

Data Viewer Web Part for SharePoint 2013

Manual

2 — Last update: July 7, 2014

Lightning Tools

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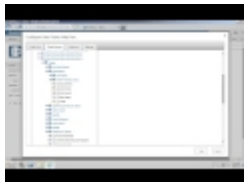
Missing: Lightning Conductor Web Part in the Web Part pane 93

Introduction

[Data View Web Part](#) for [Microsoft® SharePoint® 2013](#) produced by [Lightning Tools](#) is a Web Part that can connect to Microsoft SQL Server® databases, ODBC, Oracle® databases, Business Connectivity Services (BCS) external content types, Microsoft Access® databases, OData, Representational state transfer (REST), classic Web services, XML, and RSS feeds.

When editing a page with SharePoint Designer 2013, it no longer has a *Design* tab. Only the *Code* tab remains, which makes it very difficult to use the Data From Web Part (DFWP), more commonly known as the Data View Web Part (DVWP) or to conditionally format the [List View Web Part](#). The Data View Web Part was often used to customize the look and feel of SharePoint Lists as well as provide a data view of external data sources. Since the [Design tab is now removed](#), Lightning Tools have created a Web Part allowing the complete configuration of a data using a configuration wizard in the browser. You can create views of your data using checkboxes to select columns. You can sort, filter, format and conditional format your data without writing any code. The Lightning Tools' Data Viewer Web Part is:

- Easy to use, but powerful enough to display your business data
- Build database connections and views in minutes
- Does not require SharePoint Designer



If you have any questions related to this documentation or the Social Squared product, please contact Lightning Tools by clicking [Submit Support Ticket](#) on [Lightning Tools](#) web site.

References:

If you still need to support Microsoft's Data Form Web Part, also known as the Data View Web Part, you may like to look at the following resources:

- Marc D Anderson's [Data View Web Part related blogs](#)
- Marc D Anderson's [Unlocking the Mysteries of the SharePoint Data View Web Part XSL Tags](#) 72 pages pdf eBook.

- Laura Rogers @WonderLaura : [Data View Web Part Screenshots](#)

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Installing the Data Viewer Web Part

This section contains information on how to install the [Data Viewer Web Part](#) for [Microsoft® SharePoint® 2013](#). It is essential to read and complete the installation steps before you can add the [Data Viewer Web Part](#) to a SharePoint page. Information on [using](#) and [configuring](#) the LCWP can be found later in the documentation.

As the [Data Viewer Web Part](#) is a [SharePoint® 2013 farm solution](#), you may need to raise a change request to install the SharePoint farm solution in your organisation's production or system integration SharePoint farms. As this is a farm solution it cannot be install in Office 365™.

Once you have installed the [Data Viewer Web Part](#) farm solution you should test the installation by adding the Web Part to either a wiki page or a Web Part page in the site collection where you have activated the Lightning Data Viewer Web Part site collection feature.

Use the following steps to install the [Data Viewer Web Part](#):

1. [Upload the DataViewer2013webpart.wsp solution package to the SharePoint® 2013 farm.](#)
2. [Deploy the solution to the required Web Applications.](#)
3. [Activate the Data Viewer 2013 license key if you are not using the trial version of the Web Part.](#)
4. [Activate the Data Viewer Web Part site collection feature on the required site collections](#)
5. [Test the installation by adding the Web Part to a page](#)

From time to time we will provide an [update](#) for the web part. This is on average every 12 weeks.

[Uploading the Data Viewer solution package —>](#)

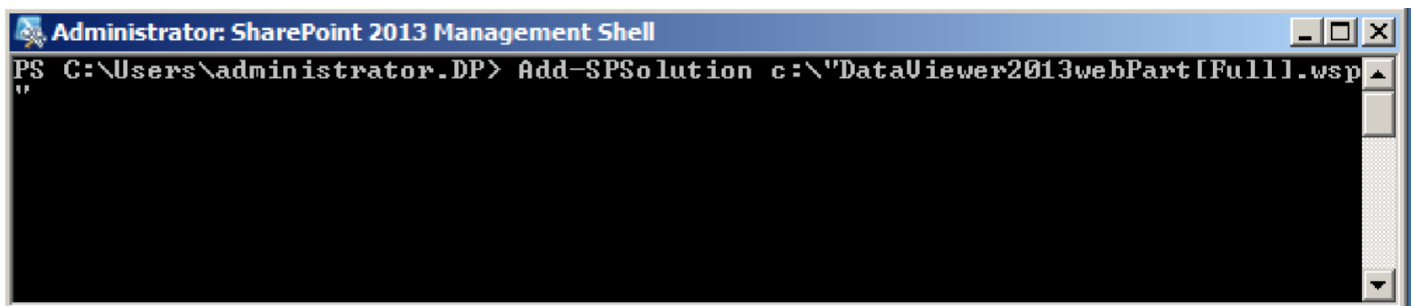
Uploading the Data Viewer solution package

To upload the DataViewer2013WebPart.wsp to your [Microsoft® SharePoint® 2013](#) server farm, complete the following steps using the [Add-SPSolution Windows PowerShell®](#) command:

You will need to be a SharePoint server farm administrator to complete these steps. See the blog post: [When is a SharePoint Farm Administrator not a SharePoint Farm Administrator?](#).

1. Unzip the downloaded Data Viewer Web Part zip file to your computer.
2. Copy DataViewer2013webpart.wsp to a folder on your SharePoint 2013 server, for example **c:\Tools**.
3. Open the SharePoint 2013 Management Shell and type on one line, **Add-SPSolution c:\Tools\DataViewer2013WebPart.wsp** replacing c:\tools with the location where you stored the wsp file.

Note: Do not copy and paste this command from this page, as hidden characters may be included which will cause the Windows PowerShell® command to fail in your environment.



More information on the SharePoint 2013 Management Shell can be found at: [Accessing Windows PowerShell for SharePoint 2013](#)

[Install and manage solutions for SharePoint 2013 →](#)
[Deploying the Data Viewer solution →](#)

Deploying the Data Viewer solution

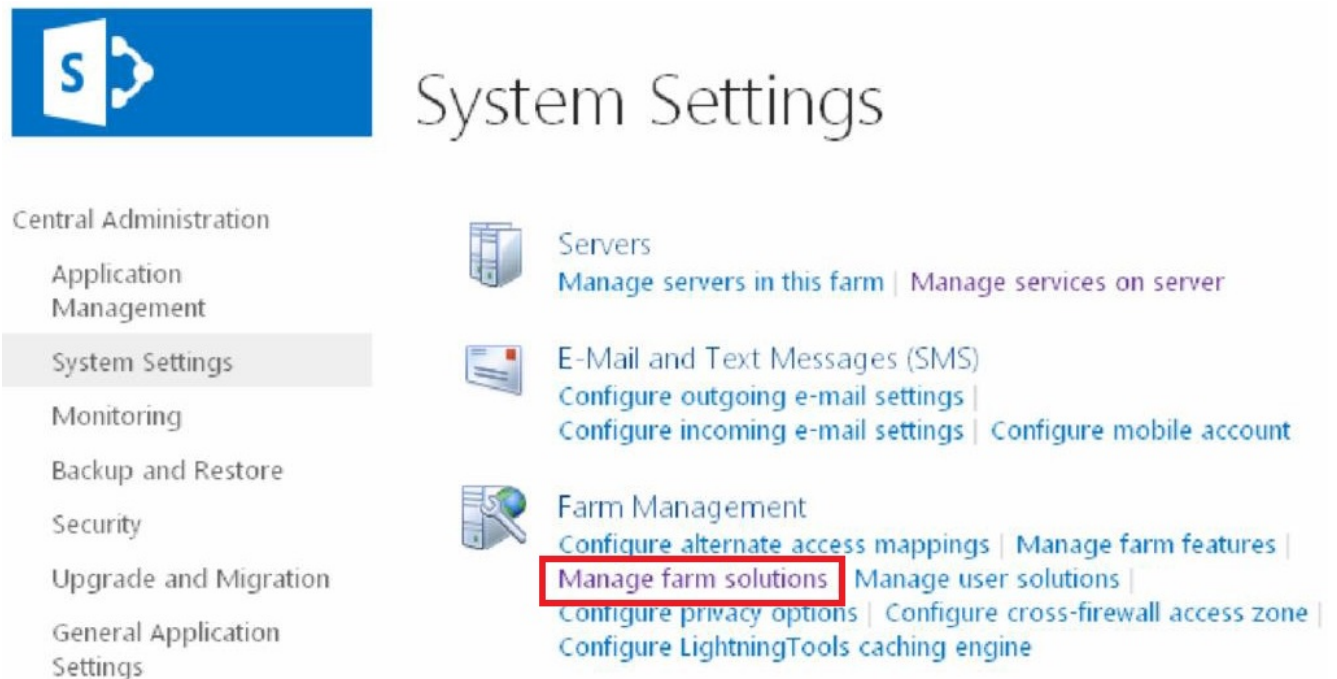
To deploy a [Microsoft® SharePoint® 2013](#) farm solutions to a Web Application you can use [Windows PowerShell®](#) commands or the [SharePoint 2013 Central Administration](#) web site.

Which ever method you choose to deploy the farm solution you must be a SharePoint farm administrator. See the blog post: [When is a SharePoint Farm Administrator not a SharePoint Farm Administrator?](#).

Using the SharePoint 2013 Central Administration web site

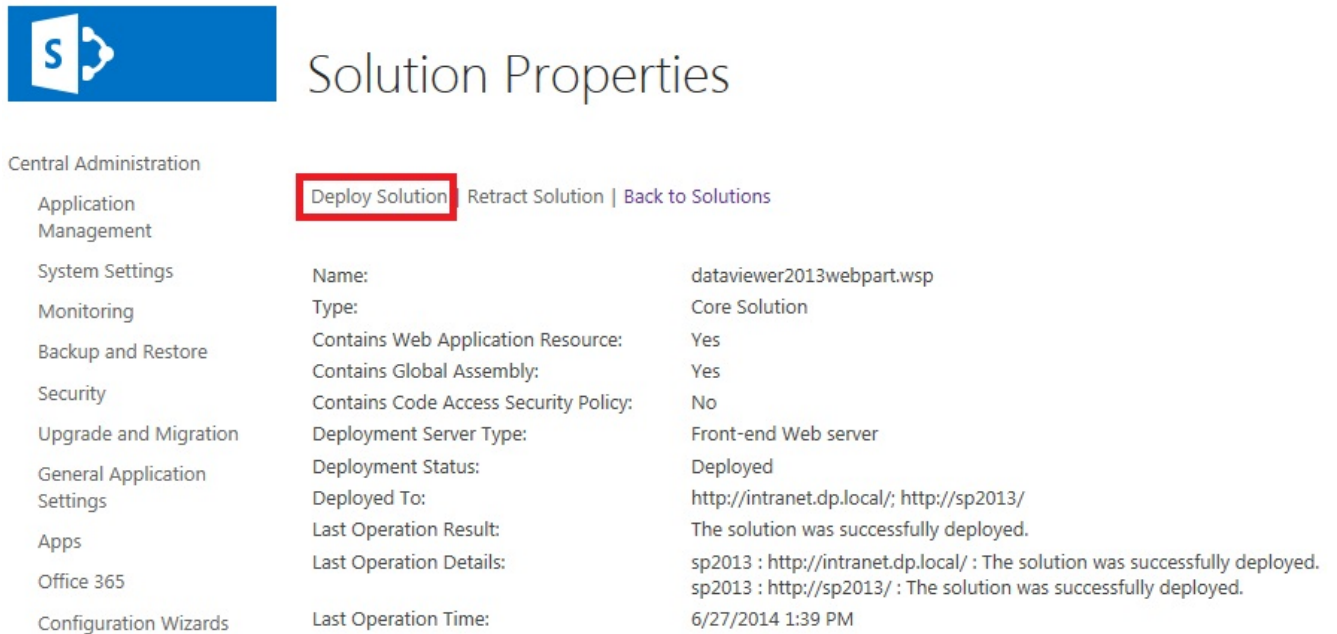
The following instructions use the SharePoint 2013 Central Administration web site to deploy the farm solution.

1. In the browser, open Microsoft SharePoint Central Administration web site. On the Quick Launch click **System Settings**, and then under **Farm Management**, click **Manage farm solutions**.



2. On the **Solution Management** page, click **DataViewer2013webpart.wsp**.

3. On the **Solution Properties** page, click **Deploy Solution**.



Solution Properties

Central Administration

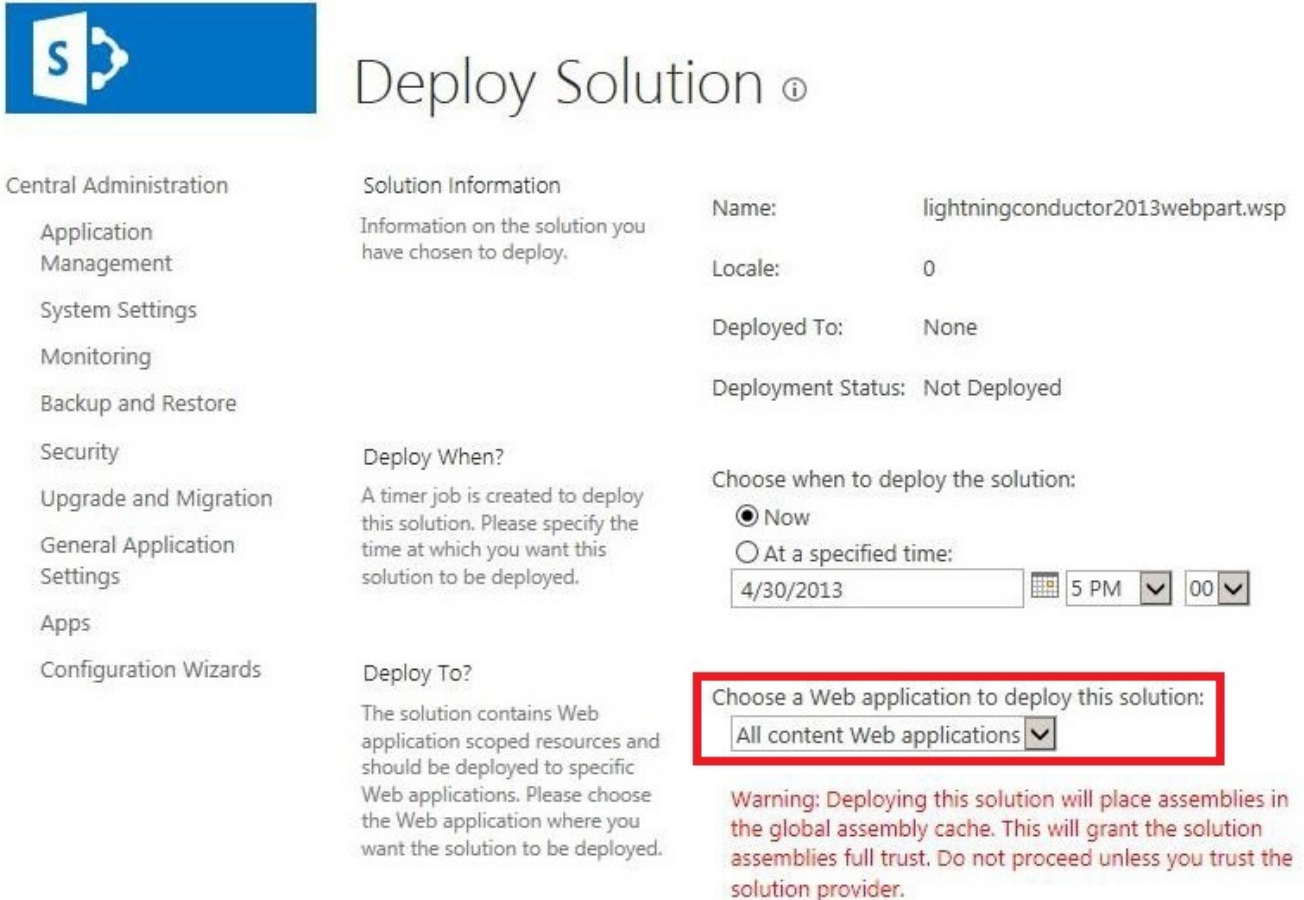
- Application Management
- System Settings
- Monitoring
- Backup and Restore
- Security
- Upgrade and Migration
- General Application Settings
- Apps
- Office 365
- Configuration Wizards

Deploy Solution | [Retract Solution](#) | [Back to Solutions](#)

Name:	dataviewer2013webpart.wsp
Type:	Core Solution
Contains Web Application Resource:	Yes
Contains Global Assembly:	Yes
Contains Code Access Security Policy:	No
Deployment Server Type:	Front-end Web server
Deployment Status:	Deployed
Deployed To:	http://intranet.dp.local/; http://sp2013/
Last Operation Result:	The solution was successfully deployed.
Last Operation Details:	sp2013 : http://intranet.dp.local/ : The solution was successfully deployed. sp2013 : http://sp2013/ : The solution was successfully deployed.
Last Operation Time:	6/27/2014 1:39 PM

4. On the **Deploy Solution** page, in the **Deploy To?** section, in the dropdown list select the Web application where you want to deploy the solution or select **All content Web applications** if you want

to use the Data Viewer Web Part in all sites in all Web applications.



The screenshot shows the 'Deploy Solution' page in SharePoint 2013. On the left is a navigation menu with 'Central Administration' selected. The main area is divided into three columns. The first column contains a list of administrative tasks. The second column, 'Solution Information', shows details for the 'lightningconductor2013webpart.wsp' solution, including its name, locale (0), deployment target (None), and status (Not Deployed). The third column, 'Deploy When?', allows scheduling the deployment as 'Now' (selected) or at a specific time (4/30/2013 at 5 PM 00). Below this, the 'Deploy To?' section is highlighted with a red box, showing a dropdown menu set to 'All content Web applications'. A warning message at the bottom states: 'Warning: Deploying this solution will place assemblies in the global assembly cache. This will grant the solution assemblies full trust. Do not proceed unless you trust the solution provider.'

Central Administration

- Application Management
- System Settings
- Monitoring
- Backup and Restore
- Security
- Upgrade and Migration
- General Application Settings
- Apps
- Configuration Wizards

Solution Information
Information on the solution you have chosen to deploy.

Name: lightningconductor2013webpart.wsp
Locale: 0
Deployed To: None
Deployment Status: Not Deployed

Deploy When?
A timer job is created to deploy this solution. Please specify the time at which you want this solution to be deployed.

Choose when to deploy the solution:
☒ Now
☐ At a specified time:
4/30/2013 5 PM 00

Deploy To?
The solution contains Web application scoped resources and should be deployed to specific Web applications. Please choose the Web application where you want the solution to be deployed.

Choose a Web application to deploy this solution:
All content Web applications

Warning: Deploying this solution will place assemblies in the global assembly cache. This will grant the solution assemblies full trust. Do not proceed unless you trust the solution provider.

5. Click **OK**

[Licensing the Data Viewer Web Part —>](#)

Troubleshooting: If the **DataViewer2013webpart.wsp** solution is missing on the **Solution Management** page, upload the **Data Viewer** solution package using the [Add-SPSolution](#) Windows PowerShell® command.

Licensing the Data Viewer Web Part

The [Data Viewer Web Part](#) for [Microsoft® SharePoint® 2013](#), is available as a [14 day trial](#). You can use the full functionality of the Web Part for 14 days upon which the product will need to be [licensed](#). The number of days remaining in your [trial](#) will be shown within the Web Part. When the 14 day [trial](#) period has expired, the Web Part will display that it is unlicensed and will no longer function until you licensed it.

Lightning Conductor

You're using trial version of **Lightning Conductor Web Part** (14 days left).

Please, contact [Lightning Tools Ltd.](#) to purchase full version of **Lightning Conductor Web Part** and learn more about great SharePoint Tools and Web Parts.

View ▸ **Tasks** ▾

Task Name	% Complete	Assigned To	Task Status	Due Date	Priority
(2) Normal					
Completed					
Task5	1	SP2013\brett	Completed	5/5/2013	(2) Normal
In Progress					
Task2	0.5	SP2013\brett	In Progress	4/4/2013	(2) Normal
Task4	0.5	Zoe	In Progress	6/6/2013	(2) Normal
Task5	0.25	SP2013\brett	In Progress	7/7/2013	(2) Normal
Not Started					
Task1	0	SP2013\brett	Not Started	1/4/2013	(2) Normal

When you purchase the Data Viewer Web Part for SharePoint® 2013, you will need to inform [Lightning Tools](#) of the number of Web Front-ends and the number of SharePoint farms you wish to purchase a license, including production and non-production SharePoint environments. We will then provide you with a valid license key for each SharePoint farm where you want to use the Lightning Conductor Web Part.

