

Learning List

Analyze in Excel

What is it?

Analyze in Excel is a feature that allows you to export a dataset (which, by definition, has a data model in it) from Power BI to Excel. Once in Excel you can use pivot tables to analyze that dataset.

Where will you find it?

Analyze in Excel is a feature that is available in *both* the Power BI Service and the Power BI desktop. In the Power BI desktop, you need to have the External Tools capability (released 2nd half of 2020) and the **Analyze in Excel** add-in tool installed. The learning list has several videos that show you how to complete this task. If you are accessing Analyze in Excel in the Power BI service, you can do so from *either* the Dataset or Report menu.

When should you use it?

There are times when only a pivot table will do. Perhaps this is because it is what your users (or you) are comfortable and familiar with. Or because you need to be able to send an .xlsx file to someone who is not licensed for Power BI. If you are developing reports, and creating DAX measures, you can use **Analyze in Excel** to validate your calculations. (Meaning, perform the same calculation in Excel to ensure that your DAX syntax and logic is correct.) Power BI does not replace Excel. Rather each is tool that can be used side by side. There are use cases when using either tool will suit, but in most situations, there is a clear reason to use one or the other. Watch Ruth Curbal's video on the Learning List as she does a great job thinking through the different use case scenarios.

Terminology/Concepts Used:

Implicit and explicit measures: An implicit measure is when you drag a field (typically a number) to a visual in Power BI (or the Values box in a pivot table), and an automatic aggregation (e.g. sum, average, count) is performed. For example, if you have a field called "Units" and you drag it to a Table visual, Power BI will typically sum the field. But if you try to drag that same field into the Values box in a pivot table (using **Analyze in Excel**), you will get an error message. You must write a DAX measure that explicitly SUMs the Units field, which you can then use in the pivot table.

ODC file: ODC stands for Office Data Connection file type. It is a format that gives instructions about how to connect the file in question from one Microsoft application to another. When you use **Analyze in Excel**, the output is created as an ODC file, not an XLSX file format.

Tips for success

- Do not confuse **Analyze in Excel** with **Export to Excel**. Watch Reza Rad's video on the Learning List to understand the differences.
- **Analyze in Excel** enables you to refresh your workbook to reflect the latest data in the Power BI dataset.
- **Analyze in Excel** works best with Excel 2016.
- Implicit measures do **not** work in a pivot table created by **Analyze in Excel**. You will need to create an explicit measure either in Power BI or using Power Pivot.

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Date	Type of Source	Link	Author	Comments
November 7, 2019	YouTube video	Different ways to work with Microsoft Excel in Power BI	Guy In A Cube	An oldie but goodie that looks at all the ways to work with Excel and Power BI. Even includes a passing reference to Power View. #Beginner friendly
October 12, 2020	YouTube video	Power BI vs Excel: When you should use each tool	Ruth Curbal	Ruth compares when to use Excel vs. Power BI. Not directly related to Analyze in Excel but takes a 10,000 foot view of the overall issue. #Data Governance
January 30, 2020	YouTube video	Say No to Export Data, Yes to Analyze in Excel Power BI and Excel Can Talk	Reza Rad	Compares exporting data from Power BI to using Analyze in Excel feature. demonstrates both methods. #Beginner friendly
January 20, 2021	Documentation	https://docs.microsoft.com/en-us/power-bi/collaborate-share/service-analyze-in-excel	Microsoft Docs	Comprehensive explanation of how to set up and use Analyze in Excel; includes pertinent Details about security and permissions Start here if you do not know what Analyze in Excel is. #Beginner friendly
June 3, 2019	YouTube video	Connect directly to Power BI service and analyze that data in Excel	Ruth Curbal	Shows the Power BI Publisher. Ruth shows that it is very easy to overlook capabilities with Power BI because there are so many. Interesting because it shows how wide and deep the inter-connections between Excel and Power BI are. #sidenote
August 7, 2020	YouTube video	Announcing Analyze in Excel for Power BI Desktop	SQLBI	Short video announcing the Analyze in Excel add-in to the Power BI Desktop. Video presumes you know about Analyze in Excel in the service and about External Tools add-in. #intermediate
January 25, 2020	YouTube video	DAX Tools - Analyze in Excel for Power BI 1 - Introduction	SQLBI	Shows how to use the Analyze in Excel desktop connection to usefully validate your DAX. Bonus content: the importance of using explicit measures. #intermediate

Date	Type of Source	Link	Author	Comments
July 22, 2020	Blog post	https://powerbi.tips/2020/07/analyze-in-excel-the-advanced-method/	PowerBI.tips	Walks through how to set up a report in Excel using data from a dataset in Power BI. Includes some great tips about publishing to a SharePoint site and using OLAP tools. Includes video. #intermediate/advanced
August 12, 2020	YouTube video	Open your Power BI Desktop model in Excel with just one click (two methods)	Ruth Curbal	Demonstrates two different External Tools you can integrate in the Power BI Desktop to Analyze in Excel. Bonus content: she shows how to get the port number for the local connection between Excel and the Power BI Desktop. #Beginner/intermediate
December 16, 2020	YouTube video	Blend Power BI datasets with Excel files? INSANE AMAZING!	Guy In a Cube	Talks about how to use Excel in a Composite model. Lots of bonus tidbits. #advanced
May 27, 2020	Documentation	https://docs.microsoft.com/en-us/power-bi/collaborate-share/desktop-troubleshooting-analyze-in-excel	Microsoft Docs	Common errors when using Analyze in Excel and how to fix them. #Beginner friendly
Current	Reference	https://github.com/sql-bi/AnalyzeInExcel	SQLBI	Github repository for Analyze in Excel add-in for Power BI. #Intermediate/advanced
No date	Blog post	https://lytix.be/5-tips-for-excel-users-when-connecting-to-power-bi/	Lytix	Useful tips on how to work with pivot tables. #sidenote
February 6, 2021	YouTube video	Consuming a DAX query in Excel - Unplugged #5	SQLBI	Great video working through how to make an Analyze in Excel workbook more efficient using DAX. Bonus content: too much to single out! #advanced (for sure!)

Do you have other suggestions for this list? I would love to hear them! Please connect with me:
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