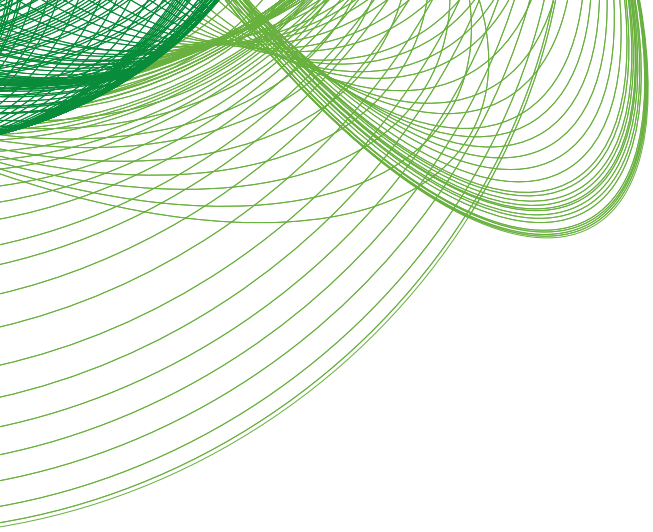

the Developer Toolkit

A basic how-to guide

July 12, 2013

QlikView

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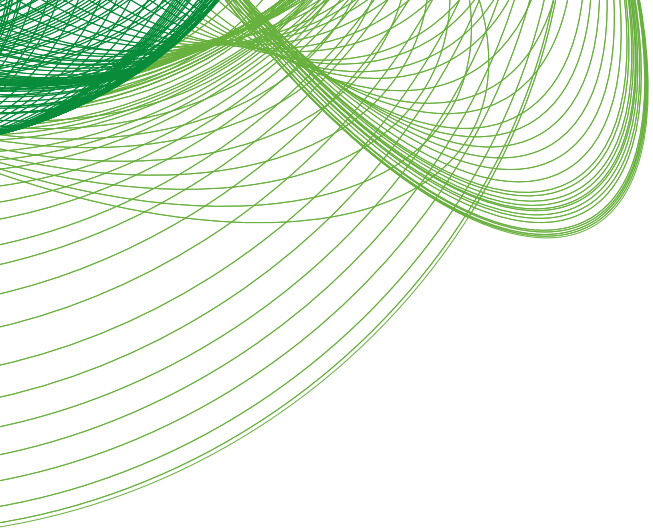


the Developer Toolkit

The purpose of the Developer Toolkit is to help QlikView developers make more attractive & useable applications. There are a variety of backgrounds, guides, and panels that can be incorporated into your design to get you started.

What is included

The Toolkit is divided up into several folders of assets.

- Backgrounds: help define space to place objects on
- Buttons: images to use as buttons
- Guides & Rulers: help you align objects within QlikView
- Icons: useful images for common tasks
- Panels: can be used to define spaces when using a background you have found
- Qlik: QlikView branded images
- Rules: are simple line styles to divide up regions of space
- Shadows: are more gradiated ways of dividing space

In general images should be imported into Text Objects set to:

- No Stretch
- Align Left
- Align Top

K.I.S.S.

While there are a variety of design assets in the toolkit it is important to remember that you don't have to use them all. The K.I.S.S. methodology (Keep It Simple & Straightforward) is a useful bit of advice. Just because you *can* doesn't always mean you *should*.

An example

The example to the left only requires about 2 non-native QlikView parts.

The rest is accomplished through basic design principles of:
- hierarchy
- using a grid, and
- simplicity

Practice

The old Chinese proverb of

"Give a man a fish and you feed him for a day.
Teach a man to fish and you feed him for a lifetime."

would best summarize the goal of the Developer Toolkit. Empowering developers to be better, more self-reliant designers is the goal.

Something left out of the proverb is the importance of practice. Nobody becomes a master fisherman in a day. It will take a lot of designing to become a better designer. This PDF explains a few basic design principles that are important to use as well as basic technical instructions on how to use the different objects in the Developer Toolkit folders.

Design Principle: Hierarchy

Simply put, hierarchy is making the most important information stand out the most and the least important stand out the least. Very often this is accomplished by making the most important information the largest type size and a dark color but you can use a variety of techniques such as a different typeface or character weight (bold, italics, etc) among others.

