



# HOW TO IMPROVE YOUR DESIGN PROCESS WORKING WITH QLIKVIEW

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QlikView Technical Brief

July 2012



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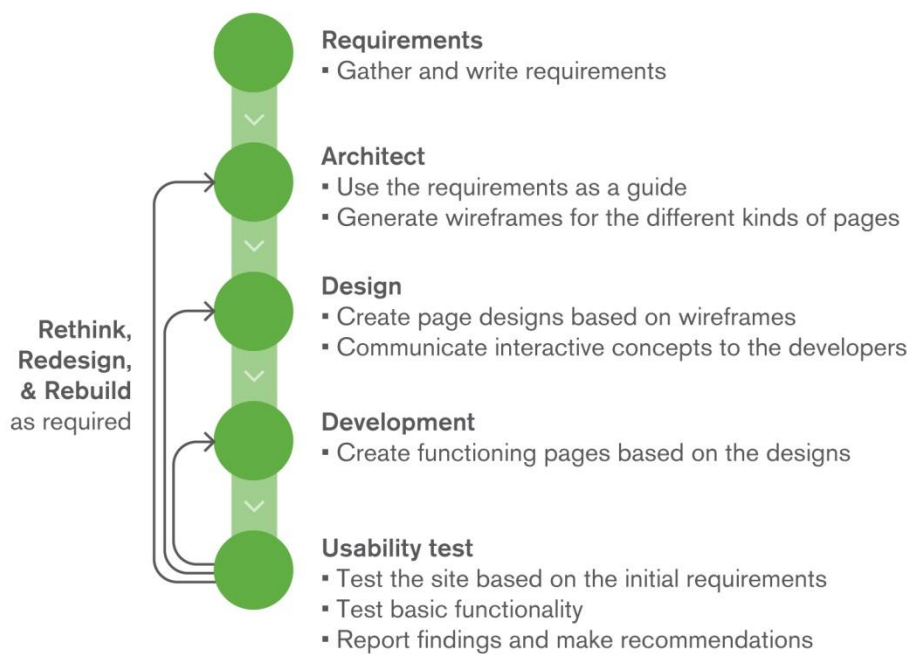
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## Introduction

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Creating an application in QlikView is similar to making a website. In an ideal environment web sites involve a team of people with a variety of roles working together. Information Architects, Writers, Designers, Developers, and Usability Engineers all contribute to the process. It involves planning, creation, testing, and then iteratively revising a site to be excellent.

### Web Development project cycle



In the real world however the constraints of time and money often mean that it is not uncommon for timelines to be cut short and for one person to wear more than one hat, taking on the responsibility of a few different roles (if not all of them). Very often QlikView developers are the architect, designer, writer, and developer all in one. So how do you design a better experience when you are asked to be a jack of all trades?

