

# Access data through Excel

04/04/2019 • 4 minutos para ler • Colaboradores

## Neste artigo

[Handling relationships](#)

### Azure DevOps Services | Azure DevOps Server 2019

You can access data through Excel, generate reports and then publish the charts to PowerBI.com or use the Excel file as a basis for Power BI reports. At this time you will need to have alternate credentials enabled to access data the Analytics Service via Excel.

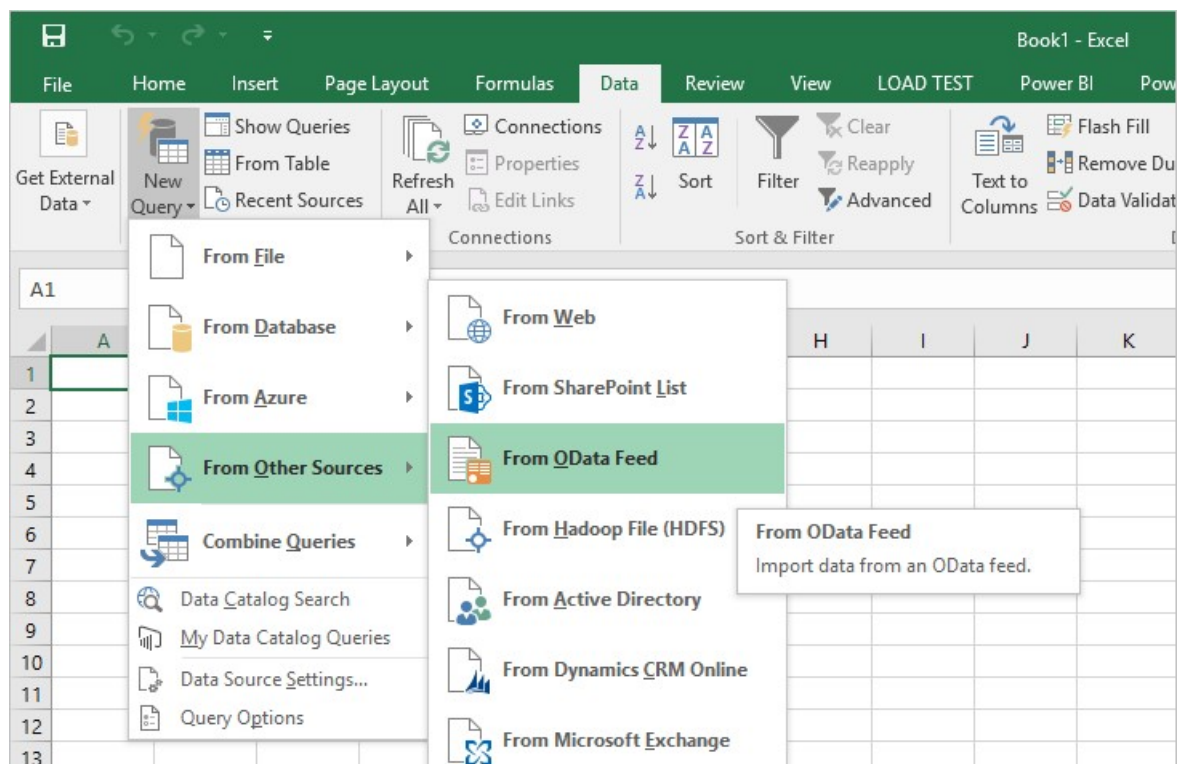
#### ! Observação

The **Analytics Service** is in **preview** for Azure DevOps Server 2019. While in preview, it is available to everyone free of charge. We encourage you to use it and provide us feedback. As we add features, we will post them on the [Microsoft DevOps Blog](#).

You access the Analytics Service by installing the [Analytics Marketplace extension](#). Installing it provides several [advanced widgets](#), [Power BI integration](#), and access to the [OData feed](#).

If you are looking for information about Azure Analysis Services, see [Azure Analysis Services](#).

1. To get started, Open Excel 2016 (this will work with earlier versions of Excel. You will need to have installed the Power Query add-in which you can do from [Microsoft Power Query for Excel](#)).
2. Create a blank workbook
3. In the **Data** tab, choose **New Query>From Other Sources>From OData Feed**.



4. Enter the URL in the format below and choose **OK**:

	Copiar
<code>https://{ServerName}:{Port}/tfs/{CollectionName}/_odata/{version}/</code>	

If the *CollectionName* is **fabrikam** and the *version* is **v1.0**, then the URL is

`https://{ServerName}:{Port}/tfs/fabrikam/_odata/{v1.0}/` .

