



User Guide

Layout Application User Guide

This document covers the basic drawing and layout features of the ReportMill page layout application. Advanced users may want to save this document for last, since it merely covers features common to many page layout applications.

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★ Overview

Overview

ReportMill is unique in the world of report writers in that its foundation is a very powerful and easy-to-use page layout application. Some of ReportMill's advanced layout features include: Rich text editing, powerful drawing tools, advanced image support, advanced graphics transforms, textures & gradients, undo, page layering, rulers, grids, guides, shape grouping, shape ordering, multi-page templates, animation and much more.

Using a page layout paradigm has many fundamental benefits:

- **Instant Familiarity:** Because most developers are familiar with page layout tools, such as PageMaker, Illustrator, MacDraw, etc., it's easy to get started or delegate basic template design to end-users or other non-developers.
- **True WYSIWYG Editing:** Because all reports are laid out in a page context, it's easy to quickly configure page headers/footers and cover/summary pages - and they appear exactly as they will in the final report. Even tables remain in the page context, so it's possible to have multiple tables or tables and graphs on the same page.
- **Uniquely Advanced Layout:** Because ReportMill's advanced reporting features are implemented on top of powerful layout tools, there are many options available to report designers that few report tools offer, such as page layering, advanced graphic transforms, textures and gradients, etc.





The Editor Window

Overview

The primary interface in ReportMill is the Editor window.

Preview/Edit button

This button toggles between preview mode and edit mode. It doesn't do much until you bind your document with an XML file and start adding text keys, tables, etc.

Toolbar

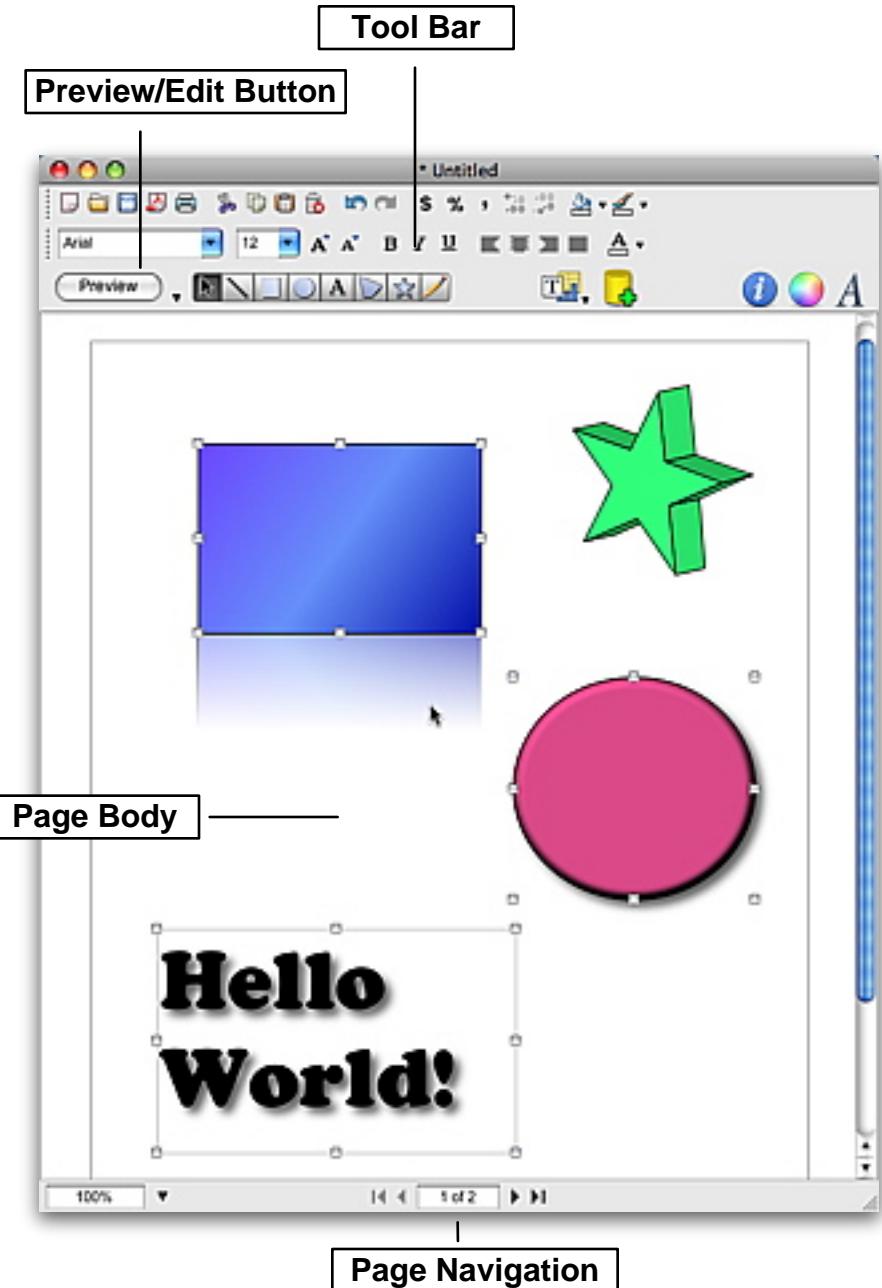
Here are the list of tools you use to create and edit shapes. From left to right they are: Selection, line, box, oval, polygon, pencil, table, graph, labels and crosstab.

