



Lightning Conductor Web Part 2010

Manual

5.1 — Last update: September 8, 2014

Lightning Tools

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Installing the Lightning Conductor 2010 Web Part

This section contains information on how to install the [Lightning Conductor Web Part](#) (LCWP) for [Microsoft® SharePoint® 2010](#). It is essential to read and complete the installation steps before you can add the [Lightning Conductor Web Part](#) to a SharePoint page. Information on [using](#) and [configuring](#) the LCWP can be found later in the documentation.

As the [Lightning Conductor Web Part](#) is a SharePoint® 2010 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 [Lightning Conductor 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 Conductor 2010 Web Part site collection feature.

Use the following steps to install the [Lightning Conductor Web Part](#):

1. [Upload the LightningConductor2010WebPart.wsp solution package to the SharePoint® farm.](#)
2. [Deploy the solution to the required Web Applications.](#)
3. [Activate the Lightning Conductor 2010 license key if you are not using the trial version of the Web Part.](#)
4. [Activate the Lightning Conductor 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 Lightning Conductor solution package —>](#)

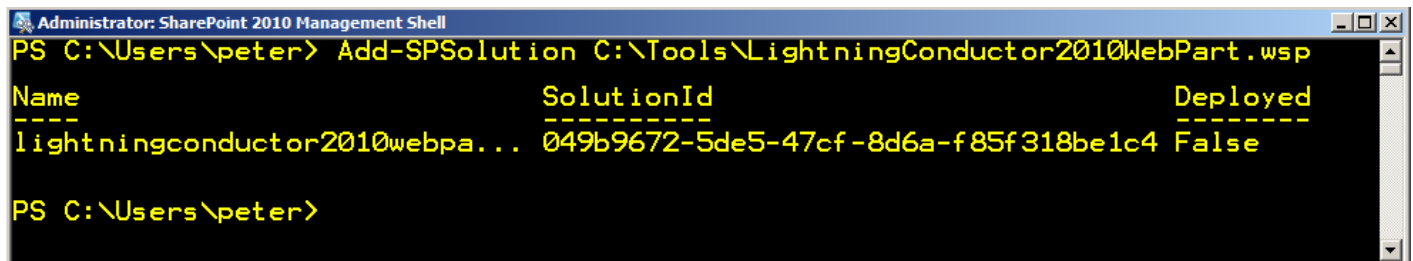
Uploading the Lightning Conductor solution package

To upload the LightningConductor2010WebPart.wsp to your [Microsoft® SharePoint® 2010](#) 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.

1. Unzip the downloaded Lightning Conductor Web Part zip file to you computer.
2. Copy LightningConductor2010WebPart.wsp to a folder on your SharePoint 2010 server, for example **c:\Tools**.
3. Open the SharePoint 2010 Management Shell and type on one line, **Add-SPSolution c:\Tools\LightningConductor2010WebPart.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.



```
Administrator: SharePoint 2010 Management Shell
PS C:\Users\peter> Add-SPSolution C:\Tools\LightningConductor2010WebPart.wsp
Name                               SolutionId                         Deployed
----                               -
lightningconductor2010webpa... 049b9672-5de5-47cf-8d6a-f85f318be1c4 False
PS C:\Users\peter>
```

More information on the SharePoint 2010 Management Shell can be found at: [SharePoint 2010 Products administration by using Windows PowerShell](#)

[Deploy solution packages \(SharePoint Server 2010\) →](#)

[Deploying the Lightning Conductor solution →](#)

Deploying the Lightning Conductor solution

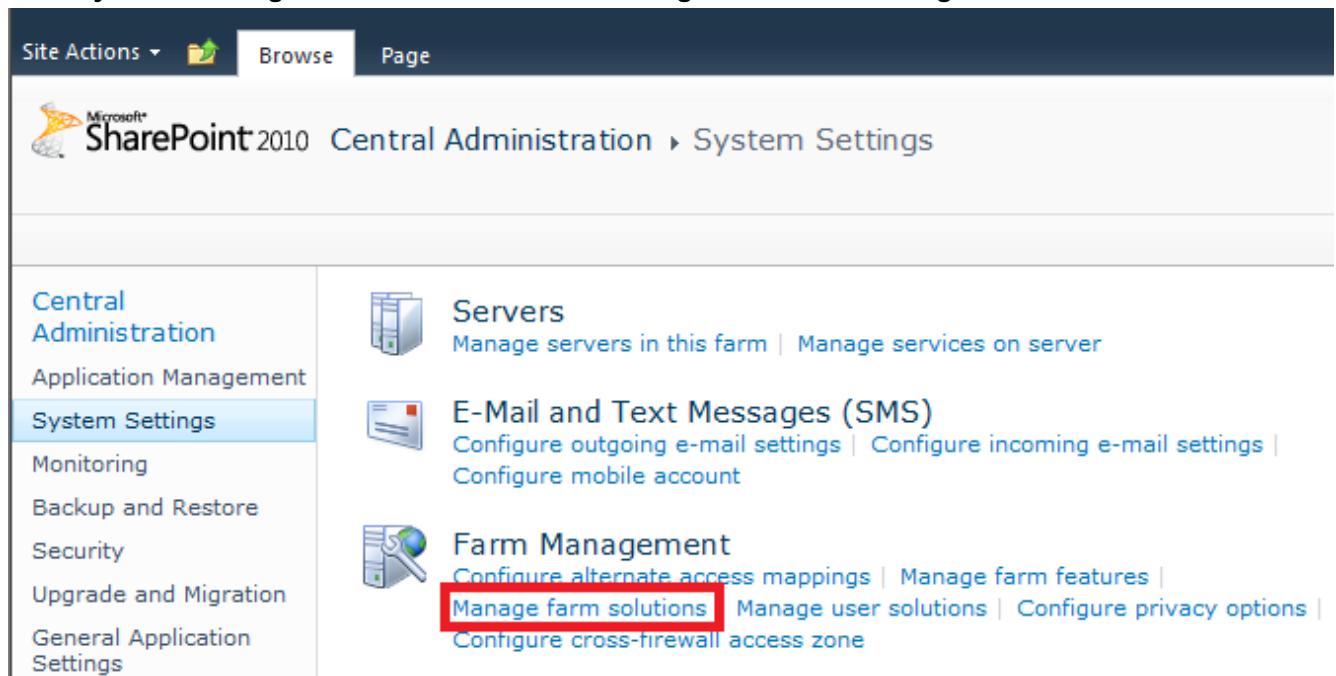
To deploy a [Microsoft® SharePoint® 2010](#) farm solutions to a Web Application you can use [Windows PowerShell®](#) commands or the [SharePoint 2010 Central Administration](#) web site.

Which ever method you choose to deploy the farm solution you must be a SharePoint farm administrator.

