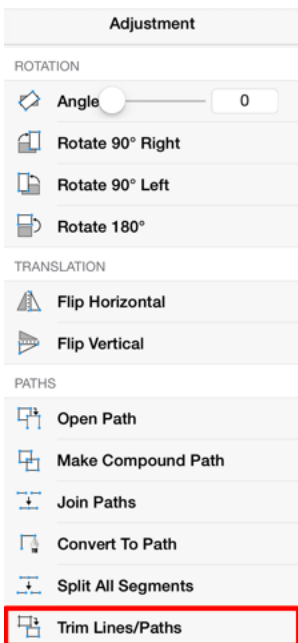
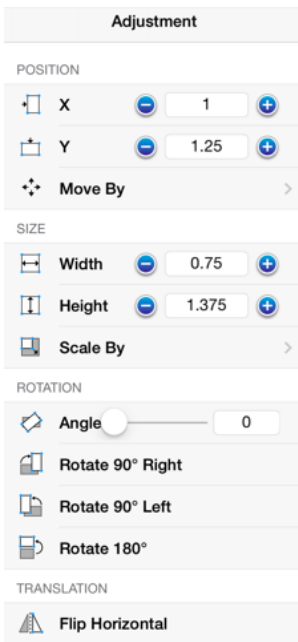
1. [Select](#) the items to be trimmed.



2. Press on the **Adjustment Button** in the [Top Toolbar](#).

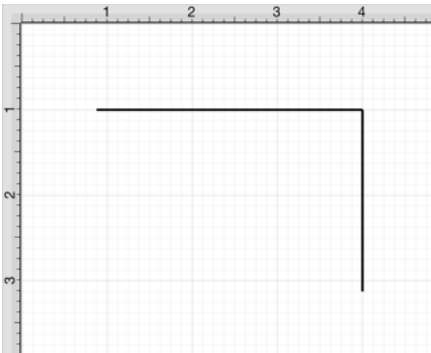
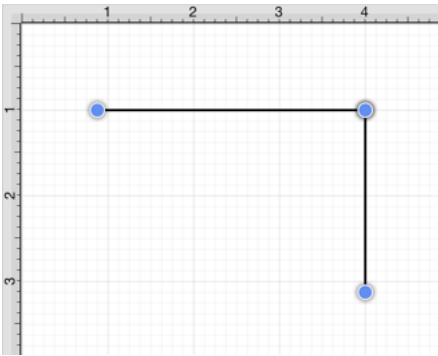


3. To access the **Trim Lines/Paths** option in the [Adjustment Menu](#) when in landscape mode, scroll through the menu view by touching and dragging in an upward direction. Tap on the **Trim Lines/Paths** option to select it and then tap anywhere within the [Drawing Editor](#) to close the menu.



4. All lines or paths intersecting within the last 1/8th are trimmed. In this example, the additional portions of both lines are trimmed to make a perfect right angle.

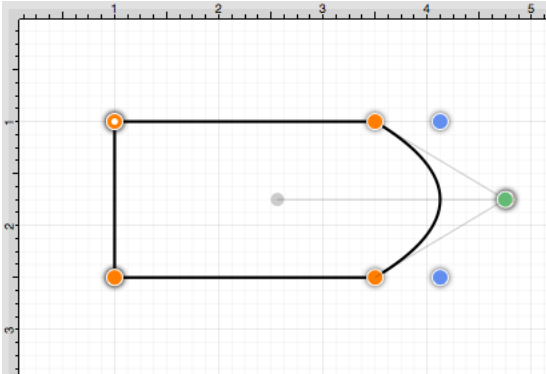




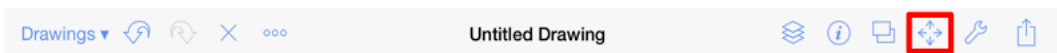
## 5.1.15.5. Splitting Segments

The segments of a path can be split into individual segments. Follow the steps below to **Split All Segments** within a selected path(s):

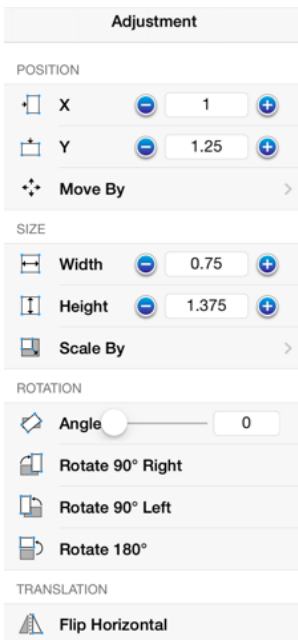
1. [Select](#) the path to be split.

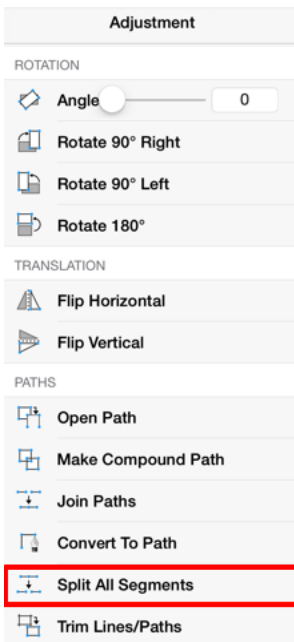


2. Press on the **Adjustment Button** in the [Top Toolbar](#).

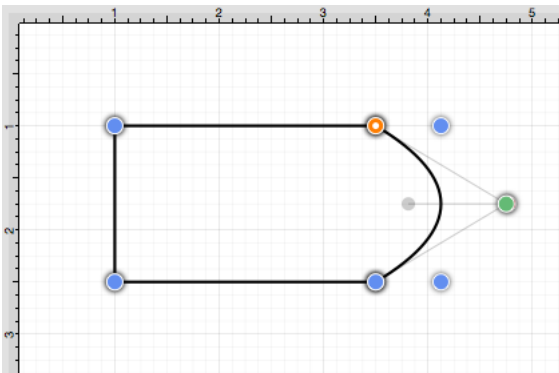


3. To access the **Split All Segments** option in the [Adjustment Menu](#) when in landscape mode, scroll through the menu view by touching and dragging in an upward direction. Tap on the **Split All Segments** option to select it and then tap anywhere within the [Drawing Editor](#) to close the menu.

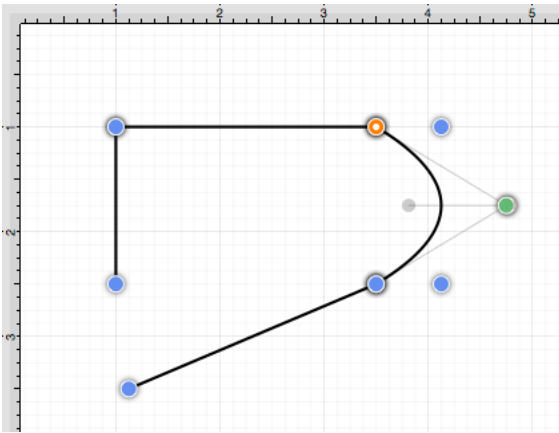




4. As shown below, specific visual indicators are changed to show that all segments have been separated within a path and are able to be moved or altered as individual objects. Segment end point handles (orange) are changed to a bounds handle (blue). The start handle (orange with white center) remains 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](#).



5. Touch and Drag 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.

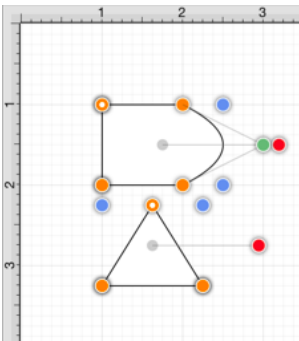
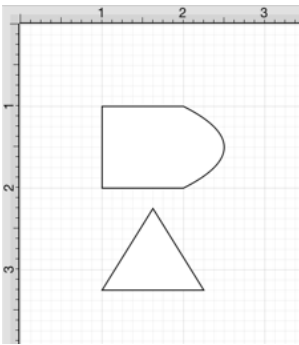


**Note:** The [Join Paths](#) option can be used to connect segments after changes have been made.

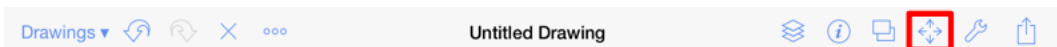
## 5.1.15.6. Creating a Compound Path

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:

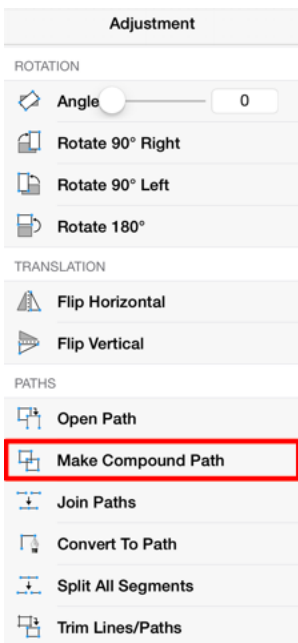
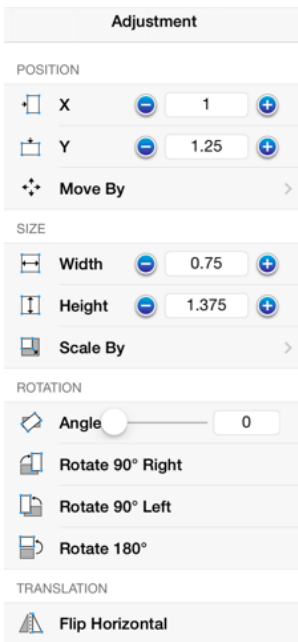
1. Select the paths to be combined.



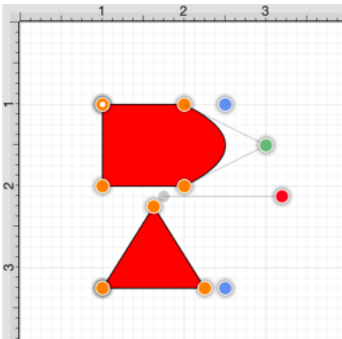
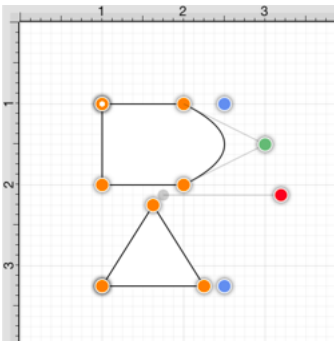
2. Press on the **Adjustment Button** in the [Top Toolbar](#).



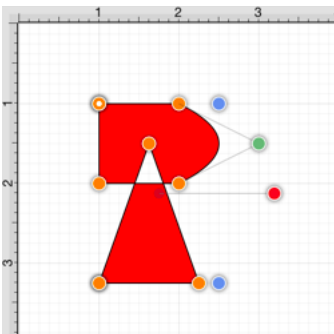
3. To access the **Make Compound Path** option in the [Adjustment Menu](#) when in landscape mode, scroll through the menu view by touching and dragging in an upward direction. Tap on the **Make Compound Path** option to select it and then tap anywhere within the [Drawing Editor](#) to close the menu.



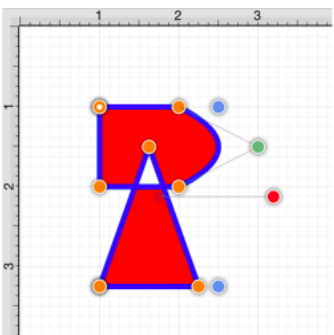
4. The two paths are combined to form a Compound Path with shared bounds handles (blue) and a shared rotation handle (red). Attribute changes now affect both paths as if they were a single path. For example, if the [Fill Color](#) is changed to red, all paths included in the Compound Path are altered to have this attribute. Refer to the images below:



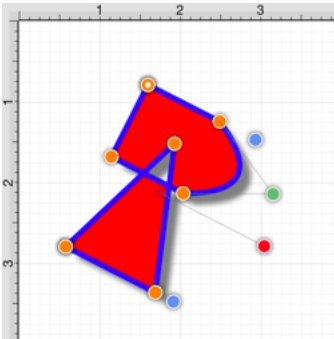
5. If the top handle of the triangle is dragged into the other compound figure, the intersecting portion of these two paths will appear in white.



6. An attribute change of **Stroke Color** to blue with a **Stroke Size** increase alters the attribute for every segment in the Compound Path.



7. The addition of a **Shadow** with a **Rotation Angle** of twenty degrees would result in the image below.

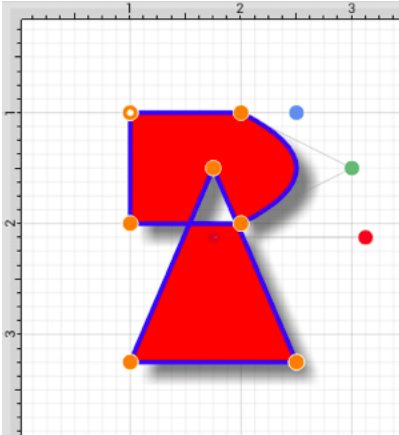




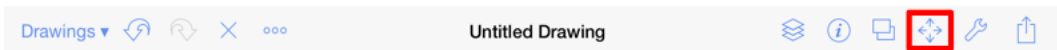
## 5.1.15.7. Separating a Compound Path

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. Press on the **Adjustment Button** in the [Top Toolbar](#).




3. To access the **Separate Paths** option in the [Adjustment Menu](#) when in landscape mode, scroll through the menu view by touching and dragging in an upward direction. Tap on the **Separate Paths** option to select it and then tap anywhere within the [Drawing Editor](#) to close the menu.

Adjustment


POSITION

 X

1


 Y

1.25


 Move By

>


SIZE

 Width

0.75


 Height

1.375


 Scale By


>


ROTATION

 Angle


0

 Rotate 90° Right

 Rotate 90° Left


 Rotate 180°

TRANSLATION


 Flip Horizontal

Adjustment


SIZE

 Width

1.5


 Height

2.25


 Scale By


>


ROTATION

 Angle


0


 Rotate 90° Right

 Rotate 90° Left


 Rotate 180°


TRANSLATION

 Flip Horizontal

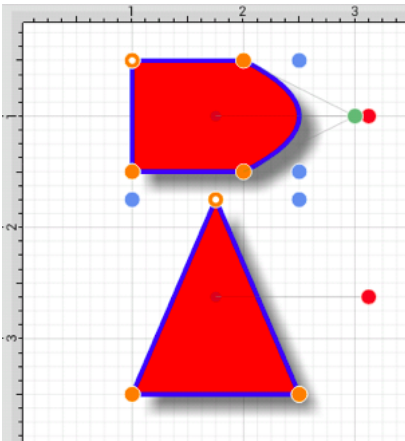
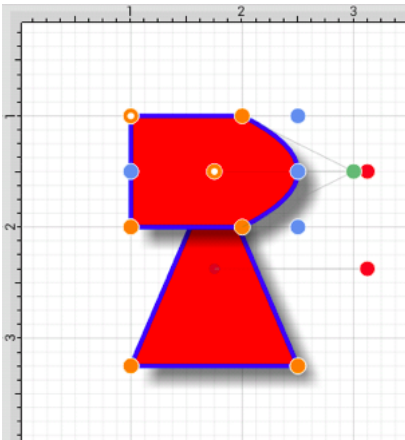
 Flip Vertical

PATHS

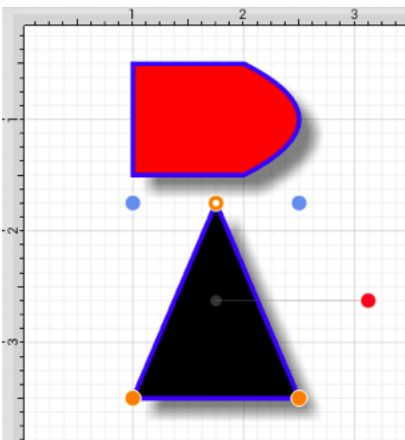
 Separate Paths

 Split All Segments

4. The previously combined paths are now two individual paths, which can be altered separately.



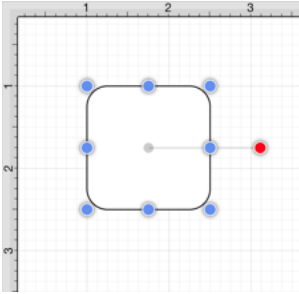
5. Attribute changes will be applied to the selected path only rather than both paths. For example, if the [Fill Color](#) of the bottom path is changed to black, the upper path remains red. Refer to the image below:



## 5.1.15.8. Converting Shapes to Paths

The **Convert 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:

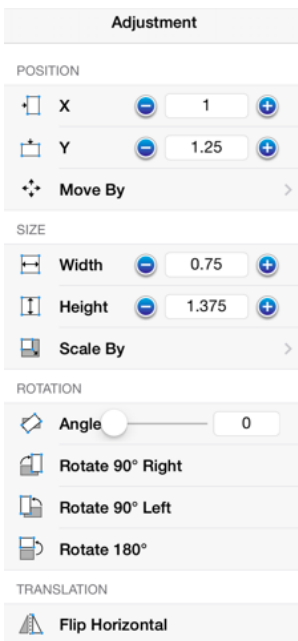
1. [Select](#) the shape to be converted.

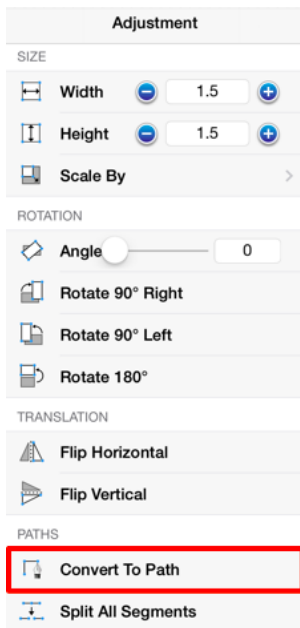


2. Press on the **Adjustment Button** in the [Top Toolbar](#).

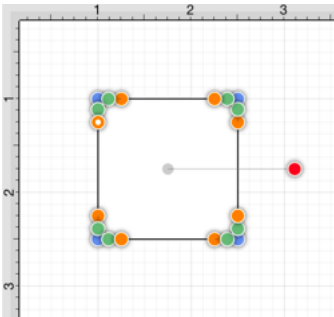


3. To access the **Convert To Path** option in the [Adjustment Menu](#) when in landscape mode, scroll through the menu view by touching and dragging in an upward direction. Tap on the **Convert To Path** option to select it and then tap anywhere within the [Drawing Editor](#) to close the menu.

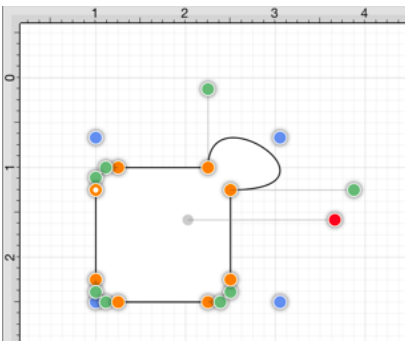
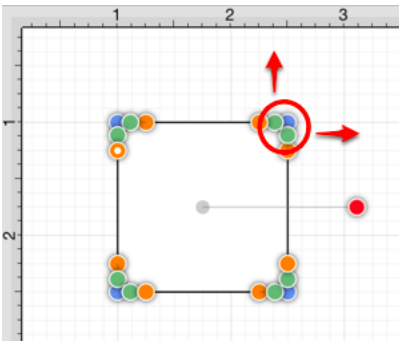




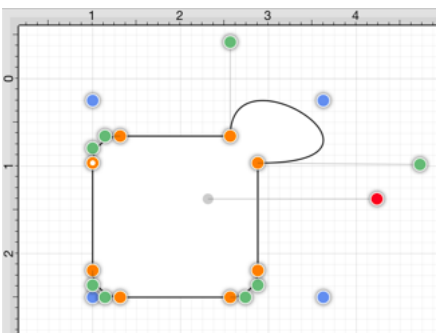
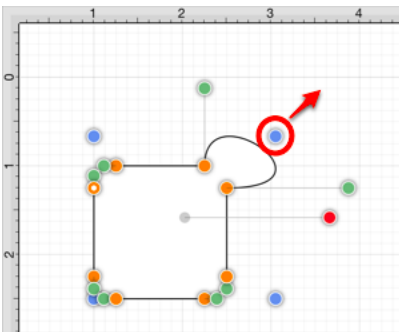
4. Each individual segment used to create the shape will be converted into a path segment with corresponding segment end point handles (orange). A start handle (orange with white dot) shows the initial starting point of the path. New bounds handles (blue) are assigned in relation to the created path and control point handles (green) are added to each curved segment.



5. Any attribute changes available for a path can be performed on the converted object. For example, the upper right curve of the rounded rectangle can 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.

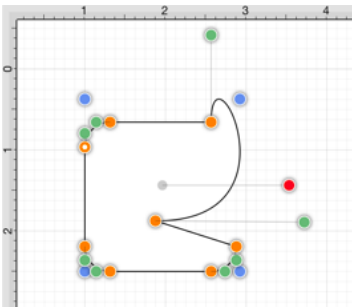
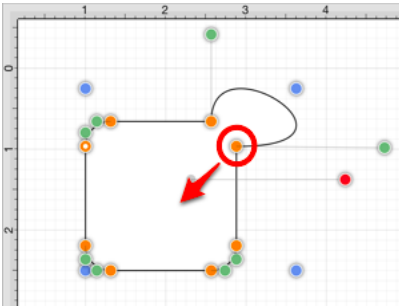


6. Perform a **Touch/Drag** gesture combination on one of the bounds handles (blue) to alter the size of the path.



7. Perform a **Touch/Drag** gesture 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 within the path object to create the shown change.

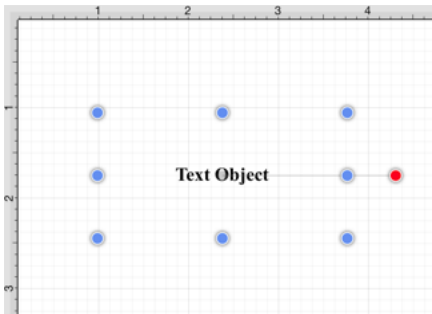


**Note:** Refer to the [Handles Reference Table](#) to learn more about individual handles used within TouchDraw. Additional information about altering paths can be found in the [Handling Paths](#) section of this documentation.

## 5.1.15.9. 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:

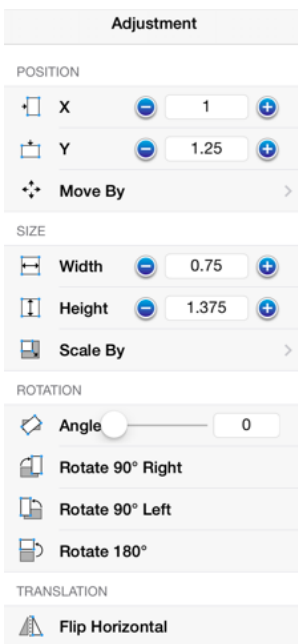
1. [Select](#) the text figure to be converted.



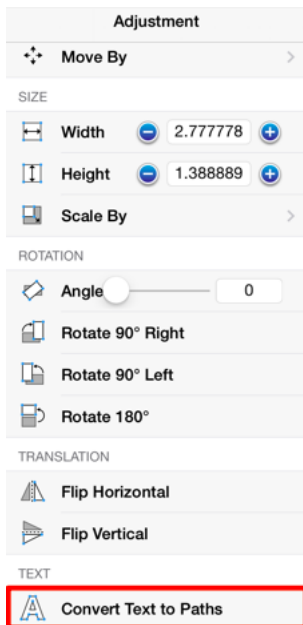
2. Press on the **Adjustment Button** in the [Top Toolbar](#).



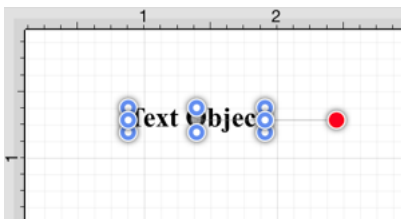
3. To access the **Convert Text To Paths** option in the [Adjustment Menu](#) when in landscape mode, scroll through the menu view by touching and dragging in an upward direction. Tap on the **Convert Text To Path** option to select it and then tap anywhere within the [Drawing Editor](#) to close the menu.