## Define the problem

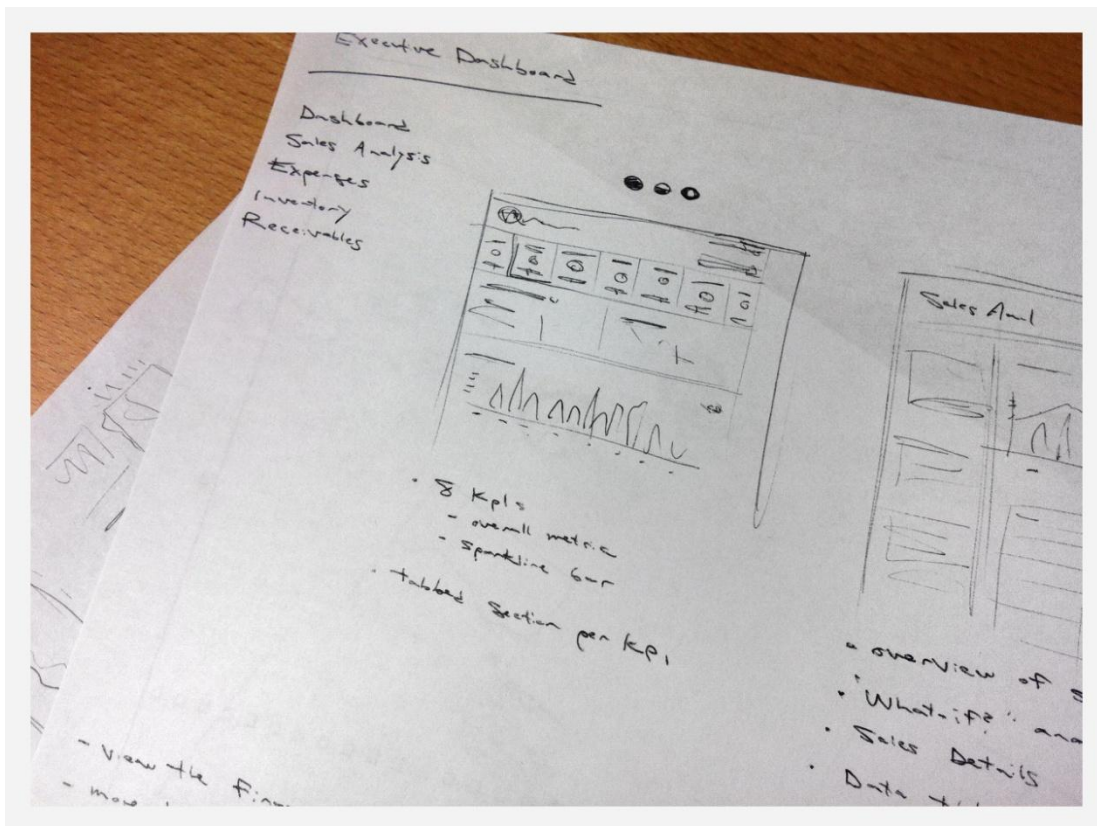
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In the spirit of the old proverb "Measure twice, cut once" you save yourself additional work by knowing what it is you want to build before you start building it. Your first step should be defining what it is you intend to build. Gather all requirements upfront. Who will use it? What are they going to get out of it? What would be good? What would be bad? Simply writing these answers out on a sheet of paper is a very good way to begin focusing the purpose of the application. Applications are tools and no tool is useful to all people for all problems. Knowing what the application should do and who the intended audience is are the most important questions to answer before you even open QlikView. The single best way to avoid rework is to have a plan.

With an understanding of what you want to accomplish, open QlikView and import your data. Creating simple list boxes is an easy way to explore your data. You can test the integrity of the data as well as discover unexpected insights. It is a fast way to take stock of what you have available and can inform what you can accomplish.

## Architect the application

After understanding what you want to build the fastest way to begin laying out the application is with pen and paper. With a few sheets of paper and a pen you can begin to sketch out the various tabs and necessary objects. Start by writing a list of the tabs that an application should have to meet the established goals, then draw a good size rectangle for each tab - just simple boxes; the looser the better. This frees you up to sketch more fluidly, to make mistakes, then move on to better ideas. Iteratively sketching out the application on paper is far less time consuming than iteratively developing on the computer because you won't be concerned with pixel precision. You want to establish the general idea of your application.



An initial series of sketches for the redesign of the Executive Dashboard demo on [demo.qlikview.com](http://demo.qlikview.com)

With simple boxes and words you can begin to layout the objects within your tabs. You will establish where you want to place objects, what objects will require more space than others, realize you may need more than one tab to solve a particular problem, etc. The key is to keep it simple. What you are creating is the wireframe of the application, similar to how an information architect would create wireframes for a web site. This step is crucial and always comes before a designer "skins" the design.

Consider how the objects will interact with one another on each sheet: by filtering one table/chart, how will that change the other objects, what insights will it provide? Group like-minded activities / concepts together based on the goals of the application.

## Design

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This is when wireframes come to life. It is when you take the blueprints of your application and build them into a high fidelity visualization of your concept. Abstract ideas become real.

You can accomplish in one of two ways:

- Reopen QlikView and begin to build the application, or
- Use design software to further visualize your ideas, then open QlikView.

### DESIGN SOFTWARE

The most commonly used tool for web design is Adobe Photoshop. Adobe Fireworks is also used, but Photoshop is currently the industry standard. The Demos & Best Practices team at QlikTech use Photoshop regularly for demos as well as internal projects. Regardless of the specific design software, the primary purpose of using design software is to add an extra level of professionalism to the application. You can create custom backgrounds, craft pixel perfect shadows that can be used to separate spaces within an application, create customized tabs, create customized buttons, etc. These additional assets can add a subtle, but strong improvement to an application.

#### Importing images into QlikView

Backgrounds can be saved as high quality JPGs while other items you might want to save as transparent PNGs. To maintain image quality and correctly align your images, use the settings shown to the right.