For licensing purposes, a SharePoint Web Front-end (WFE) is a server that has the [Microsoft SharePoint Foundation Web Application](#) service started.

Once you have purchased the Web Part and have received the license key, you need to enter the key and activate the product via the Lightning Tools license manager which can be found in SharePoint 2013 Central Administration web site.

You can activate the Data Viewer Web Part over the [Internet](#) or [manually](#). Once a license key is activated, it will be associated with a specific SharePoint farm, and can not be activated on a different SharePoint farm. License keys are also specific to a [Lightning Tools](#) product, therefore you need a license key for each [Lightning Tools](#) product.

[Activate with Internet access —>](#)

[Activate without Internet access →](#)

[Plan service deployment in SharePoint 2013 →](#)

[Start or stop a service \(SharePoint 2013\) →](#)

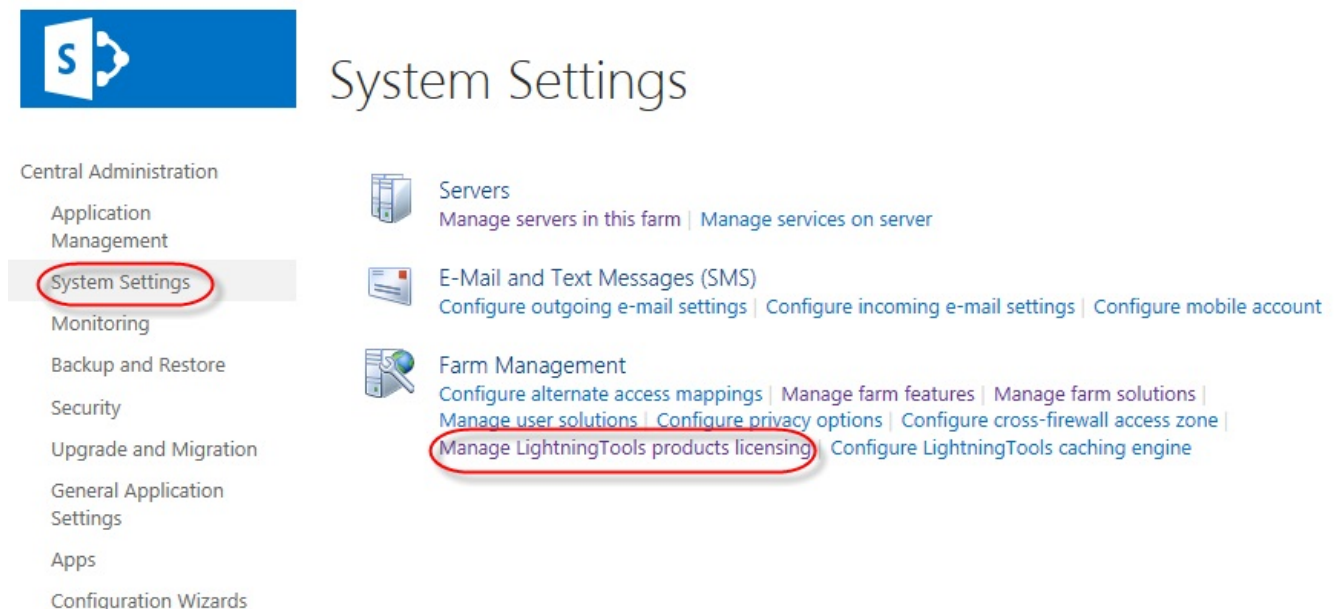
Troubleshooting: [Licensing Error](#)

Activate with Internet access


To automatically activate the [Data Viewer Web Part](#) when your [Microsoft® SharePoint® 2013](#) server has Internet access, complete the following steps:

You will need to be a SharePoint server farm administrator to complete these steps. See the blog post: [When is a SharePoint Farm Administrator not a SharePoint Farm Administrator?](#).

1. In the browser, open SharePoint 2013 Central Administration web site.
2. On the Quick Launch, click **System Settings**, and then under **Farm Management** click **Manage LightningTools products licensing**.



3. From the **Choose Product** drop down list, select the **Lightning Data Viewer 2013**.
4. In the **License Key** text box, type the license key sent to you when you [completed your purchase](#) of the Web Part.
5. In the **User Email** text box, type your email address.
6. In the **Organization** text box, type your organization or company name.
7. In the **User Name** text box, type your first name and last name.

8. Click **Activate**.

Search this site...

Licensing of Product 'Lightning Conductor 2013'

Central Administration

Application Management

System Settings

Monitoring

Backup and Restore

Security

Upgrade and Migration

General Application Settings

Apps

Configuration Wizards

Site Contents

Product

Choose the product, licensing of which you want to manage.

Choose Product

Lightning Conductor 2013

License Status

Your trial is valid. 14 days left.

Activation Data

Fill data for product activation.

License Key*

f60fb38f-846b-4845-8f53-8e9ed75b09ff-03

User Email*

brett@lightningtools.com

Organization

Lightning Tools

User Name

Brett Lonsdale

Activate





















Manual Activation

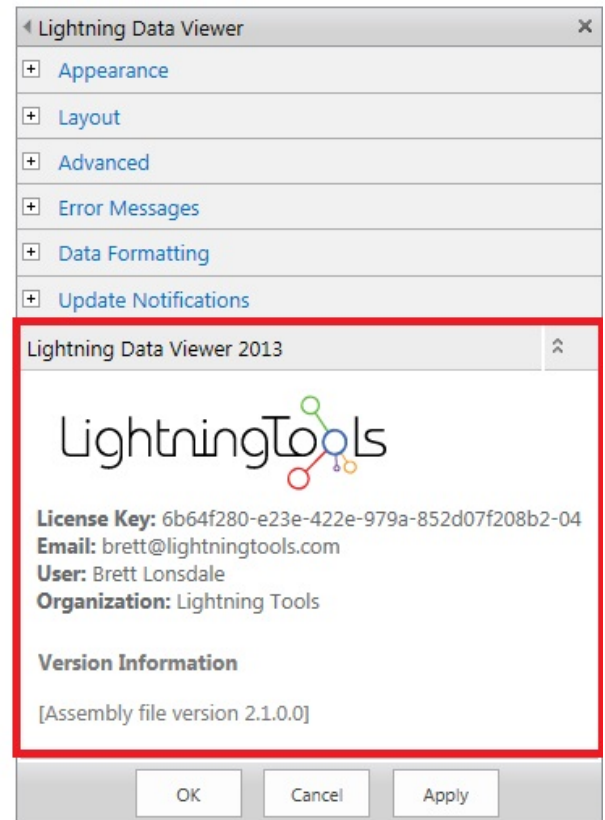
Cancel

The page is redisplayed with a **License Status: The Product is properly licensed.**

The [Data Viewer Web Part](#) license is now activated and registered. You can check the license information within each instance of the Data Viewer Web Part by selecting **Edit Web Part** on the Web Part menu.

Lightning Data Viewer

	ProductID	ProductName	UnitsInStock	UnitPrice	UnitsOnOrder
 	1	Chai	39	\$18.00	0
 	2	Chang	17	\$20.00	50
 	3	Aniseed Syrup	13	\$10.00	70
 	4	Chef Anton's Cajun Seasoning	0	\$22.00	0
 	5	Chef Anton's Gumbo Mix	20	\$21.35	5
 	6	Grandma's Boysenberry Spread	120	\$25.00	0
 	7	Uncle Bob's Organic Dried Pears	15	\$30.00	2
 	8	Northwoods Cranberry Sauce	10	\$40.00	0
 	9	Mishi Kobe Niku	29	\$97.00	0
 	10	Ikura	31	\$31.00	0



If you have purchased a license of the product already and believe that the information in the Web Part tool pane is incorrect, please contact Lightning Tools by clicking [Submit Support Ticket](#) on [Lightning Tools](#) web site. We will then gladly provide you with a license key.

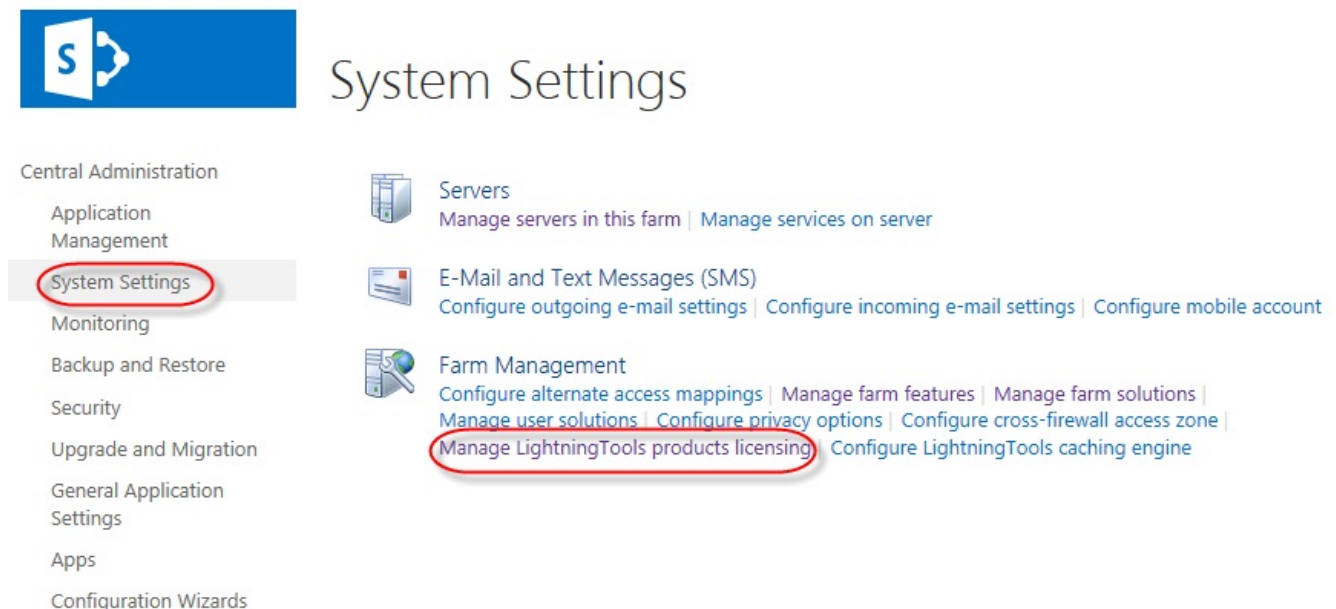
Troubleshooting: [Licensing Error](#)

Activate without Internet access

Use the following steps to activate the [Data Viewer Web Part](#) when your [Microsoft® SharePoint® 2013](#) server does not have Internet access:

You will need to be a SharePoint server farm administrator and be able to send emails, to complete these steps.

1. In the browser, open SharePoint 2013 Central Administration web site.
2. On the **System Settings** page, under **Farm Management**, click **Manage LightningTools products licensing**.



3. From the **Choose Product** drop down list, select the **Lightning Data Viewer 2013**.
4. In the **License Key** text box, type the license key sent to you when you [completed your purchase](#) of the Web Part.
5. In the **User Email** text box, type your email address.
6. In the **Organization** text box, type your organization or company name.
7. In the **User Name** text box, type your first name and last name.

8. Click **Send Activation Email**.

An email is sent to Lightning Tools.

Lightning Conductor 2013 activation for Brett Lonsdale

Key: 0a8bb385-9baf-448d-969e-c4e501c4d9c4-03
 Identity: 9257a238-3090-490b-8e5f-1c22f3a78340
 Product name: Lightning Conductor 2013
 Organization: Lightning Tools
 User name: Brett Lonsdale
 User email: brett@lightningtools.com

Newsfeed SkyDrive Sites System Account

Your trial is valid. 14 days left.

License Key*
 0a8bb385-9baf-448d-969e-c4e501c4d9c4-03

User Email*
 brett@lightningtools.com

Organization
 Lightning Tools

User Name
 Brett Lonsdale

License Information

```
<?xml version="1.0" encoding="utf-16"?>
<License>
  <Id>c69a405b-9474-4788-983a-ea31ee12f4d9</Id>
  <Type>Trial</Type>
  <Expiration>Wed, 14 Aug 2013 13:56:03 GMT</Expiration>
  <ProductFeatures>
    <Feature name="User Identity">9257a238-3090-490b-8e5f-1c22f3a78340</Feature>
    <Feature name="Product">Lightning Conductor 2013</Feature>
  </ProductFeatures>
  <Customer>
```

Send Activation Email Save License Register Online Cancel





















9. Activation information will be sent in an email to the email address you provided in step 5. The email contains an XML license which can be pasted in the **License Information** text box replacing the existing contents.

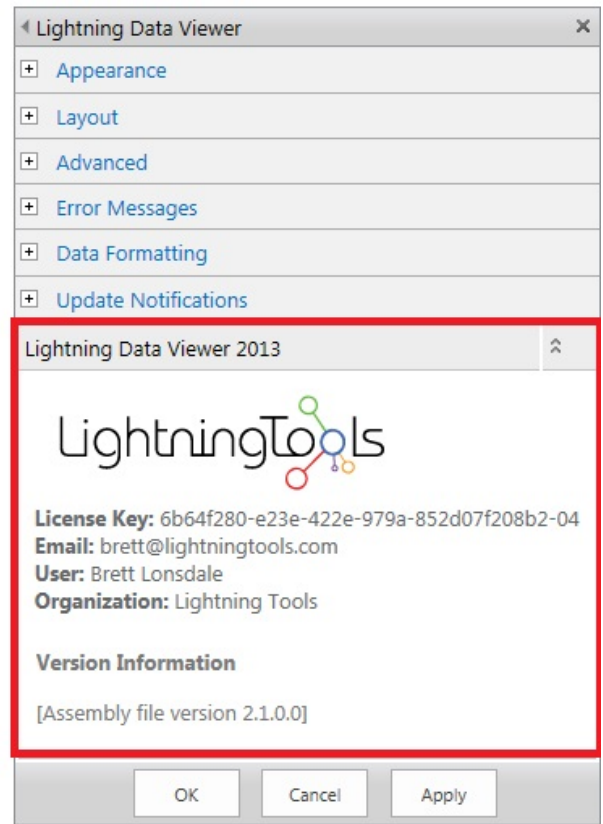
10. Click **Save License**.

The [Data Viewer Web Part](#) license is now activated and registered. You can check the license information within each instance of the Data Viewer Web Part by selecting **Edit Web Part** on the Web Part drop down

menu.

Lightning Data Viewer

	ProductID	ProductName	UnitsInStock	UnitPrice	UnitsOnOrder
 	1	Chai	39	\$18.00	0
 	2	Chang	17	\$20.00	50
 	3	Aniseed Syrup	13	\$10.00	70
 	4	Chef Anton's Cajun Seasoning	0	\$22.00	0
 	5	Chef Anton's Gumbo Mix	20	\$21.35	5
 	6	Grandma's Boysenberry Spread	120	\$25.00	0
 	7	Uncle Bob's Organic Dried Pears	15	\$30.00	2
 	8	Northwoods Cranberry Sauce	10	\$40.00	0
 	9	Mishi Kobe Niku	29	\$97.00	0
 	10	Ikura	31	\$31.00	0



[Installing the Data Viewer Web Part →](#)

Upgrading the Data Viewer Web Part

To upgrade to the latest version of the [Data Viewer Web Part](#), use the following steps:

1. Download the latest version from your customer portal or the [downloads](#) section of our web site.
2. Unzip the downloaded Data Viewer Web Part zip file to your computer.
3. Copy **DataViewer2013WebPart.wsp** to a folder on your SharePoint 2013 server, for example **c:\tools**, if you did not unzip the download file to the SharePoint server.

To upgrade you can use either [Windows PowerShell](#) commands or the [STSADM](#) tool.

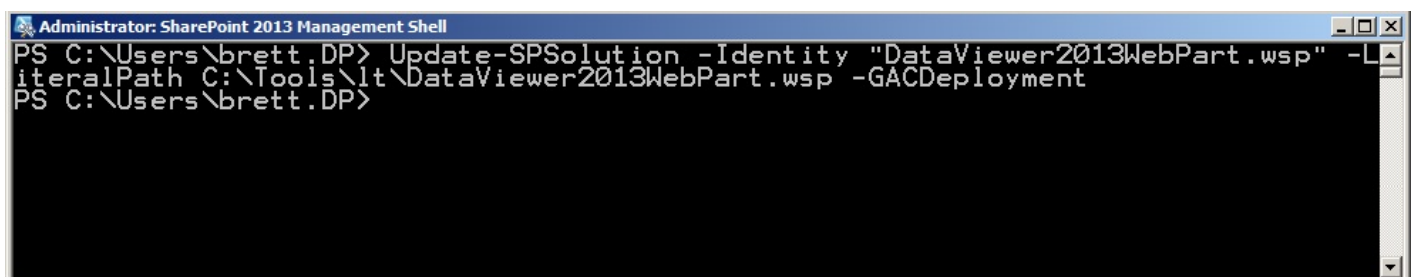
You will need to be a SharePoint server farm administrator to complete these steps. See the blog post: [When is a SharePoint Farm Administrator not a SharePoint Farm Administrator?](#).

Using Windows PowerShell commands

Open the [SharePoint 2013 Management Shell](#) and type on one line, the Windows PowerShell command similar to:

**Update-SPSolution -Identity "DataViewer2013WebPart.wsp" -LiteralPath c:\tools\
LightningConductor2013WebPart.wsp" -GacDeployment**

replacing c:\tools with the location where you stored the wsp file.



Note: Do not copy and paste this command from this page, as hidden characters may be included which will cause the Windows PowerShell command to fail in your environment.

Using the STSADM tool:

1. On the SharePoint server, open a command prompt and type: **STSADM.exe -o upgradesolution -f c:\tools\DataViewer2013WebPart.wsp -name LightningDataViewer2013WebPart.wsp**

-allowgacdeployment -immediate

replacing c:\tools with the location where you stored the wsp file.

2. Then type: **STSADM.exe -o execadmsvcjobs**.


Note: Do not copy and paste this command from this page, as hidden characters may be included which will cause the Windows PowerShell command to fail in your environment.

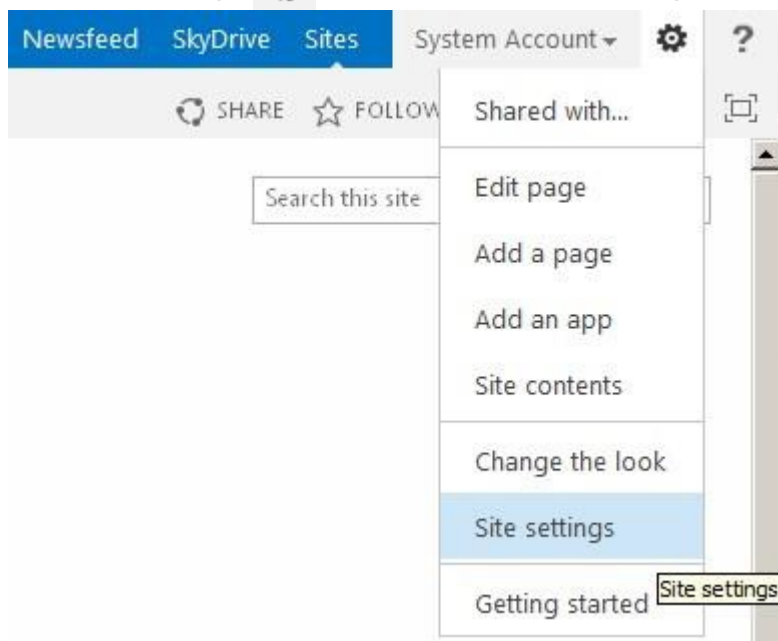
[Installing the Data Viewer Web Part →](#)

Activate the Data Viewer Web Part site collection feature








Before you can add the [Data Viewer Web Part](#) to a [Microsoft® SharePoint® 2013](#) page, the Lightning Data Viewer site collection feature must be activated. Use the following steps to activate the Lightning Data Viewer Web Part site collection feature:

You must be a [site collection administrator](#) to complete these steps.