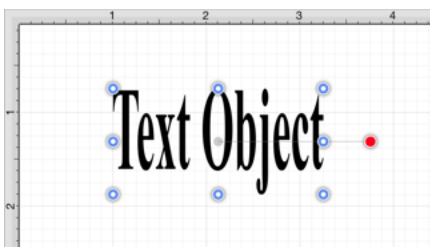
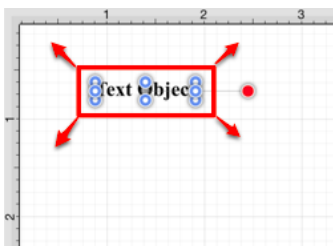




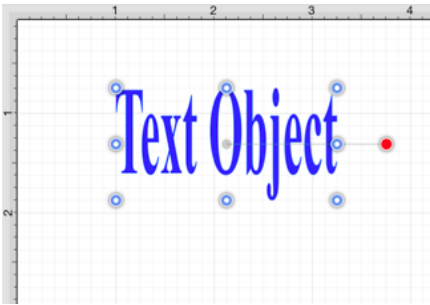
4. The selected text figure is converted to a path figure.



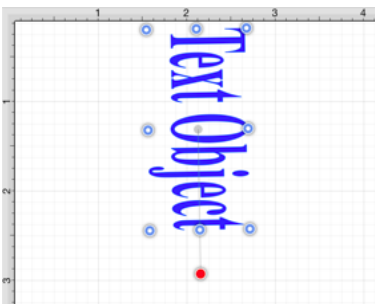
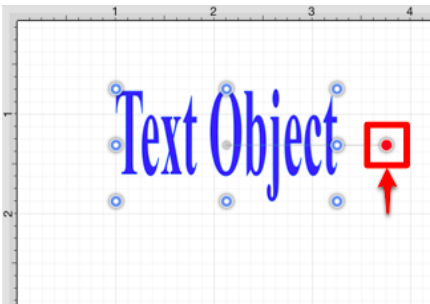
5. Perform a **Touch/Drag** gesture combination on a bounds handle (blue) to alter path size. In the images below, the top bounds handle is dragged upward to increase the height of the path.



6. 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.



7. The added rotation handle (red) can be dragged clockwise or counterclockwise with a **Touch/Drag** gesture combination to change the angle of the newly created path.

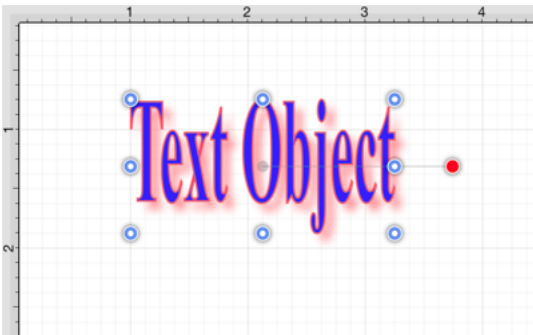
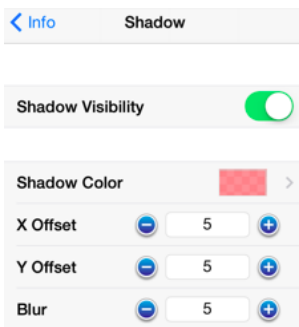


8. A converted path can be moved to any location on the [Drawing Canvas](#) or [Scaled](#) to a specific size. In this example, **Factor X** is changed from two to three.





9. [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.

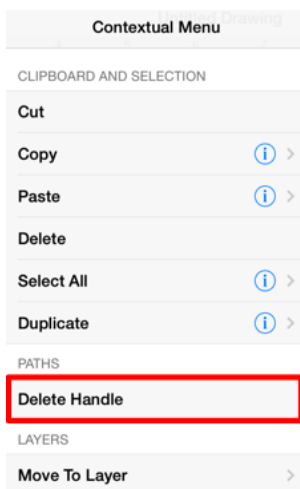
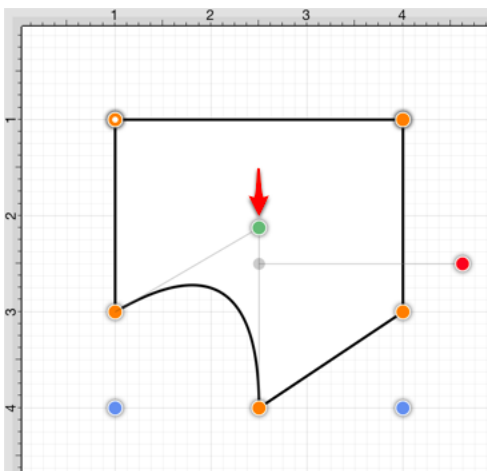


## 5.1.15.10. Delete Handle

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).

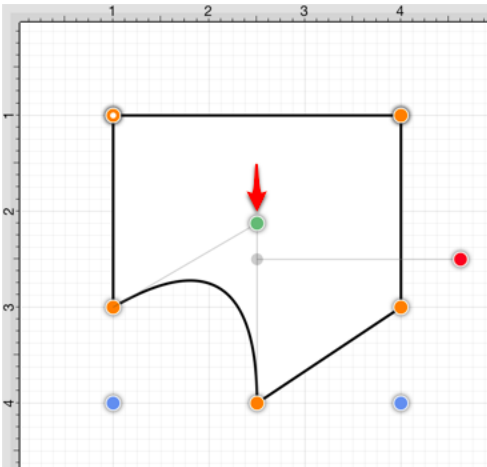
Depending on the desired operation, **Touch and Hold** on a path handle or a path segment to bring up the [Contextual Menu](#), as shown below:



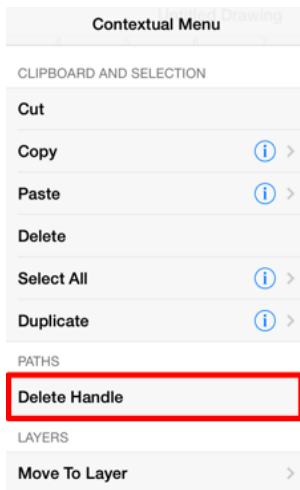
Available contextual menu options change depending on the type of selected segment or handle.

Follow the steps below to delete a **Path Handle**:

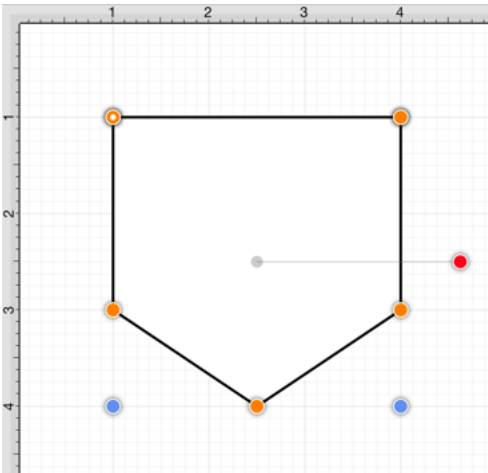
1. **Touch and Hold** on the desired handle to **select** it and open the **Contextual Menu**. In this example, the **Quadratic Curve Control Point Handle** (indicated by the color green) is being removed from the path.



2. Tap on the **Delete Handle** option.

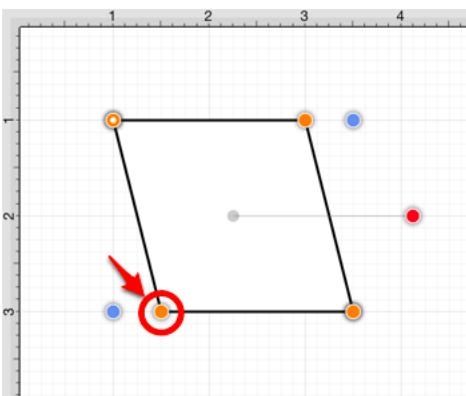


3. The selected **Quadratic Curve Control Point Handle** is removed and the segment is converted into a **Line Segment**.

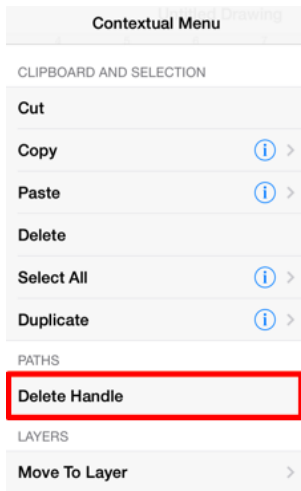


Follow the steps below to delete a **Path Segment Handle**:

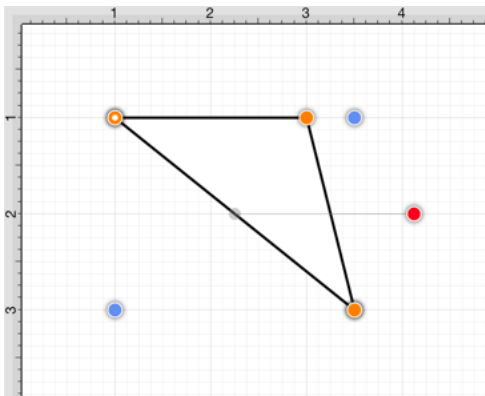
1. **Touch and Hold** on the desired **Segment End Point** to open the [Contextual Menu](#). In this example, the bottom left **Segment End Point** is chosen for deletion.



2. Tap on the **Delete Handle** option.



3. The selected handle and segment are removed, as shown below.

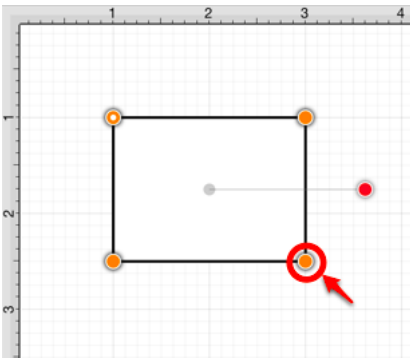


**Note:** Refer to the [Handles Reference](#) section of this documentation to learn more about each handle.

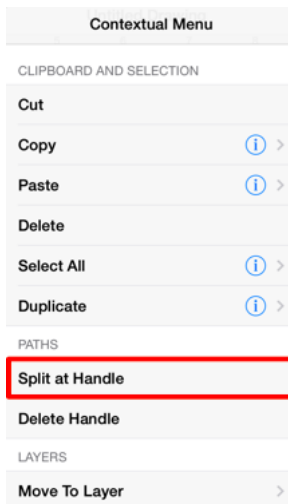
## 5.1.15.11. Split at Handle

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. **Touch and Hold** on the desired **End Point Handle** to [select](#) it and open the [Contextual Menu](#).

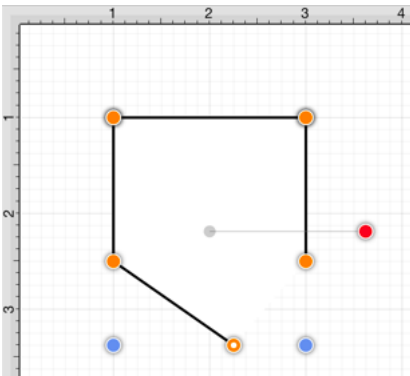
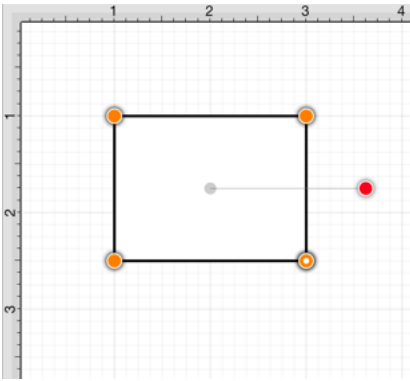


2. Tap on the **Split at Handle** option.



3. The path is now separated at the chosen **End Point Handle**, as shown below.





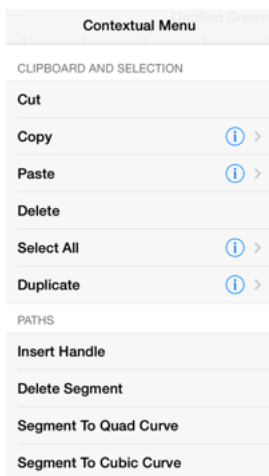
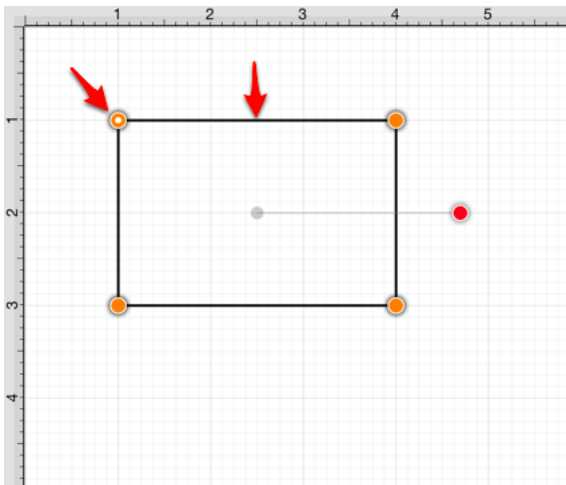
**Note:** Refer to the [Handles Reference](#) section of this documentation to learn more about each handle.

## 5.1.15.12. 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.

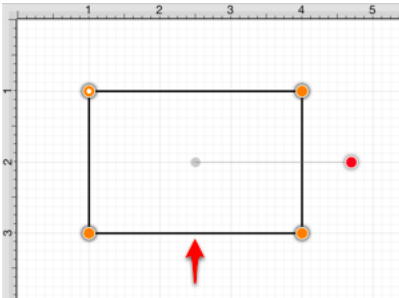
Depending on the desired operation, **Touch and Hold** on a path handle or a path segment to bring up the [Contextual Menu](#), as shown below:



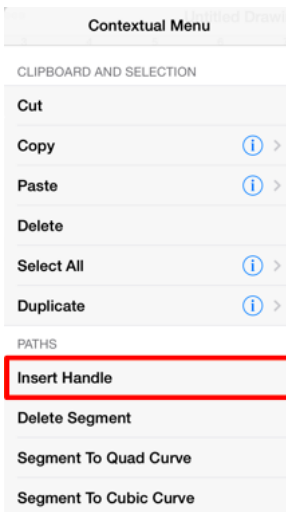
Available contextual menu options change depending on the type of selected segment or handle.

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:

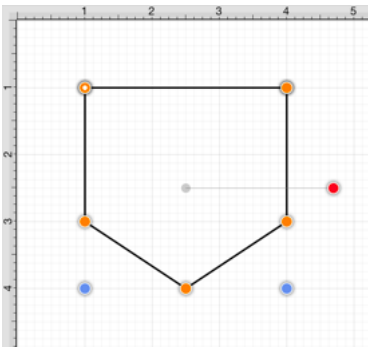
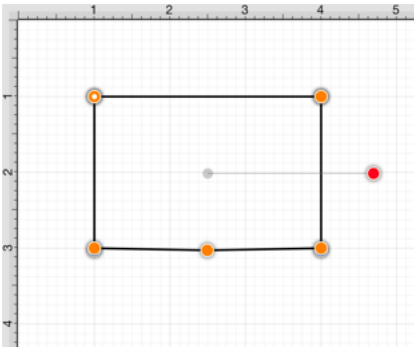
1. **Touch and Hold** on the desired handle or segment to [select](#) it and open the [Contextual Menu](#).



2. Tap on the **Insert Handle** option.



3. A new **Segment End Point Handle** appears in the center of the selected line segment and can be used to alter the path.



**Note:** Refer to the [Handles Reference](#) section of this documentation to learn more about each handle.

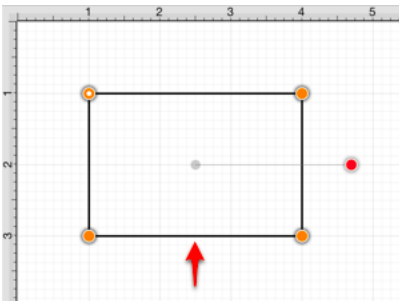
## 5.1.15.13. Delete Segment

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:

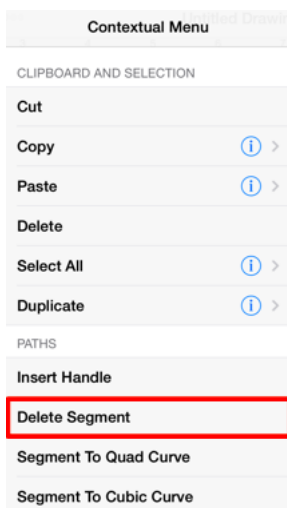
- [Line Segment](#) - The entire segment is removed.
- [Quadratic Curve Segment](#) - The entire segment and corresponding quadratic control point are removed.
- [Cubic Curve Segment](#) - The entire segment and all cubic curve control points are removed.

In the provided example, the bottom **Line Segment** of the figure is chosen. Follow the steps below to delete a segment:

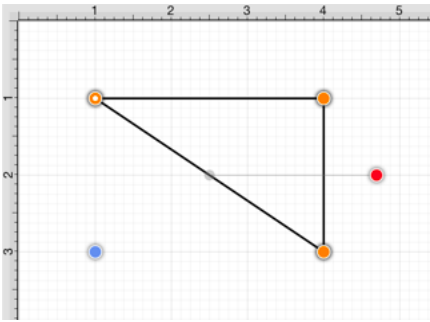
1. **Touch and Hold** on the desired segment to [select](#) it and open the [Contextual Menu](#).



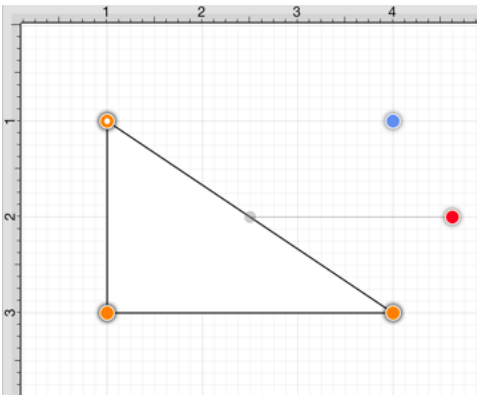
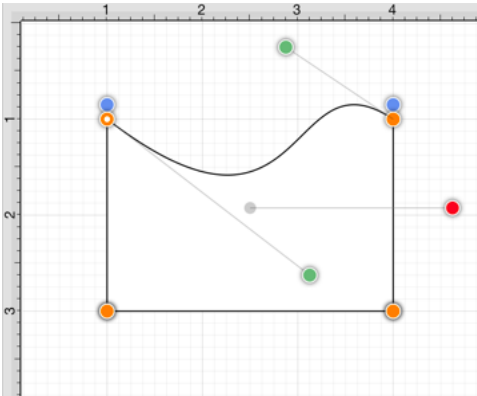
2. Tap on the **Delete Segment** option.



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.



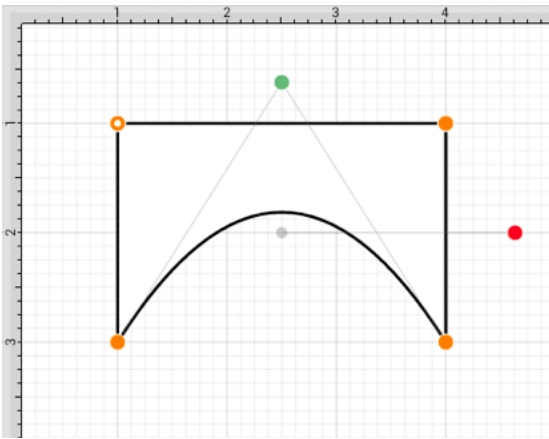
**Note:** Refer to the [Handles Reference](#) section of this documentation to learn more about each handle.

## 5.1.15.14. Segment to Line

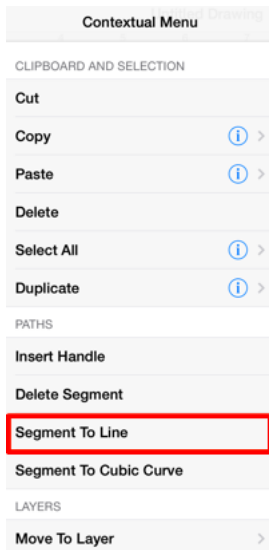
The **Segment To Line** action will convert either a quadratic or a cubic curve segment into a straight line segment. Essentially, it discards the control points of the curve.

In the provided example, a **Quadratic Curve Segment** is changed to a **Line Segment**. Follow the steps below:

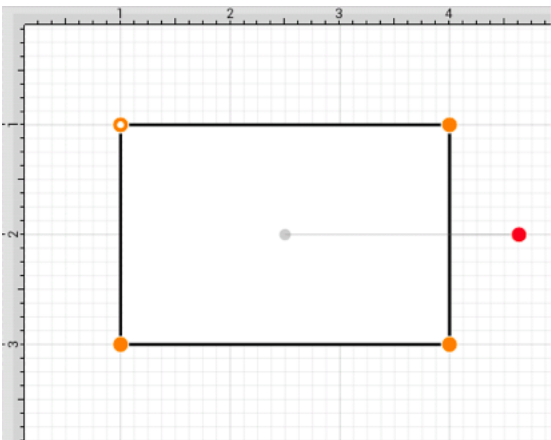
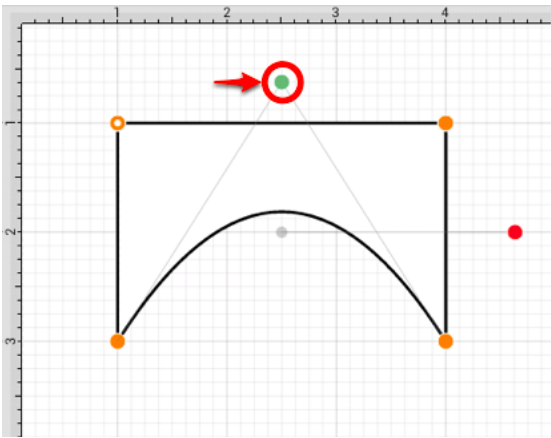
1. **Touch and Hold** on the desired segment to [select](#) it and open the [Contextual Menu](#).



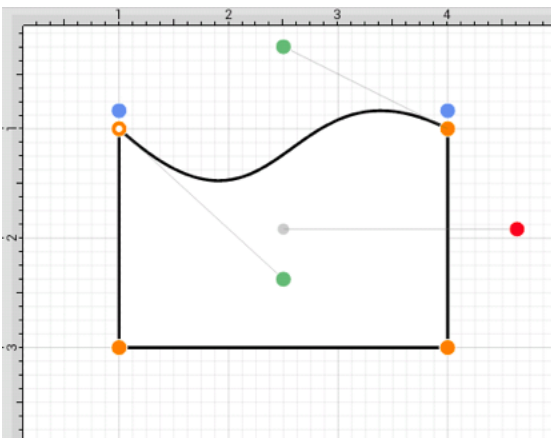
2. Tap on the **Segment to Line** option.



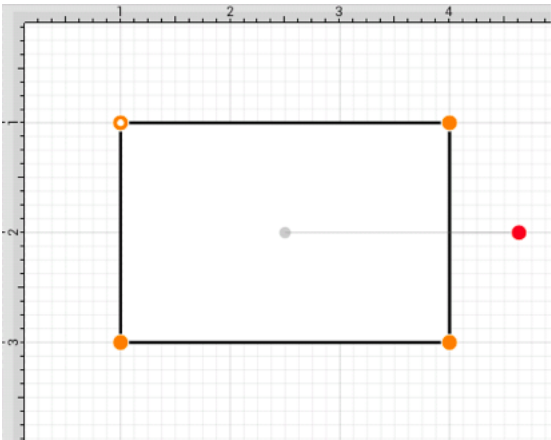
3. The control point (green) of the [Quadratic Curve Segment](#) is removed and the segment is changed to a **Line Segment** to create a rectangle, as shown below.



