

How to Use Open Data Protocol in ResearchPoint™

Configure OData to Extend Your ResearchPoint Database

In **ResearchPoint**, you can use Open Data Protocol (OData) to consume, share, and manipulate data you query on from the Information Library.

OData is a data access protocol designed to provide standard access. This format can then be consumed by other programs, which enables you to further segment, manipulate, and create visual representations of the data.

When you create a query in **ResearchPoint**, you can now access the data from that query in OData format. On the Information Library page, expand the query you want to use and click **Get OData Link**. Then, use the instructions below for how to use the instructions below for how to use the Odata link in *Excel* or *Tableau*. Before you use OData, we do require you complete a [one-step configuration of your application root URL](#).

Best of all, with OData you are using a direct link to a query in **ResearchPoint**. You can refresh the data as often as you need to get the latest information from **ResearchPoint**. No need to re-configure or export again!

How Should I Use Open Data Protocol?

We have three different suggestions on how you could use OData to increase the effectiveness of your **ResearchPoint** database.

#1. Integrate with your Preferred Constituent Relationship Management Software

Do you use a constituent relationship management solution other than **Blackbaud Enterprise CRM** or **The Raiser's Edge**? Create a query of wealth and ratings field that are significant for your development officers to see, and use the OData link to view the data in *Excel*. Once in *Excel*, you can organize and prepare for import into your preferred software.

We use the following fields for integration with **The Raiser's Edge** and can therefore recommend for your constituent relationship management software:

- **Contributions** — all confirmed philanthropic and political gifts
- **Estimated wealth** — prospect's estimated wealth value and range
- **Major giving capacity** — prospect's major giving capacity value and range
- **Model scores and ratings** — if you purchased or imported Target Analytics scores and ratings, include annual giving likelihood, major giving likelihood, planned giving likelihood, target gift range
- **Overall rating** — prospect's overall rating
- **Social media summary** — if you have a Social Media subscription, the social media rating, influence score, outreach score, social image URLs, and social company with occupation
- **Summary business assets** — total confirmed business ownership value and the top three businesses' organization name and confirmed ownership value
- **Summary income and compensation** — total confirmed income/compensation value and the top three businesses' organization name and confirmed income/compensation value

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- **Summary other assets** — total confirmed other assets' value and the top three other assets description and confirmed value
- **Summary real estate assets** — total confirmed real estate value and the top three properties' address (address line 1, city, and state) and confirmed property valuation
- **Summary securities holdings** — total confirmed direct securities value and the top three businesses' name and confirmed direct security value

This list is not all inclusive. You may have other important fields in **ResearchPoint**. We recommend you review what fields are important to share from the prospect's wealth record and include those on the query.

#2. Create a Custom Research Profile Report

Are you proficient with Microsoft *Excel* and *Word*? Create a custom query with fields you'd like to see on your prospect research report. With OData, you can create a custom view of your prospects that would impress any Director of Development!

#3. Additional Data Analysis

Have you been wanting to create a special report or visual representation of your **ResearchPoint** data? With OData, you can pull data from **ResearchPoint** into *Excel* or *Tableau* to create a unique view of your research. And, because you're using a link to a query in **ResearchPoint**, you can refresh the data and get the latest information from **ResearchPoint** as needed. No need to re-configure or export again.