1. In the browser, open the top level site of the site collection where your site exists.
2. Click the **Settings** , and then click **Site settings**.



3. On the **Site Settings** page, under **Site Collection Administration**, click **Site collection features**.
4. On the **Site Collection Features** page, to the right of **Lightning Data Viewer Web Part** click **Activate**.

	In Place Records Management Enable the definition and declaration of records in place.	Activate
	Library and Folder Based Retention Allows list administrators to override content type retention schedules and set schedules on libraries and folders.	Deactivate Active
	Lightning Conductor Web Part New content aggregator for SharePoint from Lightning Tools.	Deactivate Active
	Lightning Data Viewer Web Part Data Viewer Web Part from Lightning Tools.	Activate
	LightningTools - DeliverPoint 2013 Web Parts	Deactivate Active
	LightningTools.CKUserSolution Feature1	Activate
	Limited-access user permission lockdown mode When this feature is enabled, permissions for users in the "limited access" permissions level (such as Anonymous Users) are reduced, preventing access to Application Pages.	Deactivate Active

The page will refresh and the feature is identified as being *Active*. You are now ready to add the Web Part to your page.

If you do not see the **Site collection features** link under **Site Collection Administration**, you are probably at a child site within the site collection. Under **Site Collection Administration**, click **Go to top level site** settings to navigate to the top of the site collections, and then repeat step 3.

[Testing the installation —>](#)

[Using the Lightning Conductor Web Part —>](#)

[More information on site collection features —>](#)

Testing the installation

Use the following steps to test your installation:

1. In the Web applications where you have [deployed](#) the [Data Viewer Web Part](#), choose a site where you will create a page to test the Web Part.
2. In the browser, open the top level site of the site collection where your site exists and [activate the Lightning Data Viewer Web Part site collection feature](#).
3. Navigate to the site where you are going to test the Web Part.
4. [Create a new page](#).
5. [Add the Web Part to the page](#).
6. [Configure the Web Part](#) and stop editing the page.
7. Review the page and check that the Web Part is displayed as expected.

[Troubleshooting →](#)

Creating pages

A website is a collection of webpages. The types of pages that you can create depend on the site that you have created. Most users will be familiar with [Team sites](#) within a Microsoft® SharePoint® 2013 installation. When you create a new Team site, SharePoint creates a wiki page library, named Site Pages, where webpages are stored and new pages are created. Two types of webpages can be created in the Site Pages library:

- [wiki pages](#). These are the default pages when a site is created from the Team site template. Wiki pages are easy to edit and are used when users need to add static text, images, tables and a small number of [Web Parts](#).
- Web Part pages. These pages can only contain [App Parts](#) and [Web Parts](#), and are a popular choice for creating interactive dashboards or pages that aggregate information from several content sources.

Web Content Management (WCM) sites, also known as publishing sites are used for public facing sites or for company portals. When you create a WCM page, known as a publishing page, they are created from page layouts. Publishing pages may be able to contain Web Parts and SharePoint App Parts; however, it depends on the page layout you have chosen for the publishing page.

[Creating a wiki page →](#)


[Creating a Web Part page →](#)

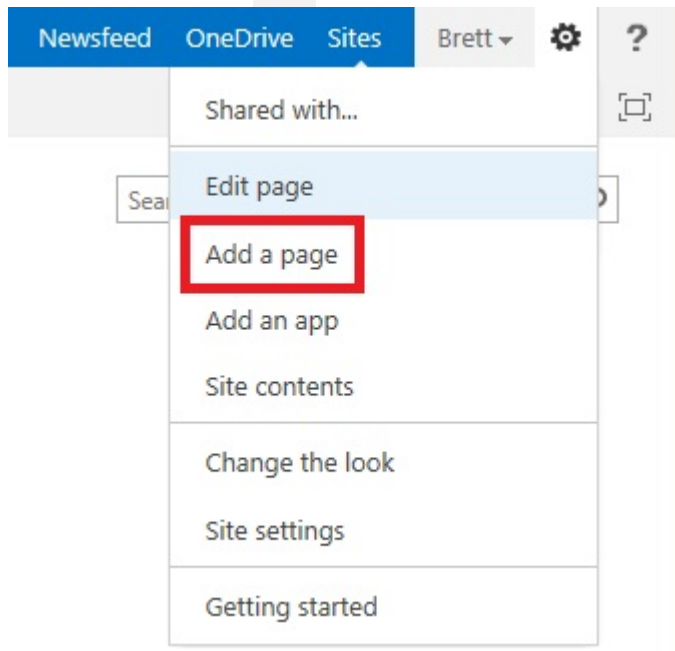
[Keyboard shortcuts for common tasks on SharePoint pages →](#)

[Create and manage pages in a publishing site →](#)

Creating a wiki page

To create a wiki page on a site created from the Team site template, complete the following steps:

1. Navigate to the site where you wish to create a wiki page.
2. Click the **Settings**  and then click **Add a page**.



3. Type the name of your page and then click **Create**.

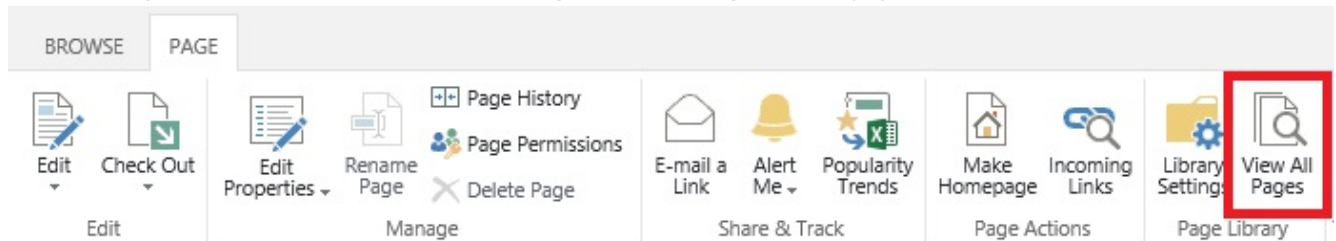
[Adding Web Parts to a page →](#)

[Change the layout of a wiki page →](#)

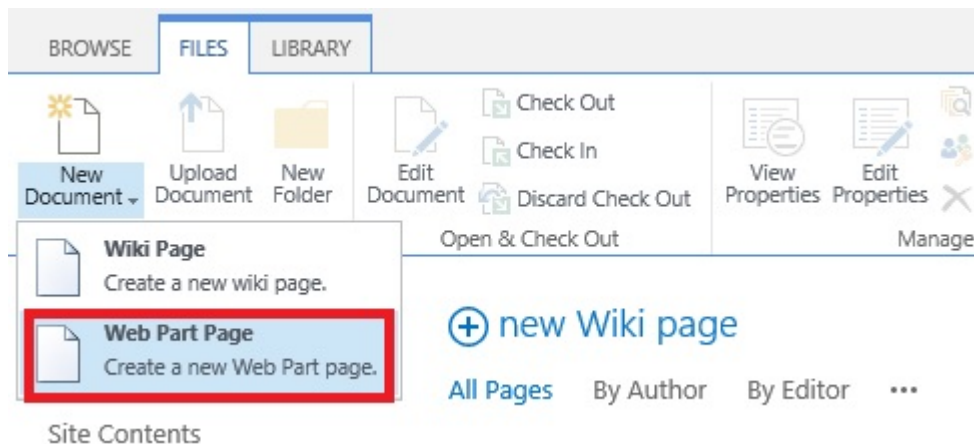
Creating a Web Part page

To create a Web Part page on a [Microsoft® SharePoint® 2013](#) Team site,

1. Navigate to the site where you wish to create a Web Part page.
2. On the **Page** ribbon tab, click **View All Pages** in the **Page Library** group.



3. On the **Files** ribbon tab, click the **New Document** down arrow and then click **Web Part Page**.



4. In the **Name** text box, type the name of your page and in the **Choose a Layout Template** list, select the layout you require.

Site Contents ▸ New Web Part Page ⓘ

Name

Type a file name for your Web Part Page. The file name appears in headings and links throughout the site.

Name:

 .aspx

☐ Overwrite if file already exists?

Layout

Select a layout template to arrange Web Parts in zones on the page. Multiple Web Parts can be added to each zone. Specific zones allow Web Parts to be stacked in a horizontal or vertical direction, which is illustrated by differently colored Web Parts. If you do not add a Web Part to a zone, the zone collapses (unless it has a fixed width) and the other zones expand to fill unused space when you browse the Web Part Page.



Choose a Layout Template:

Header, Footer, 3 Columns

Full Page, Vertical

Header, Left Column, Body

Header, Right Column, Body

Header, Footer, 2 Columns, 4 Rows

Header, Footer, 4 Columns, Top Row

Left Column, Header, Footer, Top Row, 3 Columns

Right Column, Header, Footer, Top Row, 3 Columns

Save Location

Select the document library where you want the Web Part Page to be saved.

Document Library

Site Pages ▼

Create

Cancel

5. Click **Create**.

[Adding Web Parts to a page →](#)

[Keyboard shortcuts for Web Part Pages →](#)

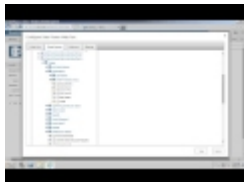
Using the Data Viewer Web Part

The [Data Viewer Web Part](#) for [Microsoft® SharePoint® 2013](#), allows you to easily build a data view, apply formatting and conditional formatting to your content without the need to build complicated view templates or create XSLT. The Data Viewer Web Part provides you with an alternative to the Data Form Web Part (DFWP) or known as the Data View Web Part (DVWP), which you can create using SharePoint Designer.

The Data Viewer Web Part can be used on any version of a [SharePoint](#) 2013 on-premises installation, that is, the Web Part can be used on pages in a [SharePoint Foundation 2013](#) on-premises installation, and can be used and seen on pages where users are assigned either the standard or enterprise SharePoint Server 2013 licenses.

Lightning Tools has produced an [Office 365™](#) Apps version of the Data Viewer Web Part: the [Data Viewer App for SharePoint Online](#).

For an overview of the [Data Viewer Web Part](#) view the following video:



Complete the following tasks to configure the Data Viewer Web Part:

1. [Add the Data Viewer Web Part to the page](#).
2. [Configure the Lightning Conductor Web Part](#) using the four tab dialog.
 - Simply select the data source provider on the [Web Part tab](#).
 - Then complete the required fields such as the server name for the SQL server or the URL for the service containing the data on the [Data Source tab](#). The Data Viewer Web part allows for various authentication options such as windows authentication or mixed mode. If you are connecting to an SQL server database, you can browse the Tables, Views or Stored Procedures that you would like to connect to.
 - The grid view for the Web Part is configured once the connection has been created. Simply select the columns from the data source that you wish to display using the [Columns tab](#).

- Then on the [Display tab](#), provide a column alias, grouping, formatting, and alignment. Conditional formatting, aggregate functions and sorting are among the many features that can be applied.

The Data Viewer Web Part must be installed, and the Lightning Data Viewer Web Part site collection feature must be activated before you can use the Data Viewer Web Part on a SharePoint page.

[Request a trial version →](#)

[Adding Web Parts to a page →](#)

Adding Web Parts to a page

To add a [Data Viewer Web Part](#) to a Microsoft® SharePoint® 2013 page, use one of the following two procedures, depending on your page type.

- Add a Web Part to a [wiki page](#).
- Add a Web Part to a [Web Part page](#).

Troubleshooting: If the **Lightning Tools** category or the **Data Viewer Web Part** does not appear in the Web Part pane, the [Lightning Data Viewer Web Part site collection feature](#) has not been activated. Contact your site collection administrator to activate the site collection feature.

Once you have added a Data Viewer Web Part to your page, then if the page is a [Web Part page](#) you can connect the Data Viewer Web Part to other Web Parts on the page using the browser. This is known as [Web Part connections](#).

[Using the Data Viewer Web Part](#)

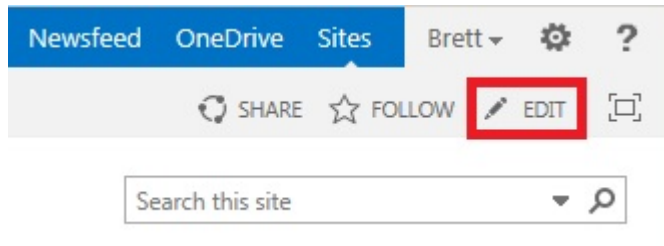
[Move, Minimize, or delete a Web Part from a page →](#)

[Troubleshooting using the Web Part Maintenance Page →](#)

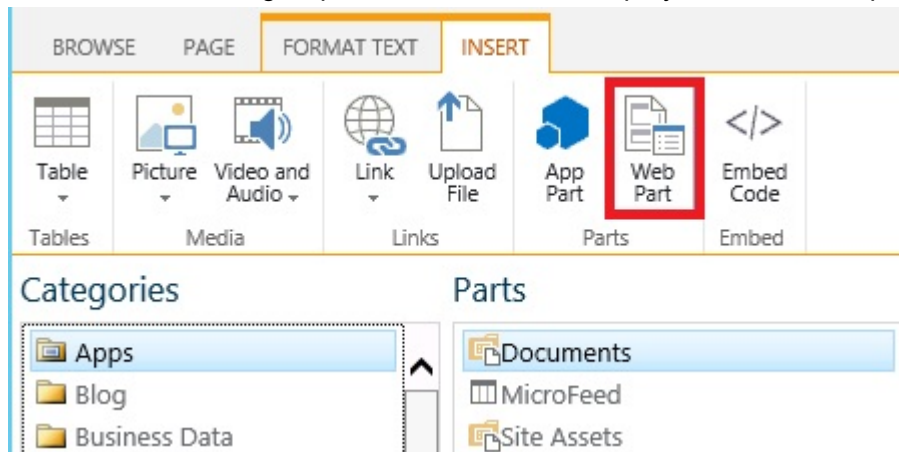
Add a Web Part to a wiki page

!https://www.manula.com/media/90/1483_addwp-wiki-save.jpg!To add a Web Part to a wiki page, use the following steps:

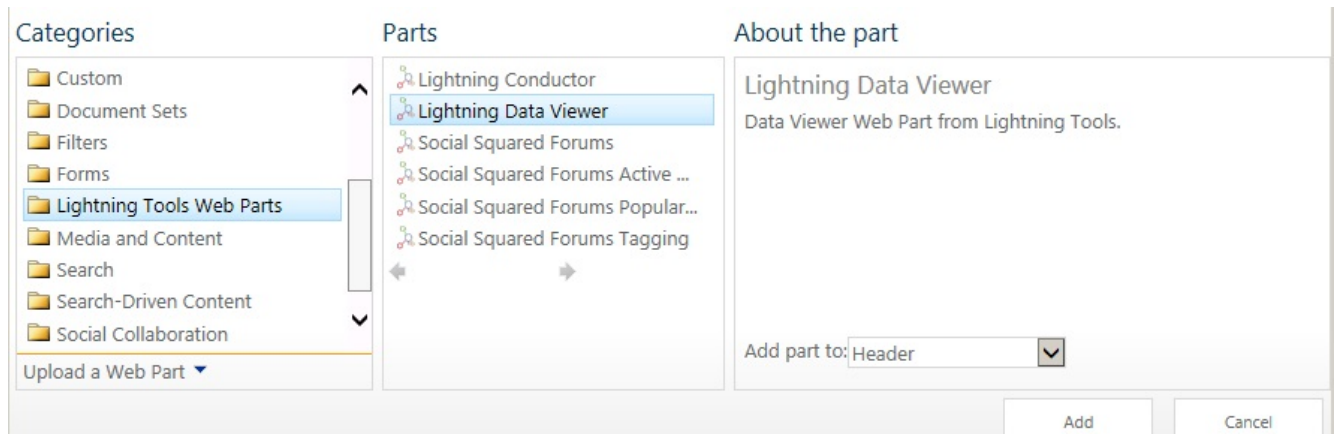
1. In the browser, navigate to the wiki page where you want to add the Lightning Conductor Web Part.
2. Click **Edit**.



3. Click to place the cursor where you want the Web Part to appear and then click the **Insert** ribbon tab.
4. In the **Parts** ribbon group, click **Web Part** to display the **Web Part** pane.



5. Under **Categories**, click **Lightning Tools Web Parts** and then under **Parts**, click **Lightning Data Viewer**.



6. Click **Add** to add the Web Part to the page.

7. [Configure the Data Viewer Web Part.](#)
8. Click **Save**.



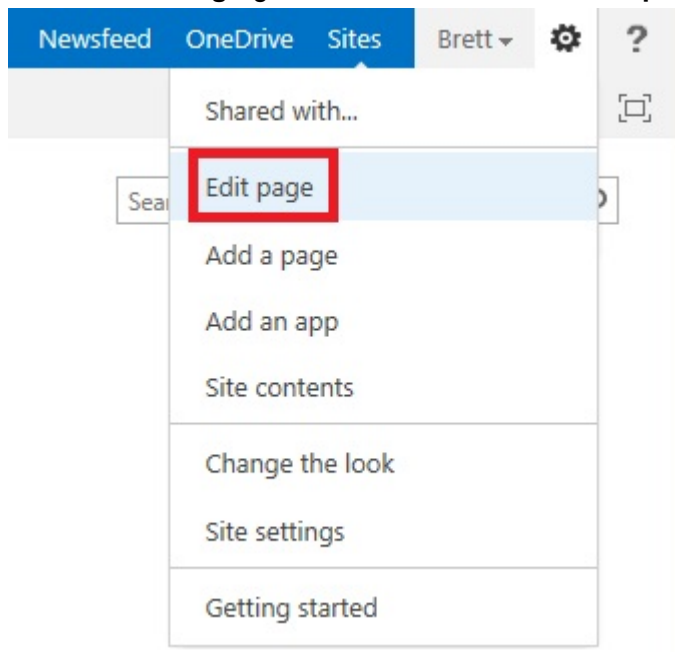
[Using the Lightning Conductor Web Part →](#)

Troubleshooting: If the **Lightning Tools** category or the **Lighting Conductor Web Part** does not appear in the Web Part pane, the [Lightning Conductor Web Part site collection feature](#) has not been activated. Contact your site collection administrator to activate the site collection feature.

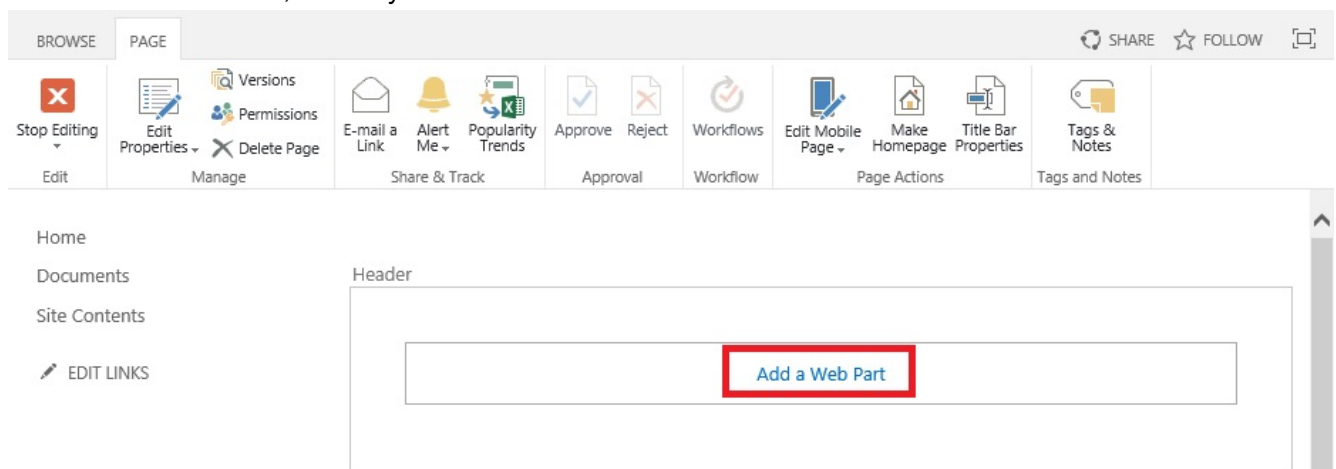
Add a Web Part to a Web Part page

To add a Web Part to a Web Part page, using the following steps:

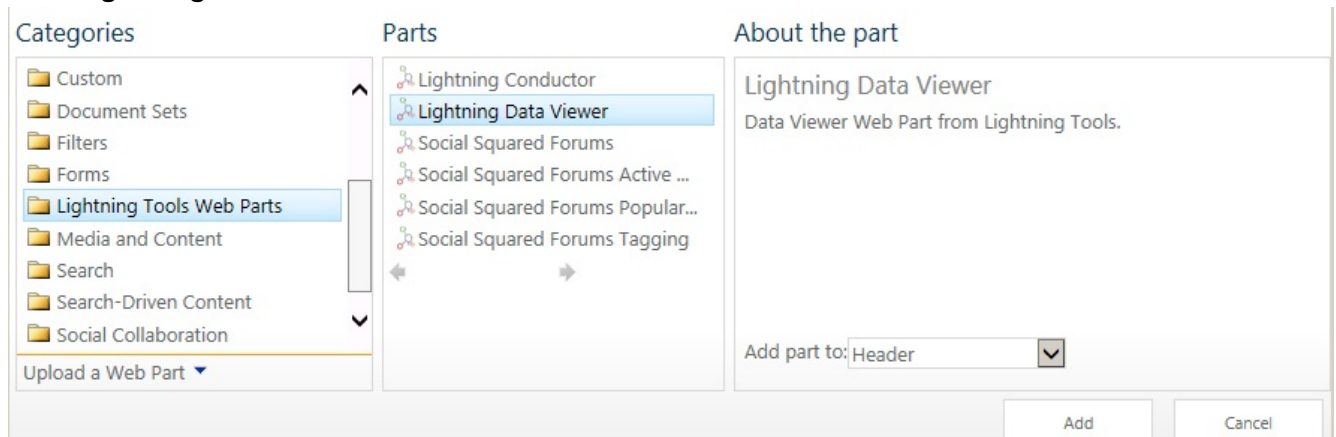
1. In the browser, navigate to the Web Part page where you want to add the Data Viewer Web Part.
2. Click the **Settings** gear icon, and then click **Edit page**.