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.

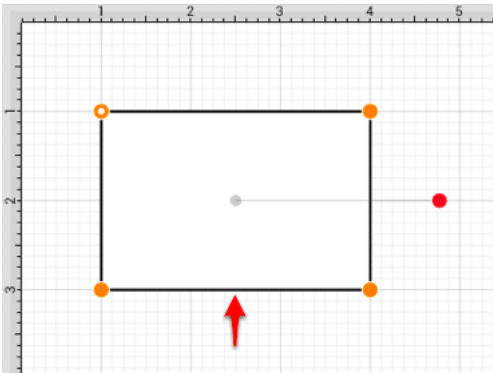
## 5.1.15.15. Segment to Quad

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:

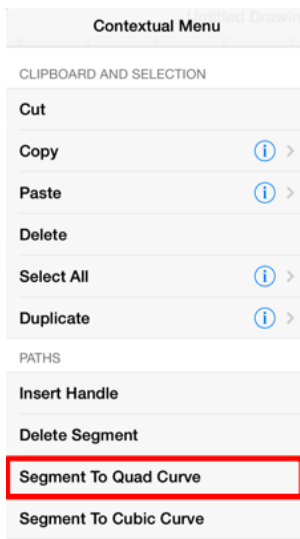
- **Line Segment** - A curve control point will be inserted at the center point of the line and can be used to create the exact desired quadratic.
- **Cubic Curve Segment** - The two control points of the cubic curve segment will be averaged to create a new control point for the quadratic curve, which 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:

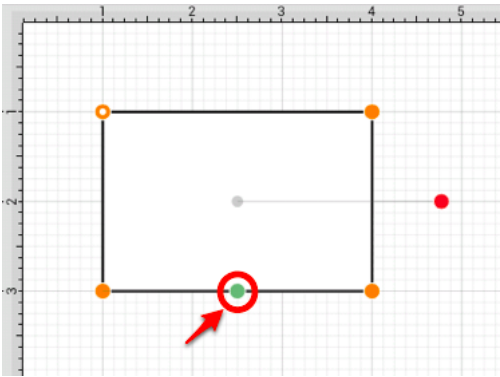
1. **Touch and Hold** on the desired segment to [select](#) it and open the [Contextual Menu](#).



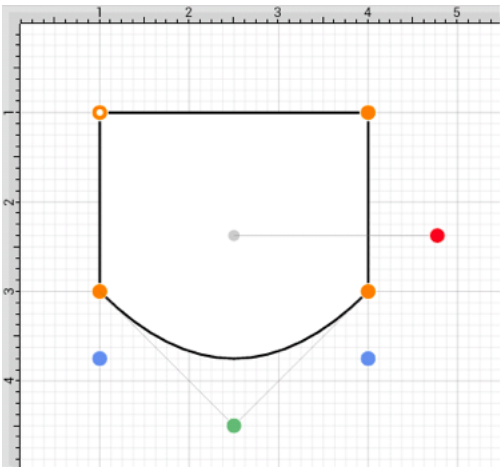
2. Tap on the **Segment to Quad** option.



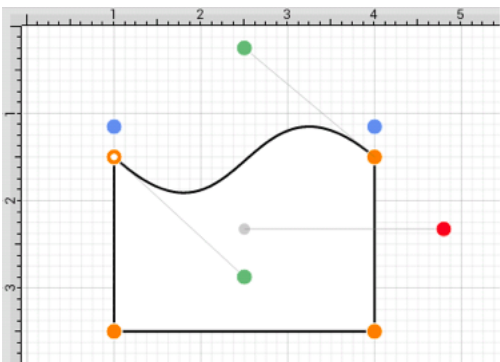
3. A **Quadratic Curve Control Point** (green) is added to the center of the selected segment.

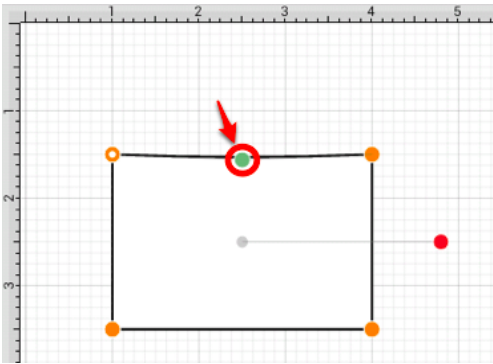


4. Perform a **Touch/Drag** gesture combination on the **Quadratic Curve Control Point** to create the desired curve segment. In this example, the control point is dragged to the bottom.

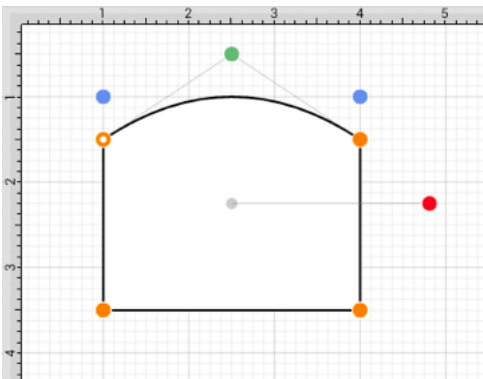


The following screenshots show the resulting control point and line changes when a **Cubic Curve Segment** is converted to a **Quadratic Curve Segment**. In this example, the top cubic curve is chosen for conversion. The two existing **Cubic Curve Control Points** (green) are averaged to generate a single **Quadratic Curve Control Point**.





The provided **Quadratic Curve Control Point** can be moved in any direction by performing a **Touch/Drag** gesture 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.

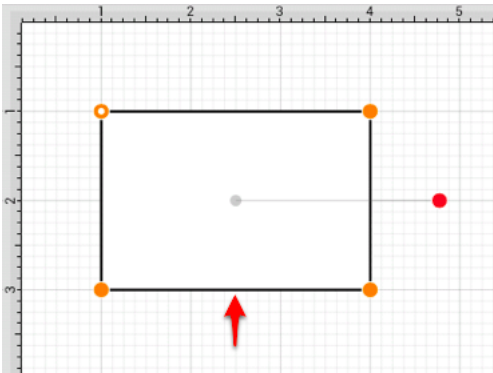
## 5.1.15.16. Segment to Cubic

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:

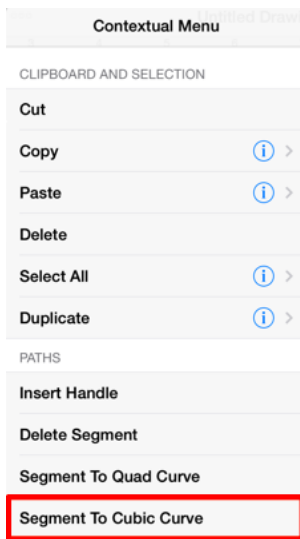
- **Line Segment**- Two curve control points will be inserted at the 40% and 60% locations along the line and can be used to create the exact desired cubic curve.
- **Quadratic Curve Segment**- The shape of the quadratic curve will be approximated with a new cubic curve segment.

In the provided example, the **Line Segment** located on the bottom of the figure is converted into a **Cubic Curve Segment**. Follow the steps below:

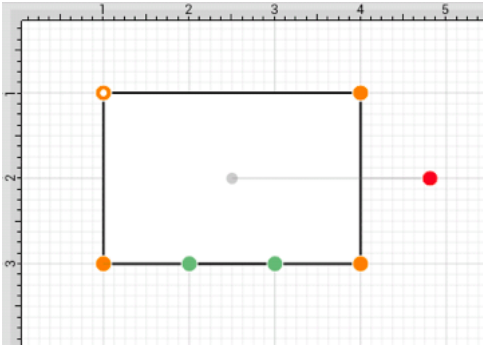
1. **Touch and Hold** on the desired segment to [select](#) it and open the [Contextual Menu](#).



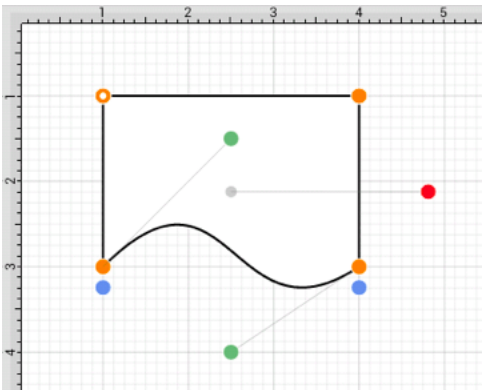
2. Tap on the **Segment to Cubic** option.



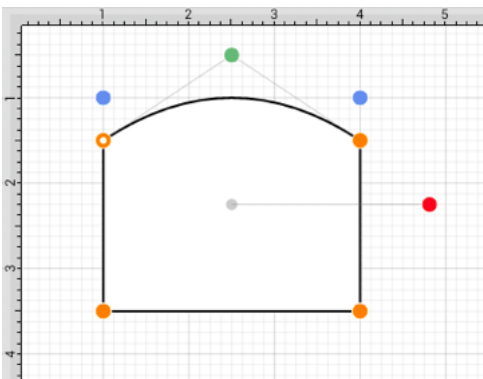
- Two **Cubic Curve Control Points** (green) are inserted at the 40% and 60% locations on the chosen **Line Segment**.

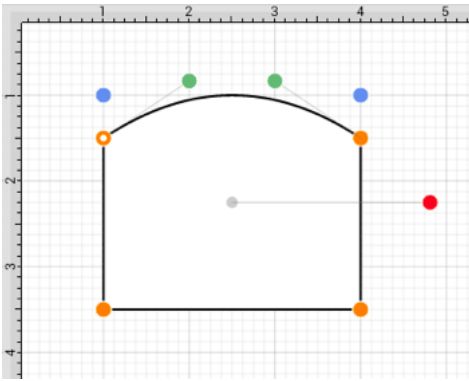


- Perform a **Touch/Drag** gesture combination to move either **Cubic Curve Control Point** in any direction. In this example, the left control point is dragged upward and the right control point is dragged downward. Refer to the images below:

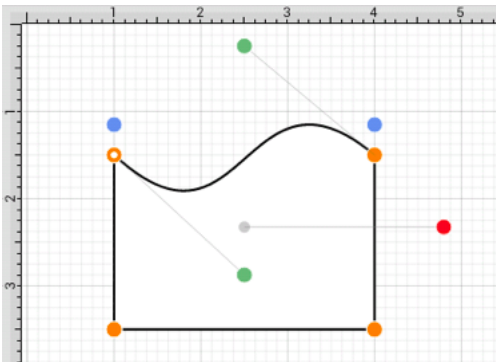


The following screenshots show the resulting control point and line changes when a **Quadratic Curve Segment** is converted to a **Cubic Curve Segment**. In this example, the top cubic curve is chosen for conversion. The **Quadratic Curve Control Point** (green) is approximated to create two **Cubic Curve Control Points** and the associated segment.





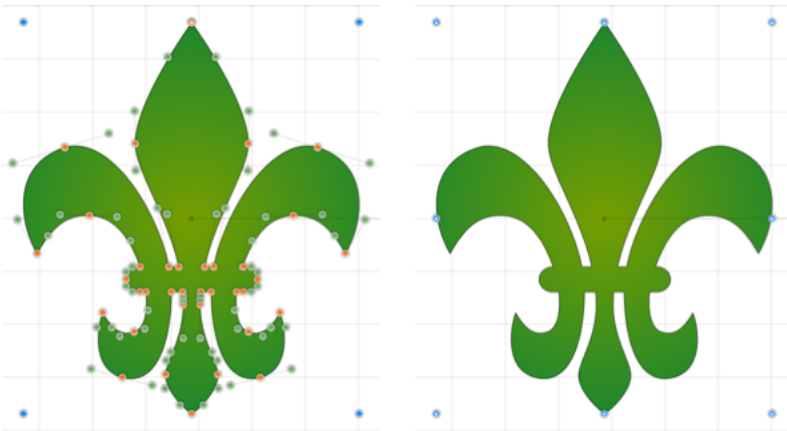
The provided **Cubic Curve Control Points** can be moved in any direction by performing a **Touch/Drag** gesture combination. In this example, the left control point is dragged downward and to the right. The right control point is dragged upward and to the left to create the desired **Cubic Curve**.



**Note:** Refer to the [Handles Reference](#) section of this documentation to learn more about each handle.

## 5.1.15.17. 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 [Arrangement 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.



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.



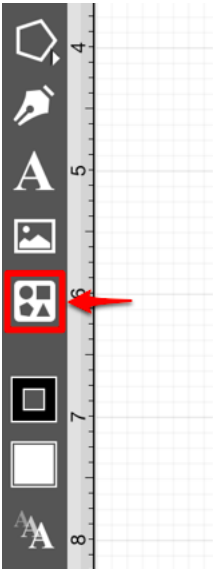
## 5.1.16. Handling Libraries

**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 **Libraries Button** located in the [Drawing Toolbar](#). This popover window appears as shown below.

| Libraries             | Edit |
|-----------------------|------|
| American Football     | >    |
| Architectural         | >    |
| Balloons and Callouts | >    |
| BPMN                  | >    |
| Circuit Symbols       | >    |
| Condensing Units      | >    |
| Electrical Symbols    | >    |
| Flow Chart            | >    |
| Icons - Devices       | >    |
| Icons - Faces         | >    |
| Icons - Misc          | >    |
| Icons - Weather       | >    |
| Add New Library       |      |

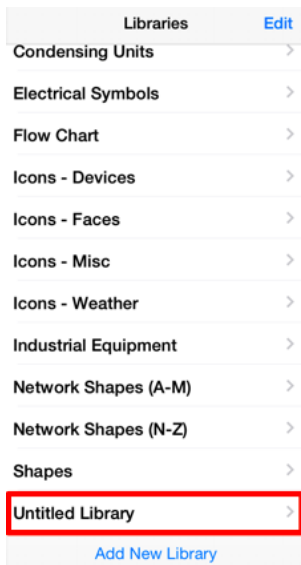
## 5.1.16.1. Adding a Library

A **Library** is added by pressing on the **Add New Library Button** at the bottom of the [Libraries Window](#).



| Libraries                       |   | <a href="#">Edit</a> |
|---------------------------------|---|----------------------|
| American Football               | > |                      |
| Architectural                   | > |                      |
| Balloons and Callouts           | > |                      |
| BPMN                            | > |                      |
| Circuit Symbols                 | > |                      |
| Condensing Units                | > |                      |
| Electrical Symbols              | > |                      |
| Flow Chart                      | > |                      |
| Icons - Devices                 | > |                      |
| Icons - Faces                   | > |                      |
| Icons - Misc                    | > |                      |
| Icons - Weather                 | > |                      |
| <a href="#">Add New Library</a> |   |                      |

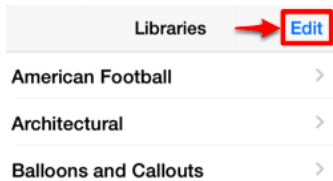
An **Untitled Library** is added to the bottom of the Libraries Window, after the **Add New Library Button** has been pressed. You will need to scroll through the menu view by touching and dragging in an upward direction to view the new library and make additional changes.



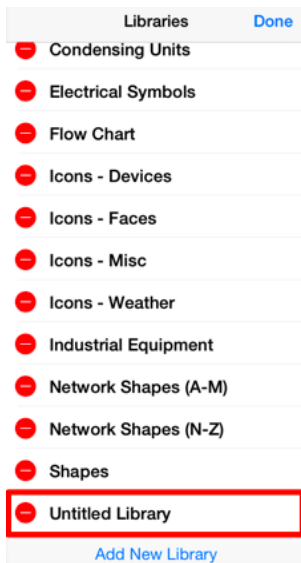
**Note:** Refer to the [Renaming a Library](#) section of the documentation to learn how to change the name of an **Untitled Library**.

## 5.1.16.2. Renaming a Library

To **Rename a Library**, the [Libraries Window](#) must be put into **Edit Mode**. Press the **Edit Button** located in the upper right hand corner of the **Libraries Window** to access the renaming function.



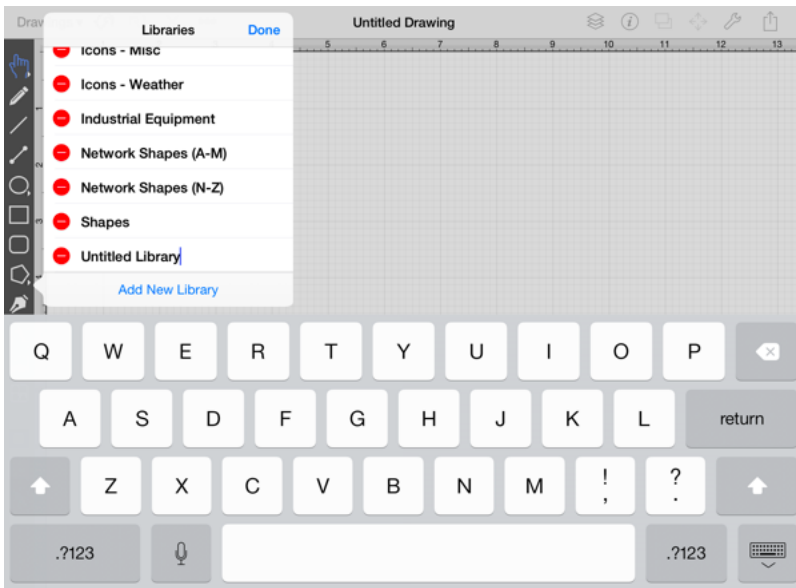
The menu will appear as shown below once the **Edit Button** has been pressed. Tap on the name of the library to enable it for editing and rename it.



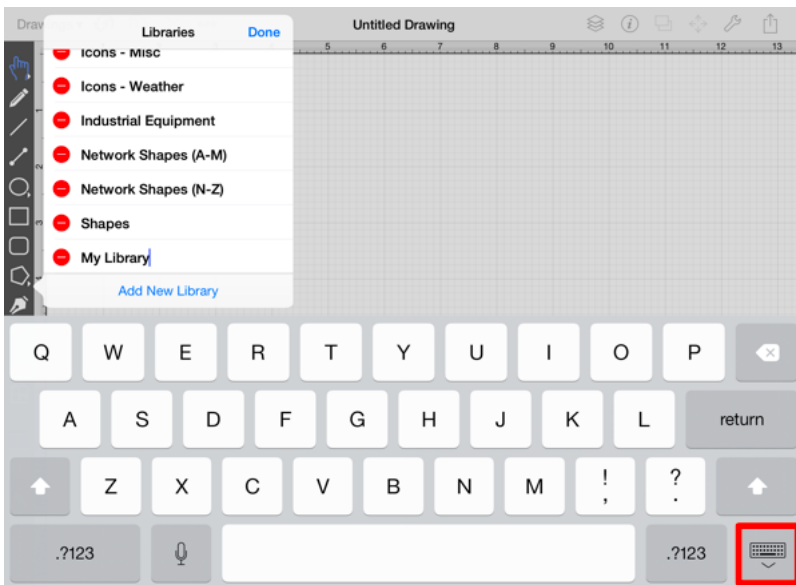
A keyboard appears on the screen of the device and a cursor is inserted into the name of the library as indicators of entering text editing mode.

## TouchDraw for iPad

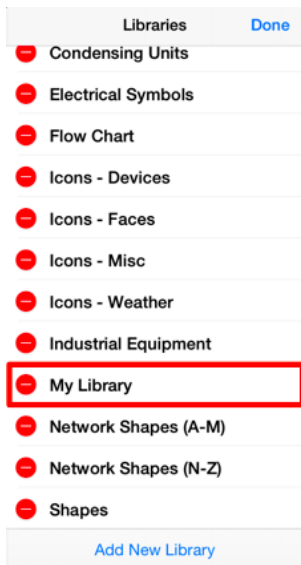
---



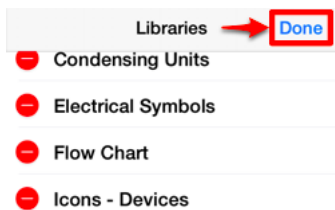
Use the keyboard to enter any desired name. Press on the **Return Button** in the keyboard to complete the name change.



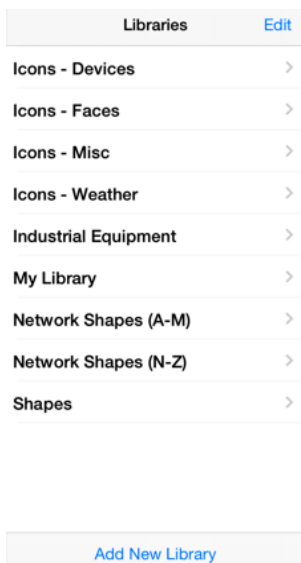
The **Libraries Window** will appear with the new name as shown below.



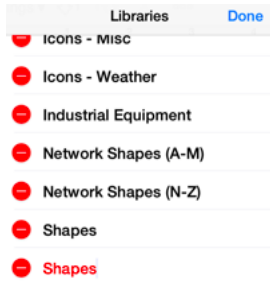
Press on the **Done Button** in the upper right hand corner of the **Libraries Window** to exit text editing mode.



The **Libraries Window** will appear as shown below once the name change has been completed.

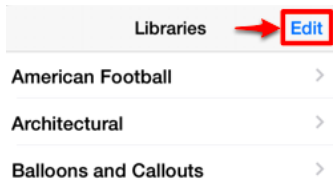


If the entered name is already taken, TouchDraw will provide visual feedback by changing the text to red indicating that the entered text is an invalid library name.

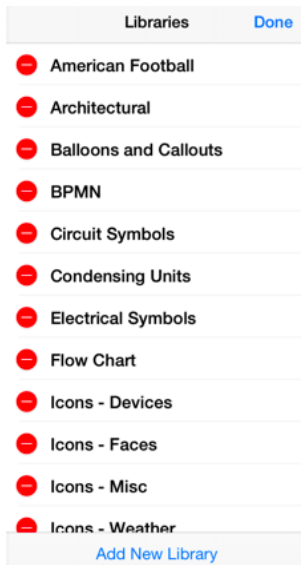


### 5.1.16.3. Deleting a Library

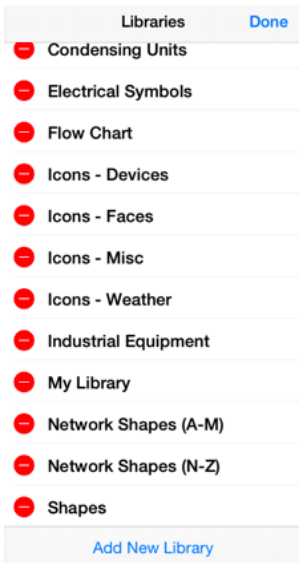
To **Delete a Library**, the [Libraries Window](#) must be put into **Edit Mode**. Press the **Edit Button** located in the upper right hand corner of the **Libraries Window** to access the renaming function.



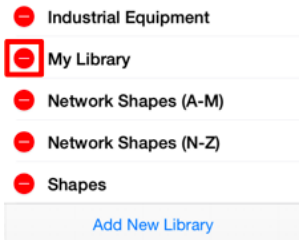
The menu will appear as shown below once the **Edit Button** has been pressed. Scroll through the window view by touching and dragging in an upward (or downward) direction to locate the desired library when it is not currently visible in the **Libraries Window**.



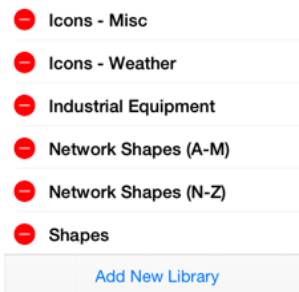




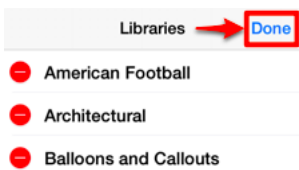
Press on the **Delete Item Button** (red circle with white line) to select a library for deletion. When the button is pressed, a **Delete Button** will appear on the right hand side of the selected library to confirm the deletion.



The library is removed from the **Libraries Window**, as shown below.



Press on the **Done Button** located in the upper right hand corner of the **Libraries Window** to exit the editing mode.



