

Welcome to an overview of my favorite new joy, Power BI! Earlier this year I caught my first glimpse of the Power BI Service and found myself cautiously intrigued. I'm usually not a fan of applications that claim to easily "slice and dice," as the tool often is subpar or so beyond the scope of my client's needs that I cannot justify the expense, but Power BI is making a believer out of me.

So, **what made me fall in love with Power BI so quickly?** It does some great BI work at a low cost with a short implementation cycle, in a secure manner, and has a minimal learning curve. Right away, I knew it could be a good fit for the small to mid-sized organizations I typically work with.

Another important consideration for me when vetting a new tool is how far into its lifecycle a product is. Microsoft's PowerBI.com service was released in the summer of 2015, making it a relatively young solution. However, the foundations of Power BI, such as Power Pivot and Power Query, have been around for several years, providing well matured underlying components.

Thus, with the solid foundation and the amount of attention from Power BI is currently getting from Microsoft, the BI community is responding well.

With all my research completed, I found the tool easy to download and install: download a free copy of the Power BI Desktop and check out the *Getting Started* article at:

<https://powerbi.microsoft.com/en-us/documentation/powerbi-desktop-getting-started/>

I'll go over the different Power BI products later in the **What do I need?** Section. For now, let's start by diving into the free version.

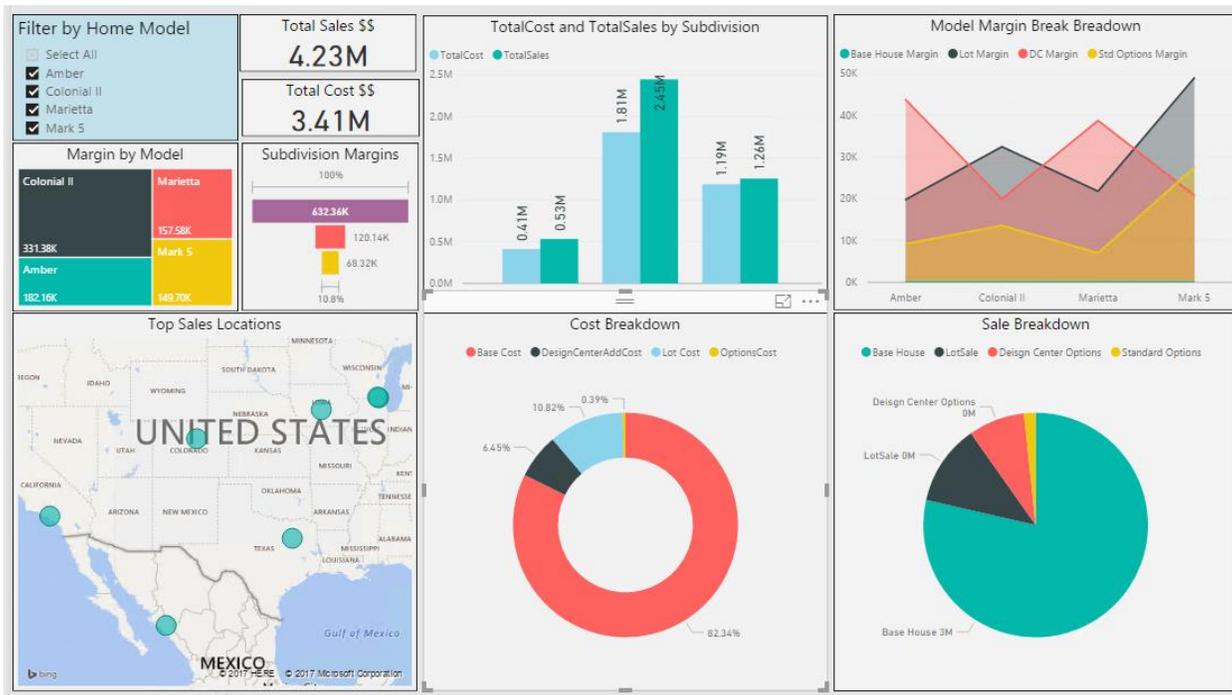
### What does it do?