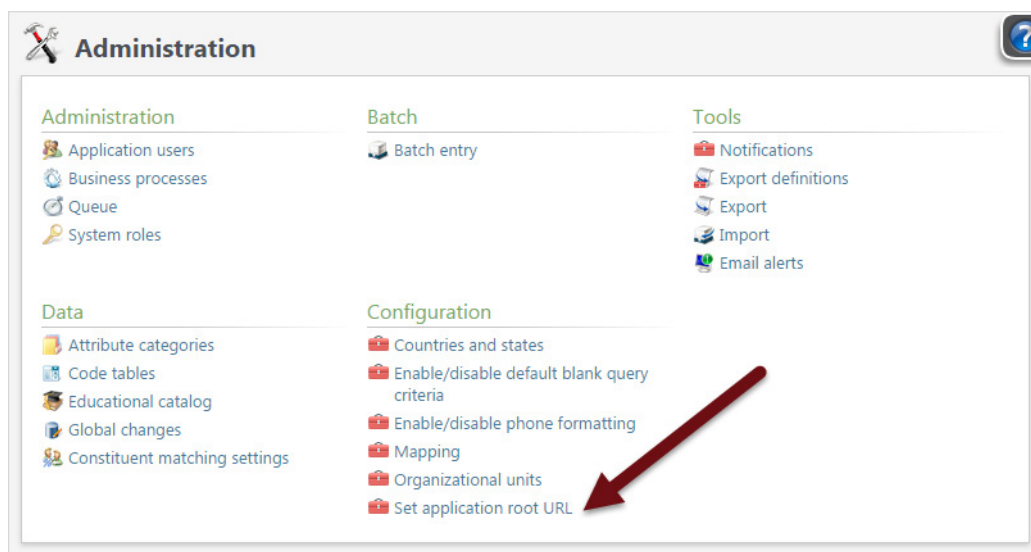
Configure the Application Root URL

Before you copy the OData link to use with *Excel* or *Tableau*, you need to copy your application URL to the set up screen.

1. From Administration, under **Configuration**, click **Set application root URL**.

Tip: As you choose which fields to include in your query, we also recommend you change the column header for each field. The default fields accurately describe the data but not in a friendly, easy to read heading title.

Tip: We recommend only users with knowledge of *Excel* or *Tableau* to use OData links.



2. You need to copy and paste a select portion of the URL field in your Internet browser.
 - **Do not use** the friendly URL provided to you when you first received login instructions from Blackbaud. The friendly URL looks similar to: `https://login.blackbaudOnDemand.com?SiteID=<#####>`. When you log in, this friendly URL redirects to your actual application URL with Blackbaud.
 - **Do not use** the entire application URL. The entire URL is very long and you only require a portion for the configuration. Compare your URL to the example below, you need to copy the portion of the URL from the beginning to just before `/webui`

<http://rprig99bo999.blackbaudhosting.com/webui/webshellpage.aspx?databaseName=BBInfinity#pageType=p&pageId=BAF2D4CC-C2F9-4766-BFF8-F0D9FC546D00>

- Paste the portion of your application URL into the **Application root URL** field and click **Save**.

- Now, you're ready to create a query for use with OData and then use the query's OData link in *Excel* or *Tableau*.

Tip: Need help with *Query*? We recommend you review the [Query and Export Guide](#) or attend an [online training class](#).

Copy an OData Link for Use with Excel or Tableau

Before you copy the OData link, we recommend you spend time customizing your query with fields you need in *Excel* or *Tableau*. You can update the query later but it helps to know what fields you want to use and how you want to use them before you link **ResearchPoint** to *Excel* or *Tableau*.

- On the Information Library page, to access the query action bar, click the down arrows next to the query name for the query you want to connect to *Excel* or *Tableau*.

Name	Folder	Owner	Created on	Last run ...	C...	Has selection
John's All Individuals		AnnMarieGeRP2	10/30/2014	10/30/2014		Yes
All constituents		SHolmesRP2	10/15/2014	10/30/2014		Yes
Assets >= \$1 Million - Confirm...		AdminRP2	10/2/2013	12/4/2014		Yes
Assets >= \$5 Million - Identified		AdminRP2	10/2/2013	10/30/2014		Yes

Description:
 Created by: HOSTINGTEST\SHolmesRP2 Created on: 10/15/2014 OData: Get OData link
 Modified by: HOSTINGTEST\SHolmesRP2 Modified on: 10/15/2014
 Record type: Constituent Source view: Constituents
 Selection type: Dynamic Show in query designer: Yes

- Click **Get OData Link**. The OData link screen appears.
- For the URL that appears under **OData link for <query name>**, right-click the link and select **Copy**, or press **CTRL + C** on your keyboard.