Using the SharePoint 2010 Central Administration web site

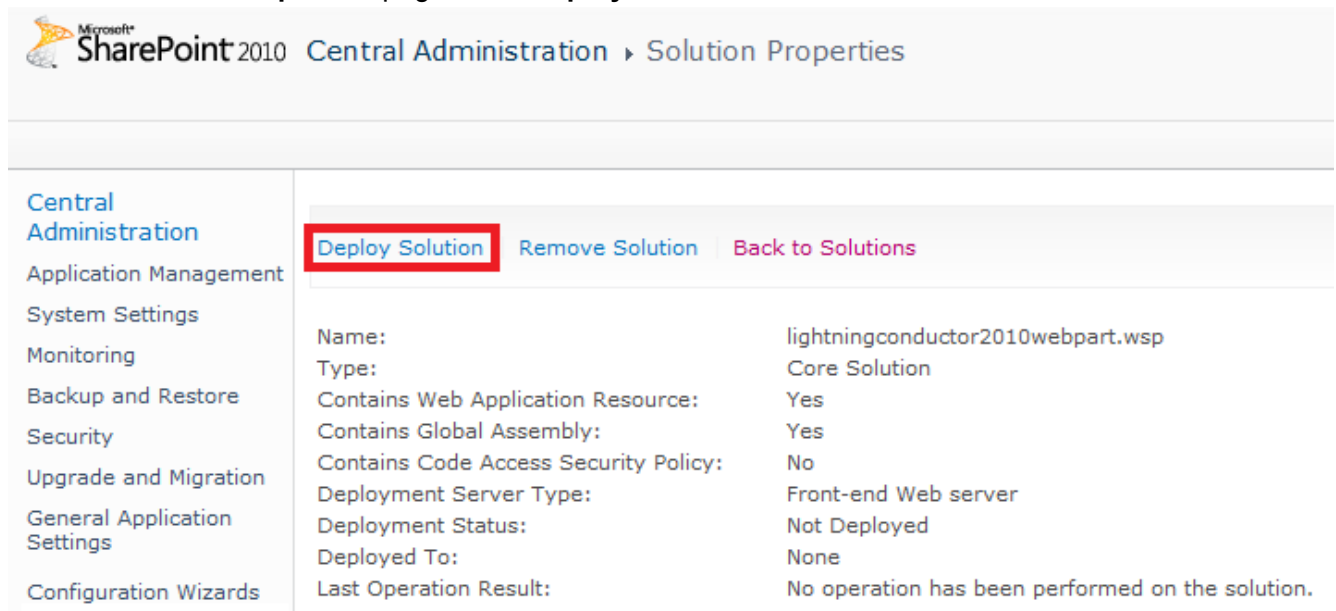
The following instructions use the SharePoint 2010 Central Administration web site to deploy the farm solution.

1. In the browser, open Microsoft SharePoint 2010 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 **Lightningconductor2010webpart.wsp**.

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



Microsoft SharePoint 2010 Central Administration > Solution Properties

Central Administration

Application Management

System Settings

Monitoring

Backup and Restore

Security

Upgrade and Migration

General Application Settings

Configuration Wizards

Deploy Solution Remove Solution Back to Solutions

Name: lightningconductor2010webpart.wsp

Type: Core Solution

Contains Web Application Resource: Yes

Contains Global Assembly: Yes

Contains Code Access Security Policy: No

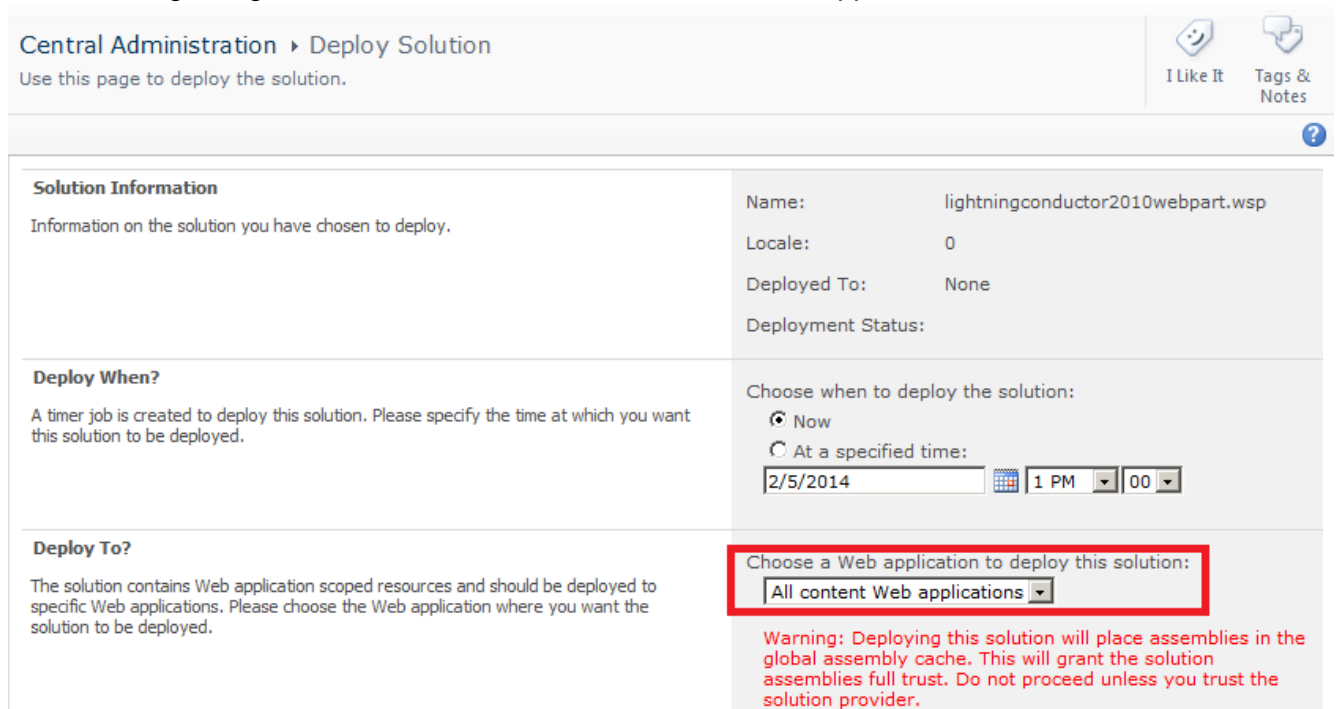
Deployment Server Type: Front-end Web server

Deployment Status: Not Deployed

Deployed To: None

Last Operation Result: No operation has been performed on the solution.

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 Lightning Conductor Web Part in all sites in all Web applications.



Central Administration > Deploy Solution

Use this page to deploy the solution.

I Like It Tags & Notes

Solution Information

Information on the solution you have chosen to deploy.

Name: lightningconductor2010webpart.wsp

Locale: 0

Deployed To: None

Deployment Status:

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:

2/5/2014 1 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**.