## 5.1.16.4. Sharing a Library

TouchDraw allows libraries to be shared with other users. Libraries are stored in "\*.t2l" files in the **Documents Directory** of TouchDraw. A **Library File** can be shared by using one of two available methods: **Email** or **iTunes**.

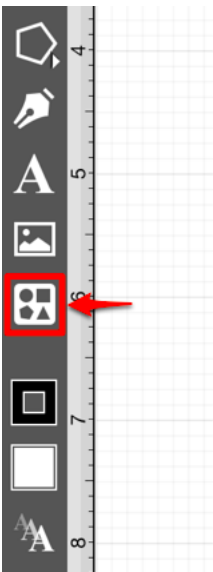
Please refer to the links below to learn more about the available sharing options.

- [Sharing Libraries via Email](#)
- [Exporting Libraries with iTunes](#)

### 5.1.16.4.1. Sharing Libraries via Email

A **Library** can be shared via email for use outside of TouchDraw. The file will be attached to the created email in its native format as a "\*.t2l" file. To share a library file via email:

1. Press on the **Library Button** to open the [Library Tool](#).

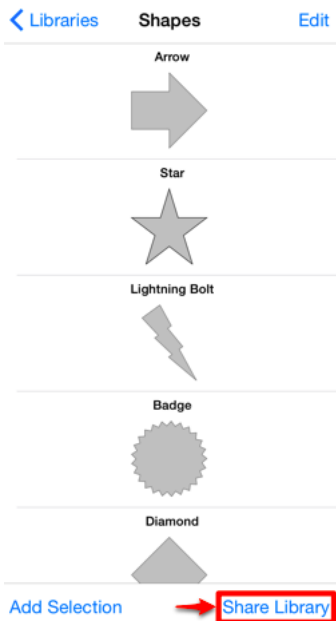


2. Scroll through the window view by touching and dragging in an upward (or downward) direction to locate the desired library when it is not currently visible in the **Libraries Window**. To make a selection, tap on the name of the library to be shared.

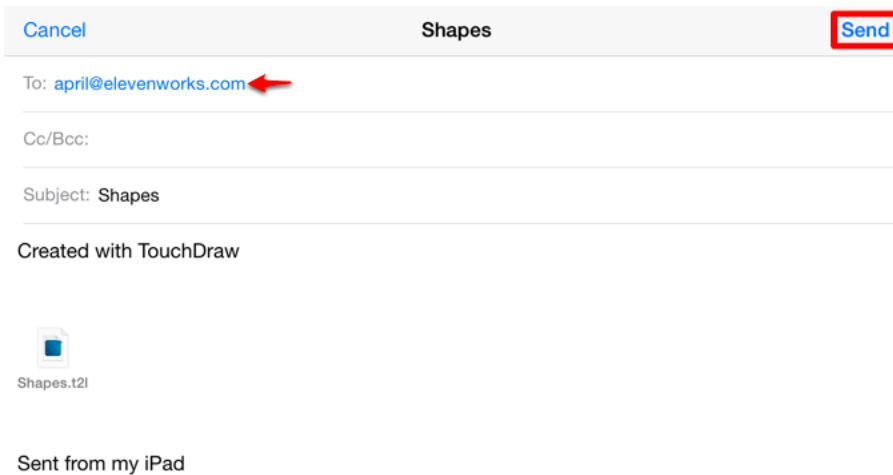
| Libraries                       | Edit |
|---------------------------------|------|
| American Football               | >    |
| Architectural                   | >    |
| Balloons and Callouts           | >    |
| BPMN                            | >    |
| Circuit Symbols                 | >    |
| Condensing Units                | >    |
| Electrical Symbols              | >    |
| Flow Chart                      | >    |
| Icons - Devices                 | >    |
| Icons - Faces                   | >    |
| Icons - Misc                    | >    |
| Icons - Weather                 | >    |
| <a href="#">Add New Library</a> |      |

| Libraries                       | Edit |
|---------------------------------|------|
| Circuit Symbols                 | >    |
| Condensing Units                | >    |
| Electrical Symbols              | >    |
| Flow Chart                      | >    |
| Icons - Devices                 | >    |
| Icons - Faces                   | >    |
| Icons - Misc                    | >    |
| Icons - Weather                 | >    |
| Industrial Equipment            | >    |
| Network Shapes (A-M)            | >    |
| Network Shapes (N-Z)            | >    |
| Shapes                          | >    |
| <a href="#">Add New Library</a> |      |

3. Next, tap on the **Share Library via Email** option located at the bottom of the [Library Tool](#).



4. Enter your email information and then press on the **Send Button** in the upper right hand corner of the screen to send the email with the attached file.



### 5.1.16.4.2. Exporting Libraries with iTunes

TouchDraw allows libraries to be shared with other users. Libraries are stored in "\*.t2l" files in the **Documents Directory** of TouchDraw.

To access libraries installed in an iPad, complete the following steps:

1. Connect the iPad to a computer.

2. Open iTunes.
3. Select the iPad in the **Devices Section** located in the left panel.
4. Select the **Apps Tab** in the right panel.
5. Scroll down to the **File Sharing Section**.
6. Select **TouchDraw** in the Apps list.
7. Either use drag and drop or the **Save To... Button** to move the appropriate "t2l" file onto a local computer.
8. Use a local email client (or another tool) to share the library with others.

## 5.1.16.5. Importing a Library

**Libraries** are stored in "\*.t2l" files in the **Documents Directory** of TouchDraw. A **Library File (.t2l)** may be imported to TouchDraw from an Email, applications such as DropBox or Box, or iTunes.

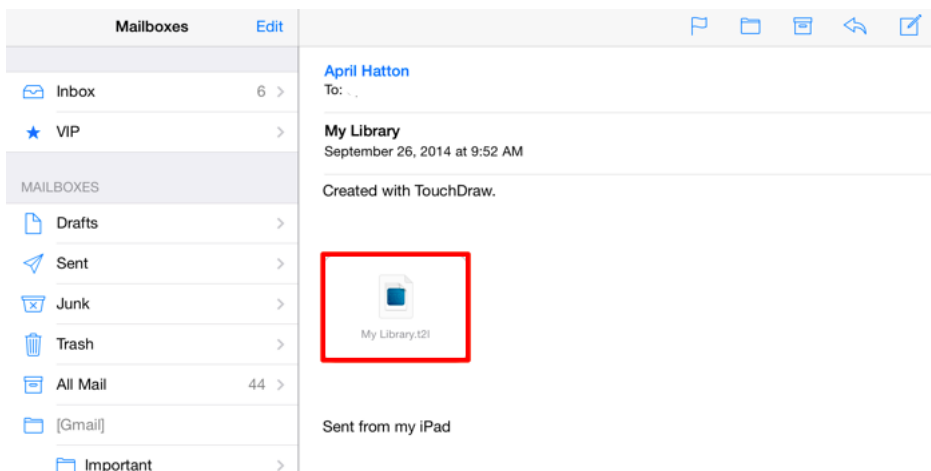
Please refer to the links below to learn more about these import options.

- [Importing Libraries by Email](#)
- [Importing Libraries from Applications](#)
- [Importing Libraries with iTunes](#)

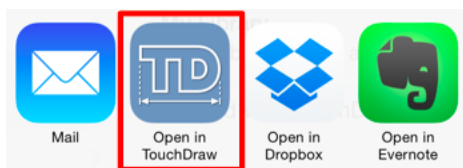
### 5.1.16.5.1. Importing Libraries by Email

A **Library File (.t2l)** can be imported into TouchDraw by email. Follow the steps below to import a library file from an email:

1. Open the email containing the .t2l file.
2. Press and hold (right-click) on the file attachment to view additional options.

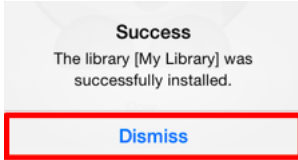


3. Select **Open (Send) to TouchDraw** from the supplied options.



4. You will receive the confirmation message shown below if the import was a success. Tap on the **Dismiss**

**Button** to close the confirmation window.



5. To view the imported library, press on the **Library Button** to open the **Library Tool** and locate its name in the list of TouchDraw libraries. Scroll through the window view by touching and dragging in an upward (or downward) direction to locate the desired library when it is not currently visible in the **Libraries Window**. In this example, **MyLibrary** was imported into TouchDraw.

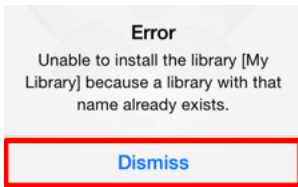
| Libraries             | Edit |
|-----------------------|------|
| American Football     | >    |
| Architectural         | >    |
| Balloons and Callouts | >    |
| BPMN                  | >    |
| Circuit Symbols       | >    |
| Condensing Units      | >    |
| Electrical Symbols    | >    |
| Flow Chart            | >    |
| Icons - Devices       | >    |
| Icons - Faces         | >    |
| Icons - Misc          | >    |
| Icons - Weather       | >    |
| Add New Library       |      |

| Libraries            | Edit |
|----------------------|------|
| 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               | >    |
| Add New Library      |      |

6. If a **Library** already exists with the name of the imported file, you will receive the message shown



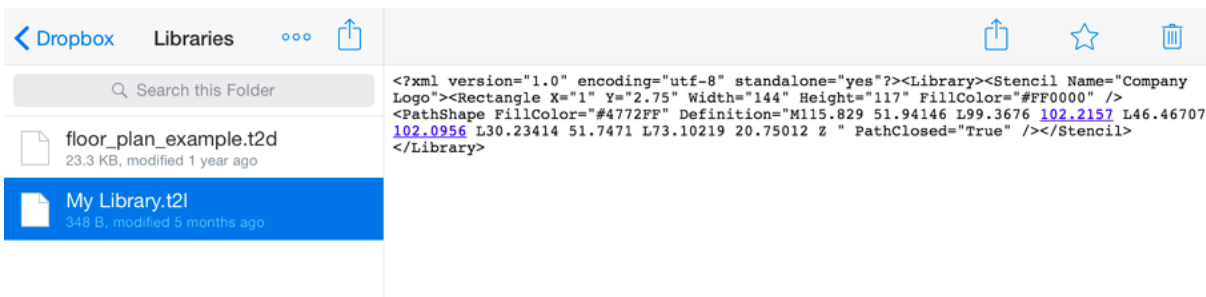
below. Tap on the **Dismiss Button** to exit the message. You will need to rename the file being imported or [rename the existing TouchDraw Library](#) to complete the import.



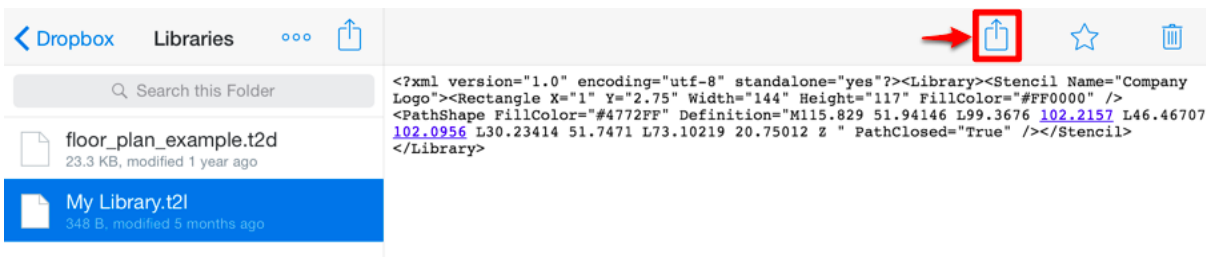
### 5.1.16.5.2. Importing Libraries from Applications

A **Library File (.t2l)** can be imported into TouchDraw from any application capable of sharing files (DropBox, Box, etc.). Follow the steps below to import a library file from an application:

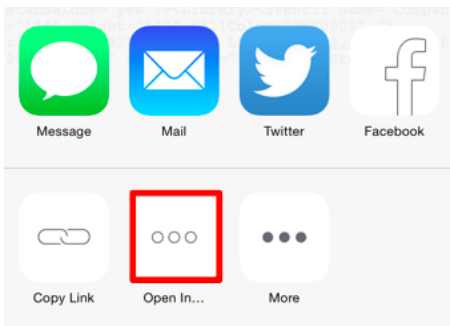
1. Open the application where the library file is located and then browse or search for the file. **DropBox** will be used for this example.



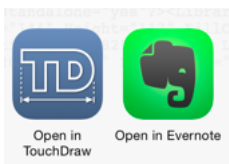
2. Depending on the chosen application, you will either need to **press and hold** (right-click) on the file name or use the **Share** feature to access additional options. For **DropBox**, tap on the file name to select it and then tap on the **Share Button** in the upper right hand corner of the application.



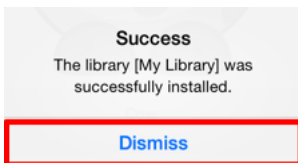
3. Tap on **Open In...** to select an application for opening the file.



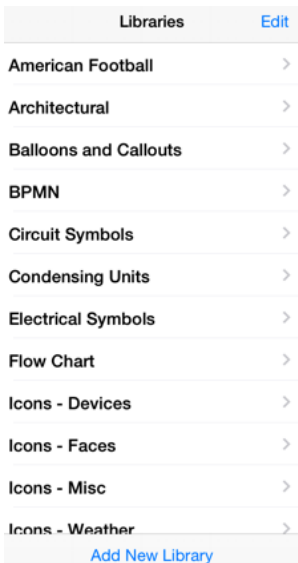
4. Select **Open (Send) in TouchDraw** from the supplied sharing options.

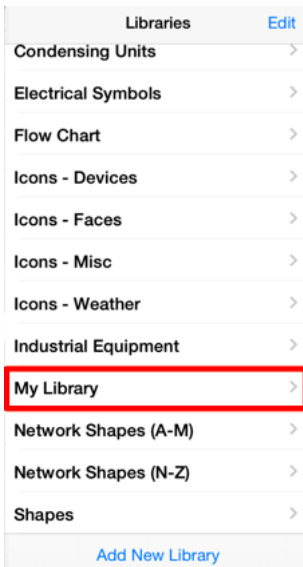


5. You will receive the confirmation message shown below if the import was a success. Tap on the **Dismiss** Button to close the confirmation window.

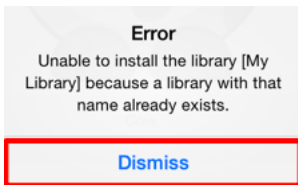


6. To view the imported library, press on the **Library Button** to open the **Library Tool** and locate its name in the list of TouchDraw libraries. Scroll through the window view by touching and dragging in an upward (or downward) direction to locate the desired library when it is not currently visible in the **Libraries Window**. In this example, **MyLibrary** was imported into TouchDraw.





7. If a **Library** already exists with the name of the imported file, you will receive the message shown below. Tap on the **Dismiss Button** to exit the message. You will need to rename the file being imported or [rename the existing TouchDraw Library](#) to complete the import.



**Note:** Imported libraries must have a ".t2l" file extension to be valid. An error message will appear if the selected file does not match the required format in TouchDraw.

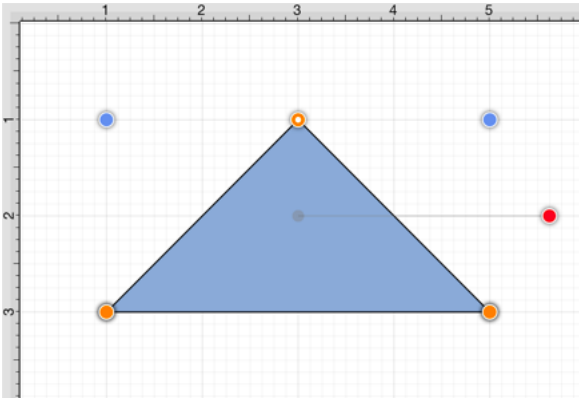
### 5.1.16.5.3. Importing Libraries with iTunes

iTunes can also be used to import a library into TouchDraw when the iPad is connected to a computer. To **Import a Library** with this method, follow the steps below:

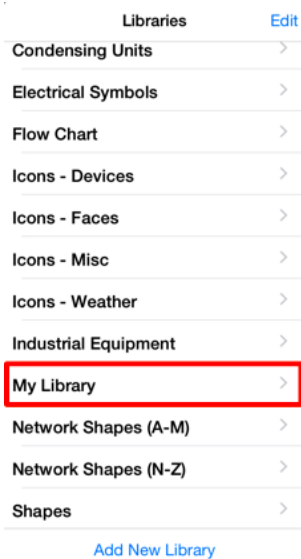
1. Connect the iPad to a computer.
2. Open iTunes.
3. Select the iPad in the **Devices Section** in the left panel.
4. Select the **Apps Tab** in the right panel.
5. Scroll down to the **File Sharing Section**.
6. Select **TouchDraw** in the Apps list.
7. Either use drag and drop or the **Add... Button** to move a library file from a local computer onto the iPad.

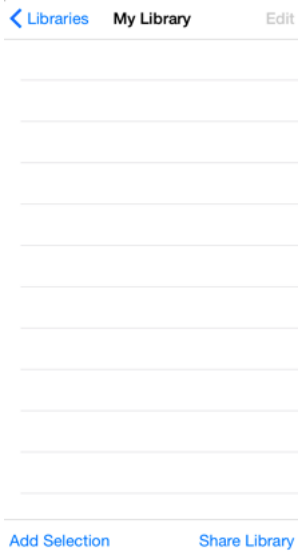
## 5.1.16.6. Adding a Stencil

To **Add a Stencil** into a library, the figure(s) must first be drawn within the [Drawing Editor](#) and [selected](#), as shown below.

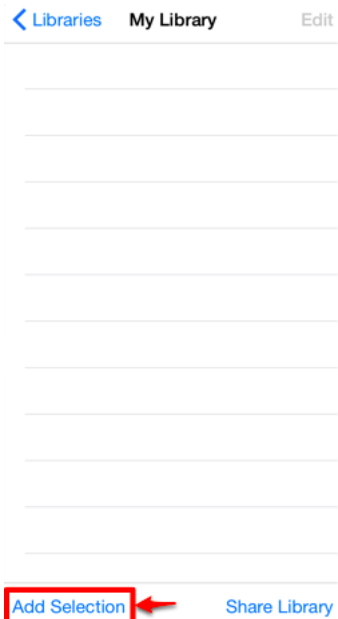


Press on the **Library Tool Button** in the [Drawing Toolbar](#) to open the [Libraries Window](#) and navigate to the library where the new stencil will be inserted. If the desired library is not currently visible, you can scroll through available libraries by touching and dragging in an upward or downward direction on the **Libraries Window**. Press on the desired library button to open it for an addition. In this example the **Shapes Library Button** is pressed.

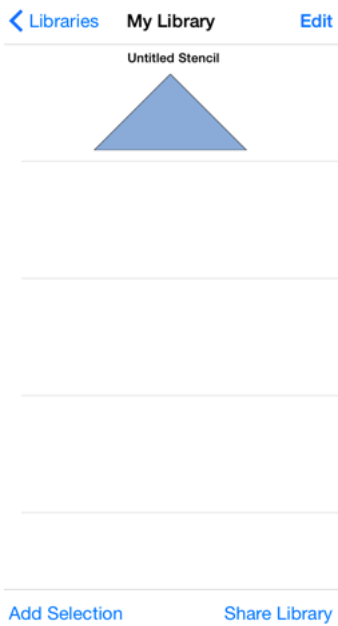




Press on the **Add Selection To Library Button** at the bottom of the **Libraries Window**.



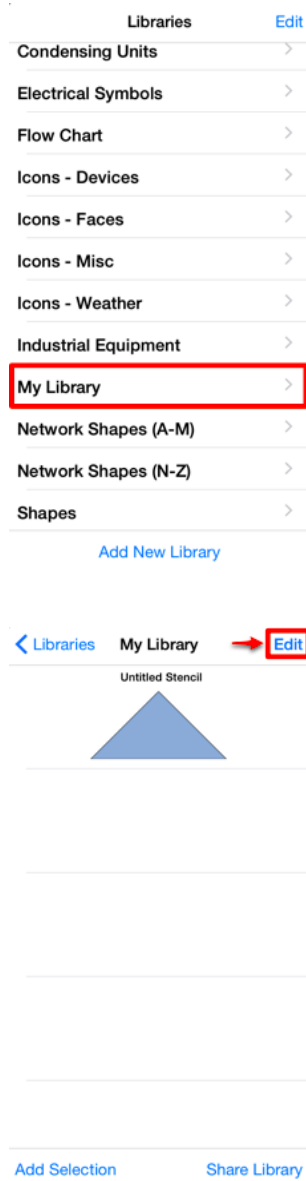
The new stencil will appear in the selected library as an untitled addition. In this example the selected blue triangle is added to the **Shapes Library Menu**, as shown below.



**Note:** To learn how to change the name of an added stencil, refer to the [Renaming a Stencil](#) section of the documentation.

## 5.1.16.7. Renaming a Stencil

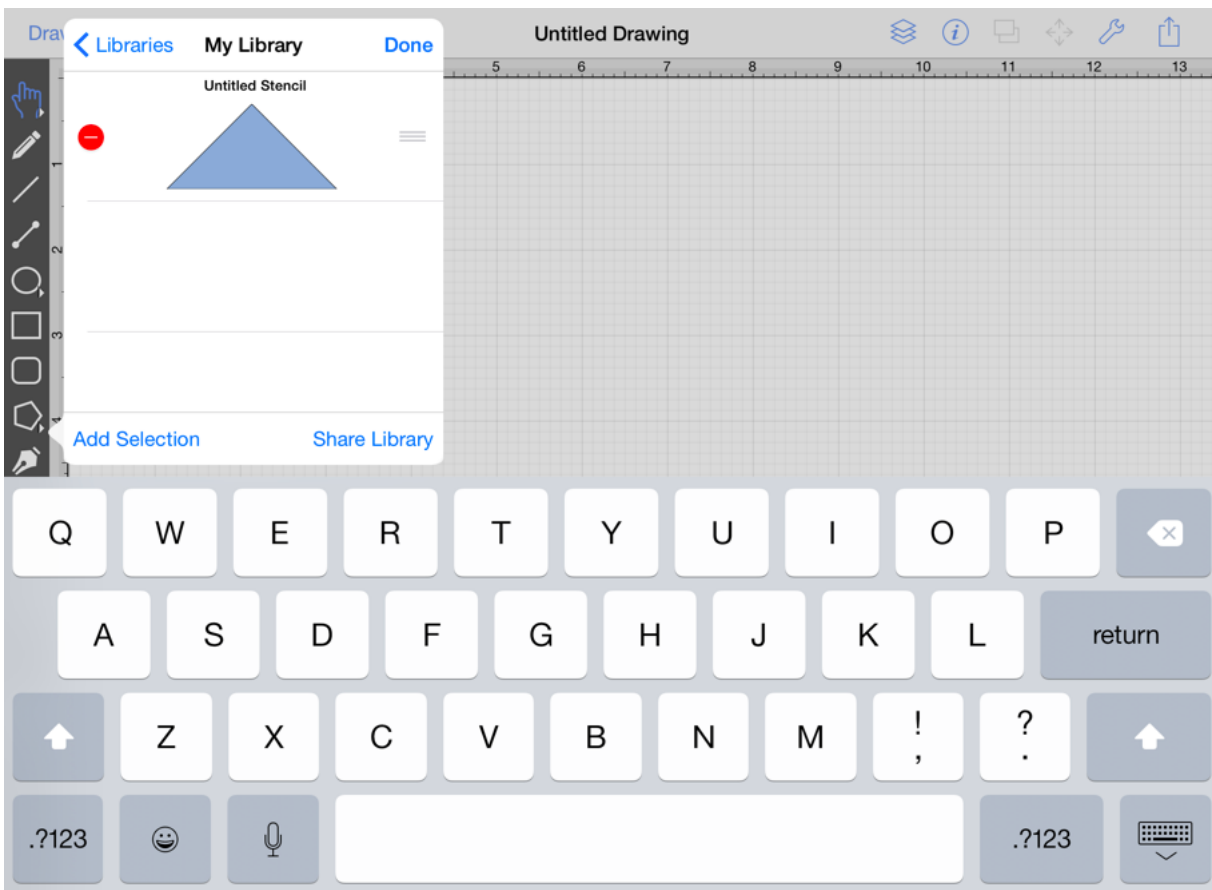
To **Rename a Stencil**, the appropriate library must be selected and be put into **Edit Mode**. Navigate to the library where the stencil is located and then press the **Edit Button** located in the upper right hand corner of the **Libraries Window** to access the renaming function. In this example, the **Shapes Library Button** is pressed to rename a recently added triangle stencil.