Hierarchy helps the reader because it establishes a rhythm and makes scanning content easier. **Usability studies show that people don't read all the words on a page** and expecting them to is unrealistic. People scan for the information that they want and then read more. Hierarchy is a well established technique to help people find what they are looking for and to convey information.

Basic Hierarchy

Most people are already familiar with hierarchy. Around the world, in a variety of languages, headline stories are the largest type size while footnotes and legal "fine print" are the smallest.

Examples

Whether on the web, or in print, news companies use hierarchy to establish the headline story.

Hierarchy in QlikView

Creating hierarchy in QlikView is no different than anywhere else. Consider using a larger bolder type style for your sheet titles while also using a smaller plain weight type style for your general information.

A baseline to work from is:

- **Tab headers / titles** - Large type size, bold weight, dark color
- **Object captions / titles** - Standard type size, bold weight
- Body Copy - Standard type size, standard weight

An example: Asset Management demo

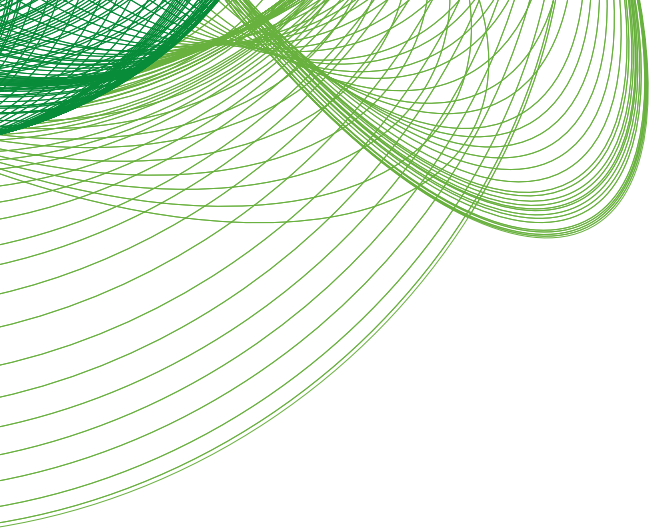
Tab headers
- 12pt, bold weight, Arial

Caption headers
- 9pt, bold weight, green

Body Copy
- 9pt, normal weight, Arial

Summary

There are a variety of ways you can establish hierarchy, but **once you establish a system you need to be consistant.** Changing how you present the hierarchy information within an application can be confusing to the user as it means they have to stop what they were doing, relearn the visual cues of what to scan the page for, and then go back to trying to complete their task.



Design Principle: the Grid

The Grid is a way to bring structure and cohesion to a design. Designing with a grid aligns objects to invisible guides that hold a design together. Grid based design is the opposite of scattering objects around the screen. It is a smart way to place objects in meaningful alignment.

Grid based design

Grid based design has been used for centuries in books, city street arrangement, etc. With the invention of the internet and content heavy sites web design has evolved to take full advantage of grid systems to lay out content. No news website crafts each page by hand. Pages are generated dynamically loading content into templates designed on a grid.

How it works

The grid divides up your available space into a certain number of evenly sized columns. The space between the columns is the gutter. You keep your objects inside the boundries of the columns and allow the gutters to separate objects evenly.

Columns are used instead of rows because interactive content is typically designed to scroll vertically so the use of columns allows you to design a fixed width page but have the flexibility to make the page as tall as you need to.

Columns may be “combined” to create larger areas. A 12 column grid is fairly standard around the web. 12 columns is nice because it is easily divisible so you can combine columns to have 4 columns of 3, 3 columns of 4, 2 columns of 6, or 1 large column within the same space.

Example

An example of a 12 column grid. The top spot has combined all 12 columns to create 1 large ad space while further down the page other combinations have been created, all still using the 12 column grid.

Learn more

- Websites such as 960.gs demonstrate 12 and 16 column grids.
- grid-based.com
- smashingmagazine.com/2007/04/14/designing-with-grid-based-approach/
- en.wikipedia.org/wiki/Grid_%28page_layout%29

Design Principle: Color

Color is an important part of any design. The bolder and more vivid the color the more distracting something is. Sometimes this is useful. Bright red for example can be used to conditionally highlight problems in your business. Often however you want to use softer, more desaturated colors. There are a variety of usability studies that show the effects of color on human psychology but essentially calmer less vibrant colors are less distracting and more peaceful to be around. Use a palette of simple slightly desaturated colors and then consider having one color contrast this to show some important difference in the data.