[Deploy solution packages \(SharePoint Server 2010\) →](#)

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

Troubleshooting: If the **Lightningconductor2010webpart.wsp** solution is missing on the **Solution Management** page, upload the **Lightning Conductor** solution package using the [Add-SPSolution](#) Windows PowerShell® command.

Licensing the Lightning Conductor Web Part

The [Lightning Conductor Web Part](#) for [Microsoft® SharePoint® 2010](#), 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 2010

You're using trial version of Lightning Conductor 2010 Web Part (14 days left).
Please, contact [Lightning Tools Ltd.](#) to purchase full version of Lightning Conductor 2010 Web Part and learn more about great SharePoint Tools and Web Parts.

View ▸ All Tasks ▾

	Title	% Complete	Due Date	Priority	Start Date	Status
[-] Completed						
[-] (1) High						
	Configure the LCWP	70.00 %	12/24/2012	(1) High	4/2/2012	Completed
[-] In Progress						
[-] (1) High						
	Make Coffee	5.00 %	2/5/2013	(1) High	2/4/2013	In Progress
[-] (2) Normal						
	Build an XSLT View	5.00 %	1/17/2013	(2) Normal	3/15/2012	In Progress
	Configure the LCWP	80.00 %	12/24/2012	(2) Normal	11/9/2012	In Progress
	ABC	25.00 %	12/21/2012	(2) Normal	10/12/2012	In Progress
[-] Not Started						
1 2 >						

When you purchase the Lightning Conductor Web Part for SharePoint® 2010, 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 2010 Central Administration web site.

You can activate the Lightning Conductor 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 →](#)

[Manage services on the server \(SharePoint Server 2010\) →](#)

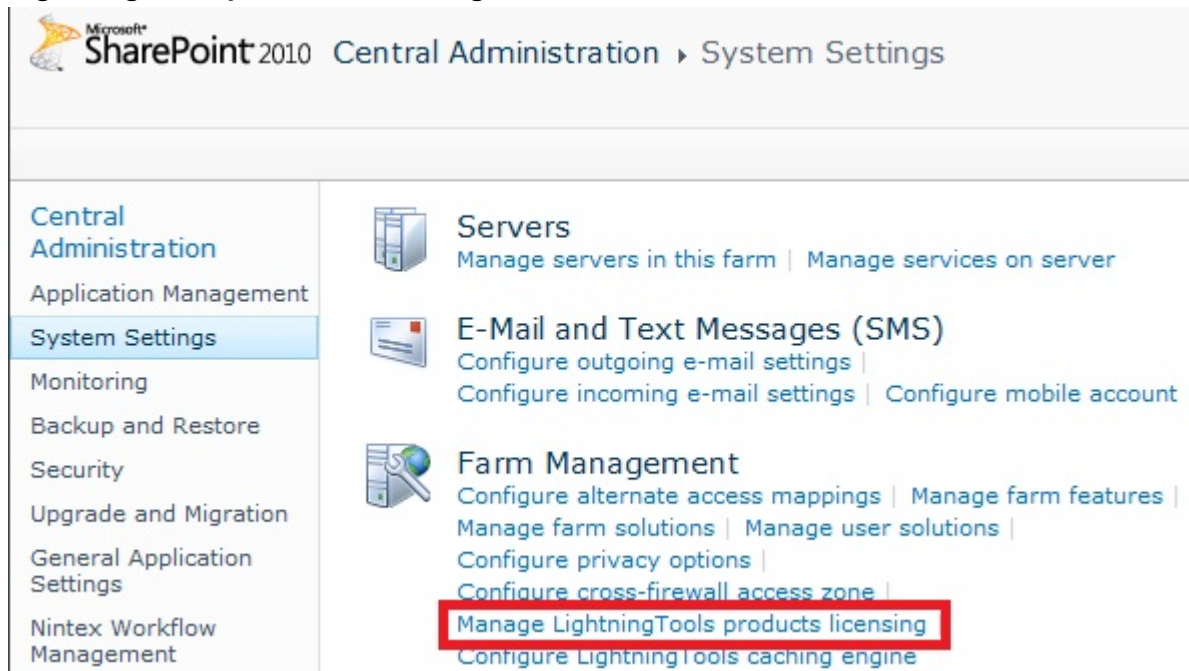
Troubleshooting: [Licensing Error](#)

Activate with Internet access

To automatically activate the [Lightning Conductor Web Part](#) when your [Microsoft® SharePoint® 2010](#) server has Internet access, complete the following steps:

You will need to be a SharePoint server farm administrator to complete these steps.

1. In the browser, open SharePoint 2010 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 Conductor 2010**.
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**.

The screenshot shows the 'Licensing of Product' page in SharePoint 2010 Central Administration. The page title is 'Central Administration > Licensing of Product 'Lightning Conductor 2010''. The left sidebar contains navigation links: 'Central Administration', 'Application Management', 'System Settings', 'Monitoring', 'Backup and Restore', 'Security', 'Upgrade and Migration', 'General Application Settings', 'Configuration Wizards', 'Recycle Bin', and 'All Site Content'. The main content area is divided into two sections: 'Product' and 'Activation Data'. The 'Product' section has a 'Choose Product' dropdown set to 'Lightning Conductor 2010' and a 'License Status' message: 'Your trial is valid. 14 days left.' The 'Activation Data' section contains fields for 'License Key*' (6ae03e5e-00b5-4c14-9ec5-603125a196d7-02), 'User Email*' (brett@lightningtools.com), 'Organization' (Lightning Tools), and 'User Name' (Brett Lonsdale). At the bottom, there are three buttons: 'Activate', 'Manual Activation', and 'Cancel'.