### Background image import settings

Image Formatting	Horizontal	Vertical
No Stretch	Left	Top

### Text Object import settings

Image Stretch
No Stretch
Horizontal Alignment
Left
Vertical Alignment
Top

## QLIKVIEW

The last step is what traditionally has been most people's first step: launching QlikView. Create a blank sheet and set the background to the image of a grid. Designing on a grid is strongly recommended for a variety of reasons.

- It brings order and cohesion to a design, making an application easier to use.
- It makes a design look better, that the objects were aligned with purpose not just randomly placed around the screen.
- A properly design grid will make sure you stay within 1024 x 768 resolution so your design will work on most desktop computers as well as iPads.

The Developer Toolkit has a grid PNG file that will make sure the width of your document will fit within most monitor resolutions as well as the landscape orientation of the iPad. Usability studies have shown that people are fine with scrolling but they prefer scrolling in only one direction and they prefer that the one direction to be vertical and not horizontal. For applications designed specifically for the iPad in landscape orientation the height of the available screen-space is 614 pixels before scrolling. The iPad\_v11\_guide PNG file (also in the Developer Toolkit) can help you design to fit these specifications.

Begin constructing the application according to your wireframes. Keep the aesthetic simple and keep it consistent. Remember that the application you are building is a tool, it doesn't need "fun" photos, big rounded corners, glossy reflections, deep drop shadows, etc. Design it be legible. The design doesn't have to be stark white but remember that the focus of the application is on data analysis. Try to only introduce elements that aid analysis. Users shouldn't have to learn how to use the interface. It should be intuitive and natural. Users are more familiar with navigating websites than QlikView documents so use standard web conventions as your guide and don't try to reinvent the wheel. Buttons should look clickable, text should be legible, don't overcrowd a page with too many objects, etc.

After you have the initial design you can iteratively improve your design by showing it to other people, gathering feedback, and making improvements where necessary. Usability engineers often give a few simple tasks to a handful of test-subjects and monitor how successful they are. You don't need eye-tracking computers and hundreds of test subjects to test your design. Jakob Nielsen, an industry leader in Usability, has said that "the best results come from testing no more than 5 users and running as many small tests as you can afford." Just a few people can begin to expose any major problems with a design.

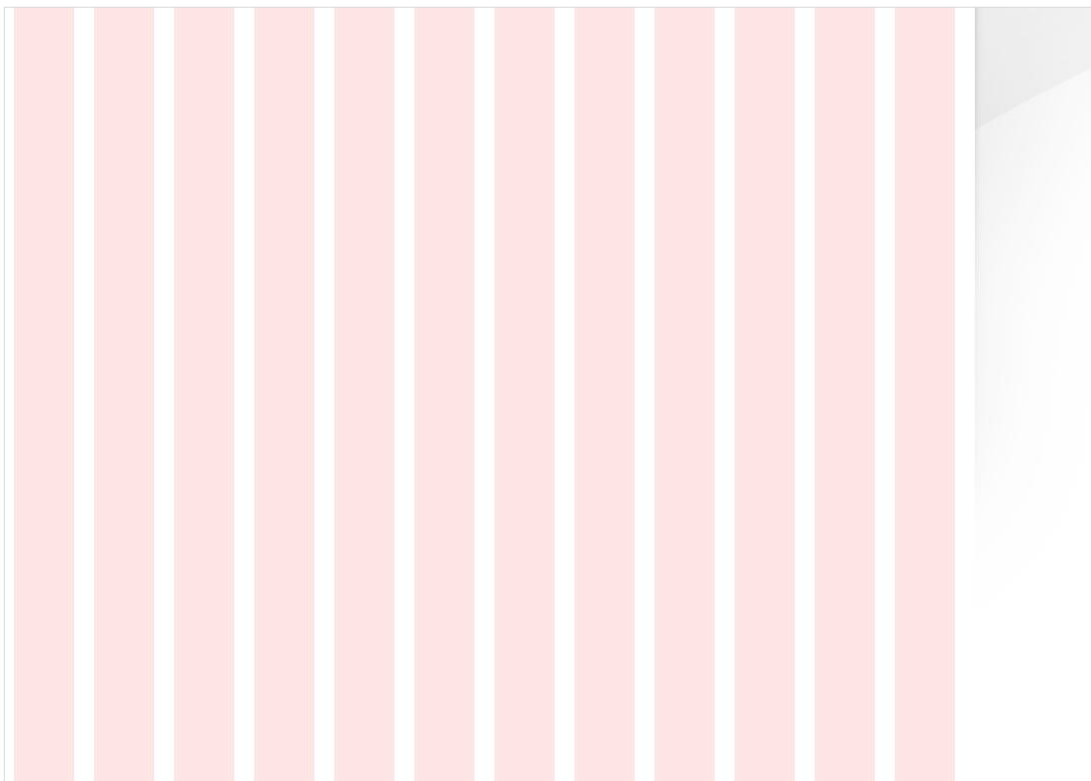
## Case Study: the Executive Dashboard demo

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The following case study demonstrates the iterative nature of taking an application from initial conceptual phase to reality in QlikView. The project was to redesign the Executive Dashboard demo, an application that would be used by executives to explore fairly high-level information but still allow them access to the deeper details of the business.