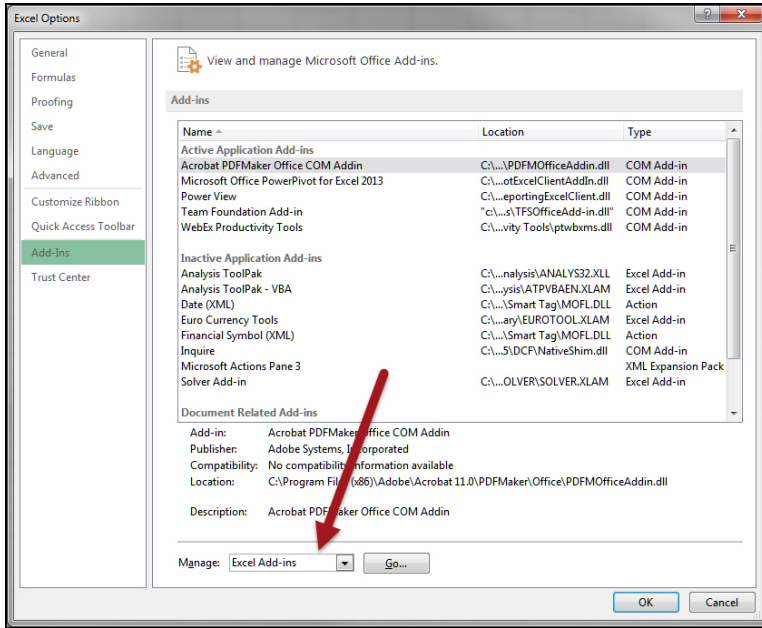
You are now ready to use the instructions below for how to use the OData link and connect your query from **ResearchPoint** to *Excel* or *Tableau*.

Use OData in Microsoft Excel 2013

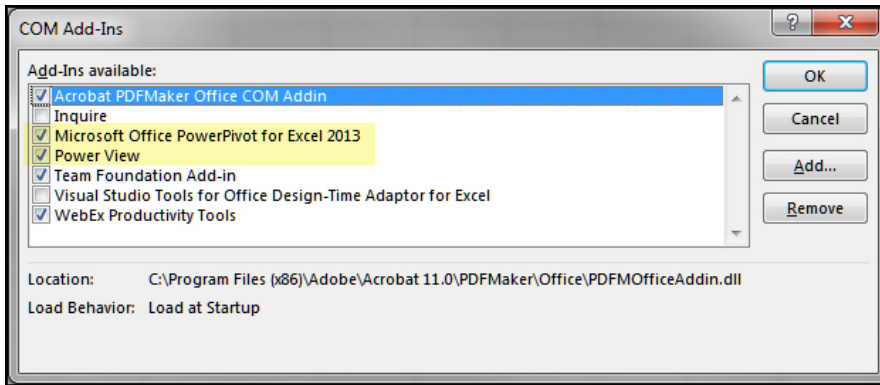
Important! To determine which version of Microsoft *Excel* you have, from the menu select **File, Account** or **File, Help**. It does not matter if you have a professional version or not, just what year is listed. *Excel* support for OData began with 2010. If you are on an earlier version of *Excel*, you will need to upgrade your software first.

In Microsoft *Excel 2013*, you can create power views using the OData information. If at all possible, we recommend you use (or upgrade to) this version of *Excel* to pull OData links from **ResearchPoint**. *Excel 2013* is easier to connect and use with OData than *Excel 2010*.

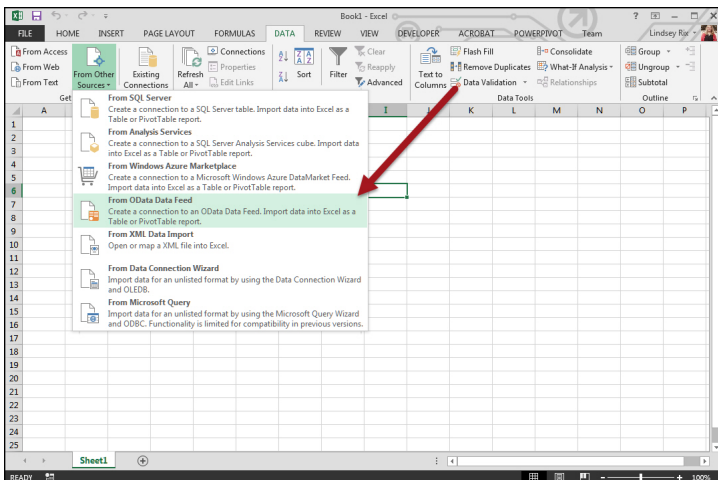
- Open Microsoft *Excel 2013*.
- If this is your first time using OData in *Excel*, make sure you have the Power View add-in selected. From **File**, click **Options**.