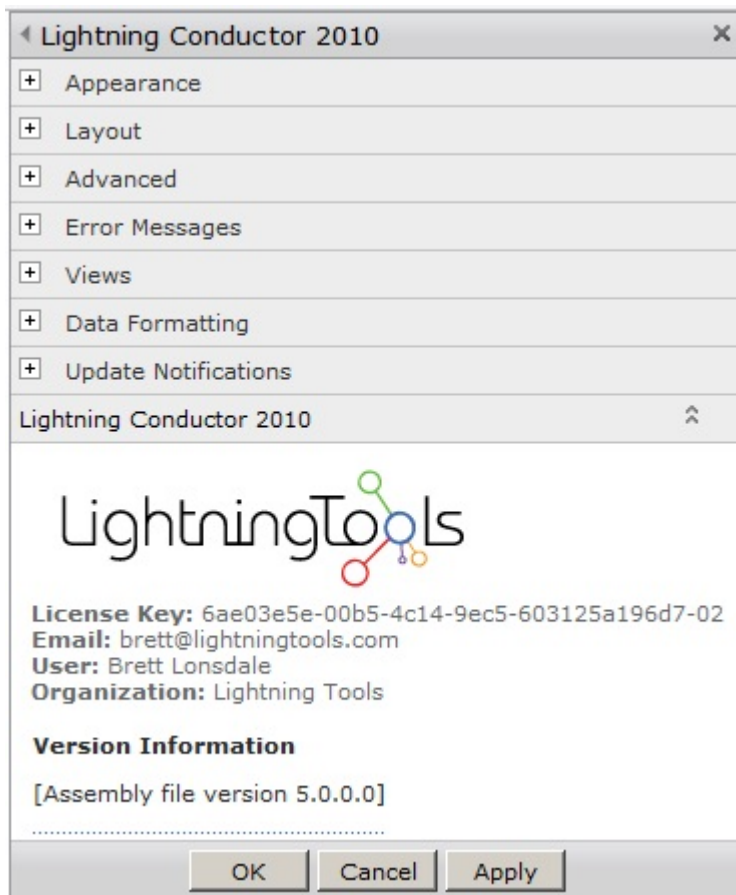
Central Administration	Product	Choose Product
Application Management	Choose the product, licensing of which you want to manage.	Lightning Conductor 2010
System Settings		License Status
Monitoring		Your trial is valid. 14 days left.
Backup and Restore	Activation Data	License Key*
Security	Fill data for product activation.	6ae03e5e-00b5-4c14-9ec5-603125a196d7-02
Upgrade and Migration		User Email*
General Application Settings		brett@lightningtools.com
Configuration Wizards		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 [Lightning Conductor Web Part](#) license is now activated and registered. You can check the license information within each instance of the Lightning Conductor Web Part by selecting **Edit Web Part** on the

Web Part menu.



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

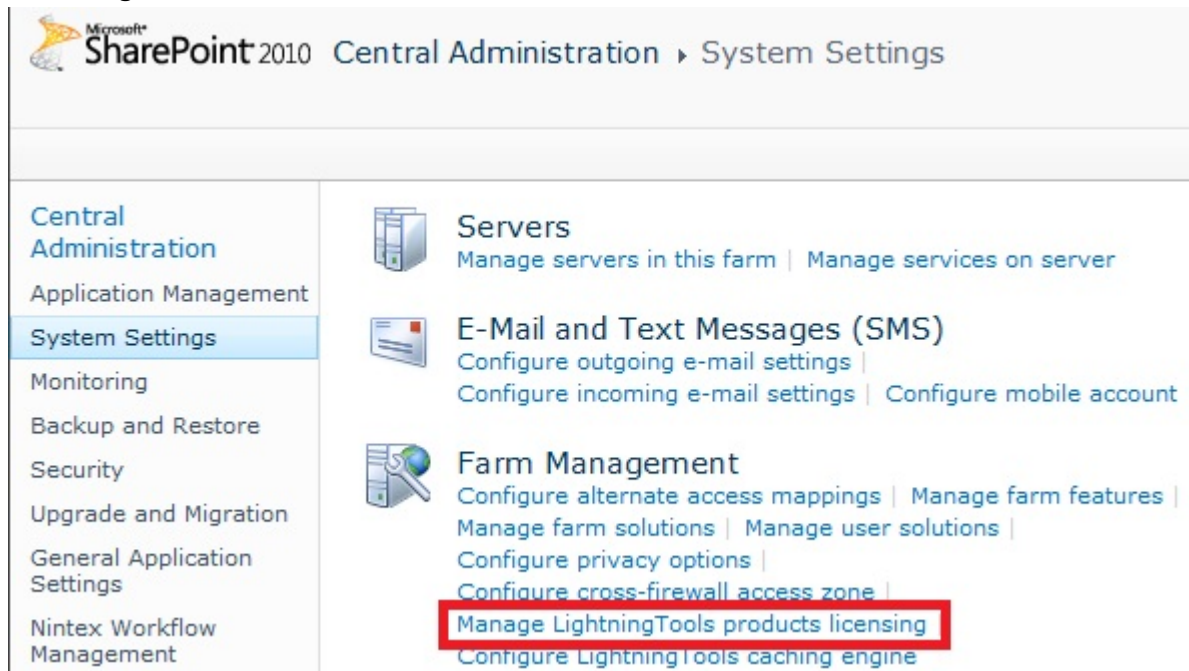
Troubleshooting: [Licensing Error](#)

Activate without Internet access

Use the following steps to activate the [Lightning Conductor Web Part](#) when your [Microsoft® SharePoint® 2010](#) 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 2010 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 Conductor 2010**.
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. Now complete one of the following steps.
 - If the server that you are using has mail access, click **Send Activation Email** to send an email to Lightning Tools with your identity key and license key, which is used to generate the license.

Or

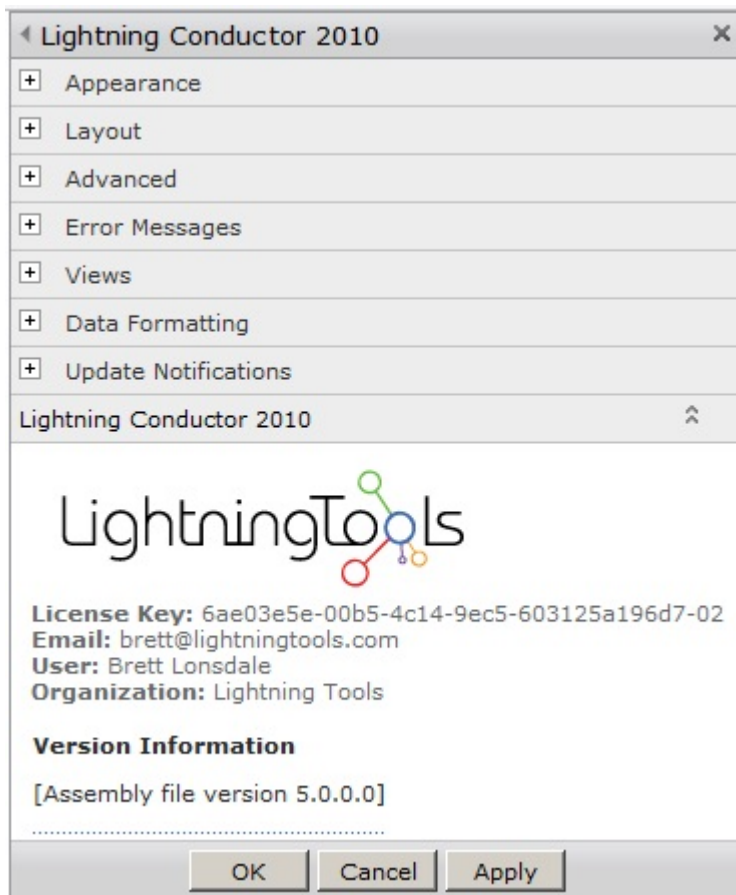
- Copy the contents from **License Information** text box, and save it in a manner so you have access to that information from another computer.
- On a computer where you can send emails, paste the *License Information* into the body of the email, and send to support@lightningtools.com with a **Subject** line of: **Lightning Conductor Web Part 2010 activation request.**