The **Libraries Window** will appear as shown below once the **Edit Button** has been pressed. Tap on the name of the stencil to enable it for editing and rename it.

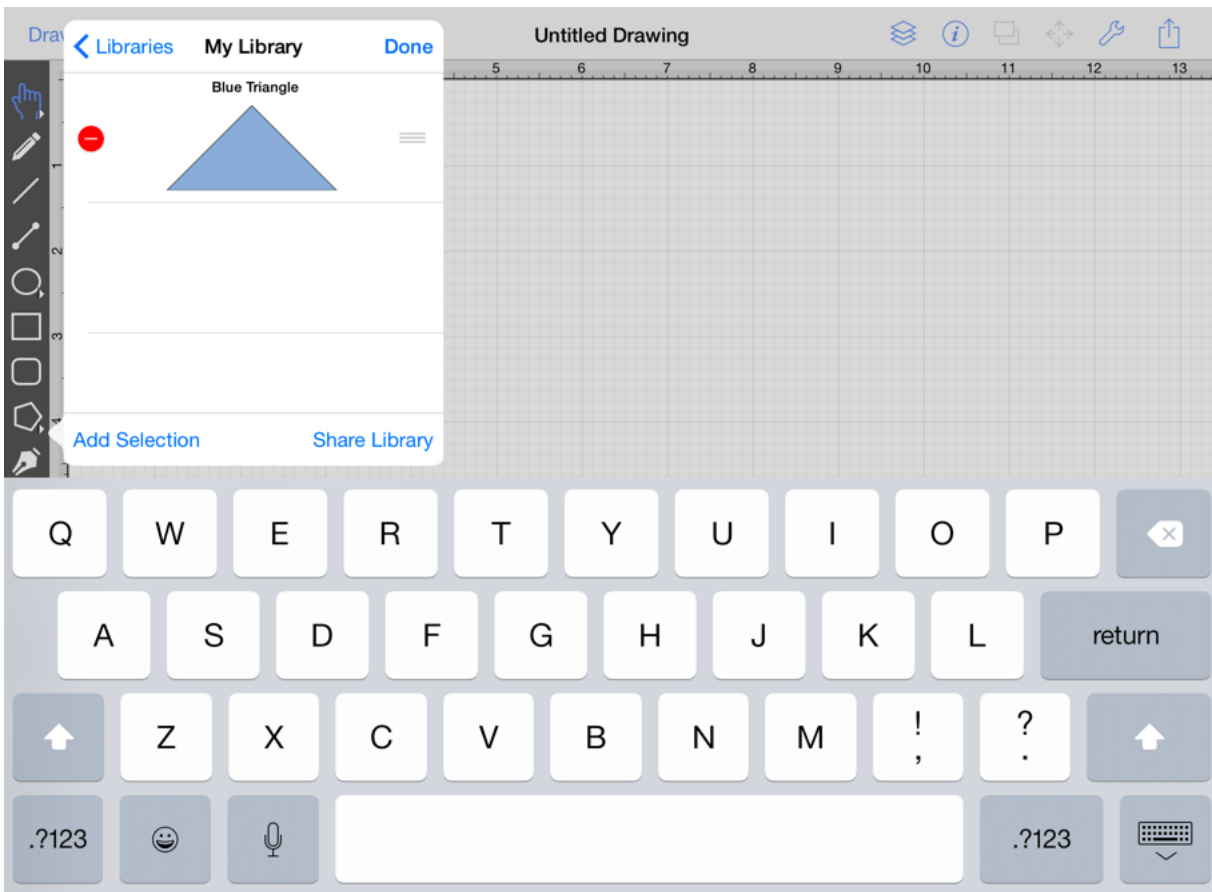


A keyboard appears on the screen of the device and a cursor is inserted into the name of the stencil as indicators of entering text editing mode. Use the keyboard to enter any desired name.



Press on the **Return Button** in the keyboard to complete the name change. The **selected stencil** will appear under the new name in the **Libraries Window**, as shown below.

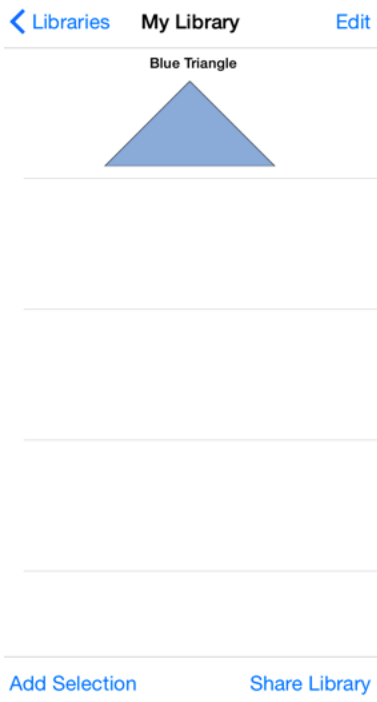




Press on the **Done Button** in the upper right hand corner of the **Libraries Window** to exit text editing mode.

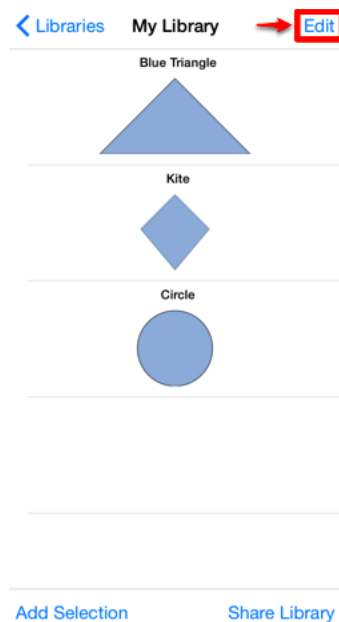
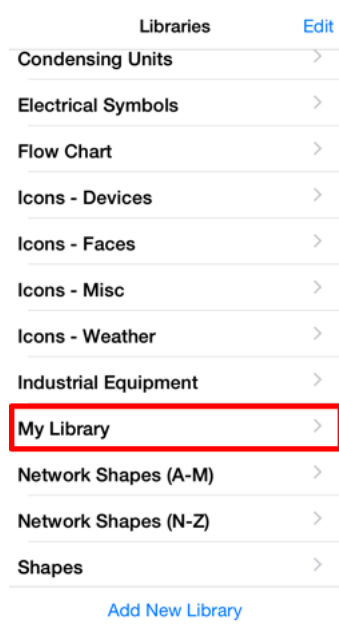


The selected library in the **Libraries Window** will appear as shown below once the name change has been completed.

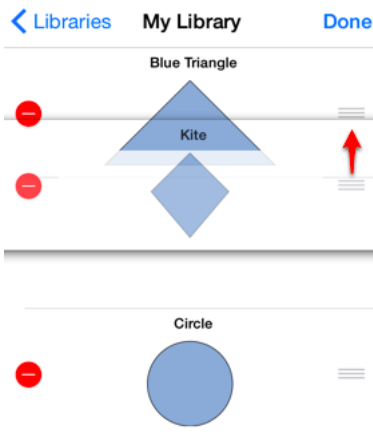
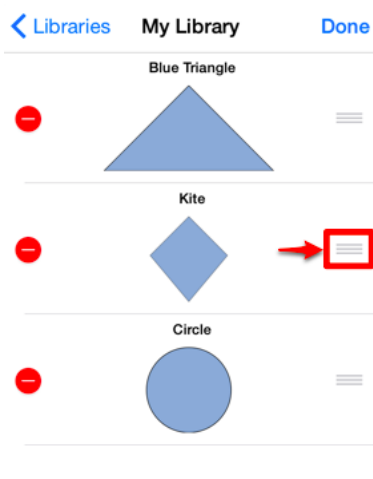


## 5.1.16.8. Re-ordering Stencils

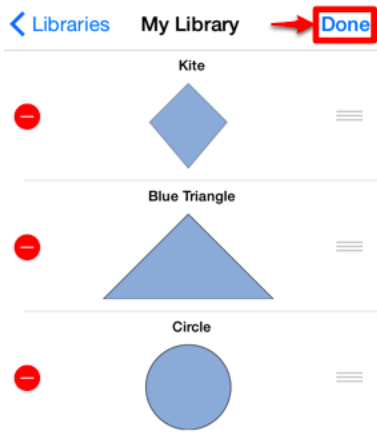
To **Re-order Stencils**, the appropriate library must be selected and be put into **Edit Mode**. Navigate to the library where the stencil is located and then press the **Edit Button** located in the upper right hand corner of the [Libraries Window](#) to re-order them. In this example, the **Shapes Library Button** is pressed.



To move a stencil, touch and hold on the **Re-ordering Handle** (three horizontal bars) located to the right of the stencil name and then drag the stencil to the desired location (index). In this example, the **Kite Stencil** is moved to the index location above the **Blue Triangle Stencil**, as shown below.

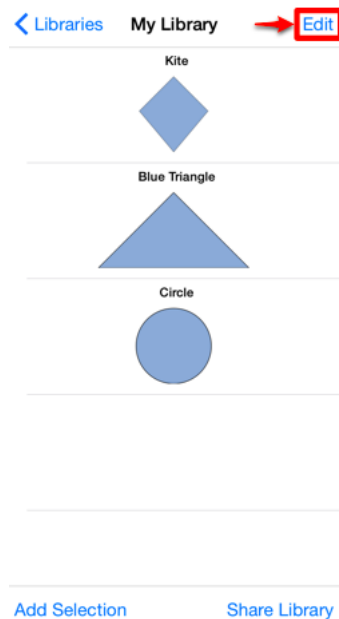
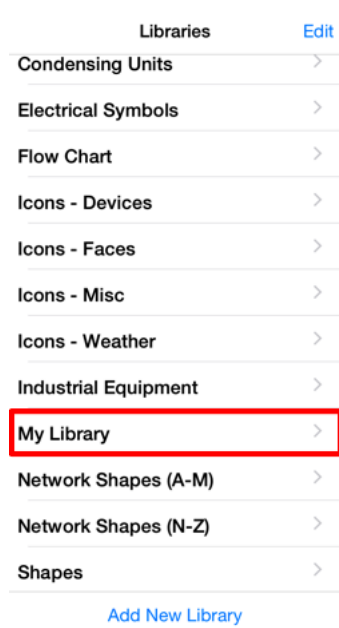


Press on the **Done Button** located in the upper right corner of the **Libraries Window** when finished to exit the edit mode.

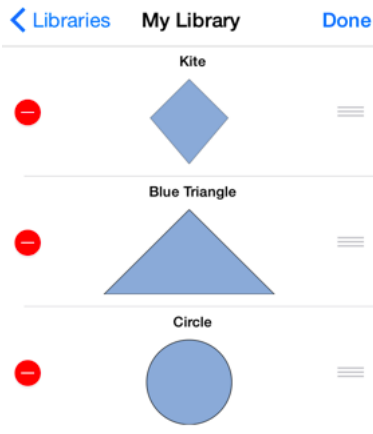


## 5.1.16.9. Deleting a Stencil

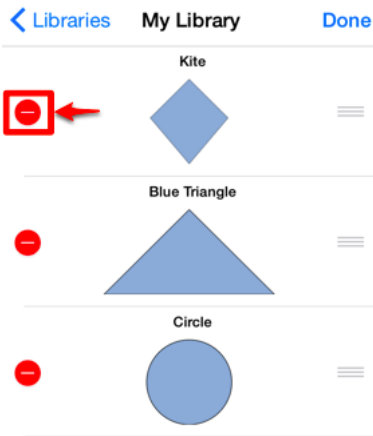
To **Delete a Stencil**, the appropriate library must be selected and be put into **Edit Mode**. Navigate to the library where the stencil is located and then press the **Edit Button** located in the upper right hand corner of the [Libraries Window](#) to access the renaming function. In this example, the **Shapes Library Button** is pressed to delete a recently added kite stencil.

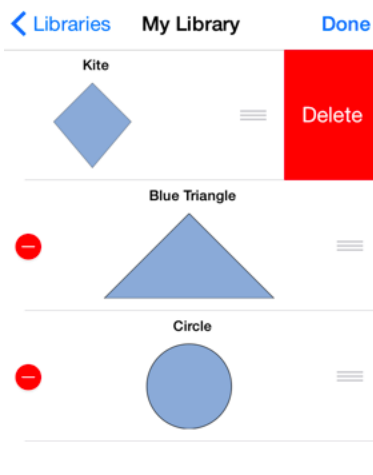


The **Libraries Window** will appear as shown below once the **Edit Button** has been pressed. If the desired stencil is not currently visible, you can scroll through available options by touching and dragging in an upward or downward direction on the **Libraries Window**.

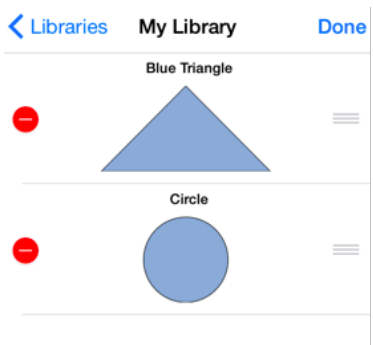


Press on the **Delete Item Button** (red circle with white line) to select a stencil for deletion. When the button is pressed, a **Delete Button** will appear on the right hand side of the selected stencil to confirm the deletion.

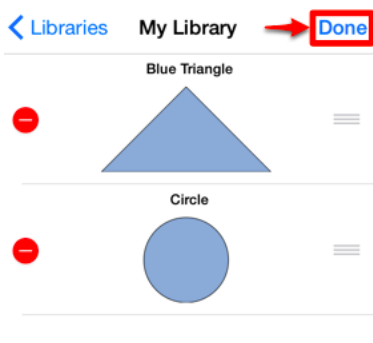




The stencil is removed from the selected library, as shown below.



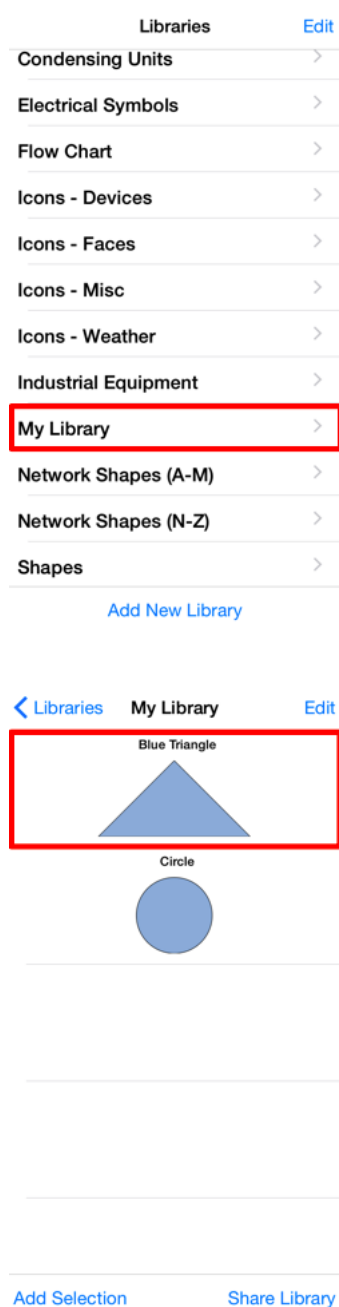
Press on the **Done Button** located in the upper right hand corner of the **Libraries Window** to exit the editing mode.





## 5.1.16.10. Inserting a Stencil Into a Drawing

To **Insert a Stencil Into a Drawing**, open the [Libraries Window](#) and navigate to the library containing the stencil for insertion.

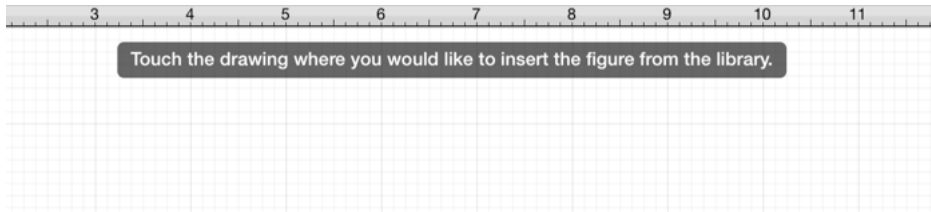


Next, tap on the stencil to be inserted. TouchDraw will display the following message at the top of the drawing

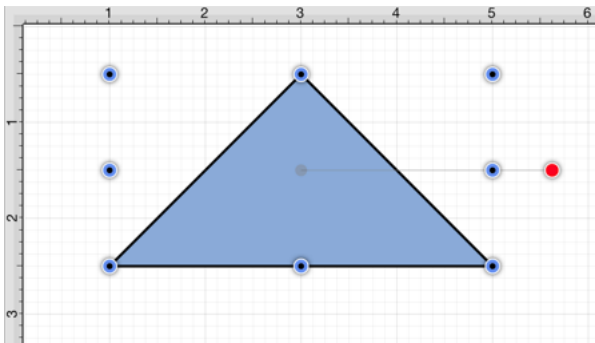
## TouchDraw for iPad

---

canvas in the [Drawing Editor](#) as a visual indicator of the stencil selection.



Tap on a desired location in the drawing canvas to insert the stencil.



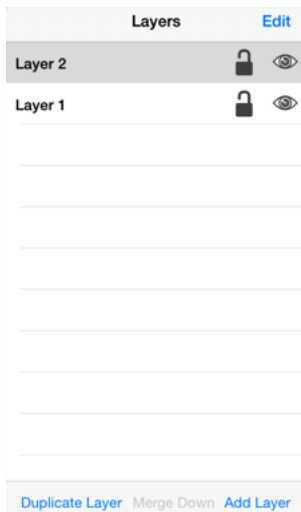
To insert more than one instance of the selected stencil, tap on the **Library Button** in the [Drawing Toolbar](#) (to turn it from grey to blue) before tapping in the drawing canvas. This will enable the ability to insert multiple instances without having to reselect the stencil in the library. Select another tool when finished to turn off this mode of insertion.

## 5.1.17. 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 **Layers Button** located in the [Top Toolbar](#) of the [Drawing Editor](#), as shown below.

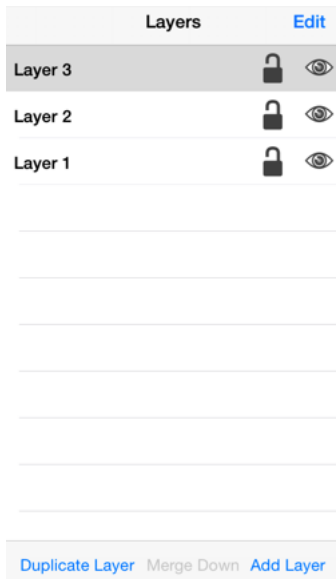
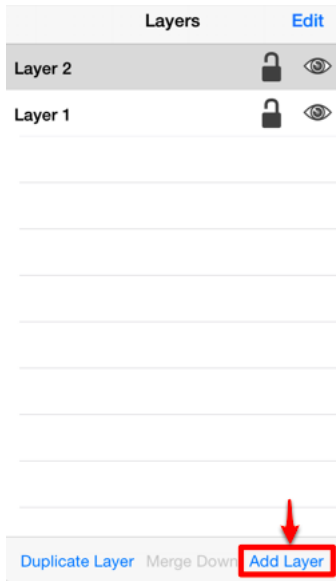


Layers can be [added](#), [renamed](#), [merged](#), [duplicated](#), [deleted](#), [locked](#), and [hidden](#) within the TouchDraw application. The [Layers Window](#) will appear as shown below after the **Layers Button** has been pressed.



## 5.1.17.1. Adding a Layer

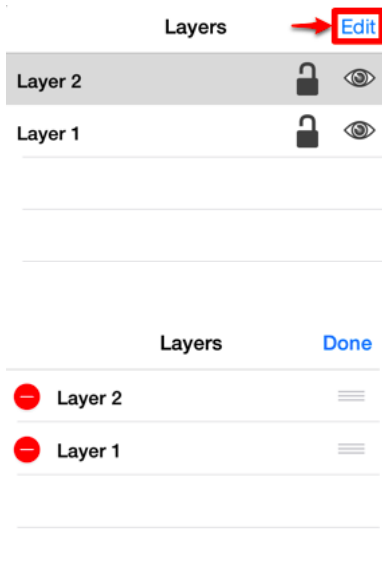
To **Add a Layer**, open the [Layers Menu](#) and press the **Add Layer Button** at the bottom of the menu. The new layer is added to the top of the list in the **Layers Menu** and resides as the top layer in the drawing.



**Note:** To learn about renaming an added layer, refer to the [Renaming Layers](#) section of the documentation.

## 5.1.17.2. Renaming a Layer

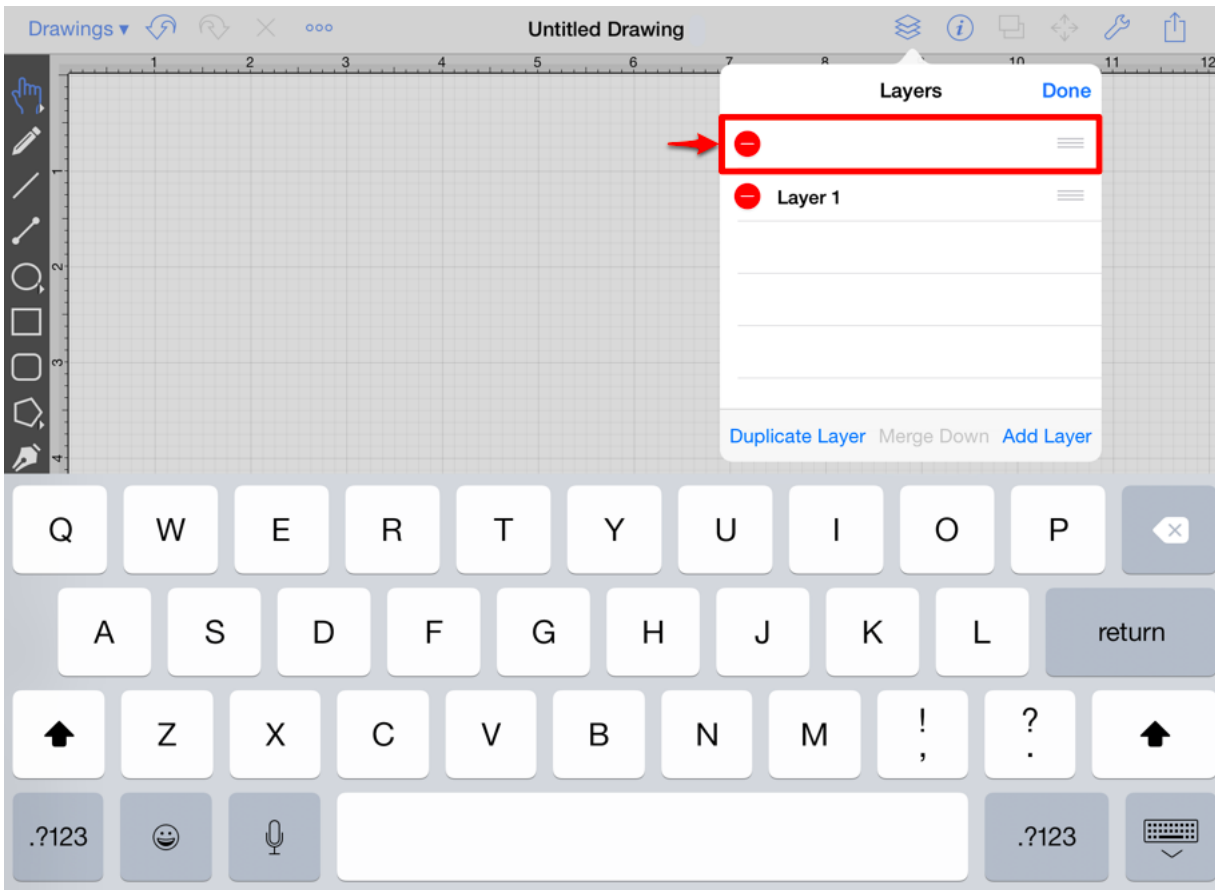
To **Rename a Layer**, the **Layers Menu** must be put into **Edit Mode**. Press the **Edit Button** located in the upper right hand corner of the **Layers Menu** to access the renaming function.