*"Power BI is a suite of business analytics tools that deliver insights throughout your organization. Connect to hundreds of data sources, simplify data prep, and drive ad hoc analysis. Produce beautiful reports, then publish them for your organization to consume on the web and across mobile devices. Everyone can create personalized dashboards with a unique, 360-degree view of their business. And scale across the enterprise, with governance and security built-in."* – powerbi.microsoft.com (2017.08.16).

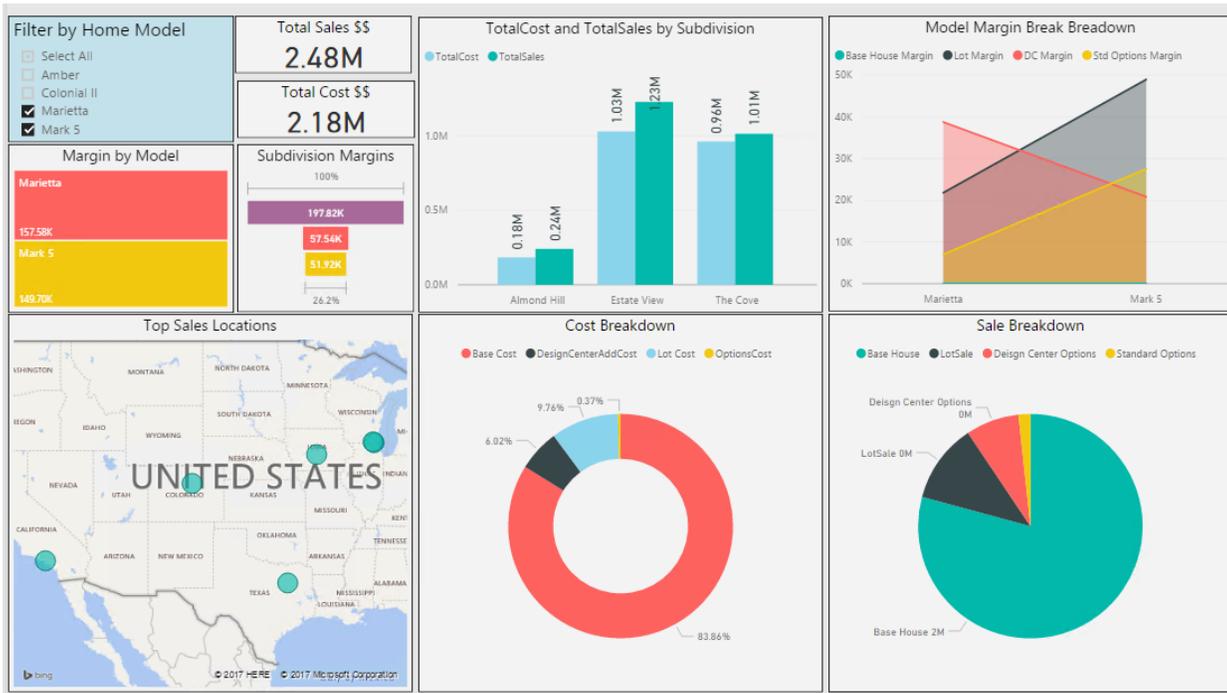
In other words, Power BI allows you to easily create and share interactive analytics in a variety of visual formats, using data from multiple sources. Scatter charts, waterfalls, map with areal and road views (including the ability to display saturation), and so on, are all a 'drag and drop' away.

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The Power BI report page below shows the use of some of the basic visualizations available in Power BI.



See what happens in the same report below with the Amber and Colonial II Models in the interactive slicer ("Filter by Home Model") deactivated:

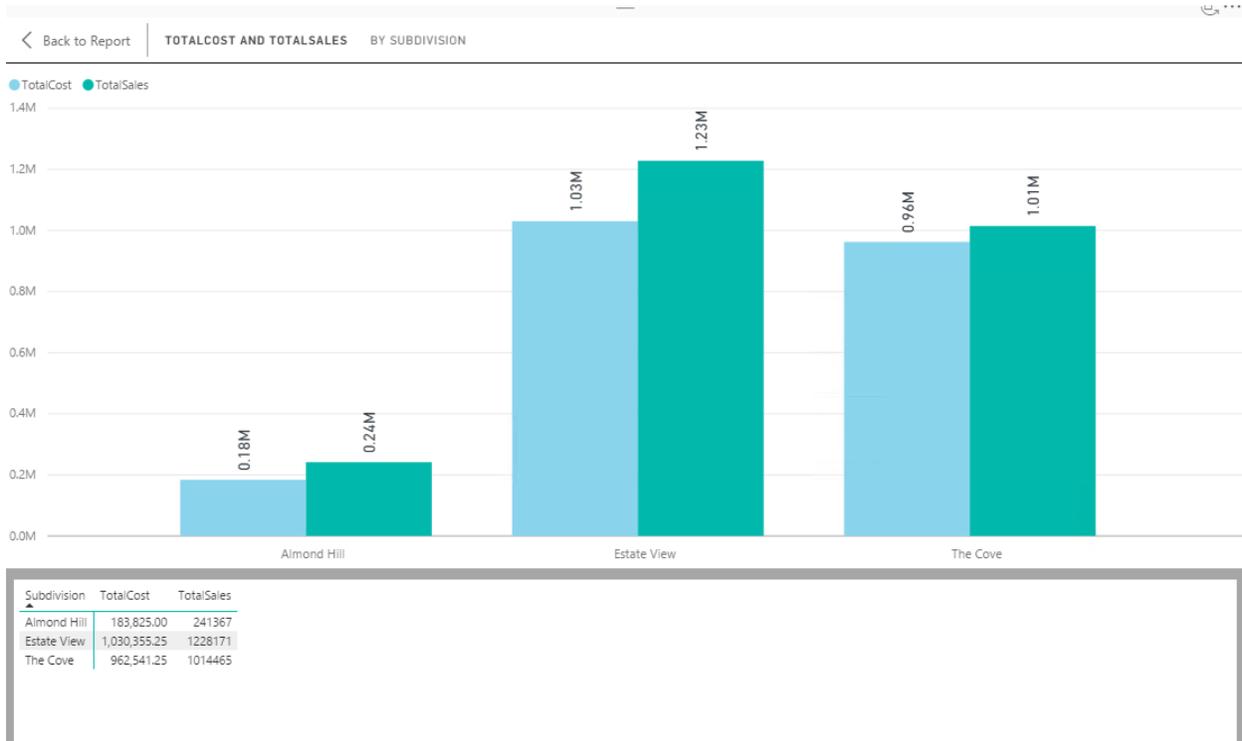


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The report visualizations change and display only the data values related to the remaining (Marietta and Mark 5) Models.

Additionally, a right click on a visualization allows you to drill down (for example from year to months) or view the supporting data in grid form, as shown here:



Even better, the examples above are pulling data from more than one system, one of which is in the cloud, and one of which is on my local network. How cool is that?

A variety of free content packs (pre-designed dashboards/reports, etc.) for such popular sources as Salesforce.com, Google Analytics, Mail Chimp, QuickBooks, Click Dimensions, Dynamics SL and more are available. You can create your own content packs as well. Want your developer to embed your reports and dashboards into your application? Yes, embedding is also available.

If you are a visual person or just want to check out the different types of dashboards you can create, Microsoft has a short promotional video at:

<https://www.youtube.com/watch?v=OOyJfszJXY>

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### What do I need to make dashboards like that?

Here's a quick breakdown:

- **Power BI Desktop**

- Free
- Used to establish data sources, establish relationships, define additional measures, create dashboards, and reports.
- Only works on Windows OS machines.

*My thoughts – It's free and you'll need it, so get it! But make sure you don't try and put this on a non-windows operating system (MAC, LINUX, ...) – not going to happen my friend.*

- **Power BI Service**

- Pricing
  - Power BI Free – limited functionality (no sharing, no embedding, no collaboration, no apps)
  - Power BI Pro - \$9.99/mo per user (60-day free trial currently available)
  - Power BI Premium - Per node/per month pricing
    - For consumption through embedded APIs and controls only, pricing is available as low as \$625/month for a single core.
    - For the full SaaS, including Power BI Report Server, pricing starts around \$4995/month.
- Online service maintained by Microsoft.
- Cloud based availability means you can consume this from virtually anywhere (yes, pun intended).
- Allows you to share your creations with both internal and external users.