Central Administration Application Management System Settings Monitoring Backup and Restore Security Upgrade and Migration General Application Settings Configuration Wizards Recycle Bin All Site Content	Product Choose the product, licensing of which you want to manage.	Choose Product <input type="text" value="Lightning Conductor 2010"/> License Status Your trial is valid. 14 days left.
	Activation Data Fill data for product activation.	License Key* <input type="text" value="6ae03e5e-00b5-4c14-9ec5-603125a196d7-02"/> User Email* <input type="text" value="brett@lightningtools.com"/> Organization <input type="text" value="Lightning Tools"/> User Name <input type="text" value="Brett Lonsdale"/>
	Manual Activation Fill license information received from Lightning Tools.	License Information <pre><?xml version="1.0" encoding="utf-16"?> <License> <Id>a6116464-756c-4000-8dc0-bf918563ab6c</Id> <Type>Trial</Type> <Expiration>Wed, 14 Aug 2013 20:50:46 GMT</Expiration> <ProductFeatures> <Feature name="User Identity">913f9328-ca31-47d2-bfa1-be6ad7154138</Feature> <Feature name="Product">Lightning Conductor 2010</Feature> </ProductFeatures> </License></pre>
		<input type="button" value="Send Activation Email"/> <input type="button" value="Save License"/> <input type="button" value="Register Online"/> <input type="button" value="Cancel"/>

4. 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.
5. Click **Save License**.

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

Web Part drop down menu.



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

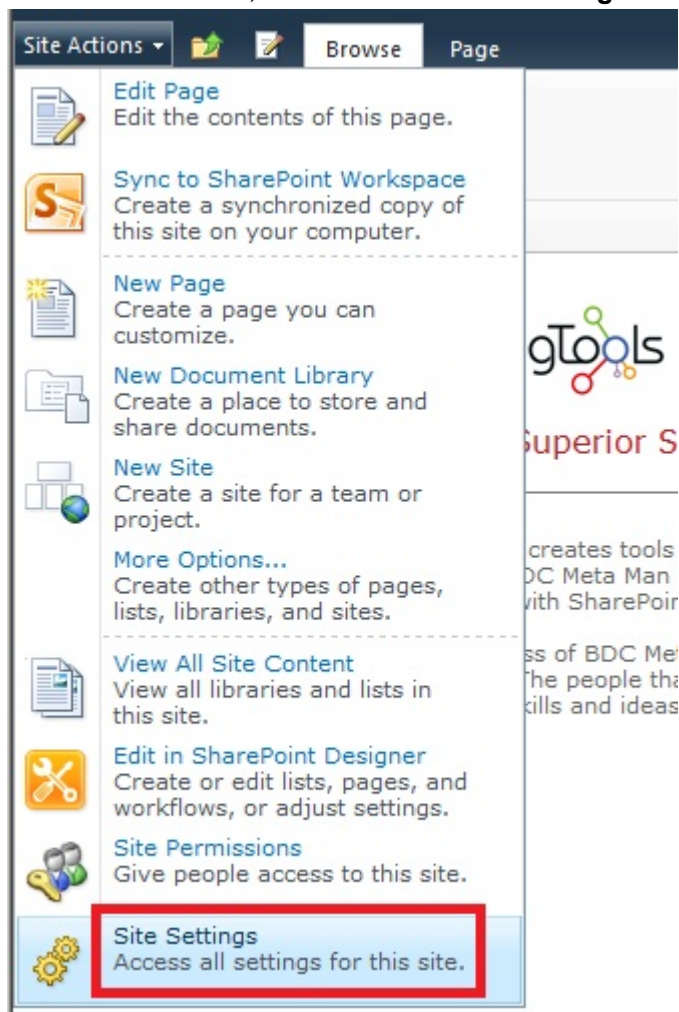
Troubleshooting: [Licensing Error](#)

Activate the Lightning Conductor Web Part site collection feature




Before you can add the [Lightning Conductor Web Part](#) to a [Microsoft® SharePoint® 2010](#) page, the Lightning Conductor site collection feature must be activated. Use the following steps to activate the Lightning Conductor 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 **Site Actions**, 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 Conductor 2010 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 2010 Web Part New content aggregator for SharePoint 2010 from Lightning Tools.	Activate

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.

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

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

[More information on site collection features →](#)

Upgrading the Lightning Conductor Web Part

To upgrade to the latest version of the [Lightning Conductor 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 Lightning Conductor Web Part zip file to your computer.
3. Copy **LightningConductor2010WebPart.wsp** to a folder on your SharePoint 2010 server, for example **c:\tools**, if you did not unzip the download file on your SharePoint server.