Tap on the name of the desired layer to enable it for editing and rename it.



A keyboard appears on the screen of the device and a cursor is inserted into the name of the layer as indicators of entering text editing mode. Use the keyboard to enter any desired name.



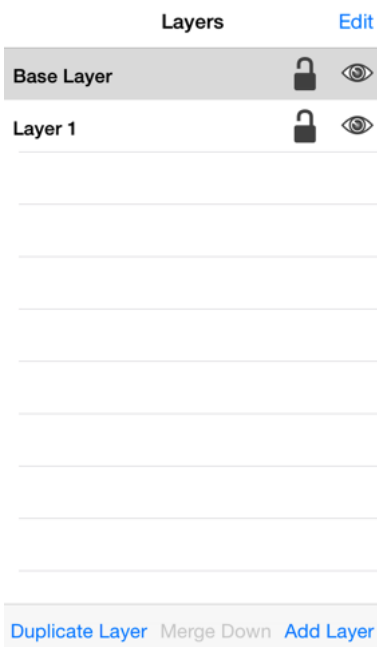
Press on the **Return Button** in the keyboard to complete the name change. The **Layers Menu** will appear with the new name as shown below.



Press on the **Done Button** in the upper right hand corner of the **Layers Menu** to exit text editing mode.



The Layers Menu will appear as shown below once the name change has been completed.

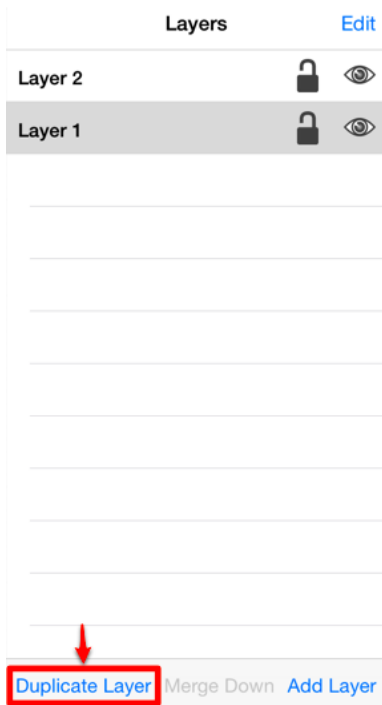


If the entered name is already taken, TouchDraw will provide visual feedback by changing the text to red indicating that the entered text is an invalid library name.

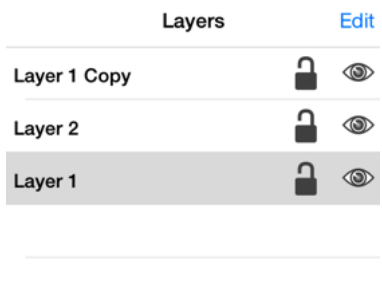


### 5.1.17.3. Duplicating a Layer

A **Layer** can be duplicated to create another layer with the same objects and properties. To **Duplicate a Layer**, select a layer within the [Layers Menu](#) and press the **Duplicate Layer Button** at the bottom of the menu.



A copy of the selected layer is placed at the top of the list.



**Note:** To learn how a layer can be renamed, refer to the [Renaming a Layer](#) section of the documentation.

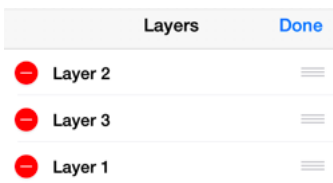


## 5.1.17.4. Re-ordering Layers

To **Re-order Layers**, the [Layers Menu](#) must be put into **Edit Mode**. Press the **Edit Button** located in the upper right hand corner of the **Layers Menu** to access the renaming function.



To move a layer, touch and hold on the **Re-ordering Handle** (three horizontal bars) located to the right of the layer name and then drag the layer to the desired location (index). In the example below, Layer 2 is moved up one layer and resides above Layer 3.



Press on the **Done Button** to exit the edit mode.



The layers in the [Layers Menu](#) are ordered such that layers on the top of the list are drawn above layers below it.

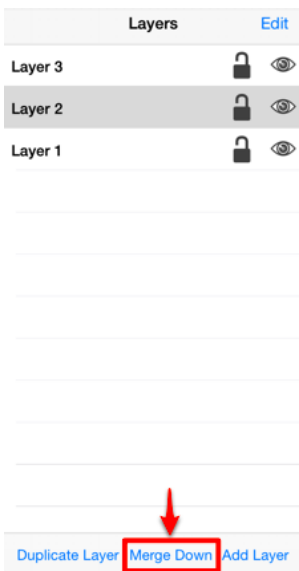
## 5.1.17.5. Merging Layers

A **Layer** can be merged down in the [Layers Menu](#). This action will combine the [Drawing Canvas](#) contents and properties of the selected layer with the one below it. To merge two layers:

1. Press on the **Layers Button** in the [Top Toolbar](#).



2. Tap on the desired layer for merging in the [Layers Menu](#) and press on the **Merge Down Button**. In this example, Layer 2 is chosen as indicated by the dark gray highlighting.



3. The selected layer is merged with the layer below it in the list. Two layers now reside within the [Drawing Canvas](#) since Layer 2 and Layer 1 have been merged into one layer.



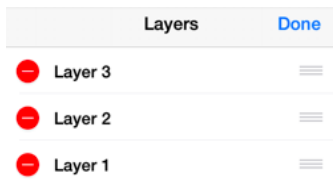
**Note** The **Merge Down** menu choice is only enabled when a layer resides below the selected one.

## 5.1.17.6. Deleting a Layer

To **Delete a Layer**, the **Layers Menu** must be put into **Edit Mode**. Press the **Edit Button** located in the upper right hand corner of the **Layers Menu** to access the renaming function.

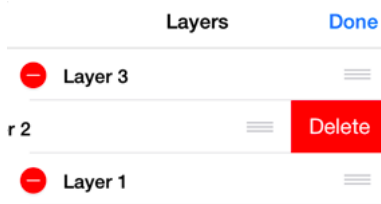


The menu will appear as shown below once the **Edit Button** has been pressed. If the desired layer is not currently visible, you can scroll through available layers by touching and dragging in an upward or downward direction on the **Layers Menu** to locate it.



Press on the **Delete Item Button** (red circle with white line) to select a layer for deletion. When the button is pressed, a **Delete Button** will appear on the right hand side of the selected layer to confirm the deletion.





The layer is removed from the **Layers Menu**, as shown below.

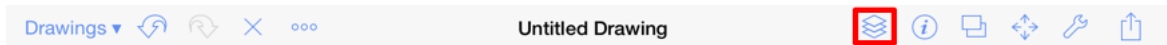


Press on the **Done Button** located in the upper right hand corner of the **Layers Menu** to exit the editing mode.



## 5.1.17.7. 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. Press on the **Layers Button** in the [Top Toolbar](#) to access the **Layer Visibility** toggle.



To hide (or show) a layer in the [Layers Menu](#), press 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.



## 5.1.17.8. 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. Press on the **Layers Button** in the [Top Toolbar](#) to access the **Layer Lock** toggle.



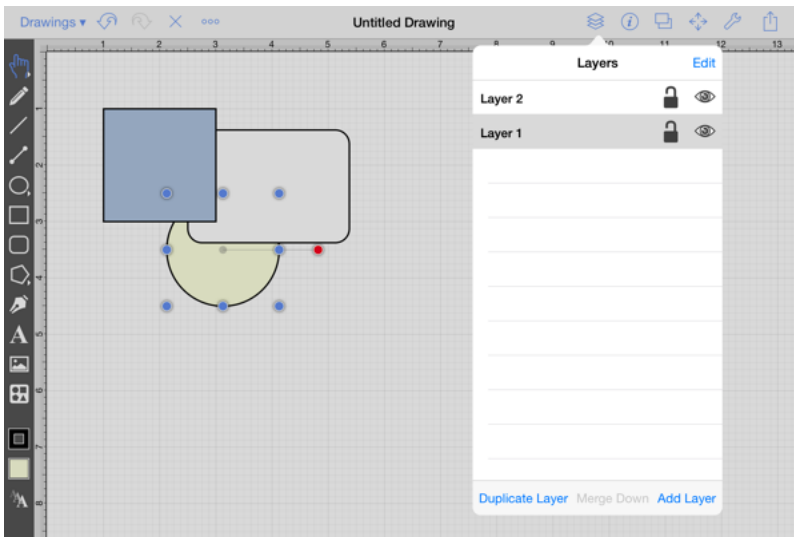
To lock (or unlock) a layer in the [Layers Menu](#), press on the lock icon of the layer to be toggled. A closed lock icon indicates that the layer is locked and an open lock icon indicates a layer is unlocked.



## 5.1.17.9. Moving Figures To Layers

TouchDraw 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:

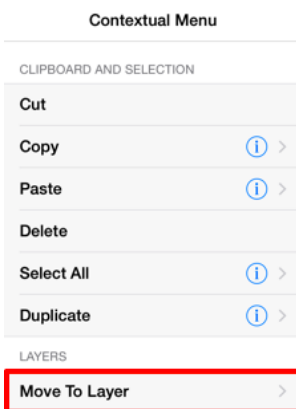
1. [Select](#) the figure(s) to be moved. In the shown example, both the circle and rounded rectangle are part of the first layer (Layer 1) and the blue rectangle is part of the second layer (Layer 2). The circle is being moved to Layer 2.



2. Press and hold on the [Drawing Canvas](#) for ~1 second or tap on the **Contextual Menu Button** in the [Top Toolbar](#).

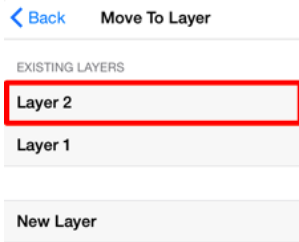


3. Then tap on the **Move To Layer Submenu**.

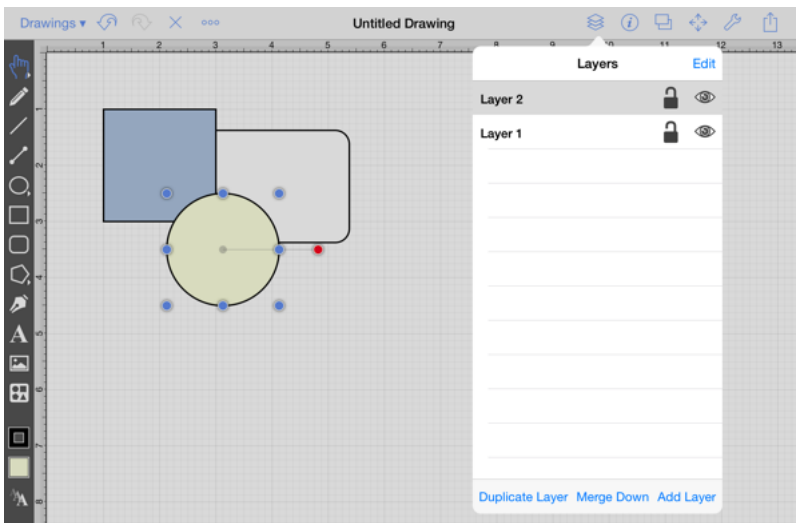




4. Tap on the **Layer** where the selected figure(s) should be moved.



5. The circle is now part of Layer 2.



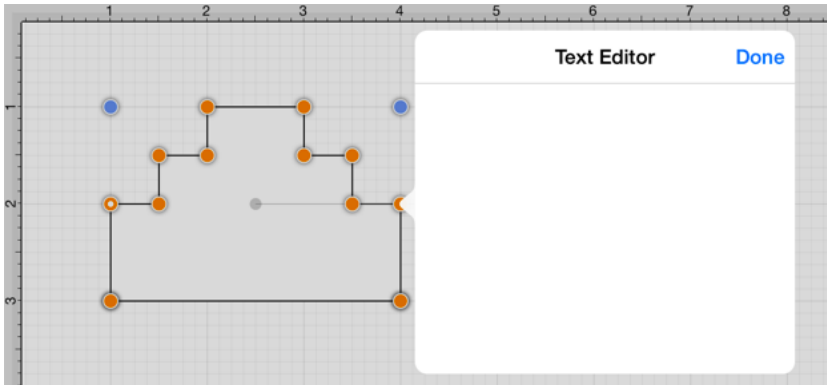
## 5.1.18. Calculations

TouchDraw provides an easy method for calculating the [Area](#) and [Dimensions](#) of a [selected](#) figure(s) by entering variables within the [Text Editor](#) popover window. Refer to the [Available Variables](#) table to find out more about what can be obtained as part of the text of a figure.

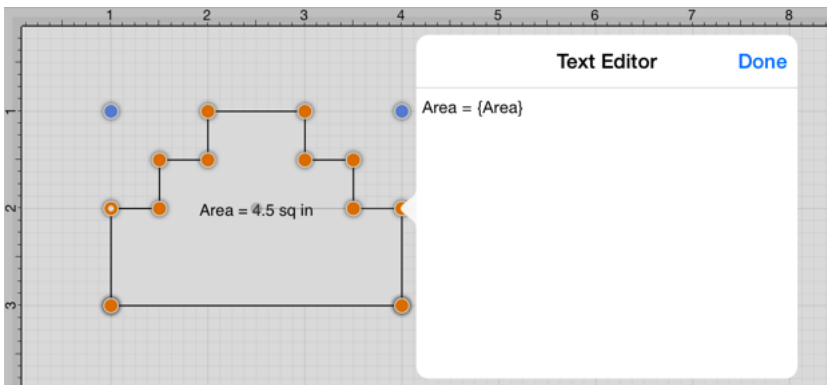
## 5.1.19. Calculating Area

TouchDraw 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:

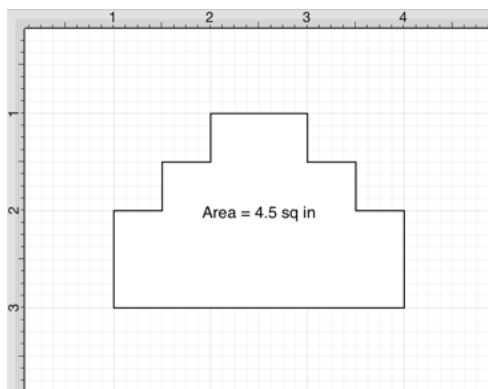
1. **Double Tapping** on a figure to open the [Text Editor](#).



2. Entering {Area} as part of the text within the **Text Editor**. The value will appear within the selected figure in real time, as shown below:



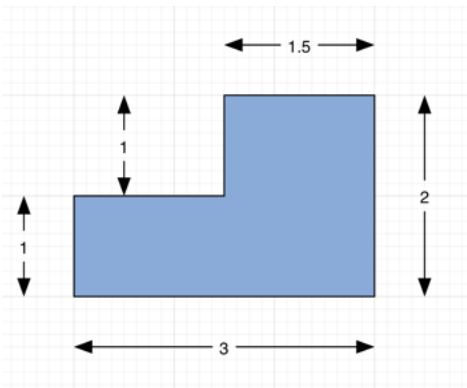
3. The figure will appear as shown below after the **Text Editor** has been closed.



**Note:** The first letter of an entered variable must be capitalized for the value to appear in the selected figure.

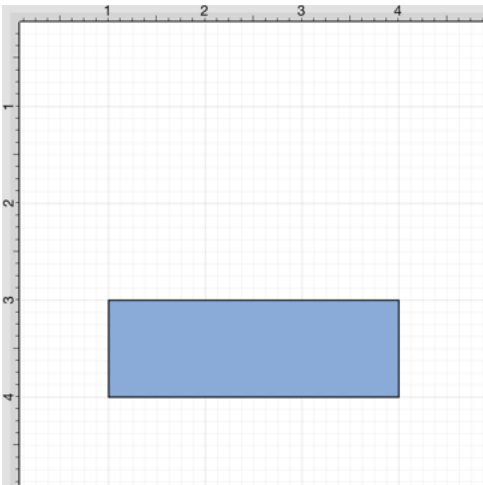
## 5.1.20. Dimensioning

TouchDraw provides variables for determining the dimensions of a selected figure(s). The MinX, MaxX, MinY, MaxY, Length, 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:

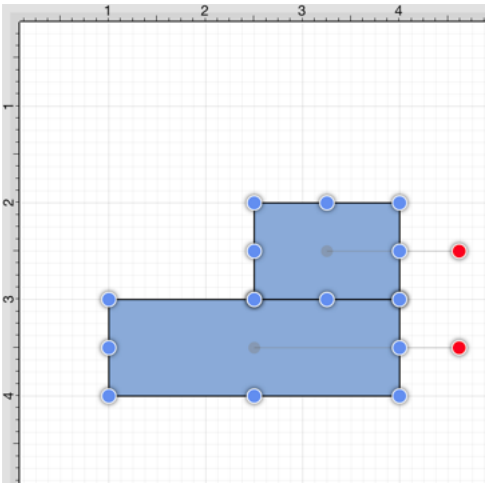
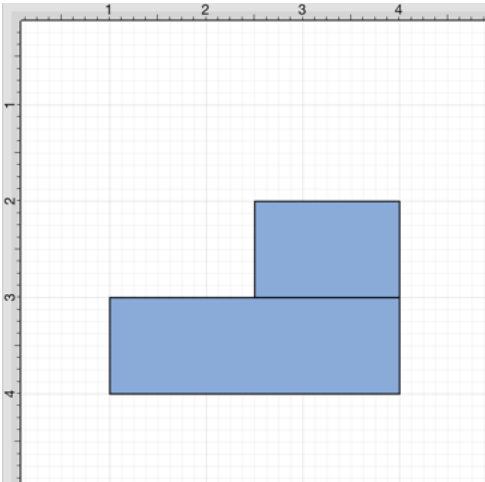


Follow the steps below to create the images shown above:

1. Select the [Rectangle Tool](#) and draw a rectangle.



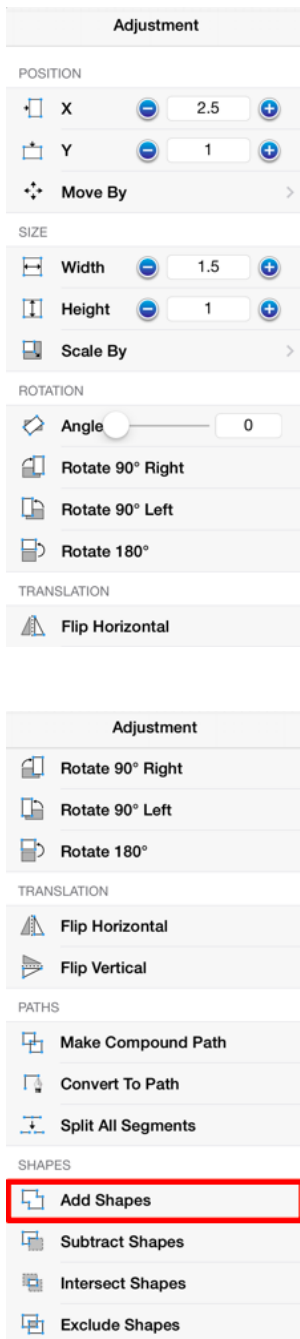
2. Select the **Rectangle Tool** again and draw a square on top of the right half of the rectangle. Use the [Function Key Feature](#) to select both figures.



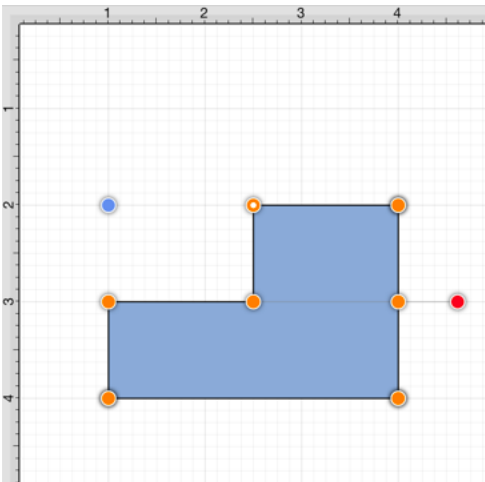
3. Press on the **Adjustment Button** in the [Top Toolbar](#).



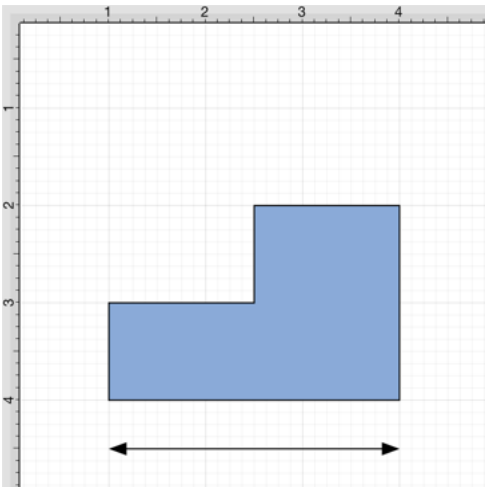
4. Tap on the **Add Shapes** option in the [Adjustment Menu](#) to combine the two shapes. When in landscape mode, scroll through the menu view by touching and dragging in an upward direction to view this menu option.



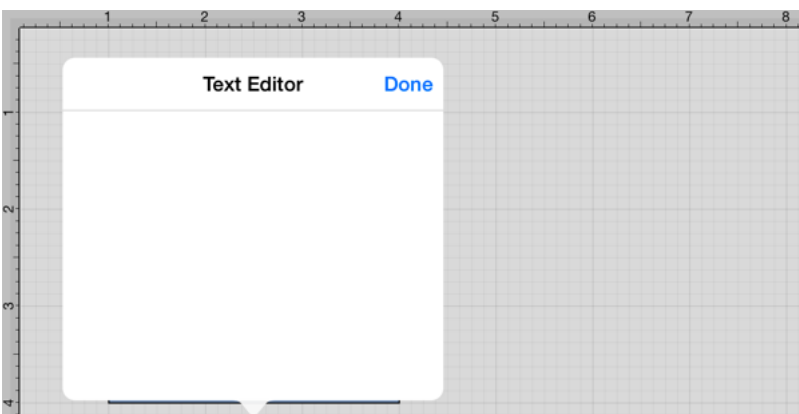
5. The previously blue boundary handles will turn orange to indicate that the two shapes have been combined, as shown below.



6. Select the [Line Tool](#) and create a line with two black arrow end points along the bottom of the rectangle.

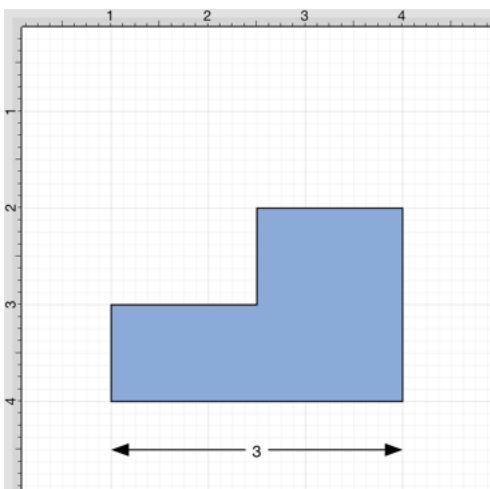
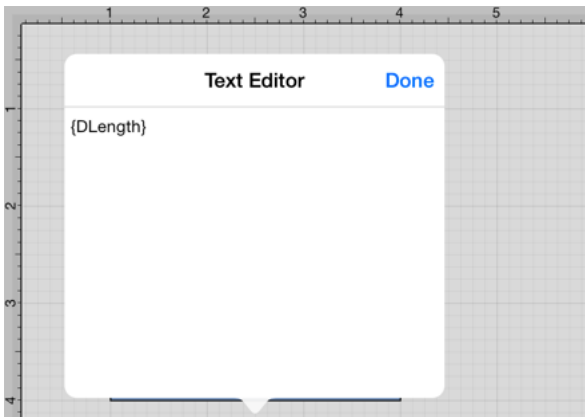


7. **Double Tap** on the **Line** figure to open the [Text Editor](#).