*My thoughts – after you have downloaded, start by checking out what you can with Power BI desktop first. When you're ready to share your Power BI creations then it's time to for the Power BI Service. Start with the free trial of course! When it's time to get licensed, the Power BI Pro at \$9.00/mo per is a good place to start. The free version is too limited and you will likely not need the Power BI Premium service, unless you wish to leverage the embedding or SSRS functionality.*

- **Power BI Mobile Apps**

- Free (available from Google Play, App store, Windows store)
- Current mobile app offerings include iPhone, iPad, Android Phone, Android Tablet, and Windows 10 (any Windows 10 device, including phones).
- If desired, you can use Microsoft Intune for additional device management options.

*My thoughts – it's free, but you'll need to make sure your reports are designed for phone viewing (you can preview this in Power BI desktop) and carefully evaluate if you should be leveraging Microsoft Intune.*

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- **Power BI On-premise Gateway**

- Free
- Used to perform a data transfer between on-premises data to the Power BI Service.

*My thoughts – it's free, and you'll need it if you're going to connect to non-cloud based data sources from the Power BI Service. When you're ready to install this component start here:*

<https://powerbi.microsoft.com/en-us/documentation/powerbi-gateway-getting-started/>

*Note: you will not need this until you are leveraging the Power BI service. There is also an on-premise data gateway (personal mode) which allows you to put a gateway on your computer to access on-premise data. Your IT department should review and decide if the personal mode gateway (also free) is right for your organization.*

- **Power BI Report Server**

- Included as part of Power BI Premium (180-day free trial currently available)
- Current version (June 2017) only supports an active connection to SQL Server Analysis Services (SSAS, or often referred to as AS) data sources. Microsoft is currently considering making embedded AS and other non-AS data sources available in the future. Keep in mind, you can have AS make connections to other data sources, but most organizations will not have a skilled AS resource on site.
- Allows Power BI Reports to be served up on premise.
- Does not support R visuals
- Does not serve up dashboards.

*My thoughts – Breaks my heart to say it because I love Reporting Services, but the current the licensing requirements and data source limitations makes this a no-go for most small to mid-sized organizations.*

### **Optional Companion Products**

- R-powered custom visuals

- Became available in October of 2016.
- R is an open source programming “language and software environment for statistical computing and graphics” per <https://www.r-project.org/about.html>. You can create some next-level visuals of your analytics with R. The R visual in

Power BI allows users to create R based visualizations, without requiring knowledge of the R language.

*My thoughts – if you are not familiar with R, don't worry, I wasn't either when I started down this path. You can learn more about R Visuals in Power BI at:*

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<https://powerbi.microsoft.com/en-us/guided-learning/powerbi-learning-3-11h-r-visual-integration/>

- Power BI Apps
  - Made their debut in May of this year
  - Power BI Apps can have customizable themes, permanent URLs, allow you to bundle content, and prevent the user from personalizing their dashboard.
  - Unlike content packs, Power BI Apps cannot be copied so only the current published version is available (no tracking down rogue versions of reports).

### Where do I get training?

This depends upon how you like to learn!

- Do you like to figure things out yourself and then ask someone when you're stuck? Microsoft has a full Power BI online community at:

<http://community.powerbi.com/>

There are also user groups that you can join to learn from one another. Get started at:

<https://www.pbusergroup.com/home>

- Do you learn best from printed materials? There are some good online materials here:

<https://powerbi.microsoft.com/en-us/guided-learning/powerbi-learning-0-0-what-is-power-bi/>

Amazon also has a couple of good reads here, including a free introduction for Kindle:

[https://www.amazon.com/s/ref=nb\\_sb\\_noss\\_2/132-5541499-1448025?url=search-alias%3Daps&field-keywords=power+bi](https://www.amazon.com/s/ref=nb_sb_noss_2/132-5541499-1448025?url=search-alias%3Daps&field-keywords=power+bi)

- Do you like a more visual tutorial?

- Microsoft has webinars here:

<https://powerbi.microsoft.com/en-us/documentation/powerbi-webinars/>

- As you would imagine, YouTube has a hundreds of get-you-started training videos and recorded webinars. Get started on the Microsoft Power BI Channel here:

<https://www.youtube.com/user/mspowerbi>

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And finally, my personal favorite: contact Cornerstone Solutions for a personal training session today! We offer:

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- Guided sessions
- Walkthroughs using examples relevant to your data
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- Personal Tier 3 support on demand

As always, we're here to help you **IDENTIFY, PLAN, SOLVE, SUCCEED**. Let me help you today!

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