3. In the Web Part zone, where you want to add the Web Part click **Add a Web Part**.



4. In the Web Parts pane, under **Categories**, click **Lightning Tools Web Parts** and then under **Parts**, click **Lightning Data Viewer**.



5. Click **Add** to add the Web Part to the page.
6. [Configure the Data Viewer Web Part.](#)
7. On the **Page** tab, click **Stop Editing**.









Troubleshooting: If the **Lightning Tools** category or the **Data Viewer Web Part** does not appear in the Web Part pane, the [Lightning Data Viewer Web Part site collection feature](#) has not been activated. Contact your site collection administrator to activate the site collection feature.

[Using the Data Viewer Web Part →](#)

[Keyboard shortcuts for Web Part Pages →](#)

Web Part connections

In the current version of the Data Viewer Web Part you can only connect Data Viewer Web Parts that use Microsoft® SQL Server® databases as data sources. Commonly Web Part connections are used for **Master/Child** or **Summary/Details** relationships. For example, connected a Data Viewer Web Part that displays Suppliers to another instances of the Data Viewer Web Part which displays products, so that when a supplier is selected in the *Suppliers* Web Part, the products that the supplier sells is displayed in the *Products* Web Part.

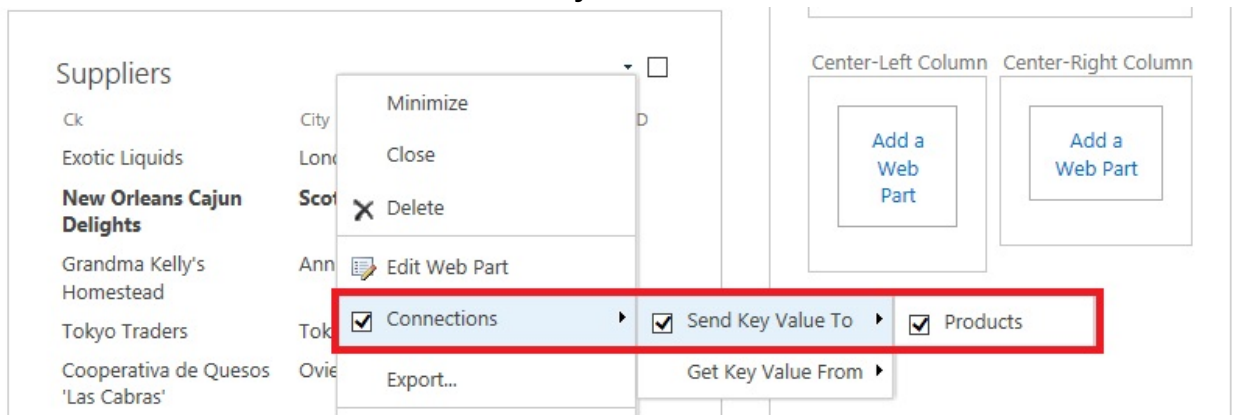
Suppliers				Products					
Ck	City	Country	SupplierID		ProductName	Discontinued	Unit Price	Units In Stock	SupplierID
Exotic Liquids	London	UK	1			Chef Anton's	False	\$22.00	0 2
New Orleans Cajun Delights	Scotsdale	USA	2		Cajun Seasoning				
Grandma Kelly's Homestead	Ann Arbor	USA	3			Chef Anton's Gumbo Mix	False	\$21.35	20 2
Tokyo Traders	Tokyo	Japan	4			Louisiana Fiery Hot Pepper Sauce	False	\$21.05	76 2
Cooperativa de Quesos 'Las Cabras'	Oviedo	Spain	5						
Mayumi's	Osaka	Japan	6			Louisiana Hot Spiced Okra	False	\$17.00	4 2
Pavlova, Ltd.	Melbourne	Australia	7						
Specialty Biscuits, Ltd.	Lutterworth		8						
PB Knäckebröd AB	Göteborg	Sweden	9						

Add New Item

To connect the Data Viewer Web Part to consume data from another Web Part, complete the following steps:

1. Place the page in edit mode.
2. [Add two Web Parts to the page.](#)
3. Configure the two Web Part to point to the relevant [Microsoft SQL Server®](#) database tables/views/ stored procedures, select the [columns](#) that the Web Parts need to [display and any formatting you require](#).
4. Configure the two Web Parts to use [linking](#).
5. From the Data Viewer Web Part menu, click **Connections** and then click either **Send Key Value to** or **Get Key Value From** and then select the other Web Part on the page. You can configure Web Part connections from the master Web Part (Suppliers) to the child Web Part (Products) or from the child Web Part (Products) to the master (Suppliers).
 - If you choose to configure Web Part connections from the master content (Suppliers) to the child content (Products), select **Send Key Value to**.

- If you choose to configure Web Part connections from the Web Part that is displaying the child content to the master content, select **Get Key Value From**.



You must have configured [Linking](#) on the [Display tab](#) to a column that contains the data your wish to send or receive from the other Web Part.

For example, when you are creating a Master/Child relationship where on a page you configure one Data Viewer Web Part to display data from the *Suppliers* table, and in another Data Viewer Web Part you display data from the *Products* table, and there is a 1 to Many relationship between the two tables. Then in the Data Viewer Web Part that displays *Suppliers* configure the *Supplier ID* column (often known as the primary key) as the link from *Suppliers* table and in the other Web Part configure the *Supplier ID* column (often known as the foreign key) from *Products* table. Then the correct columns are linked when the Web Part connections is configured between the two Web Parts.

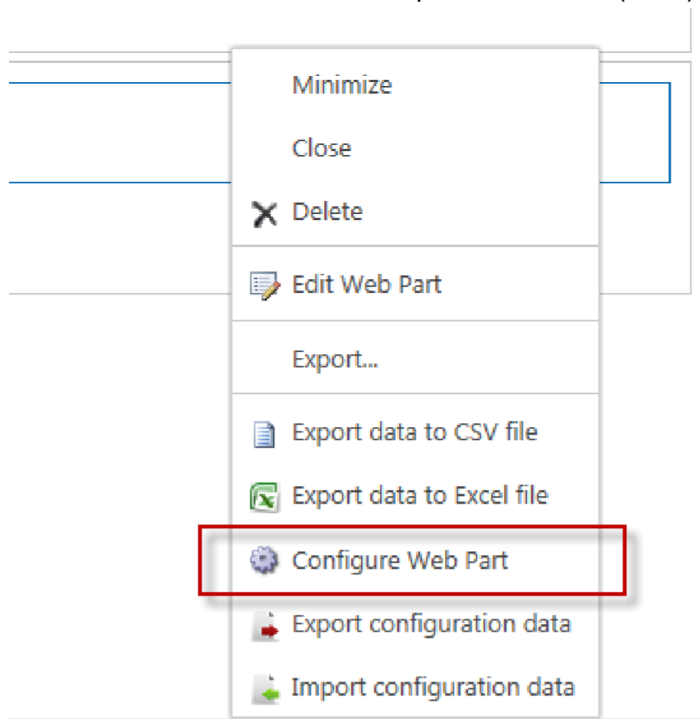
[— Add a Web Part to a Web Part page](#)

[Configuring the Data Viewer Web Part —>](#)

Configuring the Data Viewer Web Part

Use the Web Part menu to configure the [Data Viewer Web Part](#) for Microsoft® SharePoint® 2013. The Web Part menu contains the following links specific to the Data Viewer Web Part:

- **Export data to CSV file**
- **Export data to Excel file.** You can export the data from the Data Viewer Web Part to a Microsoft® Excel® .xlsx file or a comma separated values (CSV) file.



- **Configure Web Part.** This link displays the **Configure Data Viewer Web Part** dialog which is the main method of configuring the Data Viewer Web Part and consists of four tabs:
 - [Web Part](#)
 - [Data Source](#)
 - [Columns](#)
 - [Display](#)

Once you have configured the Web Part, chosen the data source and how to display the content, at the bottom of the **Configure Lightning Conductor Web Part** dialog, click **Save**.

The minimum configuration details you must provide are:

- On the [Web Part tab](#): select a **Data Source Provider**.

- On the [Data Source tab](#), configure the data source, for example, if you selected **SharePoint List Data Source Provider** on the [Web Part tab](#), then in the **Source List** section, select one list or library.
 - On the [Columns tab](#), select at least one [column](#). No columns are selected by default, therefore, when you save your configuration without selecting a column, an error message, **Error occurred in Web Part** is displayed with a description: **Error occurred while trying to retrieve and display data**.
- **Export configuration data.**
 - **Import configuration data.** Importing and Exporting of configuration data allows you to export the settings and import them again between different environments. such as, from your staging environment to your production environment.

If you typed a user name and password, that is, you did not use integrated security or a Secure Store ID, when you configured the Data Viewer Web Part then these details will be visible as plain text in the configuration file. This is a security risk and you should take appropriate precautions when storing and distributing the configuration XML file.

[Web Part tab —>](#)

Web Part tab

The **Web Part** tab is the first tab on the [Data Viewer Web Part](#) dialog and allows you to choose data source and display providers, and page loading options, as described below:

The screenshot shows the 'Configure Data Viewer Web Part' dialog box with the 'Web Part' tab selected. The dialog has four tabs: 'Web Part', 'Data Source', 'Columns', and 'Display'. The 'Web Part' tab contains the following configuration options:

- Configure Data Source Provider**: Specify Data Source Provider which will most suitable for your needs. The dropdown menu is set to 'MSSql Data Source Provider'. Description: Provides MSSql data retrieval for Lightning Data Viewer Web Part.
- Configure Display Provider**: Specify Display Provider which will most suitable for your needs. The dropdown menu is set to 'GridView Display Provider'. Description: Provides data displaying for Lightning Data Viewer using GridView control. This display provider displays data using familiar table structure and current SharePoint page style. Also GridView allows paging and sorting.
- Configure Data Refreshing Interval**: (Seconds, 0 or empty - no data refreshing). The input field is empty.
- Configure Initial Loading**: Check to make data retrieving to run asynchronously, so it will not hang up loading of entire page. The checkbox 'Allow Asynchronous Initial Loading' is checked.
- Configure Staistical Information**: Check to display data retrieving process. The checkbox 'Display Statistical Information' is unchecked.

At the bottom right of the dialog are 'Save' and 'Cancel' buttons.

Data Source Provider

There are seven data source providers:

- **MSSql Data Source Provider**
- **Oracle Data Source Provider**

- **ODBC Data Source Provider**
- **SharePoint List Data Source Provider**
- **OData Service Data Source Provider**
- **SharePoint External Data Source Provider**
- **XML Data Source Provider**

Display Provider

There are one display provider that allow different approaches to displaying your content.

- **SPGridView Display Provider.** This is the default display provider, which is often referred to as the no-code or grid like display provider. Use this provider to select columns to display, configure filters, sorting, pagination, column width and formatting without the need to write any code.

In a future release of the Data Viewer Web Part, XSLT or JSon display providers will be available.

Data Refreshing Interval

Type in the text box the interval of time in seconds that the Lightning Conductor Web Part will fetch the items from the data source and refresh the page. A value of 0 or if you leave the text box empty, then the Web Part will only query the data source if the page is manually refreshed. When caching is enabled the value typed into this text box has no affect, that is, if caching is enabled at the refreshing interval the data is obtained from the cache and not from the data source.

Initial Loading

Select this check box to load the Web Part with item information independently of the page load. This is the default setting. When the check box is unselected the page loads once item information has been queried.

Statistical Information

Select this check box to display details at the top of the Web Part on how many items are being aggregated. This is useful when trying to identify performance issues.

[Configuring the Data Viewer Web Part →](#)

Data Source tab

The **Data Source** tab is the second tab on the [Data Viewer Web Part](#) dialog and allow you to build a view of your data. It consists of a number of section depending on the data source provider selected on the [Web Part](#) tab. This page describes how to configure the Data Source tab for the following data source providers:

- [Microsoft® SQL Server®](#)
- [Oracle®](#)
- [ODBC](#)
- [Microsoft® SharePoint® Lists and Libraries](#)
- [OData Service](#)
- [SharePoint® External Data](#) (Business Connectivity Services)
- [XML](#)

[Go to top →](#)

Microsoft SQL Server® Data Source Provider

There are two methods of using the Data Viewer Web Part to connect to a Microsoft SQL Server® database, either create an external content type and then configure the Data Viewer Web Part with the [SharePoint External Data Source Provider](#), or complete the following steps:

1. Ensure that you have selected, **MSSql Data Source Provider** on the [Web Part](#) tab.

Configure Data Viewer Web Part

Web Part	Data Source	Columns	Display
<p>Configure Data Source Provider</p> <p>Specify Data Source Provider which will most suitable for your needs.</p> <div><div>MSSql Data Source Provider ▼</div><div>Provides MSSql data retrieval for Lightning Data Viewer Web Part.</div></div>			
<p>Configure Display Provider</p> <p>Specify Display Provider which will most suitable for your needs.</p> <div><div>GridView Display Provider ▼</div><div>Provides data displaying for Lightning Data Viewer using GridView control. This display provider displays data using familiar table structure and current SharePoint page style. Also GridView allows paging and sorting.</div></div>			


2. Click the **Data Source** tab.

3. In the **Initial connection settings** section:

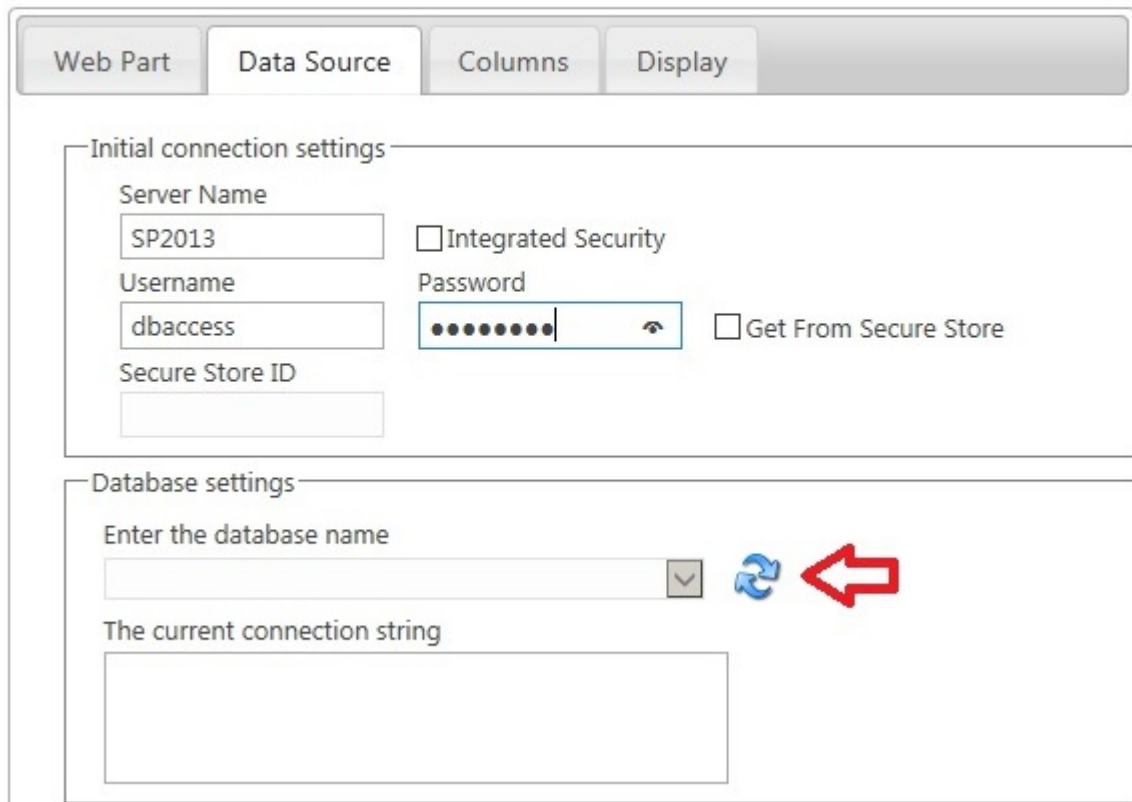
- In the **Server Name** text box, type the name of an Microsoft SQL Server instance that you wish to connect to.
- Use one of the following to configure how SharePoint should connect to the SQL Server instance:
 - Select the **Integrated Security** check box if you wish to use integrated windows authentication.
or
 - In the **Username** and **Password** text boxes, type a username and password if you are using SQL authentication.
or
 - Select the **Get From Secure Store** check box, and then in the **Secure Store ID** text box, type a [Secure Store Target Application ID](#).

Note: In most environments you will suffer a double hop authentication issue when using Windows integrated security and therefore you may need to use either a [Secure Store Target Application ID](#) or a SQL Server login account within the SQL Server instance. Request help from your [SharePoint farm administrator](#) if you need a [Secure Store Target Application ID](#) or your SQL Server database administrator if you need an SQL Server login account to be configured.

3. In the **Database settings** section:

- Click Refresh  to populate the **Enter the database name** list.

Configure Data Viewer Web Part




Web Part Data Source Columns Display

Initial connection settings

Server Name
SP2013

☐ Integrated Security




Username
dbaccess

Password
..... 

☐ Get From Secure Store

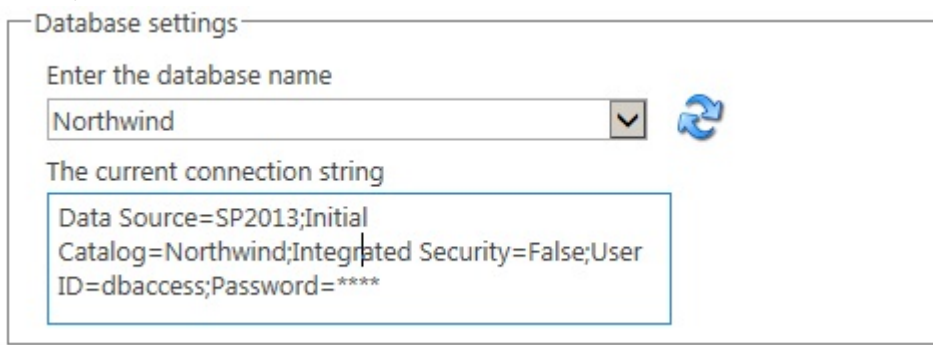
Secure Store ID

Database settings

Enter the database name
.....   

The current connection string

- From the **Enter the database name** list, select the database that contains the data you wish to display in the Data Viewer Web Part.