### INITIAL SETUP

With wireframes completed, we launch Photoshop and start a new document. We use the 12 column grid as our guide and create a background image that will visually frame the application while also keeping our design within a 1024 px width.



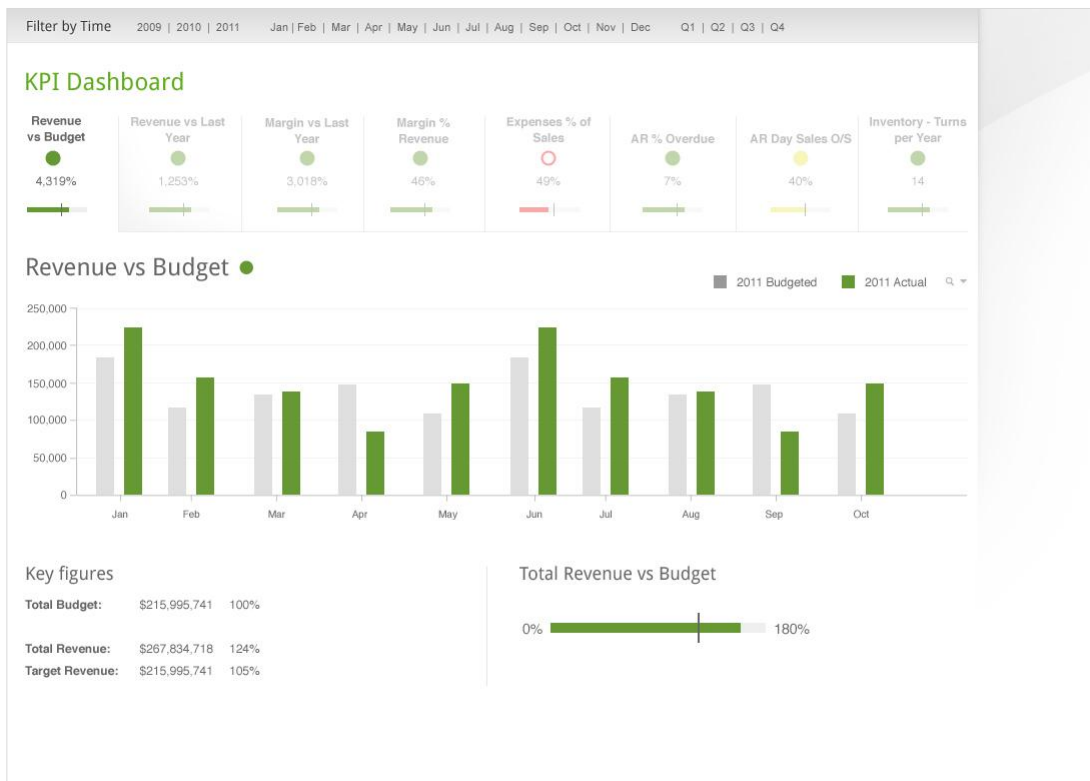
Using a 12 column grid to start the design.



## FIRST ROUND OF DESIGN

Still in Photoshop we begin to design all the objects. Most of this work could be done in QlikView but we tend to spend extra time in Photoshop as it is a better design tool and allows us to quickly create additional assets