Color blindness

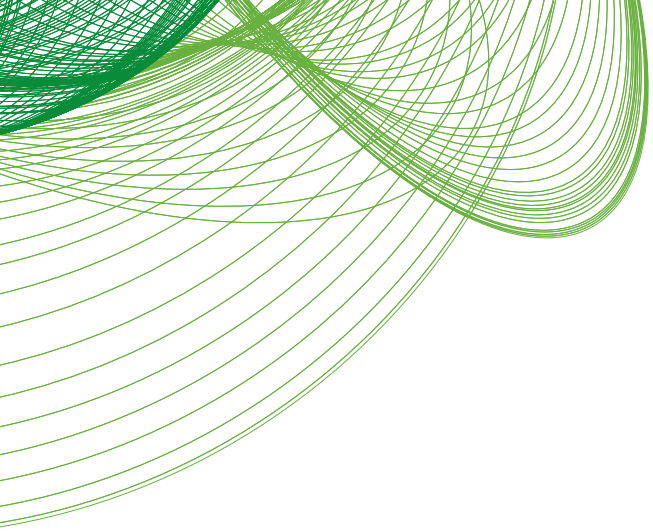
A special consideration you should make is for people with visual disabilities such as color blindness. There are a variety of different kinds of color blindness, most of which occurs in men (7-10% of men are red-green color blind), with a variety of levels of severity. When selecting colors take a screenshot of your design and run it through a color blindness simulator to see what your design may look like to some people. You may realize that there isn't enough contrast between some of your colors and that you may need to select a few new colors to be more accessible.

Basic color palette

The same palette simulating Deuteranopia

Learn more

- colorpicker.com/
- kuler.adobe.com/create/color-wheel/
- colorschemedesigner.com/
- en.wikipedia.org/wiki/Color_blindness
- color-blindness.com/coblis-color-blindness-simulator/



Design Principle: Simplicity

Simple is not easy. Simple design takes the most discipline. A lot of companies claim they want to be simple like Apple, but not many pull it off. To be simple means you establish what isn't absolutely necessary to your design, and then leave it out.

Lean & Mean

Design your applications to be lean & mean. Remove the excess fat of glossy eye-candy, big dropshadows, and bulbous rounded corners. Use consistent colors, use consistent type styles. Sheets should be clean and organized by tasks or likeminded content. What is the purpose of the application you are building? Only add elements that will help make using the application easier.

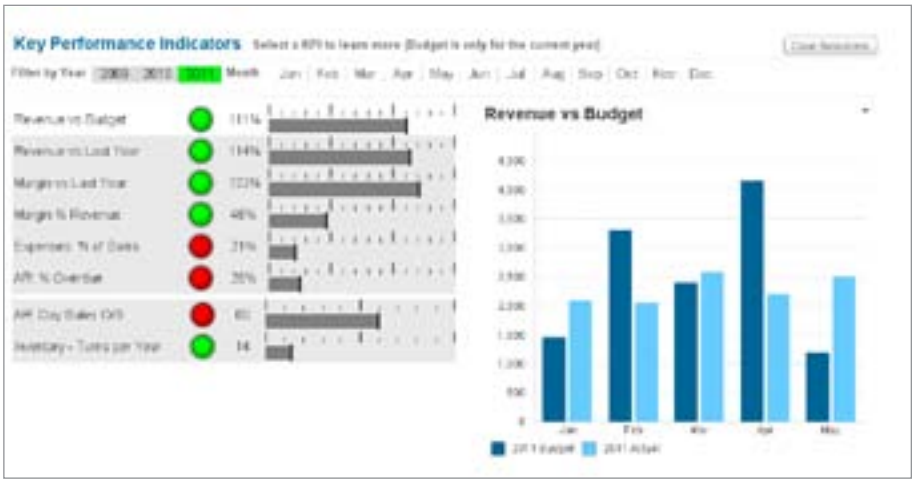
A tool vs. a toy

Ultimately QlikView is a tool. This doesn't mean applications can't be cool, but they are meant to help the user complete a task. Design your appllications to be utilitarian, to serve as tools to help users sort through information.