- From the Add-Ins tab, in the **Manage** field select **COM Add-ins** and click **Go**. The Com Add-Ins screen appears.
- Select **Power View** and **Microsoft Office PowerPivot for Excel 2013**.



- Click **OK**. You return to the spreadsheet.
- Save the spreadsheet to your preferred location on the computer with a filename that indicates its usage.
- Next, from the Data tab, select **From Other Sources, From OData Data Feed**.



The Data Connection Wizard starts.

Security Permissions for OData

When you pull data from **ResearchPoint** into *Excel* or *Tableau*, you can enable users who are not **ResearchPoint** application users to view charts and dashboards created with OData.

However, when you configure the OData link in *Excel* or *Tableau*, you are required to enter your **ResearchPoint** credentials. Therefore, any data refreshes do require and respect the user's security permissions. A non-application user cannot refresh the data.

8. In step one, in the **Link or File** field, press **CTRL + V** or right-click **Paste**. The URL you copied from your query in **ResearchPoint** appears.

The screenshot shows the 'Data Connection Wizard' window at the 'Connect to a Data Feed' step. The title bar reads 'Data Connection Wizard'. The main heading is 'Connect to a Data Feed' with a sub-instruction: 'Enter the information required to connect to a data feed.' Below this, there are two sections: '1. Location of the data feed' with a 'Link or File:' text box and a 'Browse...' button; and '2. Log on credentials' with two radio buttons: 'Use the sign-in information for the person opening this file' (selected) and 'Use this name and password'. Below the radio buttons are 'User Name:' and 'Password:' text boxes. At the bottom are 'Cancel', '< Back', 'Next >', and 'Finish' buttons.

9. In step two, select **Use this name and password**. Then, enter your **ResearchPoint** credentials in the **User name** and **password** fields. Your user name must contain "blackbaudhost\" before your user name. For example, your user name will be similar to "blackbaudhost\johnsmith."
10. Click **Next**.
11. Select **ODataQuery.ashx**.

The screenshot shows the 'Data Connection Wizard' window at the 'Select Tables' step. The title bar reads 'Data Connection Wizard'. The main heading is 'Select Tables' with a sub-instruction: 'Select the Tables which contain the data you want.' Below this, there are two checked checkboxes: 'Connect to specific tables' and 'Enable selection of multiple tables'. A table with columns 'Name', 'Description', 'Modified', 'Created', and 'Type' is shown. The table contains one entry: 'ODataQuery.ashx'. At the bottom are 'Cancel', '< Back', 'Next >', and 'Finish' buttons.

12. Click **Next**.

The screenshot shows the 'Data Connection Wizard' window at the 'Save Data Connection File and Finish' step. The title bar reads 'Data Connection Wizard'. The main heading is 'Save Data Connection File and Finish' with a sub-instruction: 'Enter a name and description for your new Data Connection file, and press Finish to save.' Below this, there are several fields: 'File Name:' with a text box containing 'DataFeed_1_infinity1-hostingtest-com ODataQuery.ashx.odc' and a 'Browse...' button; a 'Save password in file' checkbox; 'Description:' with a text box containing 'All Prospects from ResearchPoint to import into our CRM.'; 'Friendly Name:' with a text box containing 'ResearchPoint Prospects'; 'Search Keywords:' with a text box; an 'Always attempt to use this file to refresh data' checkbox; and 'Excel Services:' with a button labeled 'Authentication Settings...'. At the bottom are 'Cancel', '< Back', 'Next >', and 'Finish' buttons.