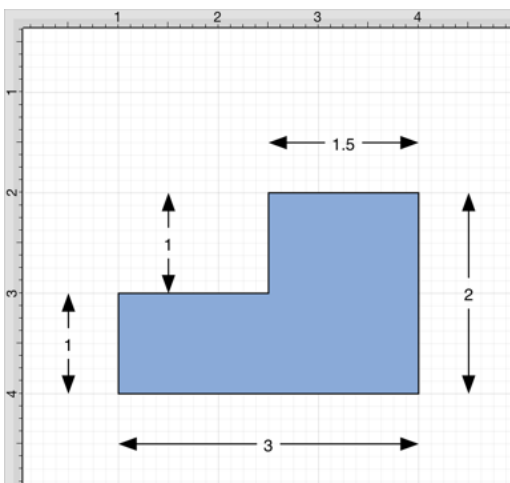


8. Enter the variable into the **Text Editor** and the value will be updated on the line in real time.





9. Follow steps 6 through 8 to create a dimension line for each side of the drawing. The figure below shows the completed dimensions for the drawn shape.



## 6. Tips and Techniques

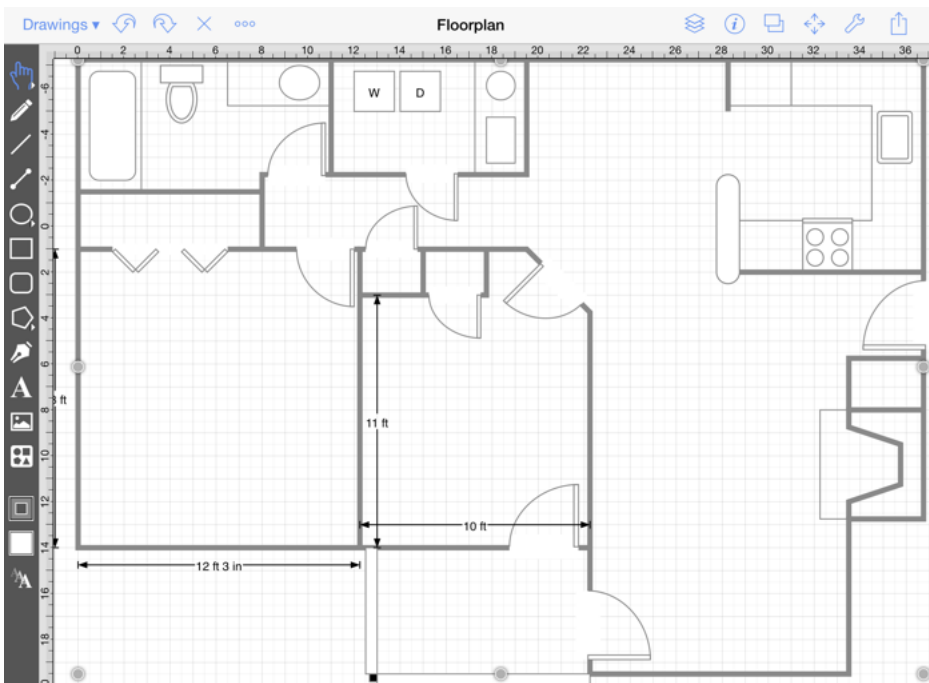
This section provides information on how to perform specific actions within TouchDraw and can be used to master the basic features of the application. Listed below are links to several quick tips designed to help you become more familiar with TouchDraw.

- [Selecting Multiple Figures in a Drawing](#)
- [Resizing a Figure Proportionally with Handles](#)
- [Creating Proportional Shapes](#)
- [Using the Selection Rectangle](#)

## 6.1. Selecting Multiple Figures in a Drawing

By default, a previously selected shape will be deselected when another is selected; however, TouchDraw for iPad does support **Multiple Selection**.

**Multiple Selection** in TouchDraw for iPad is accomplished by using the **Function Key Feature** in combination with the normal selection gestures. The bundled floor plan sample will be used to show how this feature can be used to select multiple shapes in a defined area, as shown below.

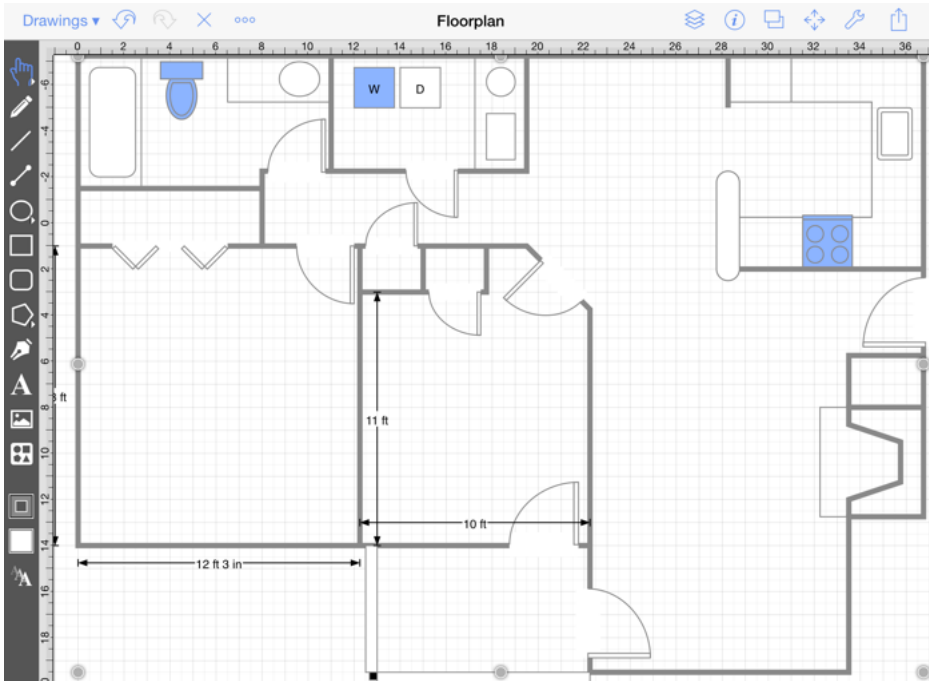


To enable the **Function Key Feature**, press and hold on the empty portion of the **Drawing Toolbar** for ~1 second until it turns red and continue to hold a finger on the toolbar while using the other hand to tap on additional figures. It will remain enabled as long as the utilized finger/thumb remains held on the toolbar. While enabled, selection gestures can be used to add or remove figures from the multiple selection.

With the **Function Key Feature** enabled, tap on each figure in the drawing to select it and then release the utilized finger when finished to disable this feature. The same action can be performed to remove a selection in a drawing. The **Function Key Feature** is disabled as soon as the used finger is released from the **Drawing**

### Toolbar .

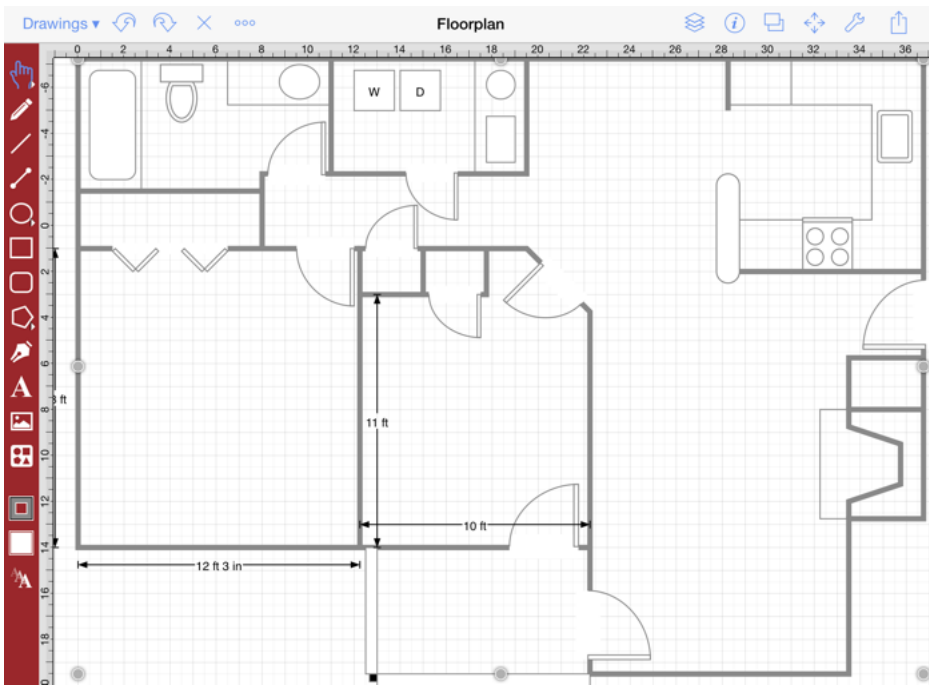
In the example below, we will be using the **Function Key Feature** to select the Toilet, Stove, and Washing Machine in the above shown Floor Plan and then change the selected figures **Fill Color** to a solid, light blue. The Floor Plan will appear as shown below once all steps have been completed.



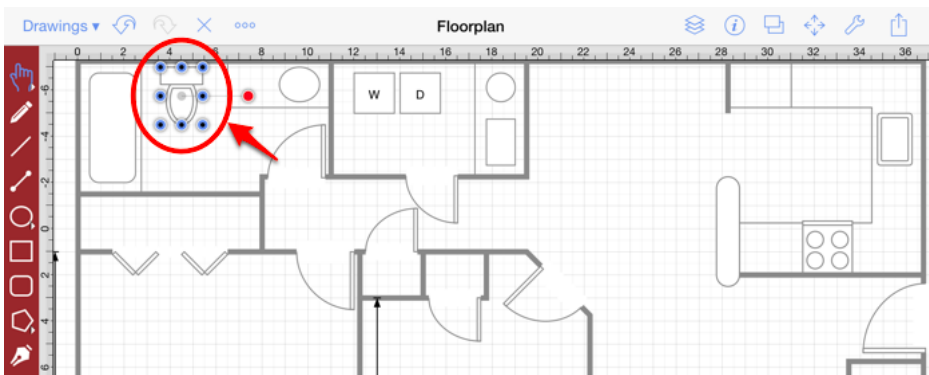
See it in Action!

Follow the steps below to learn how to select multiple figures within a drawing and then change the fill color for the selected figures.

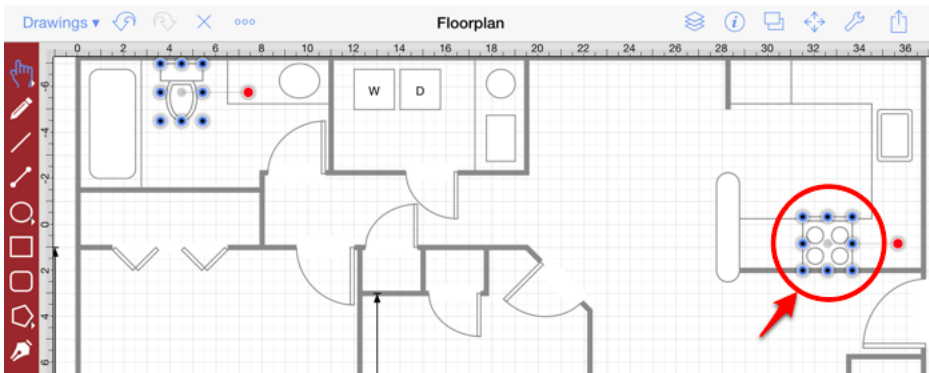
1. First, enable the **Function Key Feature** by pressing and holding on the empty portion of the **Drawing Toolbar** for approximately 1 second until it turns red. Do not remove the utilized finger from the toolbar until all selections have been made.



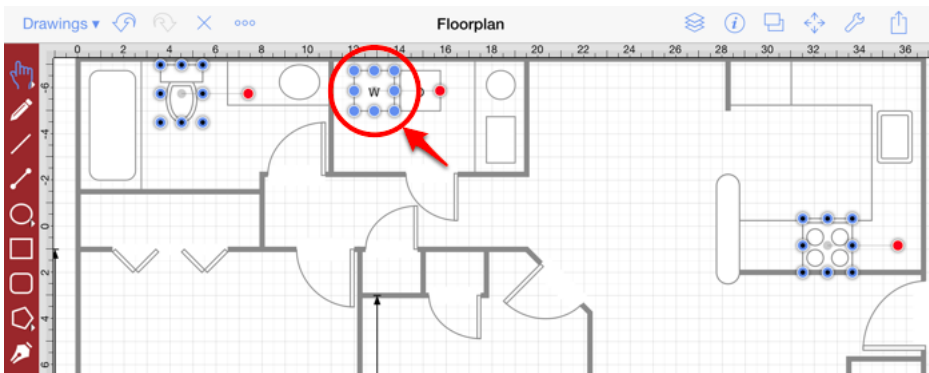
2. Second, we will select the Toilet in the Bathroom Area by performing a **Tap** on the figure. Remember to keep the utilized finger on the [Drawing Toolbar](#) to make additional selections.



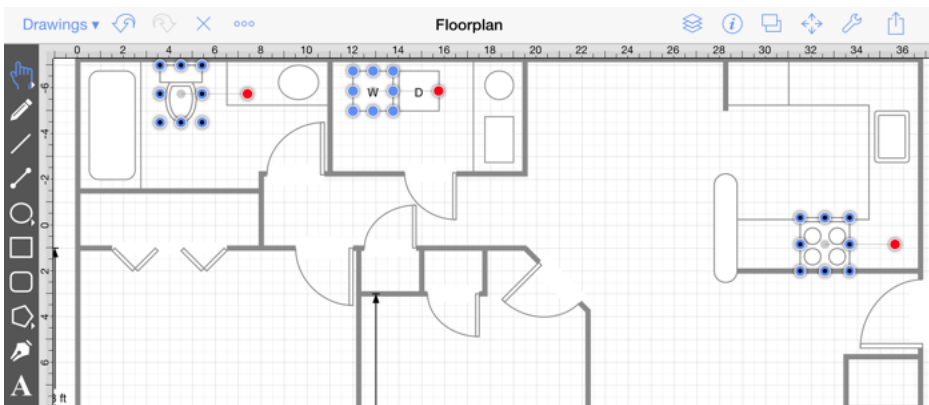
3. Third, we will **Tap** on the Stove in the Kitchen Area to make a second selection. Remember to keep the utilized finger on the [Drawing Toolbar](#) to make additional selections.



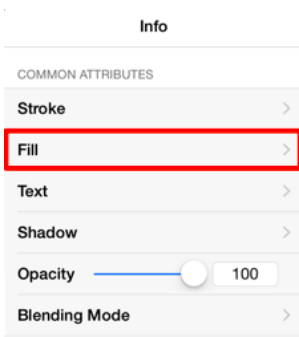
4. Next, we will **Tap** on the Washer in the Utility Area to make the final figure selection. Remove the utilized finger from the **Drawing Toolbar** once this step has been completed.



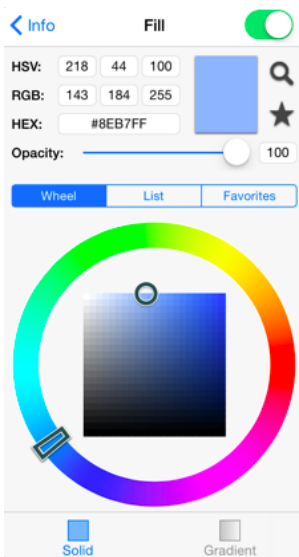
5. Below you will see the **Floor Plan** with all three selected figures and the **Function Key Feature** disabled.



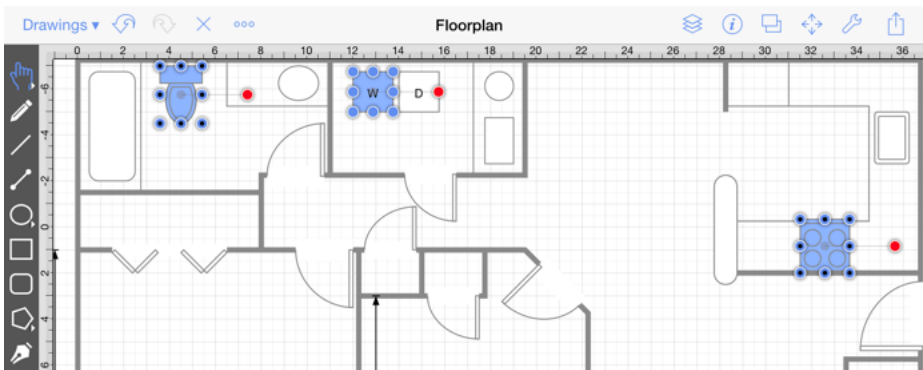
6. Next, we will change the **Fill Color** of all three selected figures within the Floor Plan. Press on the **Info Button** in the **Top Toolbar** and then **Tap** on **Fill** to make changes to the **Fill Color** of the selected figures.



7. To change the **Fill Color**, select a fill type (solid or gradient), shade, etc. from the **Color Wheel** as shown below or use the **List** to make a selection. In this example, a **Solid** light blue is selected.



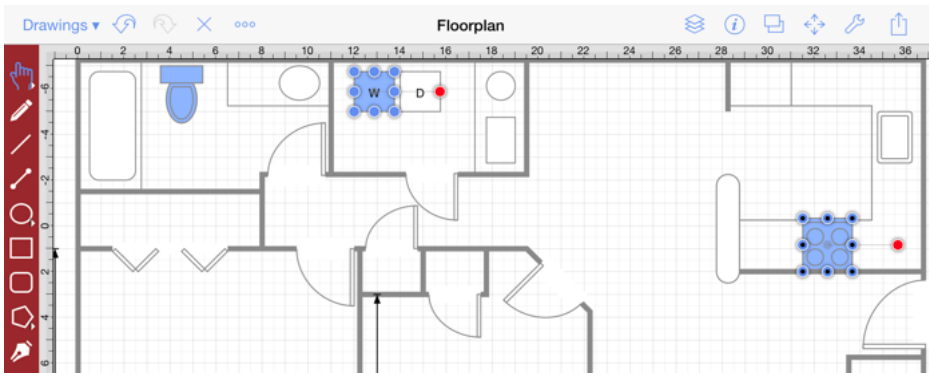
8. The Floor Plan will appear as shown below once the **Fill Color** has been changed.



9. To remove a selection and continue making changes to the other selected figures, simply enable the **Function Key Feature** again and **Tap** on the desired figure. For this example, we will remove the Toilet in the Bathroom Area from the selected figures. Remove the utilized finger from the **Drawing Toolbar** when finished selecting or de-selecting figures in a drawing to disable the **Function Key Feature**.

## TouchDraw for iPad

---



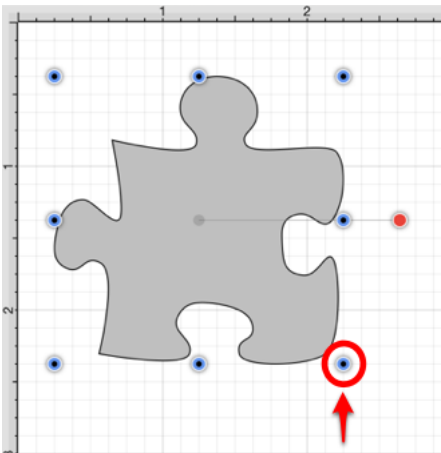
For more information about the methods made available for selecting figures within TouchDraw, please refer to the [Selecting a Figure](#) page in this documentation.

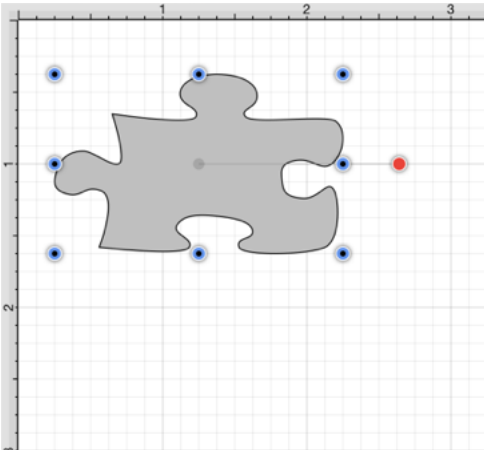


## 6.2. Resizing a Figure Proportionally with Handles

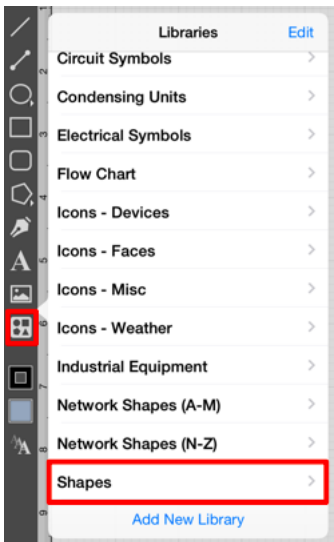
TouchDraw provides several features for resizing shapes when you are working with figures in a drawing. If a bounds handle is dragged to a location within the [Drawing Canvas](#) without using application features for constraining proportions, the shape is resized to that specific location. The [Function Key Feature](#) allows you to constrain proportions as you drag to ensure the original shape is maintained.

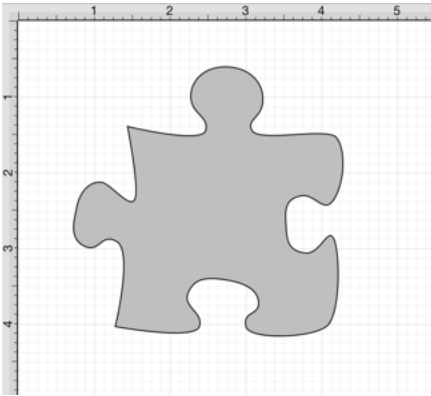
For example, a simple drag of the bounds handle without this feature enabled can result in a perfect square becoming a rectangle or a circle becoming an oval, but by using this feature, the shape will remain as a square or circle and only change in size, not proportions. The example below shows what the puzzle piece from the [Stencil Library](#) would look like if the bottom right bounds handle is moved upward without enabling the [Function Key Feature](#).





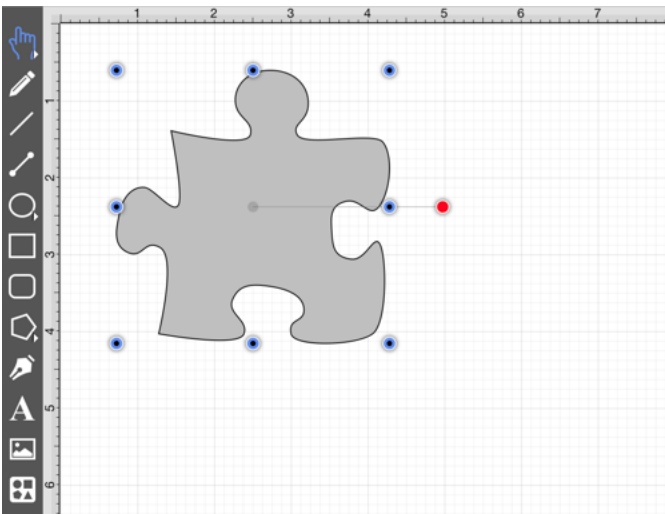
This tutorial will show you how to use the [Function Key Feature](#) to select a figure and alter its size while constraining proportions to maintain its original shape. We will be using the **Puzzle Piece** (as in the above example) from the [Stencil Library](#) to demonstrate how this feature can be used to easily constrain proportions when resizing shapes in a drawing. To locate this stencil, click on the [Library Tool](#) and tap on the **Shapes** category. You will see the puzzle piece as an available selection. It will appear as shown below once it has been inserted into a drawing.