Learn more

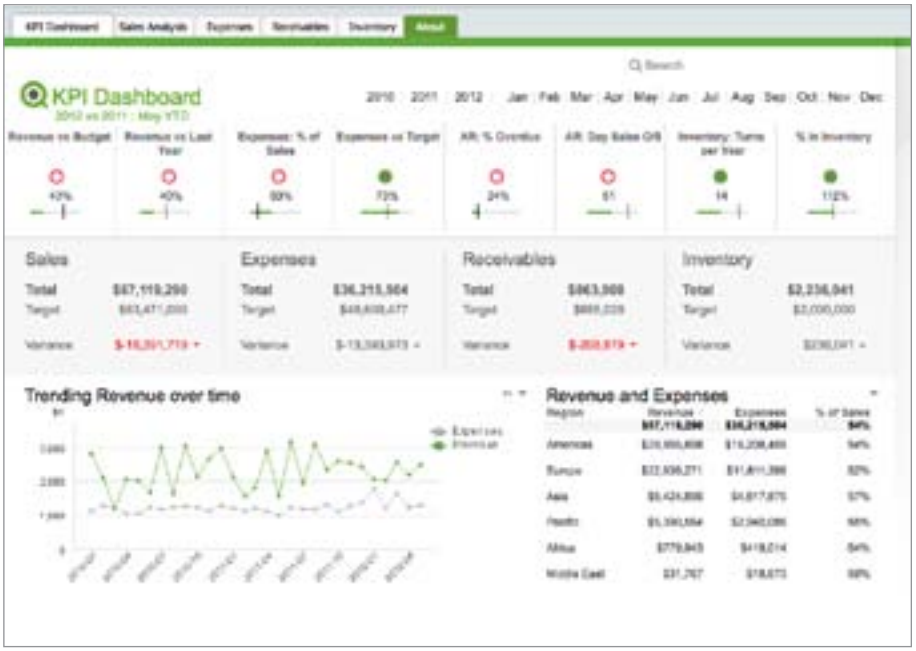
- vitsoe.com/en/gb/about/dieterrams/gooddesign
- uxmatters.com
- uxmyths.com
- uxdesign.smashingmagazine.com/2008/04/24/5-more-principles-of-effective-web-design

Redesign Example: the Executive Dashboard



Before

- *Conflicting colors*
- *Difficult navigation*
- *Inconsistant type styles*
- *Data is obscured*

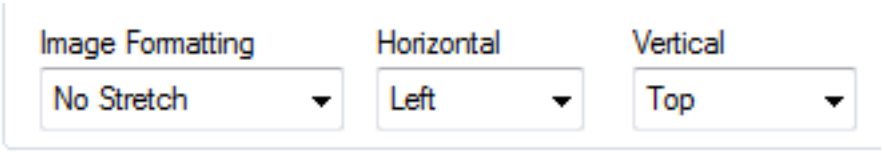


After

- *Consistant colors*
- *Standard navigation*
- *More accessible for color blind users*
- *Aligned to a grid*
- *Clear hierarchy of information*
- *Even spacing*

Backgrounds

Backgrounds should be set to:



and to have the backgrounds gracefully fade out set the Sheet background color to:

- Black	R 0	G 0	B 0
- Blue (bright)	R 173	G 223	B 248
- Blue (desaturated)	R 164	G 190	B 203
- Gray (dark)	R 204	G 204	B 204
- Gray (light)	R 234	G 234	B 234
- Green	R 55	G 107	B 9
- Teal	R 171	G 197	B 198
- White	R 255	G 255	B 255

For other backgrounds try using a color picker software to determine the color at the very bottom of a background then set you're background color to that RGB color so the background gracefully degrades.

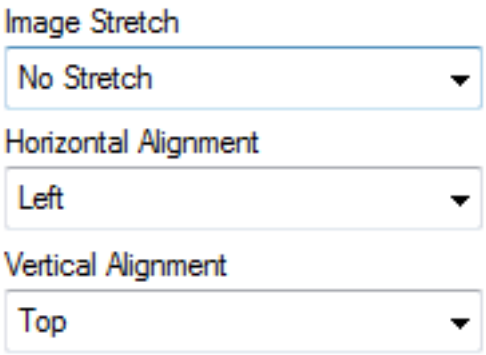
Strips for the top of a document are QlikView themed bars of color and shape to add a bit of QlikView branding along the top of your document.

Backgrounds With Panels are backgrounds with space already defined to place objects in them. Most are at least 2,000 pixels tall to accommodate taller designs. They are extra wide to accommodate larger monitors with wider screen sizes.