Page Navigation

These are simple controls for moving page forward, page back or going to a specific page number (just type it into the field and hit return).

Page Body

This is the actual canvas of your report, where you will add toolbar elements.





The Inspector Panel

Overview

ReportMill tries to do as much as possible through "direct manipulation" in the document window. However, many of ReportMill's more sophisticated settings can be found in the inspector panel. Here is a break down of the parts.

The Selection Path

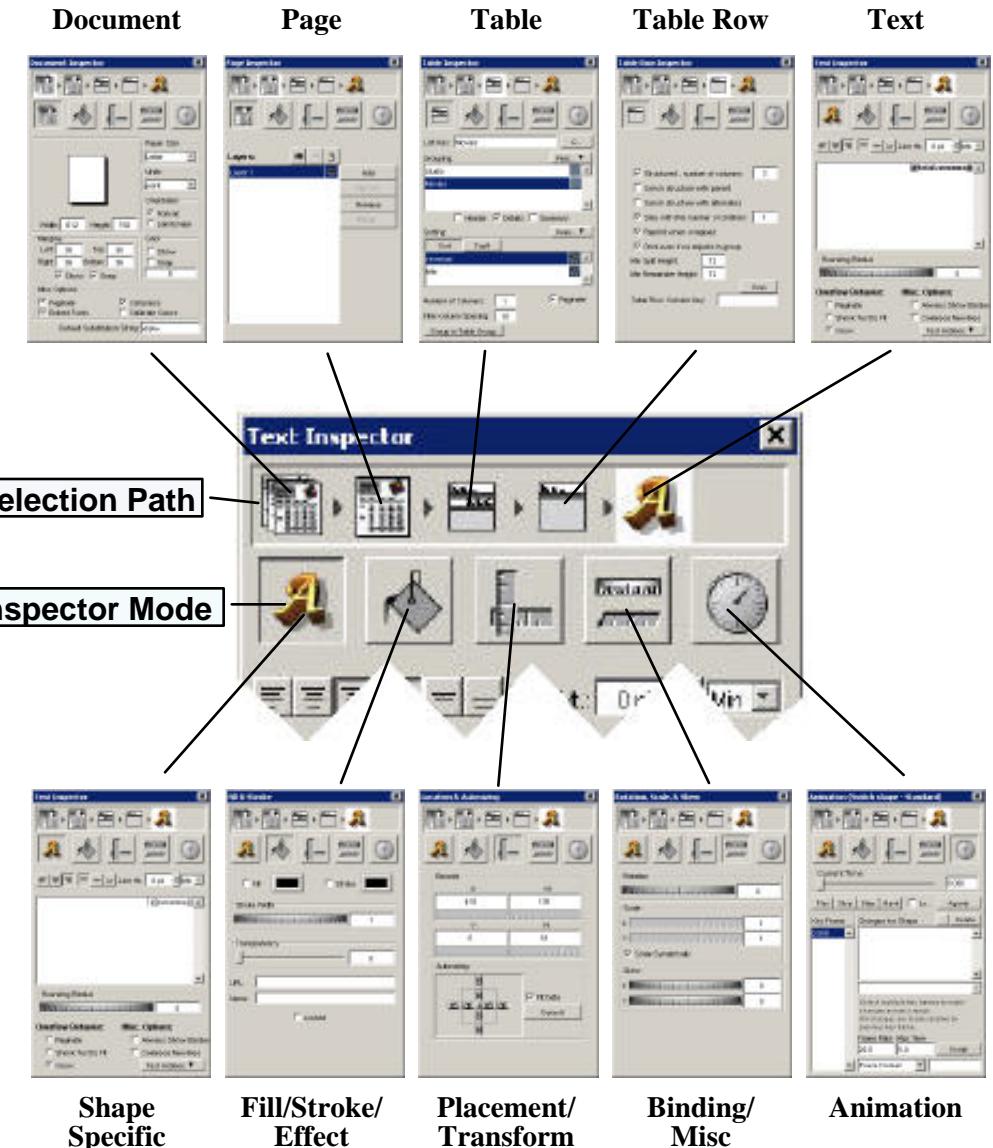
The first row of icons in the inspector is the "Selection path". ReportMill provides for deep editing of the document hierarchy: you will frequently be editing a Text Field, inside of a Table Row, inside of a Table, inside of a Page inside of the Document. Each of these elements offers its own inspector, which you can easily access by clicking on its icon in the Selection Path.

Notice, there are fewer icons when the heirarchy is more shallow, such as when a text field is a direct child of the page (then you have Document > Page > Text Field).