Database settings

Enter the database name
Northwind

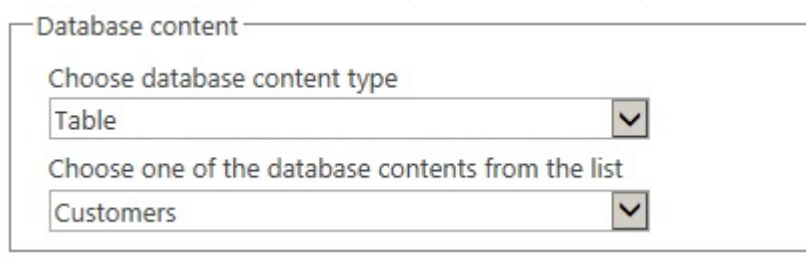
The current connection string
Data Source=SP2013;Initial Catalog=Northwind;Integrated Security=False;User ID=dbaccess;Password=****

If SharePoint is able to connect successfully to the SQL Server instance, a connection string is created in *The current connection string* text box, which you can amend if needed.

4. In the **Database content** section:

- Select **Table**, **View** or **Stored Procedure** from the **Choose database content type** list.

- From the **Choose one of the database contents from the list**, select the table, view or stored procedure that returns the data you wish to display in the Data Viewer Web Part.



Database content

Choose database content type

Table

Choose one of the database contents from the list

Customers

5. Click the [Columns](#) tab to continue configuring the Data Viewer Web Part.

The disadvantage of using this method of connecting to the SQL Server database as compared to using [Business Connectivity Services \(BCS\)](#), is if you need to configure another Data Viewer Web Part to display the same data, you will need to configure the connection details again. Using the [Export and Import Configuration Data](#) options from the Web Part menu can be used in such scenarios. However, the connection details are visible in the Web Part configuration and in the resulting XML file, and therefore, from a security perspective, it may be more prudent to use [BCS](#) when connecting to SQL Server databases. The connection details are then centrally administered, and details, such as username and password, are hidden from users.

[Go to top →](#)

Oracle® Data Source Provider

There are two methods of using the Data Viewer Web Part to connect to an Oracle® database, either create an external content type and then configure the Data Viewer Web Part with the [SharePoint External Data Source Provider](#) or, complete the following steps:

1. Ensure that you have selected, **Oracle Data Source Provider** on the [Web Part](#) tab.

Configure Data Viewer Web Part

Web Part | Data Source | Columns | Display

Configure Data Source Provider
Specify Data Source Provider which will most suitable for your needs.

Oracle Data Source Provider ▼
Provides Oracle data retrieval for Lightning Data Viewer Web Part.

Configure Display Provider
Specify Display Provider which will most suitable for your needs.

GridView Display Provider ▼
Provides data displaying for Lightning Data Viewer using GridView control. This display provider displays data using familiar table structure and current SharePoint page style. Also GridView allows paging and sorting.

2. Click the **Data Source** tab.
3. In the **Initial connection settings** section:
 - In the **Data Source** text box, type the name of the Oracle server that you wish to connect to.
 - Use one of the following to configure how SharePoint should connect to the Oracle server:
 - Select the **Integrated Security** check box if you wish to use integrated windows authentication.
 - or
 - In the **Username** and **Password** text boxes, type a username and password if you are using Oracle authentication.
 - or
 - Select the **Get From Secure Store** check box, and then in the **Secure Store ID** text box, type the [Secure Store Target Application ID](#).

Note: In most environments you will suffer a double hop authentication issue when using Windows integrated security and should therefore you may need to use either a [Secure Store Target Application ID](#) or a Oracle login account within the Oracle server. Request help from your [SharePoint farm administrator](#) if you need a [Secure Store Target Application ID](#) or your Oracle database administrator if you need an Oracle server login account to be configured.

3. In the **Database content** section:
 - Select from the **Choose database content type** list.

- From the **Choose one of the database contents from the list**, select the component that returns the data you wish to display in the Data Viewer Web Part.

Configure Data Viewer Web Part ✕

Web Part | Data Source | Columns | Display

Initial connection settings

Data Source
OracleServer

☐ Integrated Security

Username Password

☐ Get From Secure Store

Secure Store ID
oracle

The current connection string

Database content

Choose database content type
Table

Choose one of the database contents from the list

4. Click the [Columns](#) tab to continue configuring the Data Viewer Web Part.

The disadvantage of using this method of connecting to the Oracle database as compared to using [Business Connectivity Services \(BCS\)](#), is if you need to configure another Data Viewer Web Part to display the same data, you will need to configure the connection details again. Using the [Export and Import Configuration Data](#) options from the Web Part menu can be used in such scenarios. However, the connection details are visible in the Web Part configuration and in the resulting XML file, and therefore, from a security perspective, it may be more prudent to use [BCS](#) when connecting to Oracle databases. The connection details are then centrally administered, and details, such as username and password, are hidden from users.

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ODBC Data Source Provider

Open Data Base Connectivity (ODBC) is a driver based connectivity option which is supported by many external data sources. You must have the correct ODBC driver installed on your SharePoint server(s) to use ODBC data source provider with the Data Viewer Web Part.

Information on ODBC drivers can be found on the following web site: <http://en.wikipedia.org/wiki/ODBC#Drivers>. The latest drivers can be found at: <http://dev.mysql.com/downloads/connector/odbc/>

To connect to a published ODBC data source, either create an external content type and then configure the Data Viewer Web Part with the [SharePoint External Data Source Provider](#) or, complete the following steps:

1. Ensure that you have selected, **ODBC Data Source Provider** on the [Web Part](#) tab.
2. Click the **Data Source** tab.
3. In the **Initial connection settings** section:
 - Type the connection string to the ODBC data source in the **Connection String** text box, for example, *Provider=Microsoft.ACE.OLEDB.12.0; Data Source=\\server\share\folder\myAccessFile.accdb;*
 - If the ODBC data source does not allow anonymous access, use one of the following to configure how SharePoint should connect to the data source:
 - Select the **Connect as Current User** check box if you wish to use integrated windows authentication.
 - or
 - In the **Username** and **Password** text boxes, type a username and password if you are using basic authentication.
 - or
 - Select the **Get From Secure Store** check box, and then in the **Secure Store ID** text box, type the [Secure Store Target Application ID](#).
 - Optionally configure the **Quote Prefix** and **Quote Suffix** text boxes. The QuotePrefix and QuoteSuffix properties of some data sources are used to specify delimiters such as a left bracket and a right bracket to encapsulate the data object name, when data objects contain characters such as spaces, commas, and semicolons.
4. In the **Database content** section:
 - Select the content type from the **Choose database content type** list.

- Click the Refresh  icon, and then select the content from the **Choose one of the database contents from the list**.
5. Click the [Columns](#) tab to continue configuring the Data Viewer Web Part.

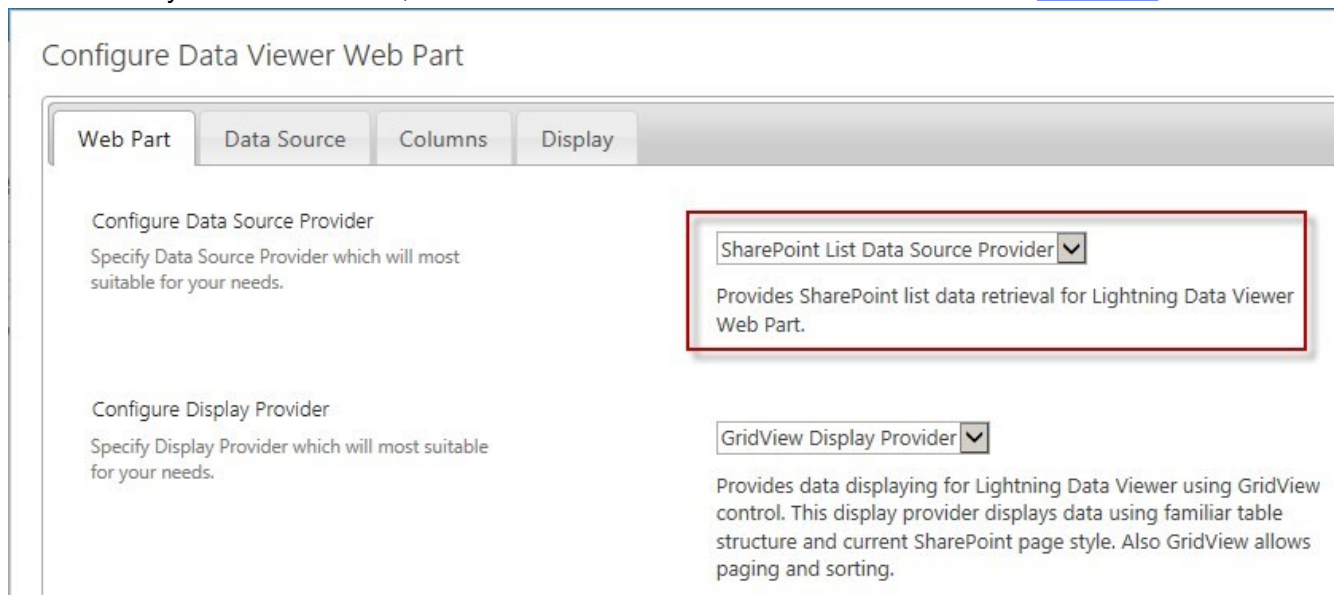
The disadvantage of using this method of connecting to an ODBC data source as compared to using [Business Connectivity Services](#) (BCS), is if you need to configure another Data Viewer Web Part to display the same data, you will need to configure the connection details again. Using the [Export and Import Configuration Data](#) options from the Web Part menu can be used in such scenarios. However, the connection details are visible in the Web Part configuration and in the resulting XML file, and therefore, from a security perspective, it may be more prudent to use [BCS](#) when connecting to ODBC data source. The connection details are then centrally administered, and details, such as username and password, are hidden from users.

[Go to top](#) →

SharePoint List Data Source Provider

To connect to a SharePoint list or library, complete the following steps:

1. Ensure that you have selected, **SharePoint List Data Source Provider** on the [Web Part](#) tab.



Configure Data Viewer Web Part

Web Part Data Source Columns Display


Configure Data Source Provider
Specify Data Source Provider which will most suitable for your needs.

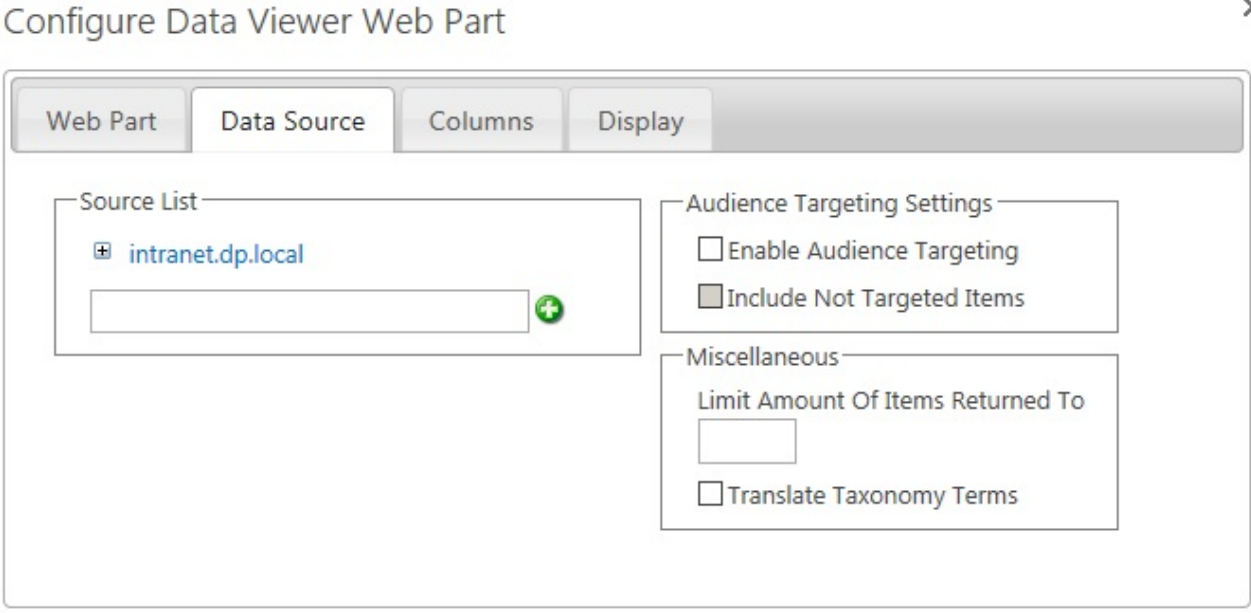
SharePoint List Data Source Provider ▼
Provides SharePoint list data retrieval for Lightning Data Viewer Web Part.

Configure Display Provider
Specify Display Provider which will most suitable for your needs.

GridView Display Provider ▼
Provides data displaying for Lightning Data Viewer using GridView control. This display provider displays data using familiar table structure and current SharePoint page style. Also GridView allows paging and sorting.

2. Click the **Data Source** tab.


3. In the **Source List** section a collapsed web application tree view is displayed, which you can use to select the list of library data to display. Only one web application is displayed. This is the web application that contains the site where you have added the Data Viewer Web Part. If you want to display data from lists or libraries in another web application, use the text box below the collapse tree view to type or cut/paste the URL of the other web application in your SharePoint farm, and then click the green plus  icon to the right of the text box. If the user who is configuring the Data Viewer Web Part, does not have permission to the root site of site collection, or no such site collection exists, then no URL is added to the tree view.




Configure Data Viewer Web Part

Web Part Data Source Columns Display

Source List

 intranet.dp.local



Audience Targeting Settings

☐ Enable Audience Targeting

☒ Include Not Targeted Items

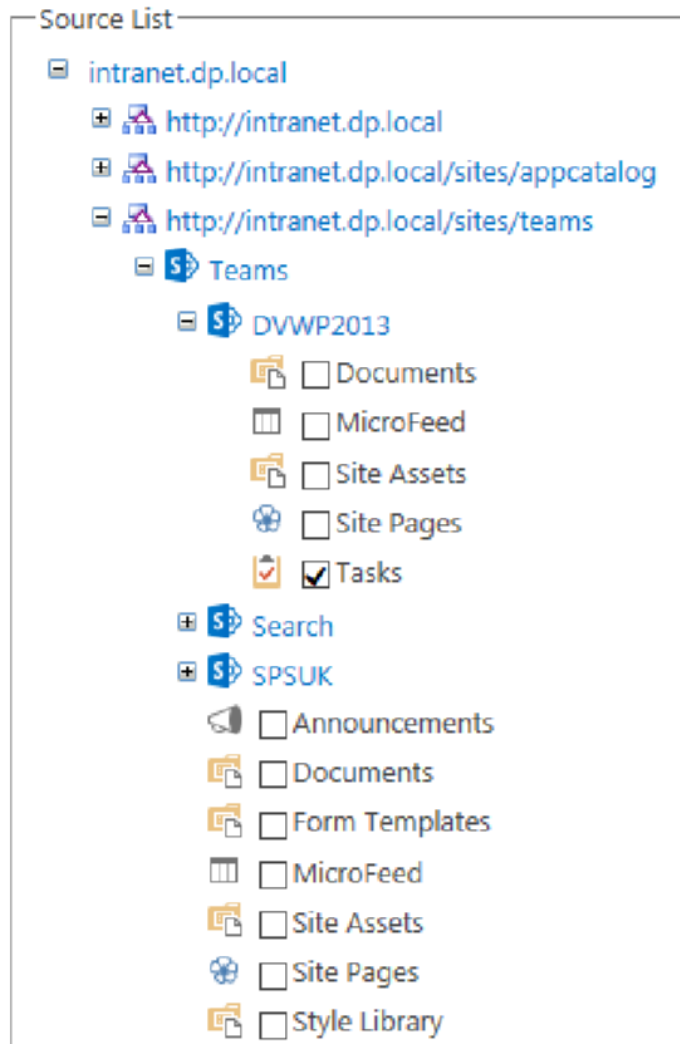
Miscellaneous

Limit Amount Of Items Returned To

☐ Translate Taxonomy Terms

Save Cancel

4. Expand the tree view by clicking the plus sign (+) and then select the check box to the left of the list or library that contains the data you wish to display in the Data Viewer Web Part.



Note: You should not select external lists. The Data Viewer Web Part does not currently support connecting to external lists, if you want to display data from external systems use the [SharePoint External Data Source Provider](#).


Tip: The tree view only allows you to select one list or library across your Microsoft® SharePoint® farm. If you wish to aggregate data from multiple lists, please look at the [Lightning Conductor Web Part](#).

5. Complete the [Audience Targeting Settings](#) section as required.
6. Complete the [Miscellaneous](#) section as required.
7. Click the [Columns](#) tab to continue configuring the Data Viewer Web Part.

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OData Service Data Source Provider

To connect to published OData services, either create an external content type and then configure the Data Viewer Web Part with the [SharePoint External Data Source Provider](#), or complete the following steps:

1. Ensure that you have selected, **OData Service Data Source Provider** on the [Web Part](#) tab.
2. Click the **Data Source** tab.
3. In the **Service connection settings** section:
 - Type the URL of the OData service in the **Service URL** text box, for example, <http://services.odata.org/Northwind/Northwind.svc/>.
 - If the OData service does not allow anonymous access, use one of the following to configure how SharePoint should connect to the data source:
 - Select the **Connect as Current User** check box if you wish to use integrated windows authentication.
or
 - In the **Username** and **Password** text boxes, type a username and password if you are using basic authentication.
or
 - Select the **Get From Secure Store** check box, and then in the **Secure Store ID** text box, type the [Secure Store Target Application ID](#).
 - Click the Refresh  icon, and then select an entity from the **Entity Set** list.

Configure Data Viewer Web Part

The screenshot shows the 'Configure Data Viewer Web Part' dialog box with the 'Data Source' tab selected. The dialog has four tabs: 'Web Part', 'Data Source', 'Columns', and 'Display'. The 'Data Source' tab contains a 'Service connection settings' section with the following fields and options:

- Service URL:** A text box containing 'http://services.odata.org/Northwind/Northwind.svc/'.
- Connect as Current User:** An unchecked checkbox.
- Username:** An empty text box.
- Password:** An empty text box.
- Get From Secure Store:** An unchecked checkbox.
- Secure Store ID:** An empty text box.
- Entity Set:** A dropdown menu showing 'Suppliers' with a refresh icon to its right.
- Enable Server Side Paging:** An unchecked checkbox.

At the bottom right of the dialog are 'Save' and 'Cancel' buttons.

4. Click the [Columns](#) tab to continue configuring the Data Viewer Web Part.

You can find out more information about OData from the web site: www.odata.org.

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SharePoint External Data Source Provider

Business Connectivity Services (BCS) allows you to connect up to data stored externally to Microsoft® SharePoint®. Once you have created an [external content type](#), you expose the data from the external system using [External Lists](#), [external data columns](#) and if you are using Enterprise licences with Microsoft® SharePoint® Server 2013, [Business Data Web Parts](#).

You can also use the Data Viewer Web Part to connect to data external to SharePoint using an external content type. Also, forms and views on external lists suffer from the loss of the Design view in SharePoint Designer similar to internal SharePoint lists; also, Business Data Web Parts, which are a form of the Data View Web Part, cannot be formatted without writing custom XSLT; therefore, you may want to use the Data Viewer Web Part.

Use the following steps to use the Data Viewer Web Part with external content types:

This procedure assumes that you have already created an external content type for your external data source. External content types can be created using tools such as Microsoft Visual Studio, SharePoint Designer and third party tools, such as, Lightning Tools' [BCS Meta Man](#) or [ERPConnect](#) when you want to connect to SAP® ERP/BW systems.

1. Ensure that you have selected, **SharePoint External Data Source Provider** on the [Web Part](#) tab.
2. Click the **Data Source** tab.
SharePoint connects to the Business Data Connectivity metadata store and displays in the *External content type* list, those external content types you have permissions to see.
3. From the **External content type** list, select an external content type .

4. Select the relevant external content type operations (methods) from the Finder method, Creator method, Updater method and Specific finder method for deleting lists.