×

### OData feed

☒ Basic ☐ Advanced

URL

`http://servername:8080/tfs/fabrikam/_odata/V1.0/`

OK Cancel

#### 📌 Observação

Alternatively, you can enter the URL with the *ProjectName* specified which will trim the results by the specified project across all entities related to that project.

`https://{ServerName}:{Port}/tfs/{CollectionName}/{ProjectName}/_odata/{version}/`

5. At this point you will be prompted to authenticate against the service. If you have not done so previously, see this article: [Client Authentication Options](#).
6. Either select a single entity to retrieve the data for or check **Select multiple items** and choose the data to return.

**Navigator**

Select multiple items

Show All | Show Selected [7]

https://[redacted]

- ☒ Areas
- ☐ BoardLocations
- ☒ Dates
- ☒ Iterations
- ☒ Projects
- ☒ **Teams**
- ☐ WorkItemBoardSnapshot
- ☐ WorkItemLeadTimes
- ☒ WorkItemRevisions
- ☒ WorkItems
- ☐ WorkItemSnapshot

**Teams**

Preview downloaded on Monday, December 14, 2015

TeamId	TeamName	Project
70500914-012b-4210-8e2b-00ac5036e6e1	MSDN Performance	R
c6b9fc89-d1d0-4801-aae5-00df60c2879a	OSGSpecOps	R
9fe1ca5e-1f22-49f6-a209-02f66f6ae699	VS IDE - Lua Team	R
2bbf6f81-c2c6-4da1-9b20-03924887eaa	AI Telemetry	R
da4731c4-1616-4d06-9ed8-0459478e15ac	Skyrise	R
cde64d5a-dc8b-4207-bbf7-07a0fec6c4cf	OSG Domino	R
de246a73-9a16-41c7-a346-07e1e5da2ab6	DevDivTools Team	R
77e4665a-60da-4b09-ad60-088833861768	Devices - PMs	R
79b8852d-5ac3-4412-a86b-092f5c15b0d6	Fizz Buzz	R
6011af2e-3c67-4b05-972c-09995eef3c8b	docs.msft	R
092dbfa5-f87a-4b15-be70-09abfc4573f9	Open Documentation Experiences	R
a0f6b5bf-3d43-4f62-98d8-0a4c841c7fba	Devices - Choco	R
ba7902db-6ae6-40d6-ab2b-0ab746e7bbb4	VSO 1st Party	R
37627b2e-224e-4a02-8c6f-0c7b3fe8e815	gitTest Team	R
9c33b178-673e-4b76-8de1-0d213cba8643	MASI-UsageUX	R
fc1f7bd0-6b22-4a5c-a4b4-0dd5620e2f21	DominoCore	R
9f7794fc-ff49-4d78-8a0c-0fd59cfb33c4	Cloud Admin and Tools	R
c96fb5dc-4b3c-444b-bc56-10687973ebe6	Wrap	R
0b23f8d2-17e4-4dc2-a465-11003e9b14b4	AppInsightsLT	R
0453b81e-fda0-4fdd-a10b-110b2a47bf4b	DADRQ	R
2a93df27-0f6c-4665-a851-11f648dbbdf1	Source	R
9901392b-647d-47cf-bc5e-130574115689	Build Automation	R

Load Edit Cancel

At this point, if you click **Load**, Excel will load all of the data in each entity into Power Query. However, this may be more data than you want (or than Excel can handle). To filter the data, select the entity to filter and choose **Edit**. This brings up the Query Editor. For each column you want to filter on, select it and set your filter. When this is complete choose **Close & Apply** in the upper left corner.

#### ❗ Importante

Do *not* select any entity with the name **Snapshot** in it. These entities contain the state of every work item on every day since each work item was created. For repositories of any size this will lead to tens or hundreds of millions of work items which will not load correctly. In order to perform trend analysis, narrow the scope of data being retrieved to the specific items and time frame and pull this information in with a separate OData query.