The Inspector Mode

The second row of icons in the inspector is for choosing the specific type of attributes you want to edit. The first one is the "**Shape specific**" and the most commonly used mode. The remaining modes are:

- Fill/Stroke/Effect
- Placement/Transform
- Binding expressions/Misc
- Animation





The Document Inspector

Showing the Document Inspector

The document inspector is available by selecting the first icon in the selection path.

Paper Size

You can set the page size either by directly entering page dimensions (in the currently selected units) or by selecting a common paper size from the Paper Size pick list (Letter, Legal, A5, etc.).

Units

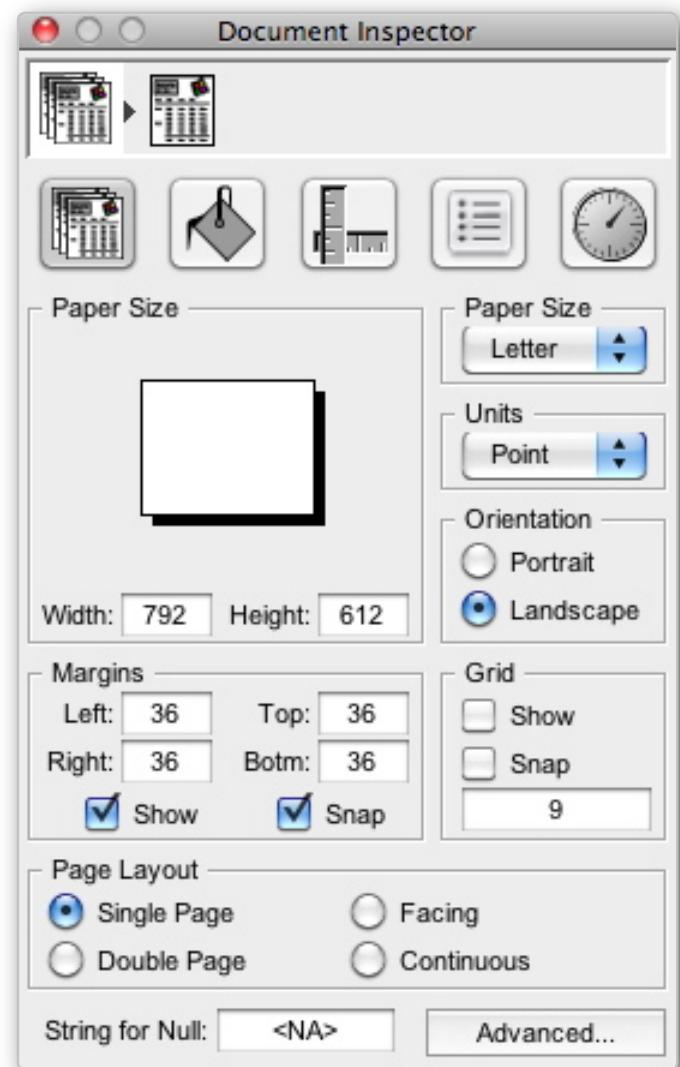
Inspector fields having to do with size can be configured to display and set values in a number of different units. The default is "printers points" (there are 72 points per inch). Also available are inches, centimeters, millimeters and picas (12 points).

Orientation

Page orientation is really a factor of whether a page is wider or taller. However, this control offers a quick way to swap horizontal and vertical dimensions.

Margins

Margins really just provide a hint to the template designer of how much space to leave on the edges of a page for the purposes of aesthetics and to avoid having page elements get chopped off by a printer or covered by a reader's fingers.





The Document Inspector

Document Inspector (Continued)

Grid

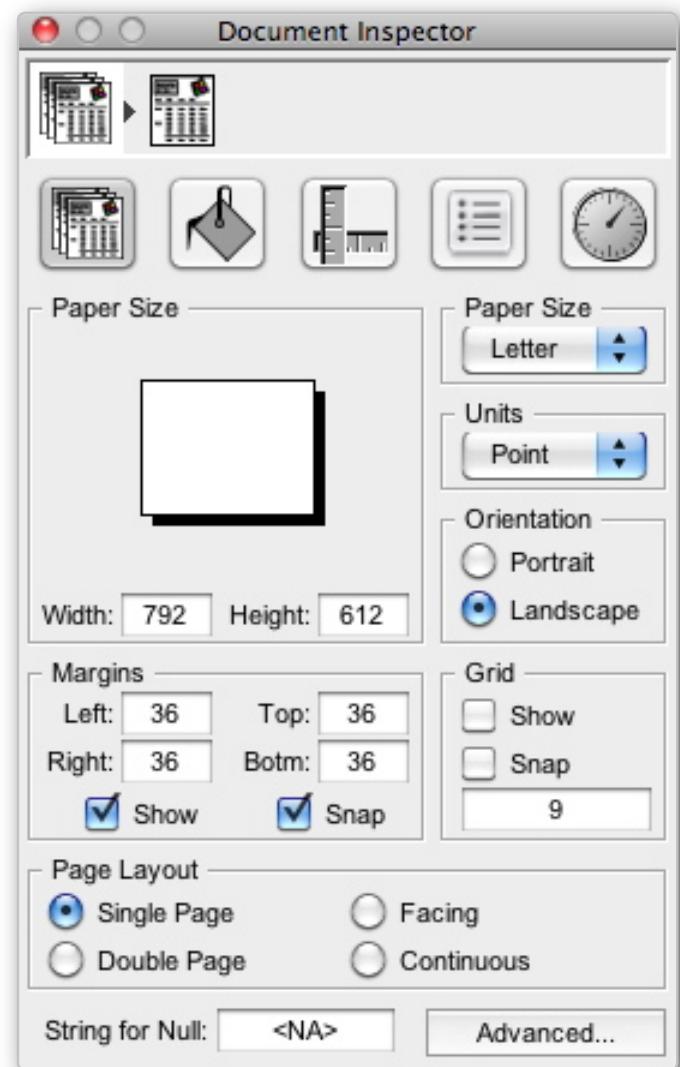
As a convenience, the page designer can configure a grid to appear in the background of the page. With the "Snap" option turned on, page elements are automatically snapped to grid boundaries. By default the grid is configured to 9 points (1/8th of an inch).