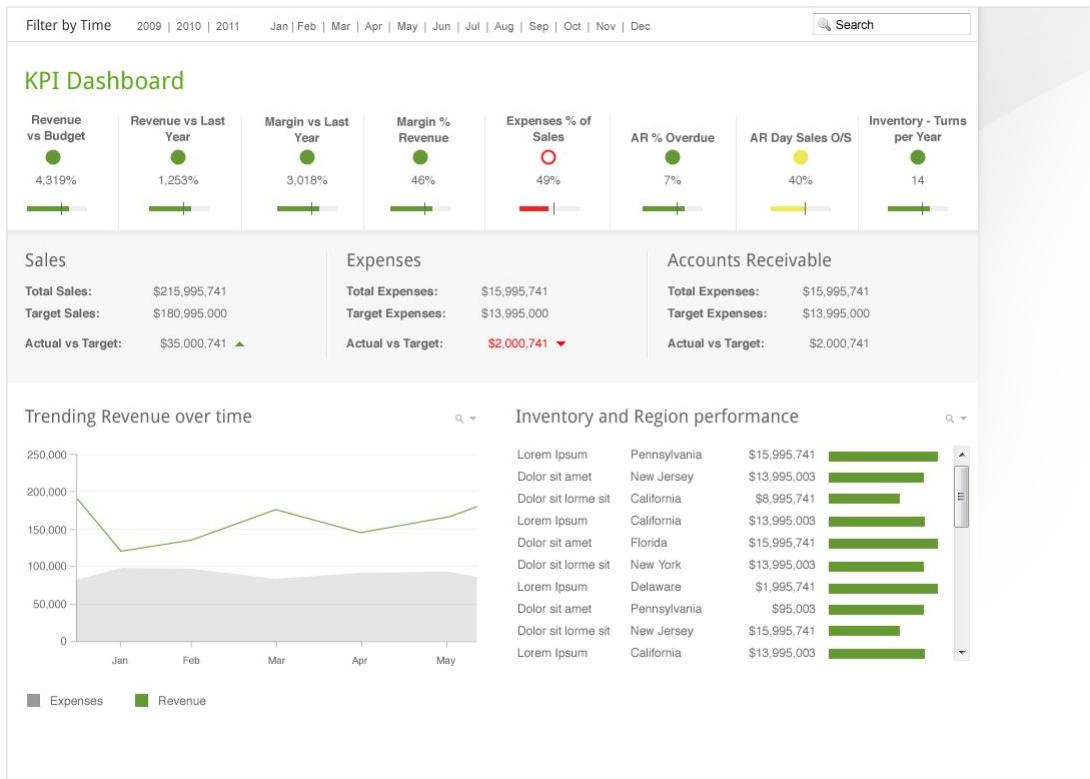
This first design included a concept where an invisible button would sit over each KPI column, allowing the user to select a KPI “tab” to expose additional information below pertaining to that area of the business.



First version: Taking the wireframes into Photoshop for the first round of design.

## SECOND ROUND OF DESIGN

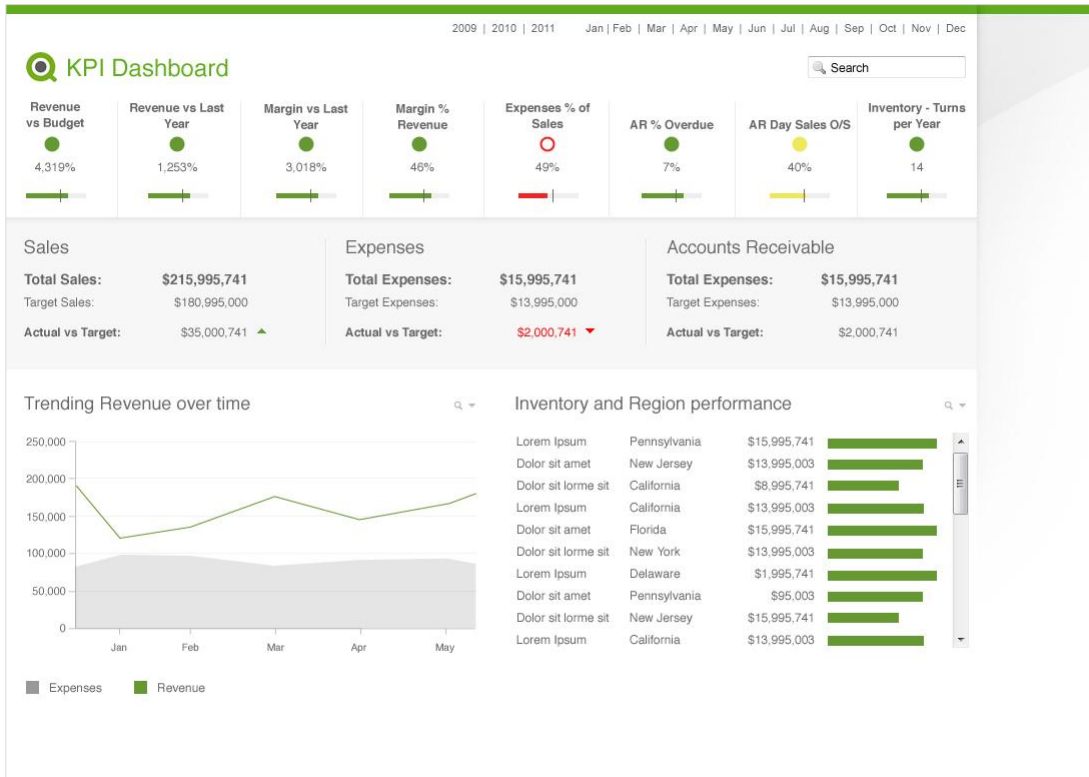
After discussing the elaborate tab system idea with others we simplified the design by removing the KPIs tab concept and replaced the main body area of the page with high-level general information. This helped make the dashboard more of a true dashboard, requiring very little actual interaction from the user.