Backgrounds Without Panels are basically wallpapers, over which you can place objects.

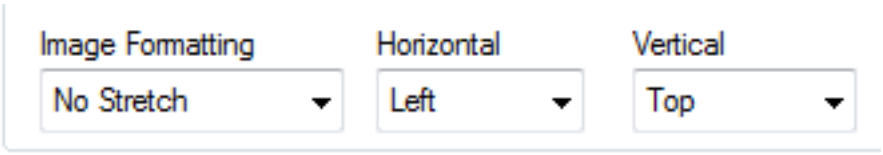
Buttons

Buttons can be imported to Text Objects and set to:



Guides & Rulers

Both the “12-Col-Grid.png” and “iPad_resolution_guide.png” are transparent PNG files. They can be imported to Text Objects and set to:



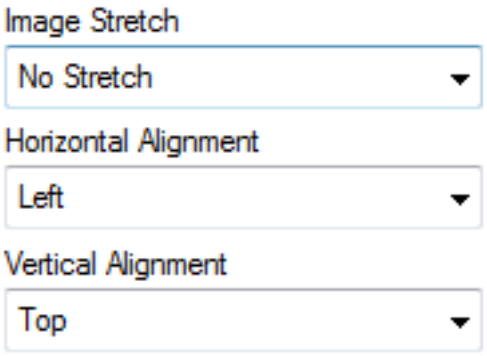
and overlayed above your work to get a sense of alignment and spacing.

The **iPad resolution guide** shows what will be visible before scrolling on an iPad in landscape orientation.

The **12 Column Grid** is a useful tool to design with a cohesive & logical grid system in mind. The width of the grid is set to 940px of available horizontal space with 10 pixels of gutter on both the left & right sides. The height doesn’t matter assuming vertical scrolling will happen. A grid of 960 pixels width works as a best practice for designing within a baseline size of 1024x768.

Icons

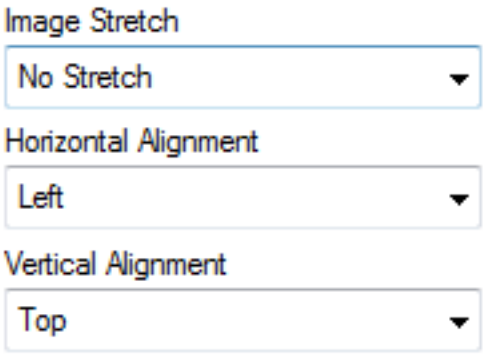
Icons can be imported to Text Objects and set to:



For additional icon resources try:
famfamfam.com/lab/icons/silk/
thenounproject.com
smashingmagazine.com and search for icons
shutterstock.com and search for icons (not free)

Panels

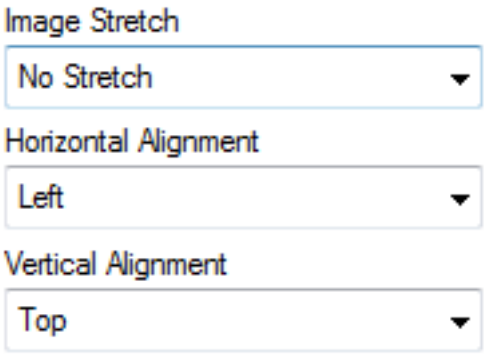
Panels can be imported to Text Objects and set to:



and placed behind native QV objects.

Rules

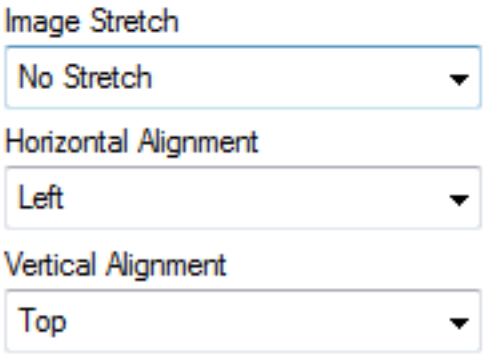
Rules can be imported to Text Objects and set to:



and used to separate areas of space, grouping together similar objects and charts without having to actually draw a box around them.

Shadows

The Shadow files are useful to define spaces within a document. Shadows can be imported to Text Objects and set to:



and place them behind native QV objects.