Page Layout

By default, the page designer shows a single page at a time. However, when designing a book or other document that prints to a page front and back, it is useful to show pages side by side. Double Page shows pages side by side starting with page 1 on the left. Facing shows pages side by side starting with page 1 on the right (this is more like a book). Continuous shows pages above/below.

String for Null

In the course of report generation, sometimes provided key chains may resolve to "null" (data that is not available). This field shows the string that is used in these cases and defaults to "<NA>" (not available). Another common value is just an empty string. Note that individual fields may also have a formatter provided and formatters have their own setting for String for Null (but default to the document setting if not set).





The Document Inspector

Document Inspector Advanced Options

Paginate

The Paginate switch determines whether the document is split into multiple pages or grows when there is more data than can be fit on a single page. This is a 3-state switch that defaults to "not set" so it is really determined when the developer calls the generateReport() method (which itself defaults to true).

Compress

This determines whether reports generated from this template should be compressed (like in PDF). Turning this switch off is really only useful if the need arises to debug a resulting PDF file.

Proximity Guides

This switch determines whether the editor will draw transient grid lines when components are created, moved or resized to indicate when they line up with other components around them.





The Attributes Panel

Overview

You may have noticed by now that there is a common "Attributes" panel for Keys, Colors, Fonts and Formatters. This panel provides one-stop shopping for all of these common attributes. The tabs make each of these panels very accessible, however, they can also be called up by using their menus in the "Tools" menu or their menu accelerator keys.

Keys Browser

The first tab in the attributes panel is the Keys Browser. This browser allows you to select keys from the data source for the XML dataset file dragged into the document. The browser shows the dataset object graph, which means you can navigate to all the attributes, relationship objects and relationship lists. Items at all levels can simply be dragged out.

Attribute Keys

Attribute keys are plain keys shown with no trailing arrows. If they are dragged in, they result in simple text fields.

Relation Keys

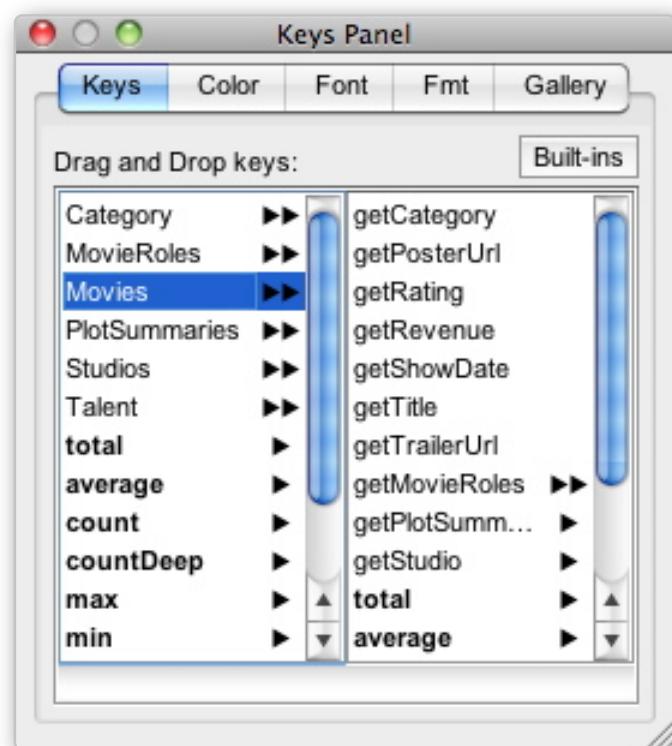
Relation keys are shown with a trailing arrow and show the attributes and relations of the object they point to when selected. Relation lists (or "to-many" relationships) are shown with a double arrow.

Aggregate Keys

Aggregate keys are shown at the bottom of relationship lists and let you easily select a key for an aggregate calculate, like: <NA>.



