

# Chris Webb's BI Blog

Analysis Services, MDX, PowerPivot, DAX and anything BI-related

## Building A Simple BI Dashboard With Visio 2013 And Visio Services

with 4 comments

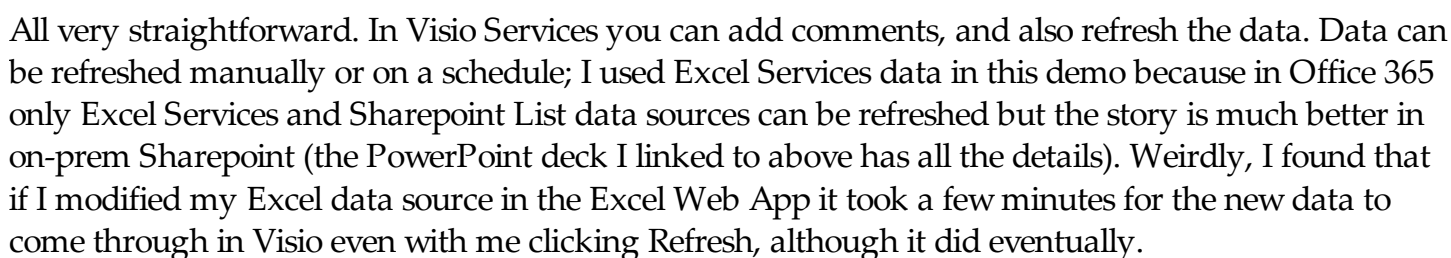
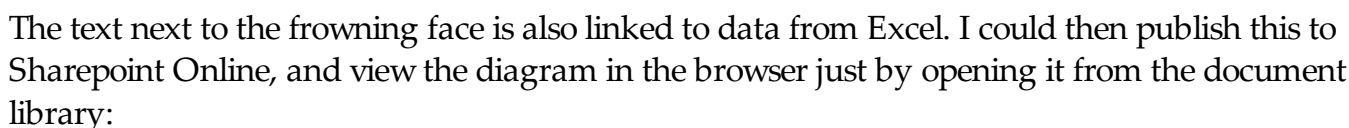
Let me start this post by saying that I am a long way away from being a Visio expert – I've used Visio, of course, to create diagrams and I've also played with its BI capabilities in the past, but nothing more than that. A [recent post](#) on the Visio team blog reminded me about Visio's BI capabilities and [Jen Underwood](#) then mentioned that Visio 2013 has some new functionality for BI, so I thought I'd check it out in more detail and blog about what I found. I've never seen Visio used to build dashboards or reports in the real world, but a quick search shows that the Visio pros out there have been doing this for years, so maybe it's time us BI folks learned a few tricks from them? Visio 2013 is by no means a perfect tool for BI but I was pleasantly surprised at what it can do: you can create data-linked diagrams/dashboards in Visio on the desktop very easily, and then publish them to Visio Services in Sharepoint where they can be viewed in the browser and where the data can be refreshed.

First of all, the PowerPoint deck [here](#) is a good place to start to learn about Visio and Visio Services 2013 dashboards, as is the [Visio team blog](#) and [Chris Hopkins' blog](#). There's also a walkthrough of how to link data to shapes [here](#), and a lot of other good posts out there on creating charts and graphs in Visio such as [this one](#).

Here's what I did. To start, I created a few tables with data in Excel to act as a data source, then published the workbook up to Excel Services in Sharepoint Online (I have an Office 365 E4 subscription). The data looked like this:

City	Jan Sales	Feb Sales	Mar Sales	Shape	Text
London	100	120	130	Callout	Sales in Munich are down!
Paris	150	200	175		
New York	300	400	200		
Munich	500	400	250		

I then opened up Visio 2013, connected to the workbook in Excel Services and imported the data from these two tables. With that done, I was able to select a shape, and then drag a row of data from the External Data pane onto the sheet, which gave me a data-linked shape. It was then fairly easy to configure the data graphic associated with each shape – for example, in the diagram below, I selected a City shape, then dragged the row containing sales for London onto the sheet, which gave me a City with the data for London linked to it, and next to the City shape I had an associated data graphic which I configured as a Data Bar of type Multi-bar Graph.