The screenshot shows the 'Configure Data Viewer Web Part' dialog box with the 'Data Source' tab selected. The 'Web Part' tab is also visible. The 'External data source settings' section contains the following fields:

- External content type:** Northwind_Customers (http://intranet.dp.local/sites/teams/bcs2013demo) [dropdown] [refresh icon]
- Finder method:** Northwind_Customers Read List [dropdown]
- Creator method:** Northwind_Customers Create [dropdown]
- Updater method:** Northwind_Customers Update [dropdown]
- Specific finder method for deleting:** Northwind_Customers Read Item [dropdown]
- ☐ Enable Server Side Paging

At the bottom right, there are 'Save' and 'Cancel' buttons.

5. Click the [Columns](#) tab to continue configuring the Data Viewer Web Part.

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XML Data Source Provider

To connect to published OData services, complete the following steps:

1. Ensure that you have selected, **XML Data Source Provider** on the [Web Part](#) tab.
2. Click the **Data Source** tab.
3. In the **XML data settings** section:

- Type the URL of the XML source in the **Xml url** text box, for example, if you want to configure the Data Viewer Web Part to display blog posts from the Microsoft Office team, you could use: <http://blogs.office.com/feed/>.
- Optionally, type the URL of the XSLT in the **Xsl transformation url** text box.
- If the XML data source does not allow anonymous access, use one of the following to configure how SharePoint should connect to the data source:
 - Select the **Connect as Current User** check box if you wish to use integrated windows authentication.
 - or
 - In the **Username** and **Password** text boxes, type a username and password if you are using basic authentication.
 - or
 - Select the **Get From Secure Store** check box, and then in the **Secure Store ID** text box, type the [Secure Store Target Application ID](#).
- Type XPath that will evaluate to a node-set in the **Items XPath** text box. You do not have to specify the root node, for example, for a RSS feed, the root node is **rss**, so in the **Items XPath** text box you would type **/channel/item** or **./channel/item**.

Configure Data Viewer Web Part ×

Web Part

Data Source

Columns

Display

Xml data settings

Xml url

☐ Connect as Current User

Xsl transformation url


Username

Password

☐ Get From Secure Store


Secure Store ID

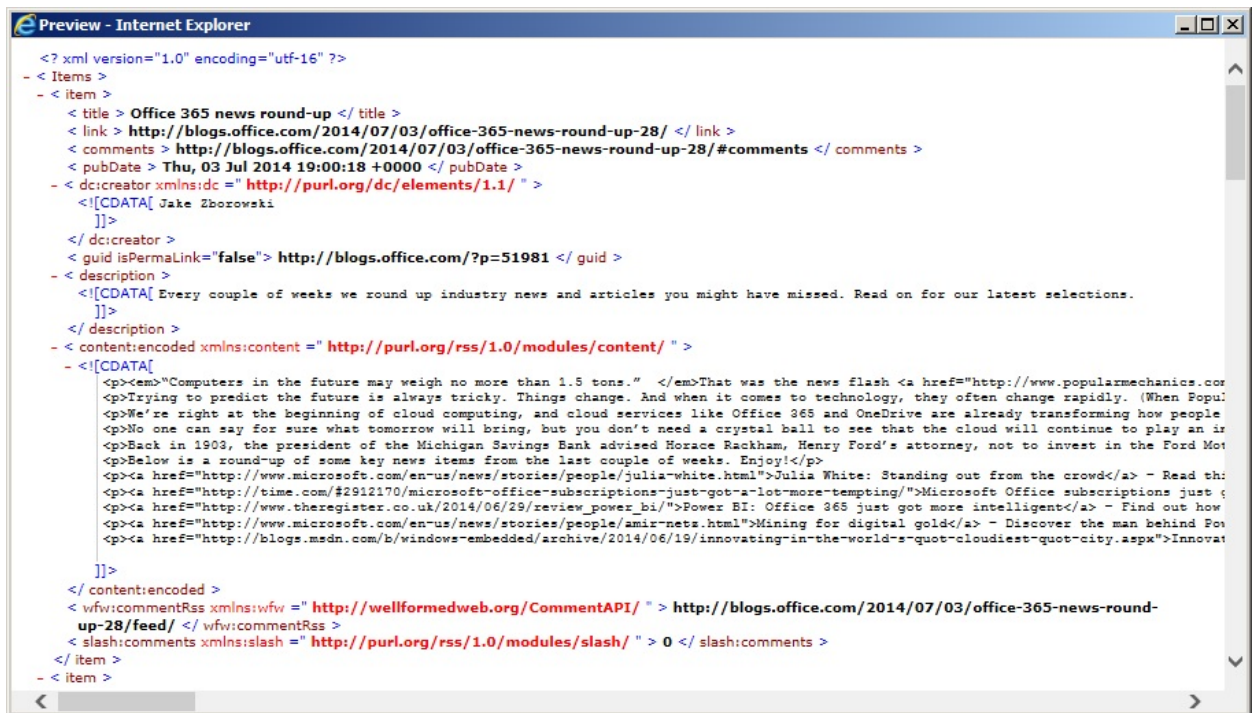
Items XPath



Save

Cancel

- Click the *Preview*  icon to display the Preview dialog box. Several items will be retrieved from the data source using the XPath expressions and displayed in the dialog box.



```

<? xml version="1.0" encoding="utf-16" ?>
- < Items >
- < item >
  < title > Office 365 news round-up </ title >
  < link > http://blogs.office.com/2014/07/03/office-365-news-round-up-28/ </ link >
  < comments > http://blogs.office.com/2014/07/03/office-365-news-round-up-28/#comments </ comments >
  < pubDate > Thu, 03 Jul 2014 19:00:18 +0000 </ pubDate >
  - < dc:creator xmlns:dc = " http://purl.org/dc/elements/1.1/ " >
    <![CDATA[ Jake Zborowski
  ]]>
  </ dc:creator >
  < guid isPermaLink="false"> http://blogs.office.com/?p=51981 </ guid >
  < description >
    <![CDATA[ Every couple of weeks we round up industry news and articles you might have missed. Read on for our latest selections.
  ]]>
  </ description >
  - < content:encoded xmlns:content = " http://purl.org/rss/1.0/modules/content/ " >
    <![CDATA[
      <p><em>"Computers in the future may weigh no more than 1.5 tons." </em>That was the news flash <a href="http://www.popularmechanics.com">
      <p>Trying to predict the future is always tricky. Things change. And when it comes to technology, they often change rapidly. (When Popu
      <p>We're right at the beginning of cloud computing, and cloud services like Office 365 and OneDrive are already transforming how people
      <p>No one can say for sure what tomorrow will bring, but you don't need a crystal ball to see that the cloud will continue to play an ir
      <p>Back in 1903, the president of the Michigan Savings Bank advised Horace Rackham, Henry Ford's attorney, not to invest in the Ford Mot
      <p>Below is a round-up of some key news items from the last couple of weeks. Enjoy!</p>
      <p><a href="http://www.microsoft.com/en-us/news/stories/people/julia-white.html">Julia White: Standing out from the crowd</a> - Read the
      <p><a href="http://time.com/#2912170/microsoft-office-subscriptions-just-got-a-lot-more-tempting/">Microsoft Office subscriptions just g
      <p><a href="http://www.theregister.co.uk/2014/06/29/review_power_bi/">Power BI: Office 365 just got more intelligent</a> - Find out how
      <p><a href="http://www.microsoft.com/en-us/news/stories/people/amir-nets.html">Mining for digital gold</a> - Discover the man behind Po
      <p><a href="http://blogs.msdn.com/b/windows-embedded/archive/2014/06/19/innovating-in-the-world-s-quot-cloudiest-quot-city.aspx">Innovat
    ]]>
  </ content:encoded >
  < wfw:commentRss xmlns:wfw = " http://wellformedweb.org/CommentAPI/ " > http://blogs.office.com/2014/07/03/office-365-news-round-
  up-28/feed/ </ wfw:commentRss >
  < slash:comments xmlns:slash = " http://purl.org/rss/1.0/modules/slash/ " > 0 </ slash:comments >
  </ item >
- < item >

```

Close the dialog box.

- Click the [Columns](#) tab to continue configuring the Data Viewer Web Part.

[Go to top →](#)

[Configuring the Data Viewer Web Part →](#)

[— Web Part tab](#)

[Columns tab →!](#)

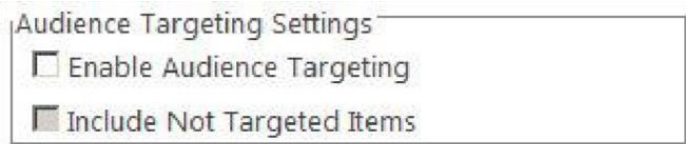
Audience Targeting Settings

The **Audience Targeting** section is on the [Data Source tab](#).

Microsoft® SharePoint® Server [Audience Targeting](#) allows items targeted to a specific audience to be filtered when aggregating them with the [Lightning Conductor Web Part](#). For example, if you have [audience target enabled](#) an Announcements list, instead of aggregating all announcements from that list, in the Lightning Conductor Web Part, you may only want to filter the items displayed depending on the user who is displaying the page. The user will need to be part of an [audience](#) and items in the list must be tag for that audience. This allows you to display only information in the Web Part that is relevant to the user.

Use the check boxes in the **Audience Targeting** section, as follows:

1. Select **Enable Audience Targeting**.
2. If you want to also return items to a user when that item has not been targeted to an audience, select the **Include Not Targeted Items**.



Audience Targeting Settings

☐ Enable Audience Targeting

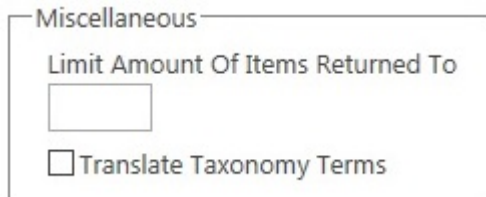
☒ Include Not Targeted Items

For this feature to work, you must be using SharePoint® Server and Audience Targeting must be enabled for the lists that you are aggregating. Audience targeting is not available on SharePoint® Foundation.

[Data Source tab](#) →

Miscellaneous

The **Miscellaneous** section is the last section on the [Data Source tab](#).



Miscellaneous

Limit Amount Of Items Returned To

☐ Translate Taxonomy Terms

This section contains two options:

1. Use the **Limit Amount Of Items Return to** text box, to restrict the number of items returned from the data source. Use this option for performance reasons. This limit will be applied to the first X amount retrieved from the data source. Filters or Pagination on the [Display tab](#) can be set to return a specific subset. For example, if you would like to show the “Top Ten latest Announcements”, instead of typing a number in the **Limit Amount Of Items Returned To** text box, use the [Paging section](#) section on the [Display tab](#), and on the [Columns](#) tab, sort by the column, *Created* in descending order.
2. Select the **Translate Taxonomy Terms** check box when you are using multiple languages with [Managed Metadata](#), and you wish to use Management Metadata columns, to filter items or to display terms in the Lightning Conductor Web Part. This allows the Web Part to display translated terms according to the user’s browser language setting.




[Data Source tab](#) →

Columns tab




!https://www.manula.com/media/85/1483_dv-display-xml.jpg!The **Columns** tab, consists of the **Columns** section. Use this section to select columns that should be displayed in the [Data Viewer Web Part](#). Once you have configured the columns to be display, click on the [Display tab](#) to format the column data.

By default, no columns are selected, therefore, you must select at least one column, otherwise when you save your Data Viewer Web Part configuration, an error message, **Error occurred in Web Part** is displayed with a description: **Error occurred while trying to retrieve and display data.**

At the top right of the **Columns** section, at least three icons are displayed, which when clicked allow you to:

-  Update the Data Viewer Web Part with the columns selected.
-  [Add a calculated column](#)
-  Configure [Advanced filtering](#).

Below these three links there are three icons, which allow you to:



-  Select all columns.
-  Invert the selection.
-  Uncheck all columns.

The content of the rest of **Columns** section, may look different depending on the data source selected. For data sources such as *SharePoint lists and library apps*, *SQL Server* databases, *Oracle* databases, *ODBC* and *OData* data sources, the **Columns** section contains a list of columns, as described below:

- Selecting the check box to the left of the column name, to display data from that column in the Data Viewer Web Part. You can set the order of the columns within the **Columns** section, by dragging the columns up or down.

<input type="checkbox"/> Folder Child Count				<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	
<input type="checkbox"/> ID				<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	
<input type="checkbox"/> Item Child Count				<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	
<input type="checkbox"/> Modified			None	<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	
<input type="checkbox"/> Modified By				<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> Start Date	<input type="text" value="25 characters max"/>		Long Date	<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	
<input type="checkbox"/> Parent Application Name				<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	
<input type="checkbox"/> Parent Folder Name				<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	
<input type="checkbox"/> Parent List Title				<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	
<input type="checkbox"/> Parent Site Collection				<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	

Note: When you have selected a SharePoint Library app as your data source and you want to show the name of the file, and want the name to become a link to the properties page or to open the file in the appropriate application, then select the *Name* column, which when you hover over it has the screen tip, *LinkFileNoMenu*, and then on the [Display tab](#), complete the configuration options in the [Linking and Grouping](#) section.

- [Filtering](#). You can filter the number of items return based on values in one column, by using the **Filtering** icon , or more columns by clicking the [Advanced filtering](#) link in the top right of the **Columns** section. Click the **Remove All Filters** icon , to remove all persistent filters from all columns.

The [Display tab](#) allows you to format, group, sort, align, and conditionally format the data from the columns you have selected, however, the **Columns** tab may provide other options within the **Columns** section dependant on the data source.

SQL Server data source

With **SQL Server** database tables the following options are available on the **Columns** tab:

- [Group By](#) Select the **Group By** check box to the right of the column to group items by that column. You can then select to aggregate each group by selecting the checkboxes:
 - **Max**
 - **Min**
 - **Sum**
 - **AVG**
 - **Count**

Optionally you can select to format for numerical columns of each aggregated function using the drop down list to the right of each function check box.

- For numerical columns you can select, **None**, **Currency**, **Decimal**, **Fixed Point**, **General**, **Hexadecimal**, **Number**, **Percent** and **Scientific**.
- For Date/Time columns, you can select **None**, **Long Date**, **Long Date and Time**, **Long Time**, **Short Date**, **Short Date and Time**, **Short Time** and **Year And Month**. You can also type a [custom date format](#).

Columns

	Name	Group By	MAX	Format	MIN	Format	SUM
<input type="checkbox"/>	CustomerID	<input type="checkbox"/>					
<input type="checkbox"/>	EmployeeID	<input type="checkbox"/>	<input type="checkbox"/>	None	<input type="checkbox"/>	None	<input type="checkbox"/>
<input type="checkbox"/>	Freight	<input type="checkbox"/>	<input type="checkbox"/>	None	<input type="checkbox"/>	None	<input type="checkbox"/>
<input checked="" type="checkbox"/>	OrderDate	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	None	<input type="checkbox"/>	None	
<input type="checkbox"/>	OrderID	<input type="checkbox"/>	<input type="checkbox"/>	None	<input type="checkbox"/>	None	<input type="checkbox"/>
<input type="checkbox"/>	RequiredDate	<input type="checkbox"/>	<input type="checkbox"/>	Long Date	<input type="checkbox"/>	None	
<input type="checkbox"/>	ShipAddress	<input type="checkbox"/>		Long Date And Time			
<input type="checkbox"/>	ShipCity	<input type="checkbox"/>		Long Time			
<input type="checkbox"/>	ShipCountry	<input type="checkbox"/>		Short Date			
<input type="checkbox"/>	ShipName	<input type="checkbox"/>		Short Date And Time			
<input type="checkbox"/>	ShippedDate	<input type="checkbox"/>	<input type="checkbox"/>	Short Time	<input type="checkbox"/>	None	
				Year And Month			

OData data source

For an **OData** data source, the **Columns** section allows you to select the check boxes to specify the columns that are to appear on the *Add New Item* and *Edit Item* dialogs:

- Allow Insert**

- **Allow Update**

X

Configure Data Viewer Web Part

Web Part
Data Source
Columns
Display

Columns
Update columns configuration
Add calculated column
Advanced filtering

	Name	Allow Insert	Allow Update	Filtering
	<input checked="" type="checkbox"/> CompanyName	<input type="checkbox"/>	<input type="checkbox"/>	
	<input checked="" type="checkbox"/> ContactName	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	<input checked="" type="checkbox"/> ContactTitle	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	<input checked="" type="checkbox"/> Phone	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
	<input checked="" type="checkbox"/> City	<input type="checkbox"/>	<input type="checkbox"/>	
	<input checked="" type="checkbox"/> Country	<input type="checkbox"/>	<input type="checkbox"/>	
	<input checked="" type="checkbox"/> SupplierID	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/> Region	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/> Address	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/> HomePage	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/> PostalCode	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/>	<input type="checkbox"/> Fax	<input type="checkbox"/>	<input checked="" type="checkbox"/>	


Save
Cancel

You must remember to select the appropriate check boxes in the [Data Connection section](#) on the [Display tab](#) for the *Add New Item* button and Edit icon to appear in the Data Viewer Web Part, so users can display the *Add New Item* and *Edit Item* dialogs.

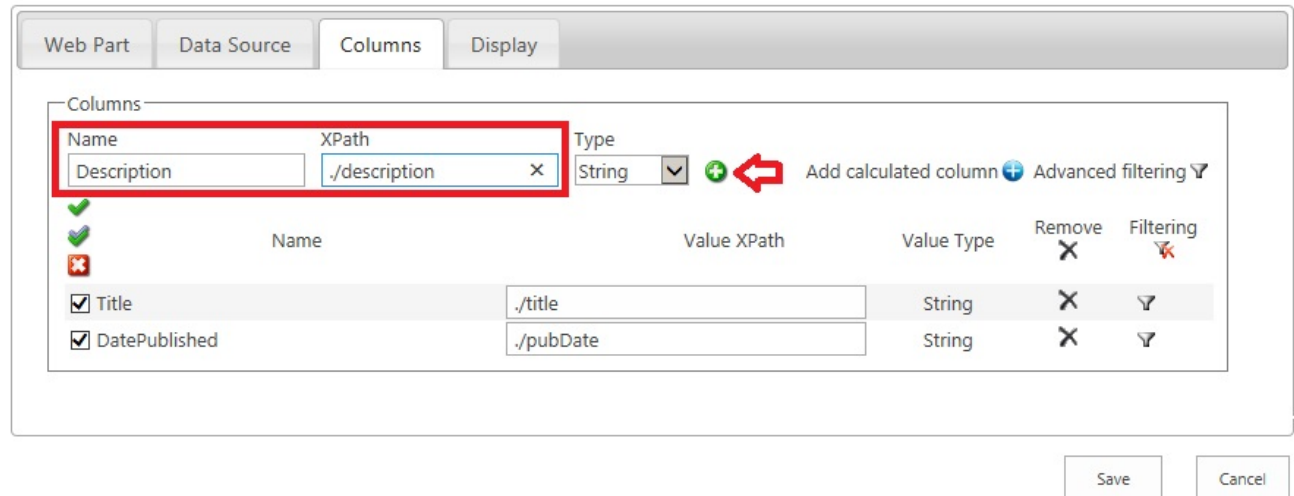
Note: The presence of *Allow Insert*, *Allow Update* and the *Data Connection* check boxes do not indicate that the OData service allows users to complete insert or update operations. Once you have configured the Web Part, you should test the insert, update and delete operations, for error messages. If these operations are not valid then an error message is displayed, **Error occurred in Web Part**, with a description of **The remote server returned an error (403) Forbidden**.

XML data source

For a **XML** data source, in the **Columns** section:

1. For each column, in the **Name** text box, type the column name, and in the **XPath** text box type provide the XPATH expressions relative to the item tag you provided on the [Data Source tab](#).
2. Click the green plus  icon.

Configure Data Viewer Web Part



Web Part | Data Source | **Columns** | Display

Columns

Name XPath Type

Description ./description String

Add calculated column Advanced filtering

	Name	Value XPath	Value Type	Remove	Filtering
<input checked="" type="checkbox"/>	Title	./title	String	X	Y
<input checked="" type="checkbox"/>	DatePublished	./pubDate	String	X	Y

Save Cancel

3. Select and arrange the columns and configure filters if needed.

[Configuring the Data Viewer Web Part →](#)

[— Miscellaneous](#)

[Calculated Columns →](#)

Calculated Columns

From Data Viewer Web Part version 2.1.0.0, you can add calculated columns.