Attributes Panel Buttons
for Colors and Fonts

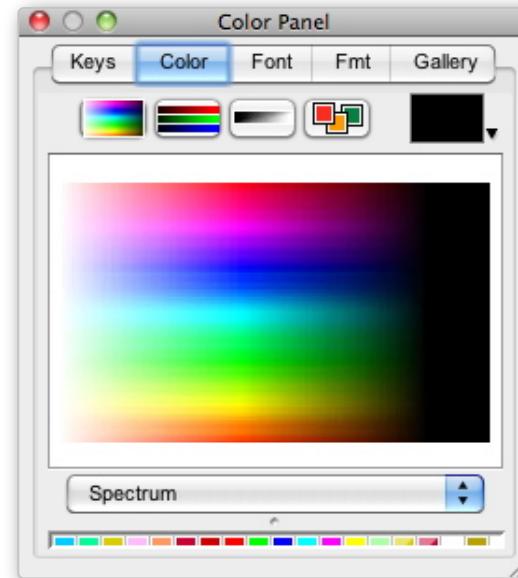




The Attributes Panel

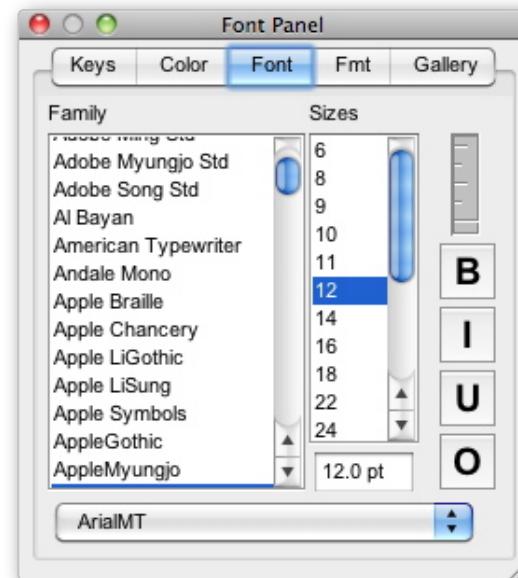
Color Panel

The color panel has a number of advanced controls for easily and precisely selecting colors from a spectrum, via RGBA color sliders, gray scale slider, Hex value or pantone set. It has a color dock to park common colors for easily retrieval.



Font Panel

The font panel provides user friendly controls for selecting fonts, sizes, and styles.





The Attributes Panel

Format Panel

The format panel lets you configure number and date formats for keys. Simply select a text box that contains a key, or click on an individual key (<NA>) in a text box, then choose either the number or date format tab button. Select the first "No Format" tab button to remove a format.

Number Format

The number format tab lets you select from some common number formats and also lets you directly enter formats as specified in the Java DecimalFormat class/javadoc (java.text.DecimalFormat).

The String for Null text field allows you to enter a value to be displayed in the event that the format is asked to format a "null" value (no value was provided). There is also an option to show negative values in red.

Date Format

The date format tab lets you select from a number of common date formats and also lets you directly enter formats as specified in the Java SimpleDateFormat class/javadoc (java.text.SimpleDateFormat).

The String for Null text field allows you to enter a value to be displayed in the event that the format is asked to format a "null" value (no value was provided).



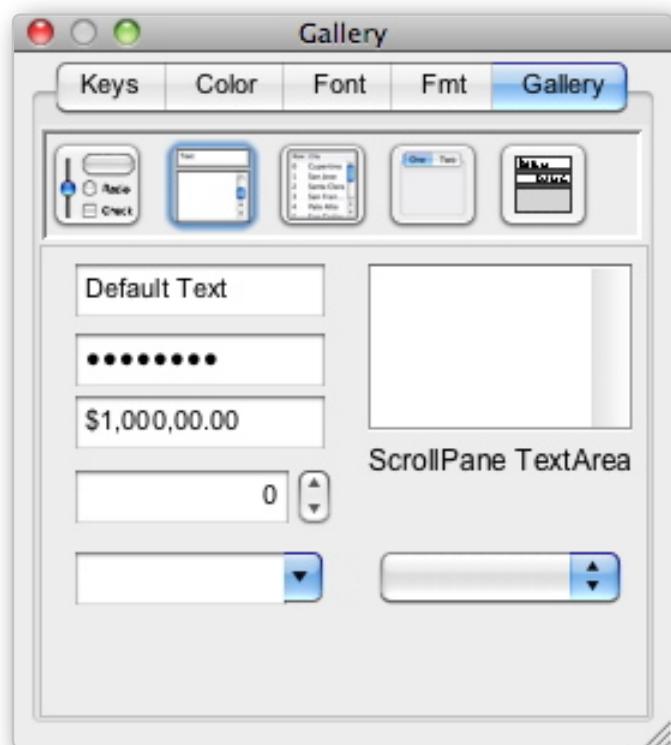


The Attributes Panel

Gallery Panel

The Gallery panel lets you add application components to a template. Application components can be used in templates which are viewed using the ReportMill viewer (available when the Preview as Applet option is selected from the pull-down menu next to the "Preview" button in the editor).

This is a feature in progress and is mostly for use with the ReportMill DataBox product, which allows users to design pages, forms, reports, datasets and queries. See the DataBox link on the front page of ReportMill.com for more info.