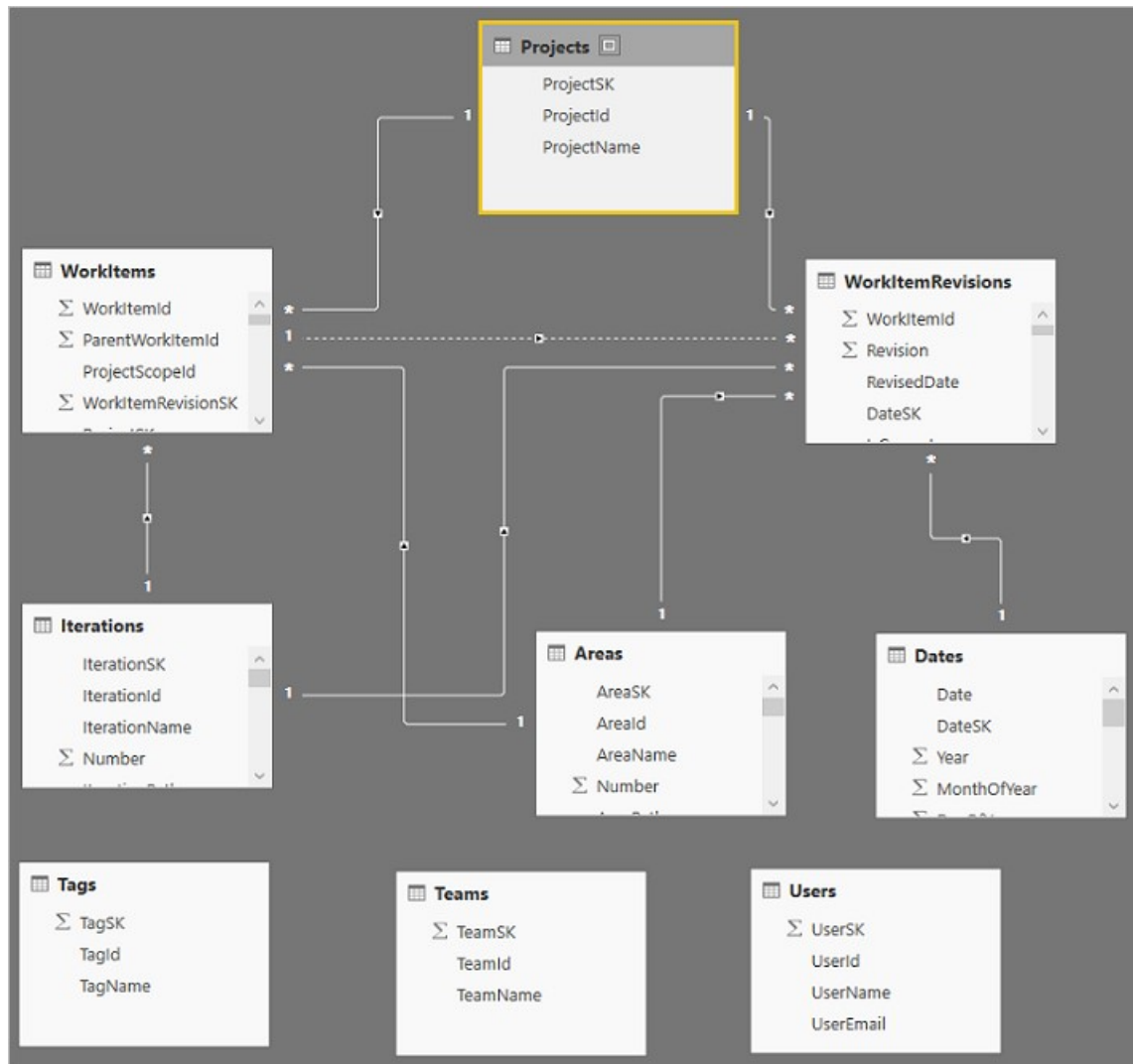
As an alternative to loading the data into Power Query, you can click the drop-down arrow next to Load and select Load To instead. This allows the following options:

- Load the data to table which is Power Query
- Create a connection without loading the data (essentially deferring the data load until later)
- To a worksheet which will just load the one entity per worksheet
- To a model (which can be selected in addition to the other options) which loads the data into PowerPivot

More information on these options can be found in the [Excel documentation](#).

## Handling relationships

By default, when basic data is returned from the Analytics Service, the data is related as shown in the figure below:



You will note that the Tags, Teams and Users are not related to any of the other data. This is due to how those entities are related. They are related by either many-to-many relationships which are not easily handled in these models or there are multiple relationships between the entities such as between users and work items (they are related by Assigned To, Created By, Changed By, and others).

Multiple relationships can be handled in fairly simply. For example, in the default model you can edit the query, select the AssignedTo column of the WorkItems table and expand the column to include all of the data from the Users table and you can repeat this process for the Created By and Changed By columns as well. This gets you around having multiple links from one table to another which is not allowed.