Microsoft® SharePoint® allows you to add a [calculated column](#) to a list or library. By creating a [formula](#) in these calculated columns you can include data from other columns and performs functions to calculate dates and times, to perform mathematical equations, or to manipulate text. In calculated columns, formulas are based on Microsoft® Excel® functions and syntax, but there are some limitations on the functions you can use and some subtleties in the syntax. You can find more information about the various kinds of formulas you can use in a SharePoint calculated columns in the Microsoft article [Calculated Field Formulas](#).

Using the Data Viewer Web Part, you add calculations similar to those you can add to a SharePoint calculated column plus you can add almost any calculation that you want. The advantage of using a Data Viewer calculated column is that the calculation is executed every time the page is displayed, whereas with a list / library calculated column, the formula is only executed when the list item or file is modified. Also, the Data Viewer calculated column, is not based on Microsoft Excel formulas, but on C# based operators, calculations and functions.

As with other columns, with a Data Viewer calculated columns, you can apply conditional formatting on the calculated value, filter on the calculated column as well as sort or group by the result of the calculation. This page contains information on [how to add a Data Viewer calculated column](#) and information on [formulas](#) you can use.

Adding a Calculated Column

To add a Data Viewer calculated column, use the following steps:

1. Click the **Add calculated column**  icon in the top right hand corner of the **Columns** section on the [Columns](#) tab.

The *Add calculated column* dialog box is displayed., which contains three sections:

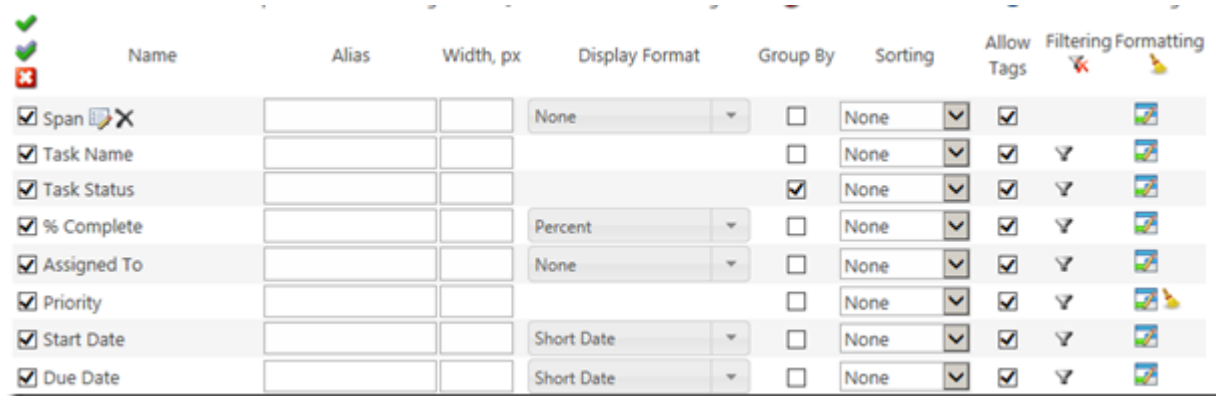
- **Column name:** In the text box, type a name for the column.
- **Column type:** Select one of the following values: **String**, **DateTime**, **Integer**, **Double** or **Boolean**. You must select the data type that is to be calculated. This may not be the same value as the columns involved in the calculation.

















- **Expression:** Use this section to create the formula for the calculated column. A formula can contain functions, column references, operators, and constants. To insert a column reference, select the column in the dropdown list and then click **Insert field**.



The screenshot shows the 'Add calculated column' dialog box. The 'Column name' field is 'Span'. The 'Column type' is 'String'. The 'Expression' dropdown is open, showing a list of columns. 'Due Date [DateTime]' is selected. A red arrow points to the 'Insert field' button, and another red arrow points to the 'Due Date [DateTime]' item in the list.

You must not type the column reference, you should always use the drop down list to insert references to columns. [Examples of formulas](#) can be found later on this page.

- Once you have created finished configuring the formula, click **Save**.
The *Add calculated column* dialog box closes and the new calculated column is displayed at the top of the columns in the *Columns Configuration* section.
- Select the check box to the left of the column if you wish to display the column in the Data Viewer Web Part.



	Name	Alias	Width, px	Display Format	Group By	Sorting	Allow Tags	Filtering	Formatting
<input checked="" type="checkbox"/>	Span 			None	<input type="checkbox"/>	None	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Task Name				<input type="checkbox"/>	None	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Task Status				<input checked="" type="checkbox"/>	None	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	% Complete			Percent	<input type="checkbox"/>	None	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Assigned To			None	<input type="checkbox"/>	None	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Priority				<input type="checkbox"/>	None	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Start Date			Short Date	<input type="checkbox"/>	None	<input checked="" type="checkbox"/>		
<input checked="" type="checkbox"/>	Due Date			Short Date	<input type="checkbox"/>	None	<input checked="" type="checkbox"/>		

6. To edit the calculated column, click the *Edit calculated column*  icon to the right of the column name.
7. To delete the calculated column, click the *Remove calculated column*  icon.

[Go to top →](#)

Information on calculated column formulas

This section contains examples of formulas you can use in the Data Viewer calculated column.

Text formulas

You can use formulas to manipulate text, such as combining or concatenating the values from multiple columns, comparing the contents of columns, removing characters or spaces, and repeating characters.

1. To combine two or more columns, use the addition operator (+), for example to create a calculated column, *fullname*, which concatenates the columns, *Firstname* and *Lastname*, use the following formula:
[Firstname]+" "+[Lastname]
2. Use [String properties](#), for example, to find the length of the values stored in the *Title* column:
[Title].Length
3. Use [String methods](#), for example,

- To convert a strings stored in the *Title* column to lower case,
[Title].ToLower()
- To retrieve a substring for values stored in the *Title* column, starting from character position 5, for a length of 6 characters,
[Title].Substring(5,6)
- To remove all spaces for values stored in the *Title* column,
[Title].Replace(" ","")

Date and time formulas

You can use formulas to perform calculations that are based on dates and times, such as finding the day of the week, adding a number of days, months, or years to a date, calculating the difference between two dates, and converting time to a decimal value.

1. Use [DateTime properties](#), such as, displaying the day of the week for values stored in the *Created* column,
[Created].Value.DayOfWeek
2. Use the [DateTime methods](#) to add a date/time component to a column, for example to add two hours to the *Created* column, use the following formula,
[Created].Value.AddHours(2).ToString("YYYY-MM-DD HH:MM")
3. Calculate the difference between two dates, use the subtraction operator (-) and then use [TimeSpan properties](#) to present the difference as required, for example, when using a task list, create a calculated column using the following formula to display the number of days to complete a task.
([DueDate].Value-[StartDate].Value).TotalDays

Conditional Formulas

You can use the formulas to test the condition of a statement and return a value. Conditional expressions take the form of a ternary operator called the conditional expression operator, **?:**, which use the following format:

(condition)?(evaluate if condition was true):(evaluate if condition was false)

For example, if you want to create a calculated column that contains either *Before* or *After*, depending on the year the item / file was created, then the formula would look similar to:

([Created].Value.Year<DateTime.Now.Year)?"Before":"After"

Also, if the LCWP conditional formatting feature does not satisfy all your need, you can apply formatting as part of your calculated column, for example,

`=[Created].Value.Year<DateTime.Now.Year)?"Before":"After"`

This would result in a Lightning Conductor Web Part displaying data similar to the following screenshot.

Calc4	Created
After	1/21/2014 00:30:3
Before	11/29/2013 08:52
Before	11/28/2013 11:34
Before	8/19/2013 13:23:3
Before	8/2/2013 10:59:24

Mathematical Formula

You can use formulas to perform a variety of mathematical calculations, such as adding (+), subtracting (-), multiplying (*), dividing numbers (/), remainder after dividing a number by a second number (%); and using the [Math Fields](#) and [Math Methods](#), for example,

1. Round values in the *NoTasks* column to the nearest integral value:

`Math.Round([NoTasks].Value)`

2. Calculate the area of a circle when the value of the radius is saved in the *Radius* column:

`Math.Pow([Radius].Value,2)*Math.PI`

[Go to top →](#)

[— Columns tab](#)

[Column Filtering —>](#)

Column Filtering


You can filter the number of items displayed within the Data Viewer Web Part, based on one or more conditions using:

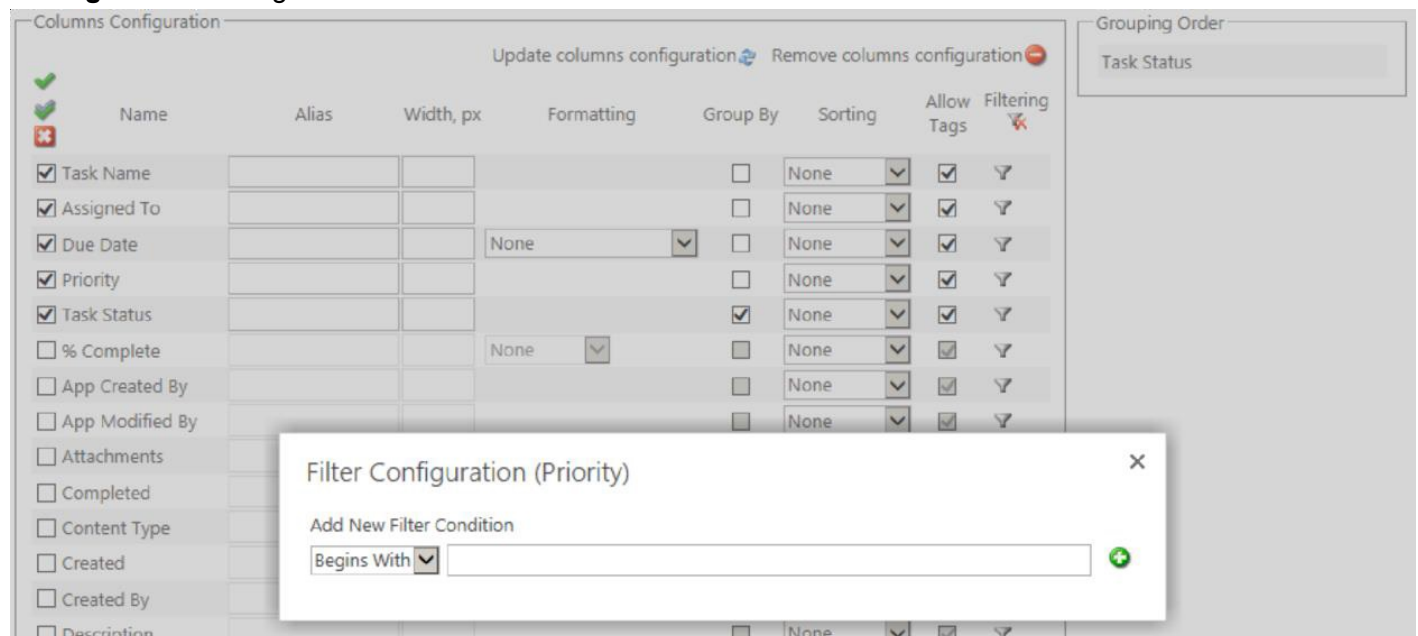
- Values in one column using the [filtering icon](#)
- Values in more than one columns using the [Advanced filtering](#) link.

Both of these options are detailed on this page.










Filtering icon


Filters can be configured on each column whether the column is displayed or not. Each column type can also provide different filtering options, for example, a Date/Time filter allows you to filter by [TODAY], a People column allows you to filter by [Me], and so on.




You can apply the filter and remove the filter using the **filtering icon**  , which displays the **Filter Configuration** dialog.



The screenshot shows the 'Columns Configuration' dialog with a table of columns. The table has columns for Name, Alias, Width, Formatting, Group By, Sorting, Allow Tags, and Filtering. The 'Filtering' column contains a filtering icon. A 'Filter Configuration (Priority)' dialog is open, showing a dropdown menu with 'Begins With' selected and a text input field. A green plus icon is visible next to the text input field.

Name	Alias	Width, px	Formatting	Group By	Sorting	Allow Tags	Filtering
<input checked="" type="checkbox"/> Task Name				<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> Assigned To				<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> Due Date			None	<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> Priority				<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/> Task Status				<input checked="" type="checkbox"/>	None	<input checked="" type="checkbox"/>	
<input type="checkbox"/> % Complete			None	<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	
<input type="checkbox"/> App Created By				<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	
<input type="checkbox"/> App Modified By				<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	
<input type="checkbox"/> Attachments							
<input type="checkbox"/> Completed							
<input type="checkbox"/> Content Type							
<input type="checkbox"/> Created							
<input type="checkbox"/> Created By							
<input type="checkbox"/> Description					None	<input checked="" type="checkbox"/>	

Select the condition from the drop down list, type a value in the text box and then click the green plus icon  . A dialog displays stating that the filter configuration was updated successfully.



When a filter has been configured for a column, then to the right of the **Filtering** icon , is the **Remove Filtering** icon . This allows you to easily identify columns that are being used to filter the contents returned from the rollup query. To remove all persistent filters, click the **Remove Filtering**  icon, just under the **Filtering** column heading.

You can also use [Web Part connections](#) to filter the contents of a Data Viewer Web Part.



Advanced Filters



Occasionally, you may want to filter on more than one column using And or Or operators. This can be done with the Data Viewer Web Part using the **Advanced filtering** icon, which is display in the top right of the **Columns** section of the [Columns tab](#).


To filter on more than one column:

1. Click the **Advanced filtering**  icon in the top right hand corner of the **Columns** section on the [Columns](#) tab.
2. Click the green plus icon  to add a new level of filtering.
3. Select the column to apply the filter to.
4. Select the operator such as **Equals**.
5. Set the value.
6. You can repeat these steps for each column that you wish to filter on.

Advanced Filtering ×

And  

DueDate ▼ Equal ▼ 7/31/2013  Today ☐ Days Offset Negative ☐ 

Priority ▼ Equal ▼ 

Save Cancel

[Columns tab](#) →

— [Calculated Columns](#)

[Display tab](#) →

Display tab

When the **SPGridView Display Provider** is selected in the **Configure Display Provider** drop down list on the [Web Part](#) tab, the **Display** tab contains the following sections:

- [Display Columns](#)
- [Header configuration](#)
- [Linking and Grouping](#)
- [Data connection](#).
- [Paging settings](#)
- **No item returned message** text box. In this text box, type the text you wish to display when no data is returned from the data source.
- **Grouping Order**. This section appears when the check box under **Group By** is selected for at least one column in the [Display Columns](#) section.
- **Sorting Order**. This section is displayed when you have selected either **Ascending** or **Descending** for at least one column from the **Sort** list in the [Display Columns](#) section.

When you have finished configuring all four tabs, click **Save**.

[Configuring the Data Viewer Web Part →](#)

Display Columns

Use the **Display Columns** section on the [Display tab](#) to select how the column data should be displayed by the Data Viewer Web Part. Only those columns you selected on the [Columns tab](#) are displayed in this section.

In this section you can configure:

- **Format:** Select from the **Format** drop down list the format of columns, for example:
 - For a Boolean column type, you can select: **None**, **Yes/No**, **True/False** or **Checkbox**.
 - For numerical columns you can select, **None**, **Currency**, **Decimal**, **Fixed Point**, **General**, **Hexadecimal**, **Number**, **Percent** and **Scientific**.
 - For Date/Time columns, you can select **None**, **Long Date**, **Long Date and Time**, **Long Time**, **Short Date**, **Short Date and Time**, **Short Time** and **Year And Month**. You can also type a [custom date format](#).

Configure Data Viewer Web Part

Web Part Data Source Columns **Display**

Display Columns

Name	Format	Alias
Discontinued	None	
ProductID	Yes/No	
ProductName	True/False	
QuantityPerUnit	Checkbox	
UnitPrice	None	
UnitsInStock	None	
UnitsOnOrder	None	

- **Alias:** Most column names are not user friendly. Type in the **Alias** text box an alternate name for the column title.

Configure Data Viewer Web Part

Web Part
Data Source
Columns
Display

Display Columns

Name	Format	Alias	S
Discontinued	None ▼		None
ProductID	None ▼		None
ProductName			None
QuantityPerUnit			None
UnitPrice	None ▼	Unit Price	None
UnitsInStock	None ▼	Units left in Stock	None
UnitsOnOrder	None ▼		None

Header configuration

Note: The Column name and Alias name is only displayed when the **Show Header** check box is selected in the [Header Configuration](#) section on the [Display tab](#).

- Column width: Type in the **Width, px** text box the width of the column in pixels.
- Sorting: Use the **Sort** drop down list to sort the items displayed in **Ascending** or **Descending** order. A **Sorting Order** section appears.

Configure Data Viewer Web Part

Web Part
Data Source
Columns
Display

Display Columns

Name	Format	Alias	Sort	Align
Discontinued	None		None	Not set
ProductID	None		None	Not set
ProductName			None	Not set
QuantityPerUnit			None	Not set
UnitPrice	None	Unit Price	Descending	Not set
UnitsInStock	None	Units left in Stock	None	Not set
UnitsOnOrder	None		None	Not set

By sorting data, you present the data in an order that works best for your users, instead of the order in which the data is returned from the data source. For example, you can create a Data Viewer Web Part that displays a product list, sorted by product name in alphabetically order to make it easier to find products in the list. You can also sort on multiple columns by adding more column to the sort order list. For example, to help make the products in the list easier to find, you can configure the Data Viewer Web Part to display the product list by category, and then by product name within each category. You can use the **Sorting Order** section to change the order of the sort columns, by dragging columns in sort order. The column at the top of the **Sorting Order** section is the first column used to sort the returned items from the data source.

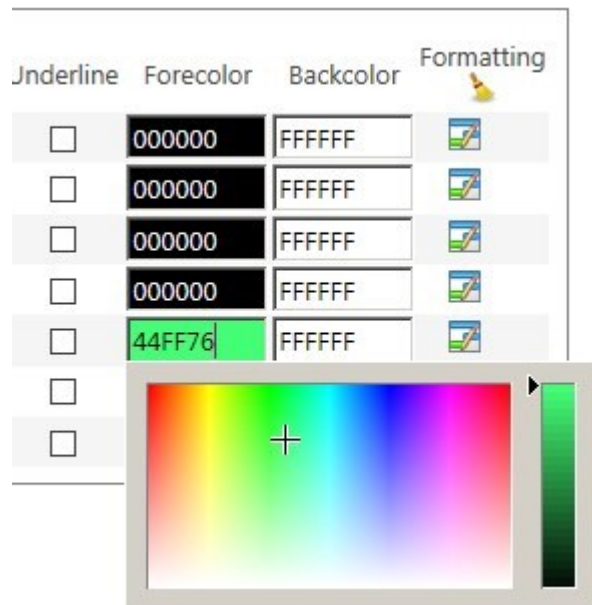
Note:When you have chosen The **SharePoint List Data Source provider** on the [Web Part tab](#), to improve the display performance of lists or libraries, that contain a large number of items, you can create [indexes](#) on the columns you will be sorting on.

- **Grouping:** Select the **Group By** check box to the right of the column to group items by that column. A **Grouping Order** section appears. If you wish to group using multiple columns, you can change the order of the grouping, using the **Grouping Order** section, by dragging columns in group order. The column at the top of the **Grouping Order** section is the first column used to group the returned items.



By default groups are expanded. To collapse groups when the Data Viewer Web Part is first displayed, in the [Linking and Grouping](#) section, select **Groups Collapsed** from the **Grouping Initial State** list. You can also display how many records are in a group by selecting **Show Count of Items in Groups** check box in the [Linking and Grouping](#) section.

- **Display:** When you select to group items by a column then the check box below **Display** becomes active, and you can select whether to show the values in the column not only as a group heading but also as a column in the Data Viewer Web Part.
- **Font and Background formatting:** You can use the **Align**, **Forecolor** and **Backcolor** lists, as well as the check boxes **B** (bold), **I** (italic) and **U** (underline) to format the fonts and background colors for each column individually. The *Forecolor* and *Backcolor* can also be set either using the color picker or by entering the RGB code.



- [Conditional Formatting](#). Conditional formatting can be set per value or per row allowing you to change formatting options only if a condition is true, for example, you could highlight any Products that have a Units in Stock less than 10 or Tasks assigned to you. Click the **formatting** icon to display the **Configure Conditional Formatting** dialog. Click the **Remove All Formatting** icon , to remove all filters from all columns.



[— Display tab](#)

[Conditional Formatting —>](#)

Conditional Formatting

Formatting can be applied to the content of your [Data Viewer Web Part](#) based upon a condition being true or false. For example, if you are displaying Task items from a Task List app, you may want to display Tasks that are past their due date in red font rather than black font. It is possible to have multiple conditions using the *And* and *Or* operators.