Selection

Overview

ReportMill has a very powerful selection model, allowing you to "select deep" into the report hierarchy. For instance, if you group two rectangles together, you can still select the individual rectangles by double-clicking on the group.

Super-Selected

In addition to normal selection, certain shapes can be "Super-Selected", by double-clicking them, which puts them in an editing state. Text is the most common of these. When it's simply selected, you can move and resize the text box. When it's super-selected, you can place the text cursor or select a range of characters and insert or delete text. Polygons and pencil shapes can also be super-selected, revealing additional handles for vertices and curves.

Multiple Selection

You can easily select multiple shapes by clicking and dragging the mouse over a range of the document. Everything the selection rect touches becomes selected.

Shift Selection

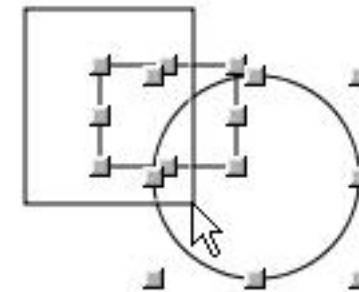
If you hold the shift key while making a selection or dragging a selection rect, ReportMill will add or remove shapes hit by that action from the current list of selected shapes. This is a convenient way to select specific shapes when many of them are close together or over-lapping.

Shift Drag

Dragging shapes in the current selection will be constrained to either the horizontal, vertical or 45 deg diagonal axes when the shift key is held down (ReportMill automatically detects the dominant trend of your drag). This is a convenient way to move shapes while preserving a particular X or Y setting.



The Select Tool



Selection in Action



Text Editing

Overview

ReportMill's text editing is very powerful, allowing for mixed fonts, styles and colors in the same text region (and even keys, as shown in later documents).

Text editing is very straight forward. Simply double-click the text box you want to edit, position the cursor and start typing.

The text inspector provides controls to set horizontal alignment (left, center, right), vertical alignment (top, middle, bottom) and line height (min, max or exact).

The inspector also provides a region to edit text directly in the inspector. This can be useful for small text fields in report templates that contain more text than can be shown in edit mode. This can be particularly true for fields with substitution keys (eg, "<NA>") or for fields that grow to fit substituted text (true for most table row text).

Rounding

This thumbwheel allows you to set the rounding radius for the text border. It's immediately reflected in the editor window for convenient adjustment.

Overflow Behavior

Text can be set to paginate (for form letters), "shrink text to fit" for static text boxes that may receive arbitrarily long text, or "grow" for text fields in table rows (which can grow to accommodate large text blocks).

Always Show Border

This setting just draws a grey border around text, even when not selected. Sometimes useful as a visual cue while editing, without marking generated reports.

Coalesce Newlines

This is also useful for substituted data that might contain missing keys, eg, "<NA>\n<NA>\n<NA>\n<NA>\n<NA>". Coalesced newlines will make sure text uses the minimum lines necessary.

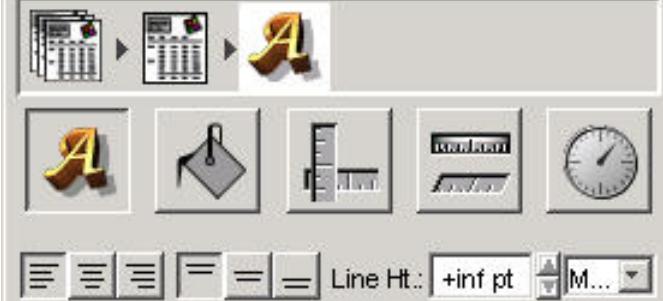
Tab Stops

If you turn on rulers for the editor window (Tools->Toggle Rulers menu), you will notice that it shows tab markers while editing text. These can be dragged and reset to change the tab stops of the text field.



Hello **there** World

Text Inspector



Rounding Radius



Overflow Behavior:

- Paginate
- Shrink Text to Fit
- Grow

Misc. Options:

- Always Show Border
- Coalesce Newlines

Text Actions ▾



Drawing tools

Overview

The drawing tools all follow the expected paradigms.

Line, Rect, Oval

For these basic drawing tools, simply click and drag to create. The Rect inspector lets you set rounding radius and the oval inspector lets you select sweep angle and start angle.