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

Using Windows PowerShell commands

Open the [SharePoint 2010 Management Shell](#) and type on one line, the Windows PowerShell command similar to:

```
Update-SPSolution -Identity "LightningConductor2010WebPart.wsp" -LiteralPath "c:\tools\LightningConductor2010WebPart.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\LightningConductor2010WebPart.wsp -name LightningConductor2010WebPart.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 Lightning Conductor 2010 Web Part →](#)

Configuring the Lightning Conductor Web Part Caching Engine

Each [Lightning Conductor Web Part](#) can be [configured](#) to use a caching mechanism that increases the performance of the Web Part. This is useful when the Lightning Conductor Web Part is aggregating content from a large number of lists and when you want to increase the speed the Web Part rolls up results and displays them in the user's browser. This minimizes the number of round trips from a [Microsoft® SharePoint® 2010](#) server to the SQL Server® content databases each time the Lightning Conductor Web Part is displayed on a page.

Enabling caching on a large number of Lightning Conductor Web Parts can result in memory issues on your SharePoint 2010 servers. You need to monitor and plan your LCWP cache settings, together with other SharePoint 2010 caching settings you may have configured. By default the Lightning Conductor Web Part is not configured to cache the results of the rollup queries. Note the LCWP caching mechanism is it's own caching mechanism, that is, it is **not**, for example, using the SharePoint object cache mechanism. References to using, and monitoring SharePoint 2010 can be found at the end of this page.

The [Lightning Conductor Web Part](#) uses a caching engine instance. There is one predefined caching engine instance, **Global Engine**, which cannot be deleted. Caching engine instances can be configured and additional caching engine instances can be created.

Each time a Lightning Conductor Web Part (LCWP) is added to a page you can [configure](#) it to use a LCWP caching engine. A SharePoint server administrator can configure or create LCWP caching engine using the following steps:

1. In the browser, open Microsoft SharePoint 2010 Central Administration web site. On the Quick Launch click **System Settings**, and then under **Farm Management**, click **Configure Lightning Conductor caching engine**.

The **Lightning Conductor Caching Engine Settings** page is displayed, which by default displays the settings for the **Global Engine** caching instance.

2. If you want to configure a different caching engine instance or create a new caching engine instance, select the down arrow to the right of **Global Engine** and select **Change Engine Instance**

Choose Engine

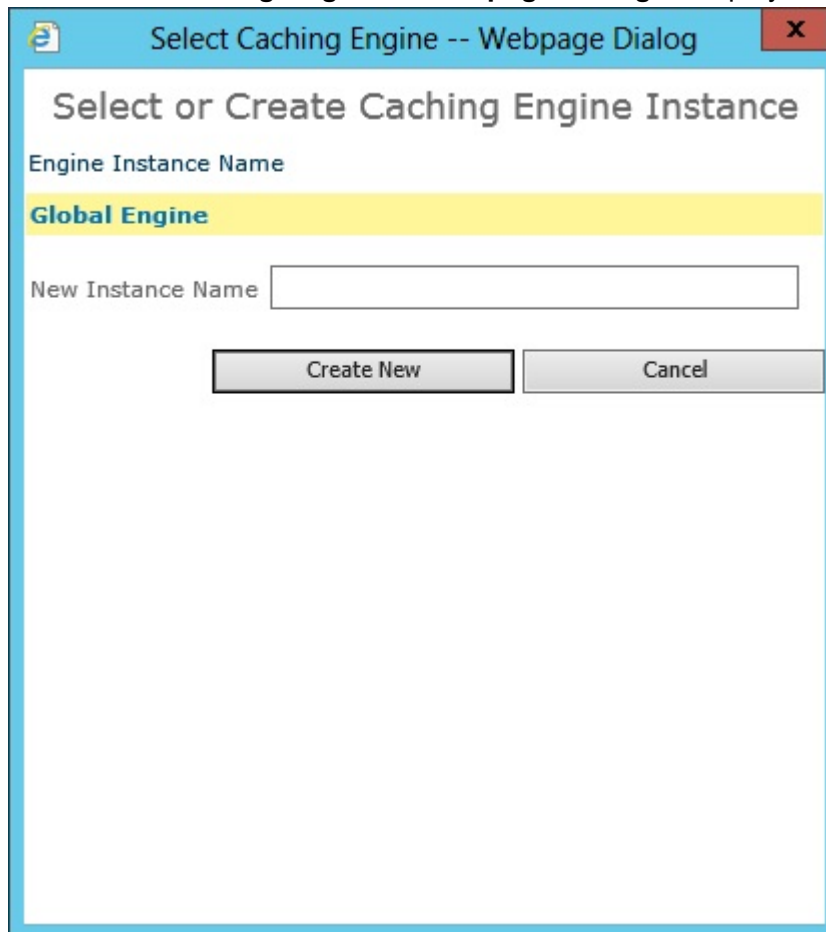
Choose LightningTools caching engine instance, settings of which you want to modify.



Engine Instance: **Global Engine** ▾

Change Engine Instance

The **Select Caching Engine — Webpage Dialog** is displayed.



3. Click the caching engine instance you wish to configure or in the **New Instance Name** text box, type the name of the new instance and then click **Create New**.
4. Amend the caching settings for each instance as described later on this page.
5. At the bottom of the **LightningTools Caching Engine Settings** page, click **Save**.

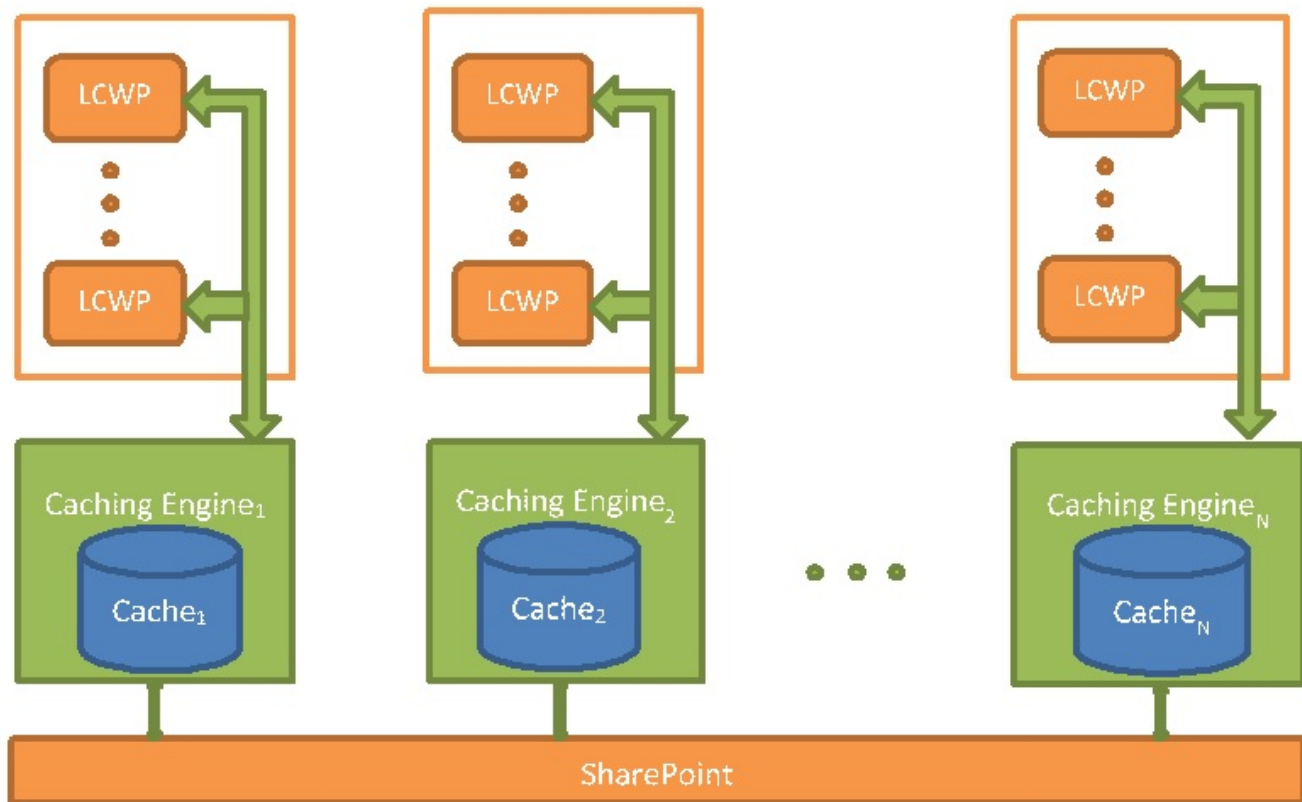


To clear the cache, at the bottom of the **LightningTools Caching Engine Settings** page, click **Invalidate**. To delete the caching engine instance click **Delete**. This option is not displayed for **Global Engine**.

Caching Engine Instances

You only need additional instances of the LCWP caching engine, if the caching properties required by the Lightning Conductor Web Part are different. The properties of the LCWP caching engine are described in the following sections. Theoretically each LCWP can use their own instance of the LCWP caching engine or

you can configure several LCWP to use a specific instance of a LCWP caching engine as shown in the following diagram.



For example, you may have added the LCWP multiple time on the same page or on different pages. Some of the Web Parts may be using the caching engine, some of the Web Part will not. Those Web Parts that are using caching, may require the caching engine to handle checked out items, while other part Web Parts do not. In this scenario the only solution is to have two caching engines. The first caching engine should have the **Handle Checked Out Items** check box selected and the second checking engine, should not have the check box selected. The first set of Web Parts should use the first caching engine and second set of Web Parts should use second caching engine. In other words, several instances of the caching engine are required when some of the LCWP require different caching engine settings than other LCWPs.

Query Running Context