13. We recommend you enter a helpful description and change the name to match the query in **ResearchPoint**.

14. To import the data, click **Finish**.
15. On the Import Data screen, select how you want to view the data in Excel. For example, we recommend you select and try the **Power View Report**, and click **OK**. Your data loads.
16. The fields from your query appear under **Power View Fields**.
You can now use *Excel* to create charts and dashboards of your data.

OData in Microsoft Excel 2010

In Microsoft *Excel 2010*, you can create power views using the OData information.

Important! If you do not already have it, you must first install the power pivot add-in to *Excel*. From the [Microsoft Office Downloads page](#), download the add-in and install it. Most users have the 32-bit version of *Excel*. If you have:

- 32bit version, download and install 1033\x86\PowerPivot_for_Excel_x86.msi
- 64bit version, download and install 1033\x64\PowerPivot_for_Excel_amd64.msi

If you are not sure which version you have, in *Excel*, click **File, Help**. Also, because of security settings, for most organizations we recommend you install the add-in as an administrator on your computer.

1. From the PowerPivot ribbon, click **PowerPivot Window**.
2. On the PowerPivot screen, under Get External Data, click **From Data Feeds**.
3. In the **Friendly connection name** field, enter a descriptive name for your data feed, such as "ResearchPoint Query Name."
4. In the **Data feed URL** field, paste the OData URL you copied from your query in **ResearchPoint**.
5. Click **Advanced**. On this screen, enter your **ResearchPoint** user name and password and click **OK**.
6. Click **Next**, and select **ODataQuery.ashx** as the source table.
7. Click **Finish**.
8. Once the import is complete, click **Close**. You can now manipulate and explore your data in the power pivot.

OData in Tableau

In *Tableau*, you can create dashboard using the OData information.

1. From *Data*, click **Connect to Data**.
2. Select **OData**.
3. In the **Select or enter a URL** field, paste the OData URL you copied from your query in **ResearchPoint**.
4. On Step 2, select **Use a Username or Password** and enter your **ResearchPoint** credentials.
5. On Step 3, click **Connect**.
6. On Step 4, enter a name for the feed.
7. Click **OK**.

OData Next Steps

While these ideas are how we think you'll most likely use the OData link, it is not even close to comprehensive. We can't wait to hear how you think OData can extend your **ResearchPoint** prospect research data. Share your ideas and see how others are using OData in the [Target Analytics Community!](#)

Tip: Depending on the number of records in your data, the retrieval of information from ResearchPoint may take a few seconds to a few minutes to load.

Once you extend your **ResearchPoint** database to *Excel*, the possibilities are only limited by your imagination and your organizational needs. To help you take the next step with your data, here are some resources for *Excel* from Microsoft to help you learn the next steps of data visualization and manipulation.

- [Getting Started with Power View in Excel 2013](#) [video]
- [Getting Started with Power Query](#) [video]
- [Power View: Explore, visualize, and present your data](#) [Microsoft Support article]
- [Power Pivot: Powerful data analysis and data modeling in Excel](#) [Microsoft Support article]

OData for API Consumers

While Blackbaud has not completed testing of OData with resources other than *Excel* and *Tableau*, we can provide some recommendations for organizations who want to consume *ResearchPoint*'s OData endpoint programmatically.

OData 3.0 does not currently support a service document. However, it does support an XML metadata document that can be accessed by adding "mode=metadata" to the OData URL you copy from **ResearchPoint** queries. This may not help with SQL Server Integration Services (SSIS) but it does provide a way to programmatically see the metadata (columns and datatypes) associated with a query.

Also, we recommend you try to use Microsoft® *OData Source* to enable SSIS packages to consume **ResearchPoint** OData feeds. In a MSDN tutorial for using OData Source, one of the steps is:

"Enter the OData service URL for Service document location. This can be the URL to the service document, or to a specific feed or entity."

For the specific feed or entity, you can test the OData URL from the corresponding **ResearchPoint** query.

OData Feed Consumers

While we tested our OData endpoint with *Excel* and *Tableau*, the feeds can be used with other OData consumers. OData provides a list of some consumers [on their website](#).

► To learn more about *ResearchPoint* How-to Documentation, visit: www.blackbaud.com/howto/ResearchPoint.