Polygon

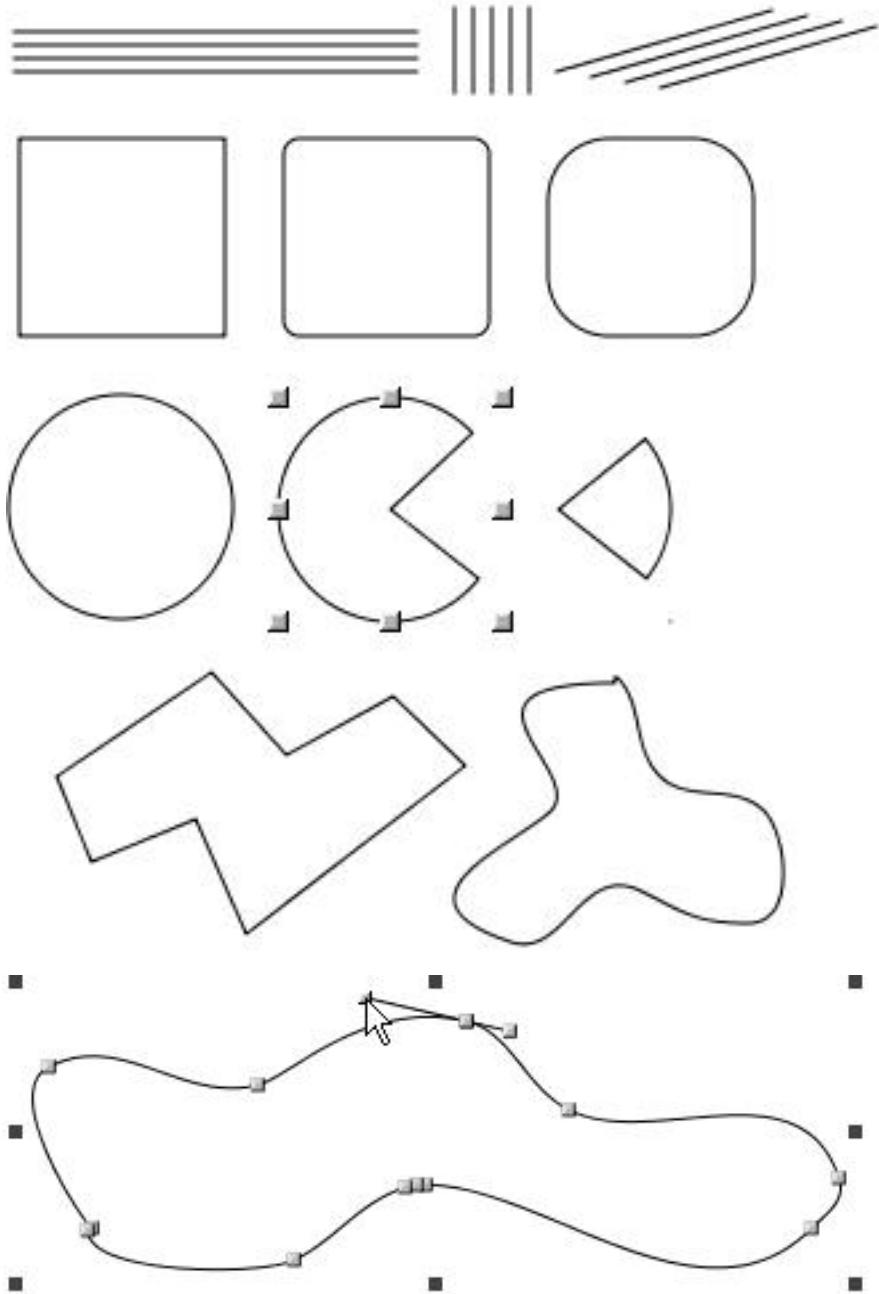
The polygon tool lets you click points which it joins with straight lines. Alternatively, you can click-drag-release, to position line segments interactively. If you hold down the alt key while adding points, this tool will behave like pencil for added segments. Editing stops under these conditions: clicking the same point twice, clicking close to the start point or clicking a new tool in the tool bar (like select).

Pencil

The pencil tool lets you click and draw free-hand path segments, automatically smoothing the curve on mouse up. If you hold down the alt key, it will behave like polygon for added segments. Editing stops under the same conditions as polygon.

Vertex/Curve editing

Double-clicking a polygon or pencil shape will display additional handles for vertex adjustment or curve editing.





The File Menu

New

Creates a new empty document

Open

Brings up open panel to open existing rpt files.

Close

Closes the current open document.

Save

Saves the current open document (bring up a save panel if untitled).

Save As...

Brings up a save panel to choose a filename and save the current open document.

Revert to Saved

Reloads the last saved copy of the current open document.

Export

Allows you to save the current document as PDF, Flash or Flash with an HTML container file. There is also an option to FTP the exported file to a website (it determines file type from extension: pdf, swf or html).

Preview Report

Same as hitting Preview button in Edit window.

Preview Reports

Brings up preview in PDF viewer, Flash viewer or CSV viewer.

Samples

Brings up some sample documents for tables, graphs etc. Also has several XML files, which get saved to TEMP folder and opened in IE.

Quit

Exits application.

New	Ctrl+N
Open...	Ctrl+O
Close	Ctrl+W
Save	Ctrl+S
Save As...	Ctrl+Shift+S
Revert to Saved	Ctrl+U
Export	▶
Preview Report	
Preview Reports	▶
Samples	▶
Quit	Ctrl+Q



The Edit Menu

Undo

Undoes the last action.

Redo

Re-does the last undo (assuming nothing was changed after the last undo).

Cut/Copy/Paste

Allows you to easily duplicate or import document elements using the system clipboard.