By default when caching is enabled on a Lightning Conductor Web Part the data source query is run twice in the context of [Web Application super user and super reader accounts](#). Metadata about SharePoint Server objects, such as, SPWeb, SPSite, SPList, etc., are saved in the object cache using these accounts, and then the Access Control List (ACL) of the current user is used to display data from the cache that they have permissions to – security trimmed.

Query Running Context

Specify whether SharePoint queries must be run under current logged in user context or under super admin and super reader accounts.

☒ Use current logged in user context

By selecting **Use current logged in user context** check box, the current user account is used by the data source query and the results of the query are saved in the cache. Each user will have their own copy of the resulting data in cache, which has resource implications. When queries are run in the context of current user context, the settings in the **Item Limit Multiplier** and **Handle Checked Out Items** sections are not applicable and will be greyed out.

Web Application Accounts

When the **Use current logged in user context** check box is not selected then the data source query uses the [Web Application super user and super reader accounts](#), also known as the Portal Super User and Portal Super Reader accounts. It is assumed that the super user account sees all versions of all items, including draft versions, and the super reader account sees only published versions of all items, when the list is configured not to allow readers to see draft versions. The permissions for accounts that you intend to use for the super user and super reader accounts can be configured for each Web Application, using the SharePoint 2010 Central Administration web site or Windows PowerShell, as described in the TechNet article; [Configure object cache user accounts in SharePoint Server 2010](#).

By default, that is, when no value is provided in the **Super admin login** and the **Super reader login** text boxes, the caching engine instance will use the site's System Account as the super user account and "NT AUTHORITY\LOCAL SERVICE" as the super reader account. You can provide accounts for the super user and super reader accounts for each web application, and Microsoft recommends that the account used for the super user and super user accounts are separate accounts.

Web Application Accounts

Specify super admin and super reader accounts for each web application, which must be used for retrieving items from appropriate web application. Super admin account must have full access to all sites of that web application, while super reader account must have read only access. If no super admin account is specified, than "SHAREPOINT\system" account will be used. If no super reader account is specified, than "NT AUTHORITY\LOCAL SERVICE" will be used.

Choose web application

SharePoint - 10001

Super admin login

Super reader login

For the caching engine to work correctly no items should be checked out to the super user and super reader accounts, as when a query that includes these items is made, the checked out version of the item is returned instead of the latest published version. As the site's System Account is used for other tasks, some items do get checked out to the System Account, therefore Microsoft recommends that you should provide

accounts for the super user and super reader accounts and that these two accounts should never be used to login to the site.

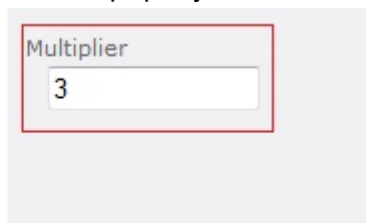
For web applications that use [claim based authentication](#), account names must be provided in required form, for example, the account name of windows user DOMAIN\user must be i:0#.w|DOMAIN\user

Item Limit Multiplier

On the [Configure Rollup Engine Provider](#) step of the **Lightning Conductor 2010 Configuration Wizard** you may have specified many different data sources and therefore the Web Part may need to execute a SharePoint query against many site collections and sites during the rollup process. In the **Multiplier** text box in the **Item Limit Multiplier** section, type an integer value, the default is 3. The multiplier value is used to limit the content return for each SharePoint rollup query.

Item Limit Multiplier

Specify multiplier of item limit in queries. E.g. when multiplier is 3 and item limit of some query is 1000, then item limit will be made 3000 when running queries in context of super admin or super reader account.

A screenshot of a configuration window. It features a label 'Multiplier' above a text input box. The input box contains the number '3'. A red rectangular border highlights the input box.

The value in the **Multiplier** text box, is only applicable when you type a value for the Lightning Conductor Web Part in the [The Limit Amount of Items Return To](#) text box in the **Miscellaneous** section on the [Configure Rollup Engine Provider](#) step.