Proportions are not constrained for a resized shape when the [Function Key Feature](#) is disabled. When this feature is enabled, TouchDraw 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 [Function Key Feature](#) to constrain proportions while resizing a shape.

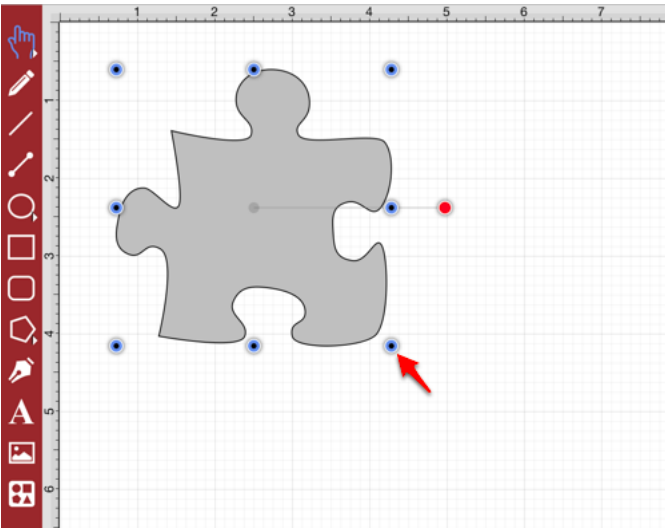
1. Select the shape in your drawing by tapping on the figure. [Bounds handles](#) will appear around the chosen figure once it has been selected.



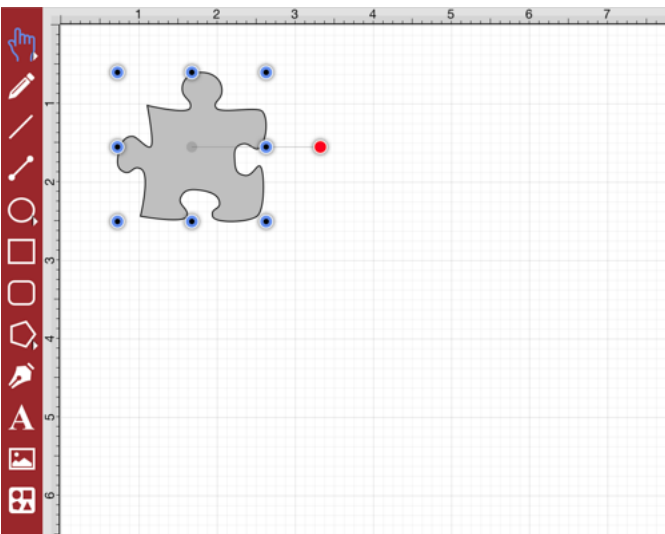
2. Next, you will need to enable the [Function Key Feature](#) to constrain proportions during shape resizing. To enable this functionality, hold and press on the lower half of the [Drawing Toolbar](#) where no tools are present. After approximately 1 second, the toolbar will turn red as an indication of the [Function Key Feature](#) being enabled. It will remain enabled as long as the utilized finger/thumb remains held on the toolbar.



3. Touch and Drag on a bounds handle to begin resizing the shape. In this example, the bottom right bounds handle is selected and drag inward toward the shape.

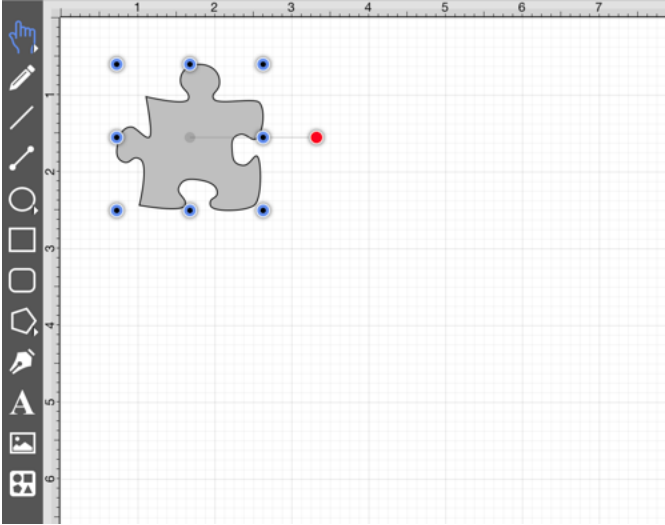


4. The puzzle piece becomes smaller in size, but retains its shape as its proportions are constrained.



5. Remove your finger from the empty portion of the [Drawing Toolbar](#) once resizing is completed to

disable the [Function Key Feature](#) .

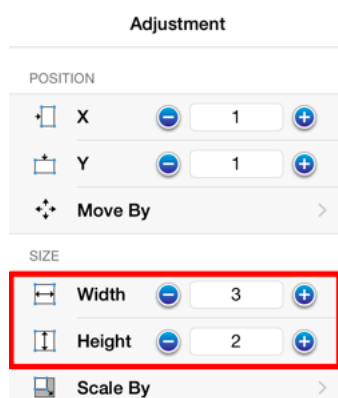
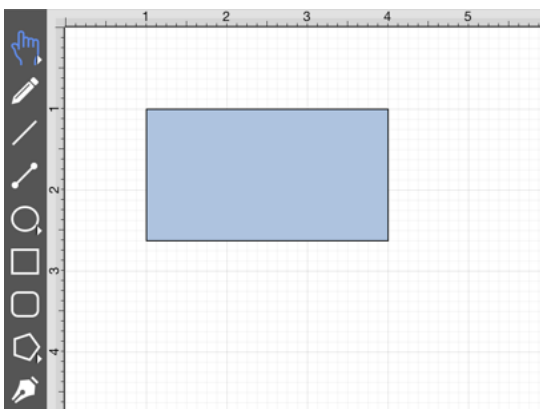


**Note:** You can also enable the **Constrain Proportions** Preference to automatically scale a shape based on an entered proportional value. To access this preference, open the [Adjustment Menu](#) and tap on **Scale By**.

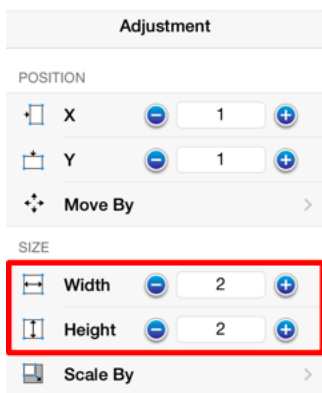
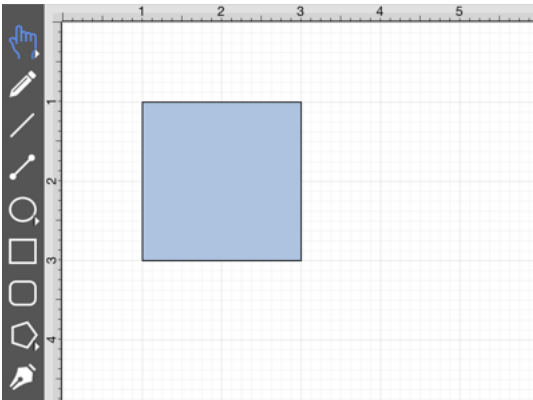
## 6.3. Creating Proportional Shapes

TouchDraw offers a great amount of flexibility when creating shapes or figures in a drawing. A touch 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 [Function Key Feature](#) 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 touch 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.



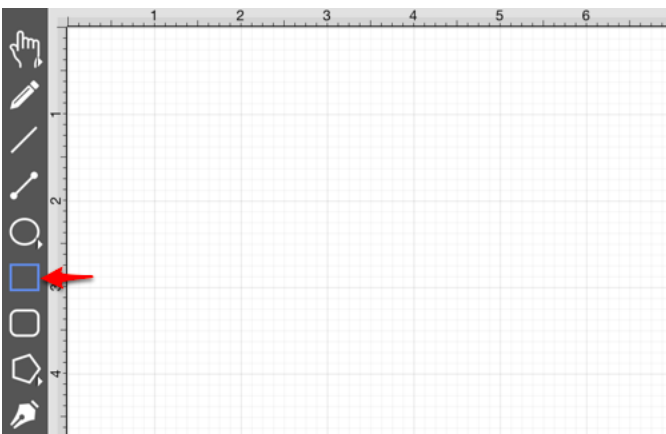
By enabling the [Function Key Feature](#), you can create a proportional shape. In the example above, a perfect square would be created when this feature is enabled and the same touch/drag action is performed. As shown in the [Adjustment Menu](#), the **Width** and **Height** of the square are proportionally the same.



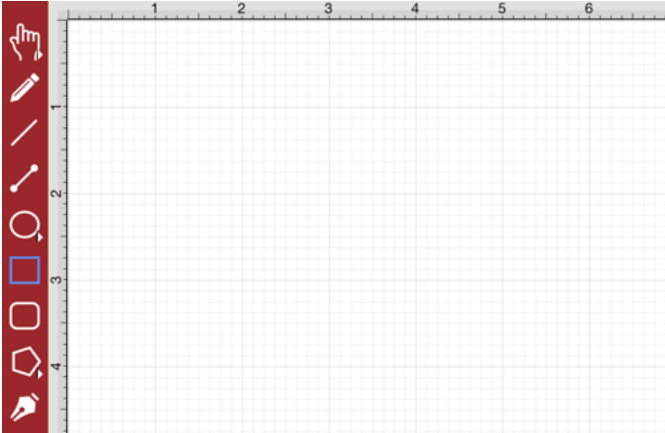
TouchDraw constrains the **Width** and **Height** to generate a proportional shape when the [Function Key Feature](#) is enabled. This tutorial will show you how this feature can be used to create a proportional shape.

We will be using the [Rectangle Tool](#) for this demonstration. Follow the steps below to learn how to use the [Function Key Feature](#) to create a proportional shape in your drawing.

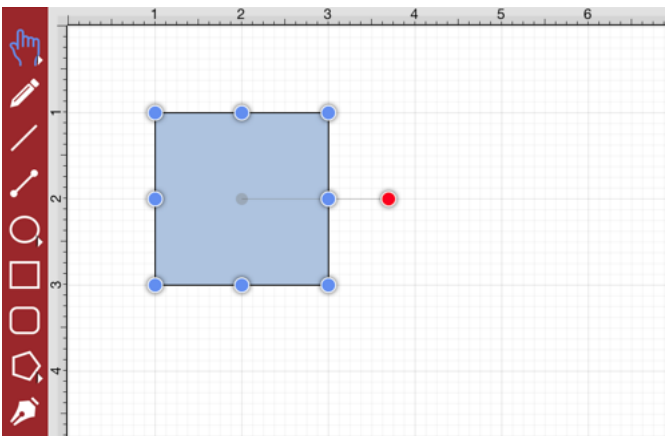
1. Select the [Rectangle Tool](#) in the [Drawing Toolbar](#).



- Next, you will need to enable the [Function Key Feature](#). To enable this functionality, hold and press on the lower half of the [Drawing Toolbar](#) where no tools are present. After approximately 1 second, the toolbar will turn red as an indication of the [Function Key Feature](#) being enabled. It will remain enabled as long as the utilized finger/thumb remains held on the toolbar.

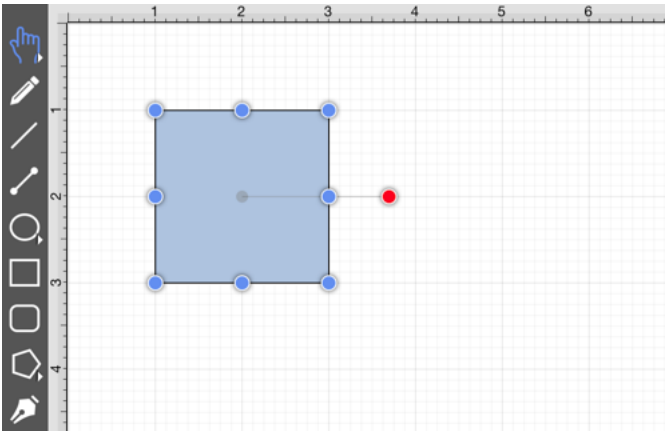


- Touch** in a desired location on the [Drawing Canvas](#) and then **Drag** downward or in another direction without lifting the utilized finger.



- Release your finger once the shape is completed to disable this feature. You will have a perfectly shaped square when finished.





5. To view the **Width** and **Height** of your shape, tap on the [Adjustment Button](#) to open the [Adjustment Menu](#) and its dimensions will appear under the **Size** section of this menu.



**Adjustment**

POSITION

X 

-

1

+

Y 

-

1

+

Move By >

SIZE

Width 

-

2

+

Height 

-

2

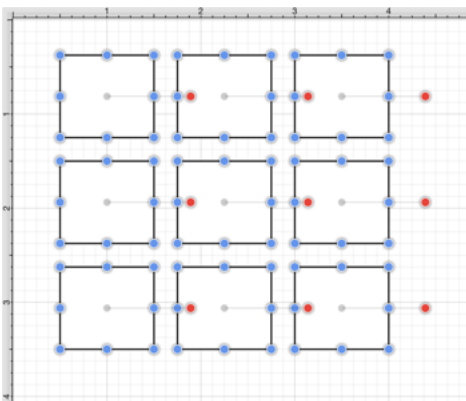
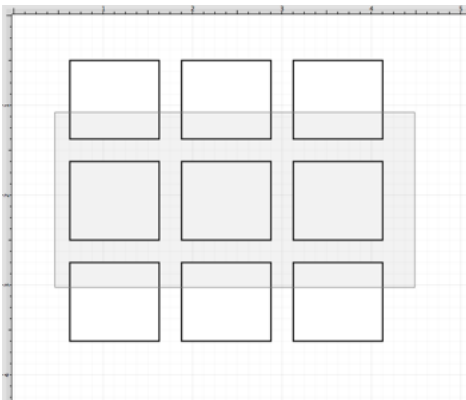
+

Scale By >

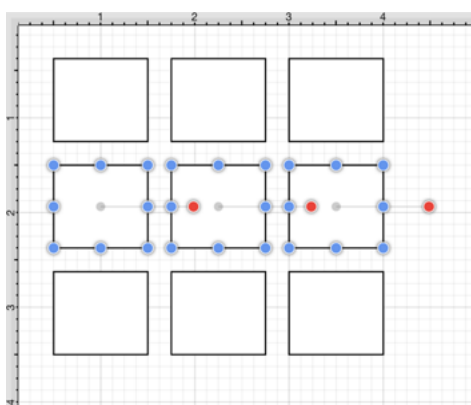
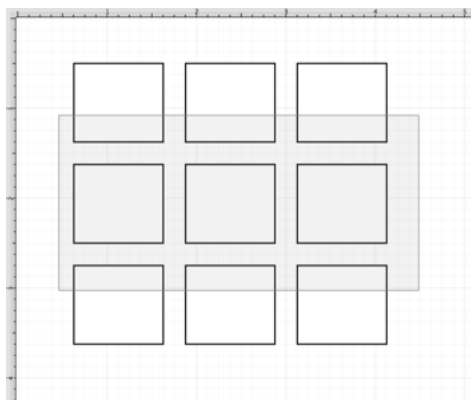
## 6.4. Using the Selection Rectangle

The **Selection Rectangle** provides an easy method for selecting multiple figures within a drawing. Touch and drag from left to right or right to left on any point in the [Drawing Canvas](#) and then lift your finger once the **Selection Rectangle** resides over the desired area. Figure selection will vary depending on the direction used for dragging your finger.

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](#).



**Note:** For more information about selecting figures within a drawing, please refer to the [Selecting a Figure](#) page of the documentation.

## 7. Miscellaneous

TouchDraw supports specific file formats for importing or exporting. The following documentation sections supply information regarding:

- [File Format Support](#)
- [Handle Types](#)
- [Zooming Gestures](#)

## 7.1. File Format Support

Images or drawings from outside applications can be imported for editing within TouchDraw. A created drawing in TouchDraw 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.

## 7.2. Importers

| Importer Type  | Supported Import Methods  |
|--|---|
| <a href="#">Image Importer</a>                                   | TouchDraw supports inserting or pasting bitmap images into a drawing. |
| <a href="#">SVG Importer</a> NotesSVG (Scalable Vector Graphics) | TouchDraw supports importing SVG files into a drawing.                |
| <a href="#">VDX (Visio XML Drawing Format)</a>                   | TouchDraw supports importing VDX files into a drawing.                |
| <a href="#">EMF (Enhanced Metafile)</a>                          | TouchDraw supports importing EMF files into a drawing.                |
| <a href="#">WMF (Windows Metafile)</a>                           | TouchDraw supports importing WMF files into a drawing.                |

## 7.2.1. Image Importer Notes

TouchDraw for iPad supports importing the following bitmap image formats.

- PNG
- JPEG
- GIF
- BMP
- TIFF

### **Limitations**

- None Known

### **Known Issues**

- None Known

## 7.2.2. SVG Importer Notes

TouchDraw 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, 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



## 7.2.3. VDX Importer Notes

TouchDraw supports importing Microsoft Visio XML Drawing (VDX) files. This page documents the known issues and limitations of the importer.

### Limitations

Not every Visio feature is supported by the importer as TouchDraw does not have every feature that Visio does, nor does Visio have every feature TouchDraw does. When a feature has no equal within TouchDraw, 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

## 7.2.4. EMF Importer Notes

TouchDraw supports importing 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

## 7.2.5. WMF Importer Notes

TouchDraw 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

## 7.3. Exporter

| File Formats                   | Options   |
|--------------------------------|---|
| Image Exporter                 | TouchDraw supports the exporting of a drawing in the form of a bitmap image (PNG/JPEG). Refer to the <a href="#">Image Exporter Notes</a> section of the documentation to learn more about this exporting option.   |
| Scalable Vector Graphics (SVG) | TouchDraw supports the exporting of a drawing as a Scalable Vector Graphics (SVG). No additional options are associated with this choice. Refer to the <a href="#">SVG Exporter Notes</a> section of the documentation to learn more about this exporting option. |
| Portable Document Format (PDF) | TouchDraw supports the exporting of a drawing as a Portable Document Format (PDF). Refer to the <a href="#">PDF Exporter Notes</a> section of the documentation to learn more about this exporting option.  |
| Microsoft Visio (VDX)          | TouchDraw supports exporting a drawing as a Microsoft Visio (VDX) file. No additional options are associated with this choice. Refer to the <a href="#">VDX Exporter Notes</a> section of the documentation to learn more about this exporting option.            |

**Note** Refer to the [Sharing a Drawing](#) section of the documentation to learn more about exporting a drawing from TouchDraw.

## 7.3.1. Image Exporter Notes

TouchDraw for iPad supports exporting drawings in the following bitmap image formats:

- PNG
- JPEG
- GIF
- BMP
- TIFF

### **Limitations**

- None Known

### **Known Issues**

- None Known

## 7.3.2. SVG Exporter Notes

TouchDraw 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 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 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.

## 7.3.3. PDF Exporter Notes

TouchDraw 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

## 7.3.4. VDX Exporter Notes

TouchDraw supports exporting drawing files to the Microsoft Visio XML Drawing (VDX) file format. 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






## 7.3.5. Handles Reference

TouchDraw uses the color and decoration to differentiate the different functions of the handles so that you can quickly identify what they do. The following is a table of the different handles and their function.






| Image   | Handle                      | Description  |
|---|-----------------------------|--|
|    | Bounds Handle               | The <b>Bounds Handle</b> is used to change the width and height of a shape.  |
|    | Group Bounds Handle         | The <b>Group Bounds Handle</b> is used to change the width and height of a group. The center dot in the handle is provided to let you know you have selected a group of figures, as opposed to a single figure.  |
|    | Path Start Handle           | The <b>Path Start Handle</b> indicates which point or a path is the starting point.  |
|  | Path End Point Handle       | The <b>Path End Point Handle</b> indicates which point is an end (or start, depending on how you look at it) point of a line or curve segment within a path.   |
|  | Path Control Point Handle   | The <b>Path Control Point Handle</b> indicates which points of a path are control points.  |
|  | Phantom Path Control Handle | The <b>Phantom Path Control Handle</b> is a control handle displayed in gray to indicate that it has not been used. This characteristic provides a hint to the TouchDraw application that the handle should function as a control handle in scenarios where the next drawn segment is a curve. |
|  | Rotation Handle             | The <b>Rotation Handle</b> is displayed on shapes (or groups) which can be rotated around their center point. You can use the "function key feature" in conjunction with the rotation handle to rotate figures in increments of 15 degrees.  |
|  | Center of Rotation Handle   | The <b>Center of Rotation Handle</b> indicates where the current center of rotation point lies in a selected shape(s) or group of shapes.  |

## TouchDraw for iPad

| Image   | Handle                   | Description  |
|---|--------------------------|--|
|  | Lock Handle              | The <b>Lock Handle</b> indicates that the selected figure (or group) is currently locked, which means it cannot be resized or moved. |
|  | Connection Handle        | The <b>Connection Handle</b> indicates that the selected line can be used to connect to figures.                                     |
|  | Gradient Location Handle | The <b>Gradient Location Handle</b> indicates the current center location of a gradient fill within a figure(s) or group of figures. |

## 7.4. Zooming

TouchDraw uses the standard iOS gestures to zoom a drawing. Refer to the following table to learn more about available zoom gestures:

| Icon  | Action         | Description   |
|---|----------------|---|
|    | Zoom In        | To zoom in on an area (make it larger), first make sure the <a href="#">Move, Zoom and Selection Tool</a> is active. Place two fingers on the drawing canvas and slowly spread them apart. The drawing will zoom in on the area between the two fingers as they are spread.                 |
|    | Zoom Out       | To zoom out of a drawing (make it smaller), place two fingers on the drawing canvas (as above); however, in this case the two fingers are pinched by slowly bringing them together. The drawing will zoom out based on how far the two fingers come together as the pinching action occurs. |
|  | Zoom To Fit    | If the <a href="#">Move, Zoom and Selection Tool</a> is active and a triple tap is performed anywhere in the drawing canvas, the drawing will be zoomed to fit into the drawing view.   |
|  | Zoom To Origin | If the <a href="#">Move, Zoom and Selection Tool</a> is active and a quadruple tap is performed anywhere in the drawing canvas, the zoom level will be reset to 100% and the origin of the drawing will be repositioned so that 0,0 is in the upper left hand corner.                       |
|  | Panning        | If the <a href="#">Move, Zoom and Selection Tool</a> is active, place two fingers on the drawing canvas and then drag them around to pan around a drawing.  |

**Note:** The panning and zooming gestures can be combined into one fluid gesture to quickly zoom and move to the target portion of a drawing.

## 7.5. Managing Low Memory

There are some cases when TouchDraw will not be able to load embedded bitmap images in a drawing due to low memory on the user's device. When this occurs, TouchDraw will display a salmon colored placeholder where the image should be located for the current editing session. The embedded bitmap image will still be saved with the drawing, so there will be no data loss; however it will simply not be shown.

## 7.6. Installing a Custom TrueType Font

It is quite simple to install a custom TrueType font into TouchDraw:

1. Connect the iPad to a computer.
2. Open iTunes.
3. Select the iPad from the **Devices** section in the left panel.
4. Select the **Apps Tab** in the right panel.
5. Scroll down to the **File Sharing** section.
6. Select **TouchDraw** in the **Apps List**.
7. Either use drag and drop or the **Add... Button** to add a TrueType font file from a local computer into the TouchDraw documents directory on the iPad.

The added font will appear in the list of fonts the next time the font chooser is opened if TouchDraw was not running during the completion of the above steps.

Press on the **Refresh Button** at the top of the font list to inform TouchDraw to update the list with the newly installed font if the application was running during the completion of the above steps.