Obviously this is a very basic (and badly designed) dashboard that works within the limitations of Visio and Visio Services, and if you want to learn how to do this properly I suggest you check out the links above. But there are two important questions that now need to be answered:

### **Why, as a BI pro, would I *want* to create a dashboard in Visio rather than, say, Excel or Power View?**

I suspect Visio isn't used more widely in MS BI circles is 20% down to ignorance of what it can do, 30% the cost of licensing and the Sharepoint dependency, and 50% the fact that there are only a limited number of scenarios where it is the right tool to use. So when would you actually want to use it? The risk of using Visio is that you end up with a visually appealing infographic that is actually very bad at conveying the information you want to convey, the kind of thing Stephen Few is complaining about [here](#). You'd probably only want to use it if the nature of the diagram contributed to your understanding of the data. For example if you wanted to look at which seats were filled more frequently than others in a theatre or an aeroplane, it might be useful to have a diagram showing the seat layout and colour the seats that get filled. I guess these scenarios are very similar to the kind of scenarios where it makes sense to plot geographical data on a map.

### **What functionality is Visio missing for it to be a serious BI tool?**

Quite a lot. Leaving aside [PivotDiagrams](#), there is no proper support for SSAS or PowerPivot for data linking and that's a big problem in these days of self-service BI. I also don't like the way you have to import data into Visio before it can be used: I'd want to be able to select the data I want using a PivotTable-like interface (generating MDX or DAX queries) and then bind it to shape, so that I could slice and filter my data inside Visio without having to keep on importing it; I imagine being very similar to Power View today, but where you could drag data-driven shapes onto a canvas instead of tables and graphs. Maybe Power View and Visio need to get together and have children?

I don't want to finish this post on a critical note, though, because I've had a lot of fun learning more about Visio and its BI capabilities, and I hope to use it on a project soon. Now that Sharepoint and especially Office 365 are being pushed so heavily for BI (and being used more widely), maybe we'll see a lot more of Visio dashboards?

Written by Chris Webb

July 4, 2013 at 11:38 am

Posted in [BI](#), [Visio](#)

## 4 Responses

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I guess you are the half-full-glass kind of person while I am the half-empty one:) Tip #2 <http://peterkollerbi.wordpress.com/2013/06/06/my-30-tips-for-building-a-microsoft-business-intelligence-solution-part-i-tips-1-5/>

**Peter Koller**

July 4, 2013 at 11:59 am

Reply

One serious issue with Visio Services is it's inability to work with SharePoint filters, or any other filters.

Once you have bound your document to a view or a table and set a filter, this data connection is static and cannot be changed without custom code (and you can't do that much with custom code either).

So if you want to present the same data every time the dashboard is rendered, then fine – but if you want to be able to choose a specific date or other stuff, you are out of luck.

I have just abandoned Visio Services on a project and build the exact same graphical representation using SSRS (Yes – SSRS – it can be done )

However it is possible to use both stored procedures and SSAS (Via a linked server) as datasources, you just have to do a little googling on bing. However it is still a static datasource that you cannot alter at runtime.

/ David

**David L. Bojsen**

July 4, 2013 at 12:57 pm

Reply

Hi Chris, Thanks much for the mention. I have an old Visio Services 2010 deck here (<http://www.slideshare.net/idigdata/unlimited-data-visualizations>) that has the technical APIs covered. YES, it can be a real pain in the \_\_\_ when combined with SharePoint filters but it also opens the door for a variety of data driven visualizations. Mark Stacey vented about Visio Services pains in his open letter to Microsoft a long time ago.

I will need to write up a Visio 2013 update to my old blog. What I specifically liked and often showed in demos about Visio in 2013 was the MOBILE native touch capabilities and click co-authoring features. The Visio Services Technical Product Manager and I used to collaborate a lot together bridging BI scenarios with classic Visio process scenarios. They have some fantastic classic business process demos in the Visio 2013 base demo sets that tie nicely into BI world – I just need to find them and share them! It is by no means a great BI solution (it is not designed with BI in mind) but Visio can be a fantastic alternative when you want to visualize something that you can't with any other Microsoft BI tool.

**Jen Underwood**

July 4, 2013 at 4:20 pm

Reply

[...] <http://cwebbbi.wordpress.com/2013/07/04/building-a-simple-bi-dashboard-with-visio-2013-and-visio-seres/#8230>; [...]

**Welcome back to Vic's midweek reading blog – leadership, strategy, startups, BI and links to infographics « OptimalHq**

July 10, 2013 at 6:52 am

Reply

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