Second version: Following some quick conversations we chose to remove some functionality that was found to be confusing. We also made a few other design changes.

## THIRD ROUND OF DESIGN

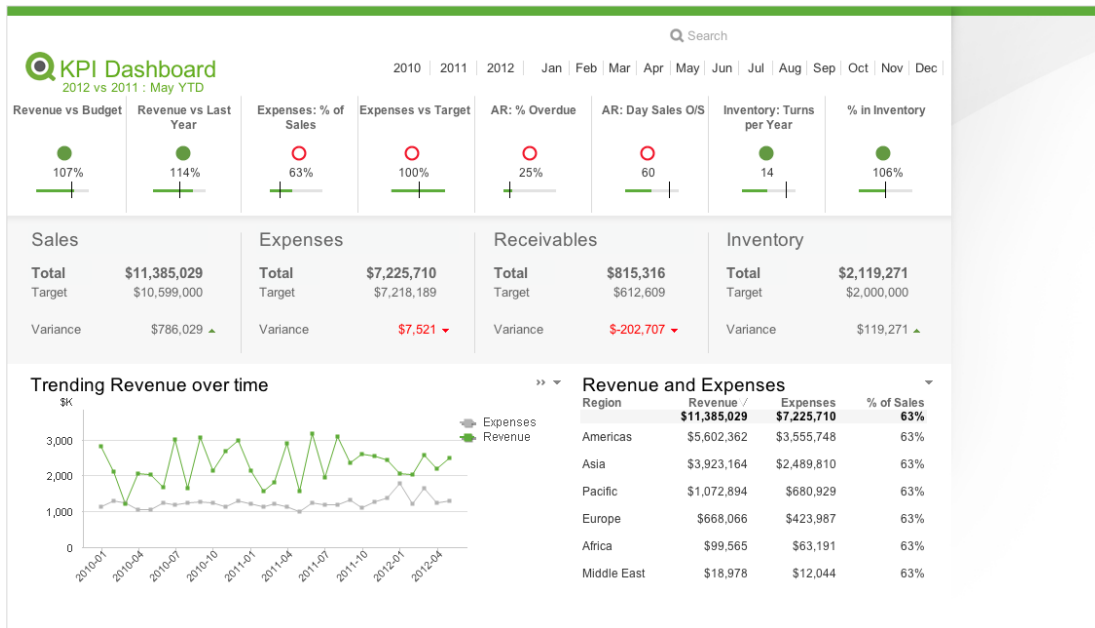
With a bit more art direction we adjusted a few more small things such as adding the QlikTech “Q” icon to the header, we introduced a strip of green at the very top to add a bit more color, etc.



Third version: With some additional feedback we made just a few more design adjustments.

## BRINGING IT ALL TOGETHER IN QLIKVIEW

With the design established we relaunch QlikView to bring all the pieces together. We import any assets created in Photoshop to text objects as well as setting the sheet background. The final application is pretty close to what we mocked up in Photoshop. We also introduced a few additional objects based on feedback we received.



Final: The application in QlikView turned out

From here we used this process for all of the other tabs: taking the wireframes, designing them in Photoshop, building them in QlikView and periodically asking people to take a look at the work and give feedback.

## Summary

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The best way to improve your process is to improve what you do before you start designing in QlikView. Establish the application's audience, its' purpose, gather requirements, and have a blueprint of what you want to make. You can choose to use additional design software or not, but either way remember to keep the design simple and clean and you will be creating better, smarter applications.

## References

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Executive Dashboard demo:

<http://us.demo.qlikview.com/detail.aspx?appName=Executive%20Dashboard.qvw>