To apply conditional formatting:

1. On the [Display tab](#), in the [Display Columns](#) section, click the formatting icon  next to the column that contains the value which you want to use for the condition. For example, you would click the formatting icon  to the right of the **UnitsInStock** column, if you wanted to format products that have less than 10 units in stock.
2. Select the **Apply To Entire Row** check box when you want the entire row to be formatted rather than the column value.
3. Select the **Fore Color**, **Back Color**, **Align**, **B** old, **I** talic, **U** nderline options as required.
4. Under **Add New Filter Condition**, set the condition.

Configure Conditional Formatting (UnitsInStock) ✕


☒ Apply To Entire Row ☐ Fore Color FF4D0F Back Color 131313 Align Right ☐ **B** ☐ **I** ☐ **U** ✕



Add new filter condition

And ▼ = ▼ +

Modify filter conditions

And ▼ < ▼ −

5. Click the green plus icon  , to set the condition. You can modify, delete or add additional conditions.
6. Optionally, click **Add Formatting** to add additional formatting options.
7. Click **Save** to apply the formatting to the Web Part.

The remove formatting icon  appears to the right of the formatting icon.  indicating that you have configured conditionally formatting using the UnitsInStock column.

When you save your configuration, the Data Viewer Web Part displays the data similar to the following screenshot.

Lightning Data Viewer ▼ <input checked="" type="checkbox"/>				
<input checked="" type="checkbox"/> False				
33	Geitost	2.5000	112	0
13	Konbu	6.0000	24	0
52	Filo Mix	7.0000	38	0
54	Tourtière	7.4500	21	0
75	Rhönbräu Klosterbier	7.7500	125	0
23	Tunnbröd	9.0000	61	0
19	Teatime Chocolate Biscuits	9.2000	25	0
47	Zaanse koeken	9.5000	36	0
45	Rogede sild	9.5000	5	70
41	Jack's New England Clam Chowder	9.6500	85	0
21	Sir Rodney's Scones	10.0000	3	40

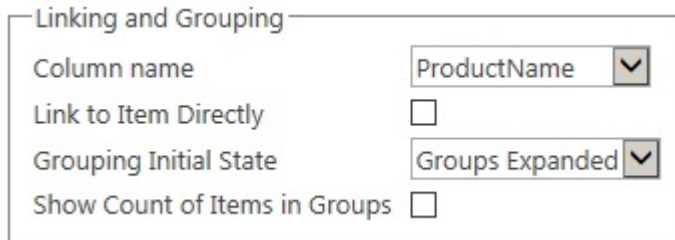
[Display Tab →](#)

[— Display Columns](#)

[Linking and Grouping —>](#)

Linking and Grouping

The **Linking and Grouping** section is on the [Display tab](#), of the [Data Viewer Web Part](#) dialog.



The screenshot shows the 'Linking and Grouping' section of the 'Data Viewer Web Part' dialog. It contains four settings:

- Column name:** A dropdown menu with 'ProductName' selected.
- Link to Item Directly:** An unchecked checkbox.
- Grouping Initial State:** A dropdown menu with 'Groups Expanded' selected.
- Show Count of Items in Groups:** An unchecked checkbox.

Use this section as described below:

- **Column name:** This check box should only be selected when either the **MSSql Data Source Provider** or the **SharePoint List Data Source Provider** is selected on the [Web Part tab](#). The column name selected from the list, must also be selected on the [Columns tab](#), otherwise an error is displayed.
 - When using the *MSSql Data Source Provider*, you can use [Web Part connections](#) to connect two or more Data Viewer Web Part, when the Web Parts are displaying content from a Microsoft SQL® database. The tables from the database must have a 1 to many (Master/Child) relationship. In the Web Part that is displaying data from table that has the *Master* relationship, select the *primary key* column and in the Web Part which will received data from the *Master* Web Part, select the secondary key column that matches data from the primary key column. In the Web Part that is displaying the master content, you must display the column that contains the primary key. In the Web Part that displays the child content, you do not have to display the column that displays the secondary key.
 - Select a column from the **Column name** list when using the *SharePoint List Data Source Provider*, for the column to become a link. Select the same column that is a link when using the List View Web Part. This is usually the first column that appears when you create a new item, for example, for most lists and libraries this is the *Title* column, however for a *Tasks* list, select *Task Name* and *Libraries*, select *Name*. When the user clicks on the link the properties page for the item/file is displayed.
- **Link to Item Directly:** The check box is only applicable when using either the **MSSql Data Source Provider** or the **SharePoint List Data Source Provider**. By default this check box is not selected.
 - Select this check box when you want to use Web Part connections for two Data Viewer Web Parts that are displaying data from an SQL database (a column must also be selected from the Columns list).
 - When you are using the *SharePoint List Data Source Provider*, this check box is only applicable to libraries and used with the *Column name* list. When the **Link to Item Directly** check box is

selected then the column is selected from the **Column name** list, is a link which when clicked, opens the file with the program associated with the file's extension.

- **Grouping Initial State:** From the drop down list select either **Groups Expanded** (default) or **Groups Collapsed**. To select the columns to group data, use the **Group By** checkbox in the [Display Columns](#) section.
- **Show Count of Items in Groups:** Select this check box if you want a count of items in groups to be displayed.

For SharePoint list and library apps, two other options are available:

- **Show Document Type Icon:** This option is only applicable when you have selected a document library as your data source. By default this check box is not selected. Select this check box when you want an icon are displayed to the left of the document to indicate the file type. File types are identified using the file's extension. A blank document icon is displayed for unknown file types.
- **Group by Folders:** When lists and libraries contain folders, you can display the folder structure in the Data Viewer Web Part by selecting this check box. Ensure that the Parent Folder name column is chosen on the [Column tab](#).

[Configuring the Data Viewer Web Part →](#)

[Creating, Updating and Deleting data →](#)

[— Conditional Formatting](#)

Creating, Updating and Deleting data

The [Data Viewer Web Part](#) provides the user the option of adding, modifying and deleting data for any data source. Users can perform such operations depending upon their permission in the data source and also as to whether *Enable insert*, *Enable update*, and *Enable delete* operations have been selected in the **Data connections** section on the [Display tab](#).

Data connection

Enable insert

☐

Enable update


☐

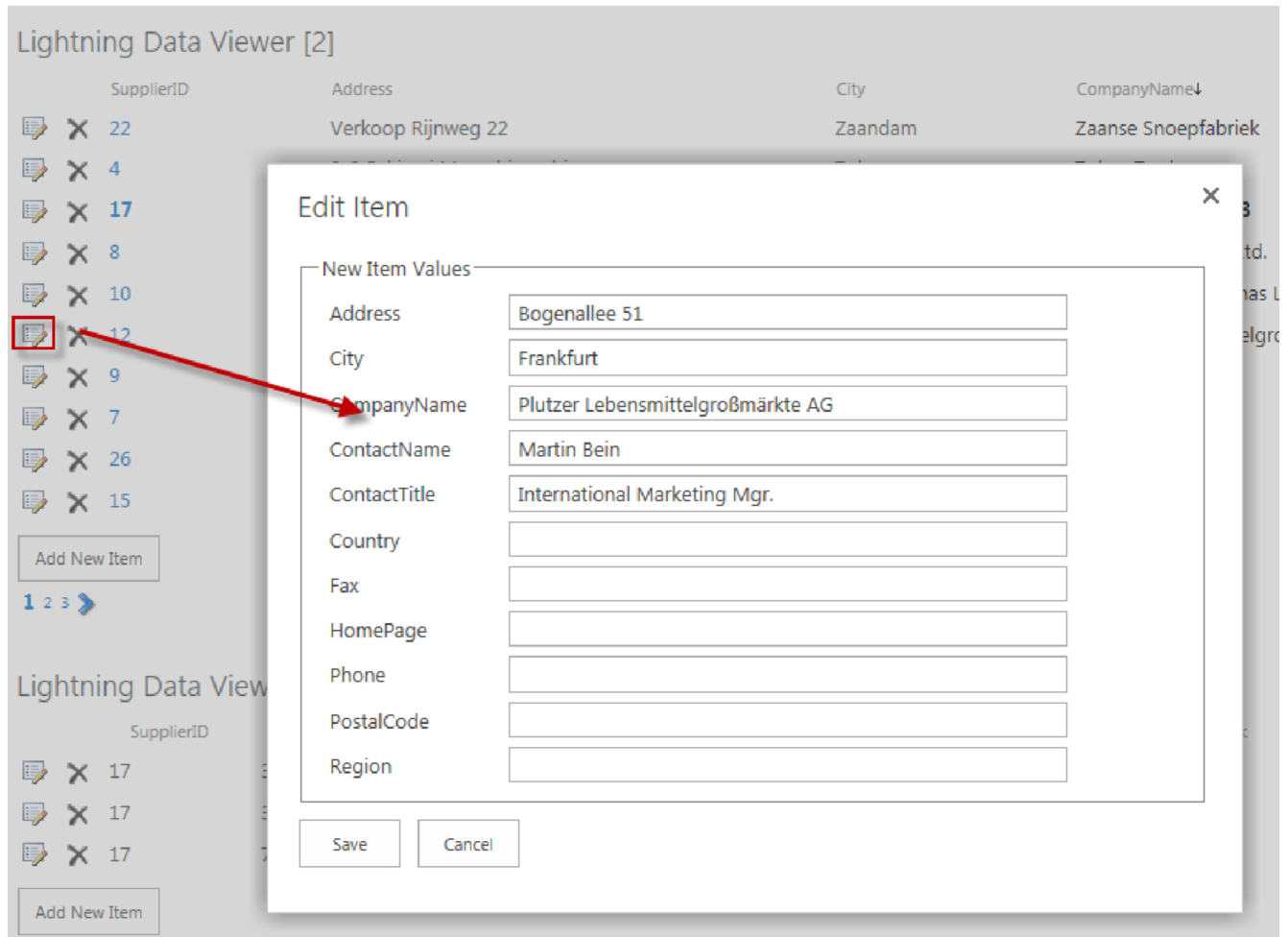
Enable delete


☐

By default the Data Viewer Web Part will only display data in read-only mode.





















When the check boxes are selected, links to the Data Viewer Web Part are provided, so users can insert, update or delete records in the data source

- **Update.** Click the *Edit*  icon to the left of the row to display the *Edit Item* dialog. All columns from the data source are displayed on the *Edit Item* dialog, no matter the columns you selected on the [Columns tab](#). Modify the required fields and then click **Save**.



- **Delete.** Click the Delete  icon to the left of the row. A dialog box is displayed asking **Are you sure you want to delete this item?**. Click **OK** to delete the item.

Lightning Data Viewer [2]

SupplierID		Address
 	22	Verkoop Rijnweg 22
 	4	9-8 Sekimai Musashino-shi
 	17	Brovallavägen 231
 	8	29 King's Way
 	10	Av. das Americanas 12.890
 	12	Bogenallee 51
 	9	Kaloadagatan 13
 	7	74 Rose St. Moonie Ponds
 	26	Via dei Gelsomini, 153
 	15	Hatlevegen 5

Add New Item

1 2 3 >

- **Create.** To create new items, click **Add New Item** to display the *Add New Item* dialog. All columns from the data source are displayed on the *Add New Item* dialog, no matter the columns ou selected on

the [Columns tab](#). Type the required values and then click **Add**.

Add New Item

New Item Values

Address	<input type="text"/>
City	<input type="text"/>
CompanyName	<input type="text"/>
ContactName	<input type="text"/>
ContactTitle	<input type="text"/>
Country	<input type="text"/>
Fax	<input type="text"/>
HomePage	<input type="text"/>
Phone	<input type="text"/>
PostalCode	<input type="text"/>
Region	<input type="text"/>

Add

Cancel

[— Linking and Grouping](#)
[Header Configuration —>](#)

Header Configuration

The **Header configuration** section is on the [Display tab](#) of the Lightning Conductor Web Part dialog.



Header configuration

Show header ☐

Header align Not set ▼

Use the options in this section, as described below:

- Select the **Show header** check box to show the column names of the columns selected on the [Columns tab](#). The default is to not to show column names.
- From the **Header align** drop down list, select **Centre**, **Justify**, **Left**, **Not set** or **Right** to align the column names. The default is **Not set**.

[Configuring the Data Viewer Web Part →](#)

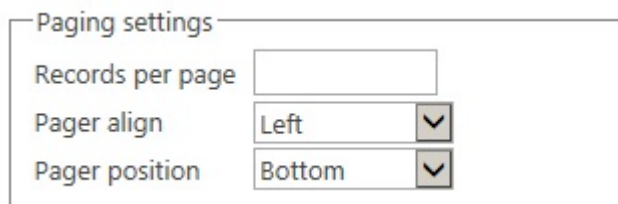
[— Creating, Updating and Deleting data](#)

[Paging Settings →>](#)

Paging Settings

Use **Paging settings** section on the [Display tab](#) of the [Data Viewer Web Part](#) dialog to configure your pagination options. This section contains three options:

- **Records Per Page:** Type the number of items to display, for example **25**.
- **Pager align.** Select from the drop down list: **Center**, **Justify**, **Left**, **Not set** or **Right**. *Left* is the default.
- **Pager position.** From the drop down list select; **Top**, **Bottom** or **Top and bottom**. *Bottom* is the default.



The screenshot shows a section titled "Paging settings" with three configuration options:

Records per page	<input type="text"/>
Pager align	Left <input type="button" value="v"/>
Pager position	Bottom <input type="button" value="v"/>

[Configuring the Data Viewer Web Part →](#)

[— Header Configuration](#)

[Troubleshooting →](#)

Troubleshooting

This section contains issues that make be experienced when installing the [Data Viewer Web Part](#) for [Microsoft® SharePoint® 2013](#).

SharePoint 2013 Central Administration Web Site:

The following errors are related to tasks that are completed using the SharePoint 2013 Central Administration web site.

- Missing: [Manage Lightning Tools Products Licensing link](#) on the **System Settings** page.
- Missing: [DataViewer2013webpart.wsp solution](#) on the **Solution Management** page.
- [Licensing Error](#)

SharePoint sites:

The following errors are related to tasks an information worker, site owner or site collection administrator may see.

- Missing: [Lightning Data Viewer Web Part site collection feature](#).
- Missing: [Lightning Tools Web Parts category](#) in the Web Part pane.
- Missing: [Data Viewer Web Part](#) in the Web Part pane.

Web Part error

Whilst configuring or once you have saved your configuration, the Data Viewer Web Part may display an Error dialog. The following list contains common configuration errors.

Error Description	Data Source Provider	Cause
Could not get databases info. Login failed for user '[username]'	Ms SQL	Username does not have access permissions on the Microsoft SQL Server instance. Check the spelling of the username and password. Contact your database administrator for further assistance.

Could not get databases info.Target application not found (application id: [secure store id]).	Ms SQL	The secure store id that you used does not exist. Check the spelling. Contact your SharePoint server administrator for further assistance.
Can't retrieve xml data from url ()	XML	The XML data source has not returned well formatted XML. Contact the owner of the XML data source to rectify the error.
Error occurred while getting data in format Data Table from data source provider.	SharePoint List	You selected an external list in tree view on the Data Source tab . Only internally SharePoint lists and libraries are currently supported.

Missing: Manage Lightning Tools Product Licencing link

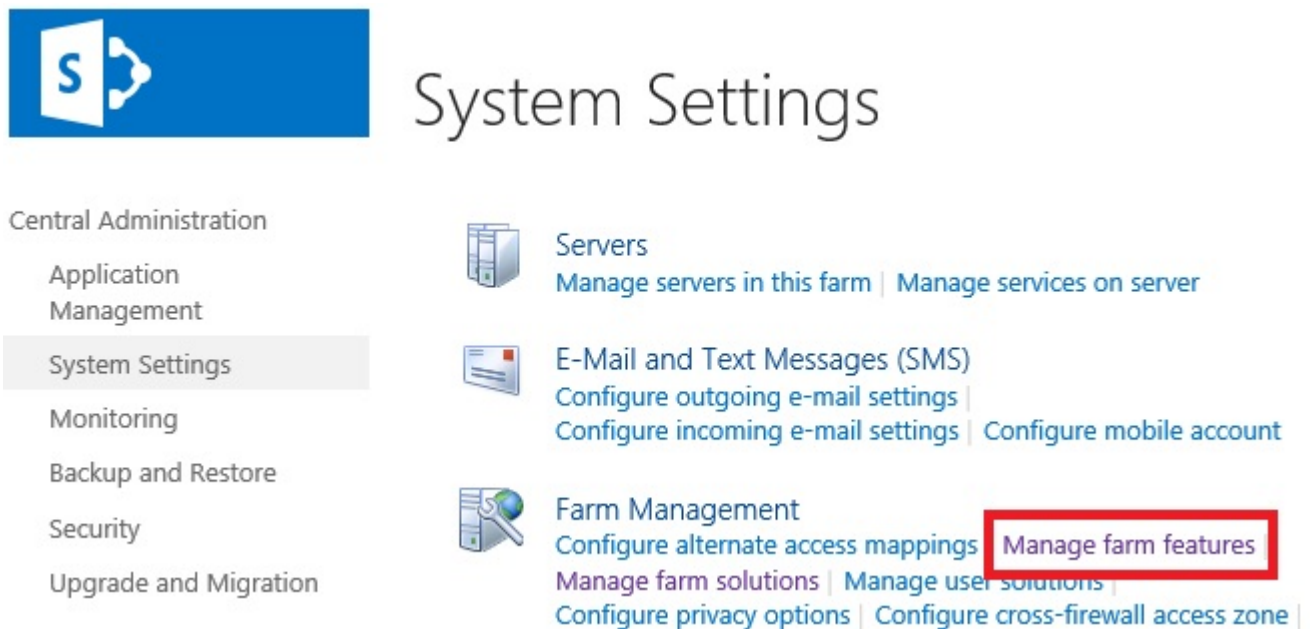
Symptom:

On the **System Settings** page of the SharePoint 2013 Central Administration web site, under **Farm Management**, the link – **Manage Lightning Tools products licencing** – is missing.





Resolution:

Activate the Manage Licensing Of Lightning Conductor farm feature using the following steps:

1. In the browser, on the Quick Launch of the Microsoft SharePoint Central Administration web site, click **System Settings**, and then under **Farm Management**, click **Manage farm features**.



2. On the **Manage Farm Features** page, to the right of **Manage licensing of Lightning Conductor** click **Activate**.

	Excel Services Application Web Part Farm Feature Adds farm-level Excel Services Application web part features to the Microsoft SharePoint Foundation framework	Deactivate	Active
	Farm Level Exchange Tasks Sync Enables the Exchange Sync Timer Job for Work Management Service Application. Customizes the ribbon for SharePoint Server Tasks lists, enabling users to opt in and out of the Work Management synchronization with Exchange Server.	Deactivate	Active
	Global Web Parts Installs additional web parts common to all types of sites.	Deactivate	Active
	Manage licensing of Lightning Conductor Adds links in central administration for managing LT products licensing.	Activate	

Missing: Lightning Data Viewer Web Part site collection feature

Symptom:

When trying to activate the **Lightning Data Viewer Web Part** site collection feature, it is not listed on the **Site Collection Features** page.

Resolution:

[Deploy the Data Viewer solution](#) to the Web application where the site collection lives.

Missing: DataViewer2013webpart.wsp solution

Symptom:

On the **Solutions Management** page of the SharePoint 2013 Central Administration web site, the DataViewer2013webpart.wsp – solution is missing.

Resolution:

Upload the Data Viewer solution package using [Add-SPSolution](#) Windows PowerShell® command.

Missing: Lightning Tools Web Parts category in the Web Part pane

Symptom:

When trying to add the [Data Viewer Web Part](#) to a [Microsoft® SharePoint® 2013](#) page, the Lightning Tools Web Parts category does not appear in the Web Part pane.

Resolution:

[Activate the Lightning Data Viewer Web Part](#) at the site collection level.

Missing: Lightning Conductor Web Part in the Web Part pane

Symptom:

When trying to add the [Data Viewer Web Part](#) to a [Microsoft® SharePoint® 2013](#) page, the Lightning Conductor Web Part does not appear in the Web Part pane.

Resolution:

[Activate the Lightning Data Viewer Web Part](#) at the site collection level.