Undo	Ctrl+Z
Redo	Ctrl+Shift+Z
Cut	Ctrl+X
Copy	Ctrl+C
Paste	Ctrl+V
Select All	Ctrl+A

Select All

Selects all elements at the current level of selection (or all text, if editing a text field).



The Format Menu

Font Panel...

This brings up the Font Panel tab of the Attributes panel.

Bold (Italic, Underline)

This turns currently select text (or text fields) bold (or italic or underlined). This functionality is also available in the font panel.

Align Left, Center, Right

This aligns currently selected text (or text fields) to the left, center or right. This functionality is also available in the Text inspector.

Font Panel...	Ctrl+T
Bold	Ctrl+B
Italic	Ctrl+I
Underline	
Align Left	
Align Center	
Align Right	



The Pages Menu

Add Page

Adds a page to the current open document, after the currently selected page.

Add Page Previous

Adds a page to the current open document, before the currently selected page.

Remove Page

Removes the currently selected page in the current open document.

Zoom In/Out

Increases/decreases document zoom by 10%.

Zoom 100%/200%

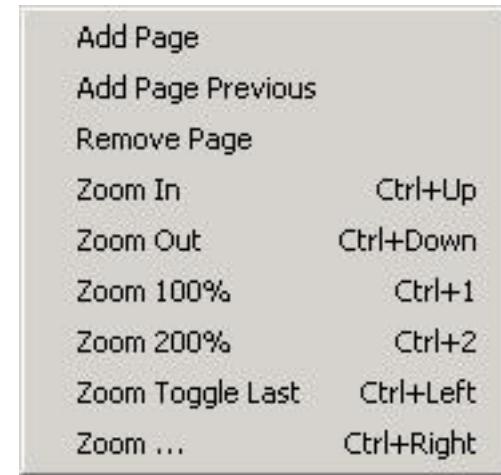
Zooms to the specified percent of actual document size.

Zoom Toggle Last

Zooms to the last specified Zoom.

Zoom...

Brings up a zoom panel that allows you to exactly specify a zoom as a percentage of actual document size.





The Shapes Menu

Group/Ungroup

Allows you to merge the currently selected shapes into a single shape for convenient management. Contained shapes are still accessible, via double-click super-select. Ungroup separates shapes grouped in this manner.

Bring to Front/Send to Back

All shapes have an order on the page that determines what is drawn on top when two shapes over-lap. These options allow you to alter that order.

Make Row Top/Center/Bottom

This feature allows you to quickly align several shapes in a row, either by their top border, their center or their bottom border. The different options are provided because shapes may be of different heights.

Make Column Left/Center/Right

Same as above, but for columns.

Make Same Size/Width/Height

This feature allows you to quickly make several shapes the same width, height or both.

Equally Space Row/Column

This feature equalizes the distance between shapes, either horizontally or vertically.

Group	Ctrl+G
Ungroup	Ctrl+Shift+G
Bring to Front	Ctrl+Shift+F
Send to Back	Ctrl+Shift+B
Make Row Top	
Make Row Center	
Make Row Bottom	
Make Column Left	
Make Column Center	
Make Column Right	
Make Same Size	
Make Same Width	
Make Same Height	
Equally Space Row	
Equally Space Column	
Group in Switch Shape	
Move to New Layer	
Combine Paths	



The Shapes Menu (Continued)

Group in Switch Shape

This feature groups selected shapes in a Switch Shape, which has the same features as Table Row Versions (see Table documentation). It's a powerful way to conditionally provide a different look for a specific element.

Move to new layer

Creates a new page layer with the currently selected shapes.

Combine Paths

Takes multiple overlapping shapes (such as a rect and an oval) and combines them into a single shape using the combined paths. A powerful tool to construct complex shapes, fast.

Group	Ctrl+G
Ungroup	Ctrl+Shift+G
Bring to Front	Ctrl+Shift+F
Send to Back	Ctrl+Shift+B
Make Row Top	
Make Row Center	
Make Row Bottom	
Make Column Left	
Make Column Center	
Make Column Right	
Make Same Size	
Make Same Width	
Make Same Height	
Equally Space Row	
Equally Space Column	
Group in Switch Shape	
Move to New Layer	
Combine Paths	



The Tools Menu

Inspector

Brings up the main inspector (covered earlier in this document).

Color Panel

Brings up the color panel.

Font Panel

Brings up the font panel.

Formatter Panel

Brings up the formatter panel, for configuring special formatting of substitution keys.

Keys Panel

Brings up the keys panel.

Toggle Rulers

Adds rulers to the borders of the current open document, to assist in precise layout.

Add Image Placeholder

Adds an empty image object to the document, which can be positioned, sized and configured with a substitution key.

Send Feedback

Brings up a convenient Mail panel to forward suggestions and comments to ReportMill engineers.

Preferences

Brings up the preferences panel, to enter or view license information.

Inspector	
Color Panel...	Ctrl+Shift+C
Font Panel...	
Formatter Panel...	Ctrl+F
Keys Panel...	Ctrl+K
Toggle Rulers	Ctrl+R
Add Image Placeholder	
Send Feedback...	
Preferences...	