For each SharePoint query, the LCWP caching engine limits the number of items returned to the number generated by multiplying the value in the [Limit Amount of Items Return to](#) text box, to the value in the **Item Limit Multiplier** text box. The caching engine instance executes queries in context of the super admin account and in context of the super reader account, which are then saved in the cache. The Web Part is then able to retrieve the necessary items from the cache for each type of user who displays the page where the Web Part has been added.

Handle Checked Out Items

By default, when **Handle Checked Out Items** check box is not selected the latest published items are returned from the data source query, even for users, who have checked out the items. When the **Handle**

Checked Out Items check box is selected, the query retrieves the value of checked out items.

Handle Checked Out Items

Specify whether caching engine must take into account checked out items, i.e. users who has been checked out items, must see those items with changes, which has been done after checking out.

☐ Handle checked out items

Use the SharePoint Change Log

Select the **Use Log** check box when you want the caching engine instance to detect changes to SharePoint object by using the [SharePoint change log](#). The default is not to use the change log.

Use SPChange Log

Specify whether SharePoint objects change log must be used for detecting changes or not.

☐ Use log

Resource Disposing Strategy

Use the two check boxes in this section to specify when the caching engine instance disposes of resources allocated during execution of data source queries:

- SPSiteDataQuery
- SPQuery

The default is to reused the resources allocated during the query, that is, the resources are not released immediately.

Resource Disposing Strategy

Specify whether allocated SharePoint resources (during execution of SPQuery or SPSiteDataQuery) must be disposed immediately or they could be reused.

☐ Dispose resources allocated during execution of SPSiteDataQuery immediately

☐ Dispose resources allocated during execution of SPQuery immediately

Memory Limit

In the **Memory Limit** text box, type the amount of memory, in megabytes, which can be allocated by caching engine instance for storing cached objects. The default is to specify no value, that is, there is no memory limit for caching engine instance. When memory limit is exceeded, the caching engine instance will

remove some cached objects from the cache in xxx order to free part of allocated memory.

Memory Limit

Specify memory limit, which can be used by caching engine instance. Empty value means no memory limit.

Memory limit (MB)

References

- [Plan for caching and performance \(SharePoint Server 2010\) →](#)
- [Configure cache settings for a Web application \(SharePoint Server 2010\) →](#)
- [Configure object cache user accounts →](#)
- [Monitor cache performance \(SharePoint Server 2010\) →](#)

Testing the installation

Use the following steps to test your installation:

1. In the Web applications where you have [deployed](#) the [Lightning Conductor 2010 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 Conductor 2010 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® 2010 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 [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; however, it depends on the page layout you have chosen for the publishing page.

[Creating a wiki page →](#)

[Creating a Web Part page →](#)

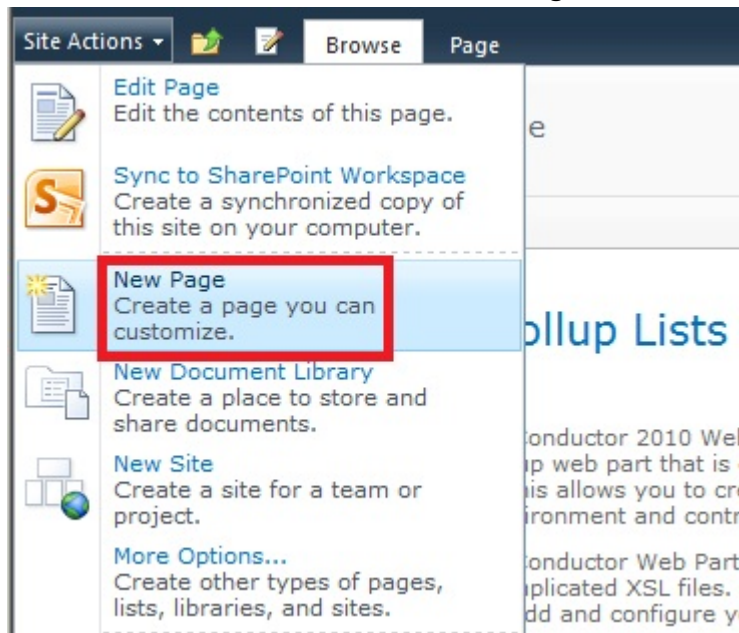
[Keyboard shortcuts for common tasks on SharePoint pages →](#)

[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 **Site Actions** and then click **New Page**.



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

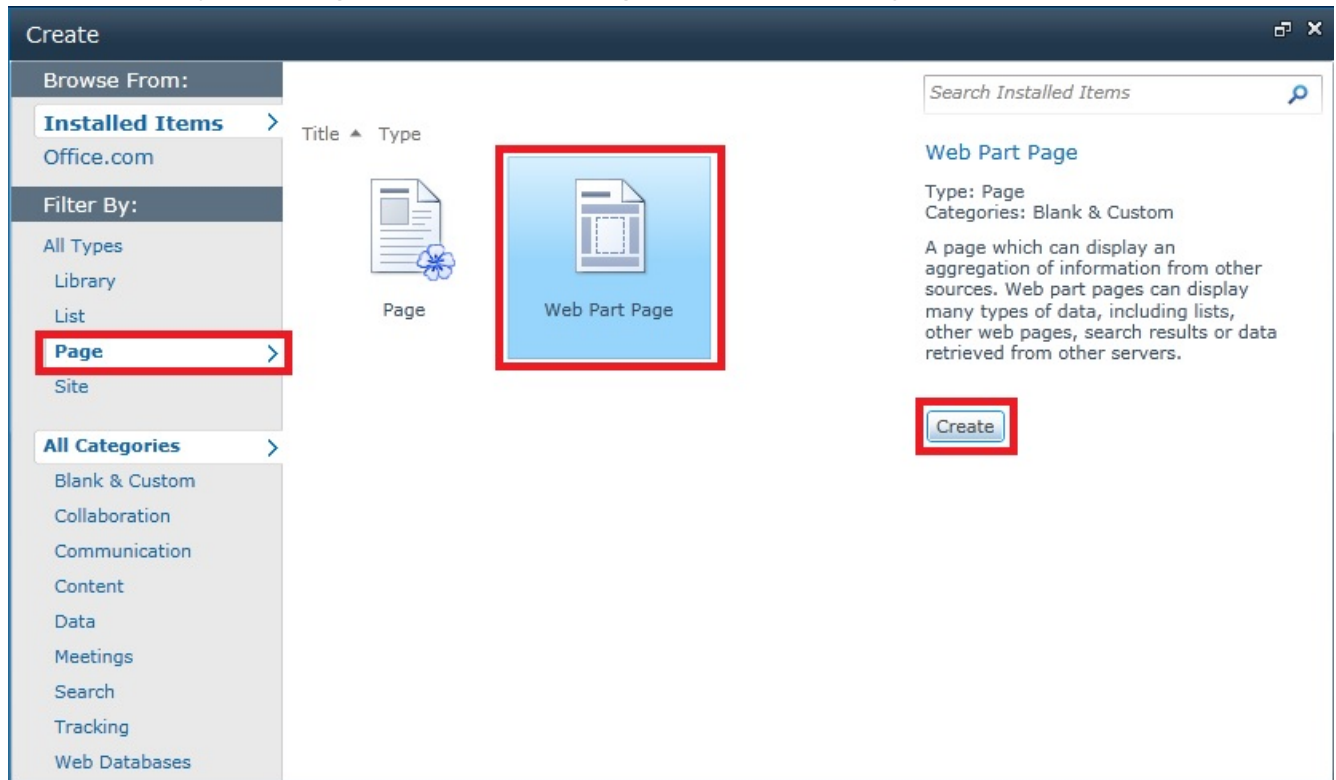
[Adding Web Parts to a page →](#)

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

Creating a Web Part page

To create a Web Part page on a Team site,

1. Navigate to the site where you wish to create a Web Part page.
2. Click **Site Actions** and then click **More Options** to display the **Create** dialog.
3. Under **Filter By**, click **Page**, click **Web Part Page**, and then in the right section click **Create**.



4. On the **New Web Part Page**:
 - In the **Name** text box, type the name of your page
 - In the **Choose a Layout Template** list, select the layout you require

- In the **Document Library** list, select **Site Pages**.

Lightning Conductor > New Web Part Page

A Web Part Page is a collection of Web Parts that combines list data, timely information, or useful graphics into a dynamic Web page. The layout and content of a Web Part Page can be set for all users and optionally personalized by each user.

Home **Lightning Conductor**

Libraries

- Site Pages
- Shared Documents

Lists

- Calendar
- Tasks

Discussions

- Team Discussion

Recycle Bin

All Site Content

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

Create Cancel

- Click **Create**.

[Adding Web Parts to a page →](#)

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

Using the Lightning Conductor 2010 Web Part

The [Lightning Conductor Web Part](#) (LCWP) for [Microsoft® SharePoint® 2010](#), allows you to easily build a cross [site collection](#) or cross [web application](#) rollup of list items or files, build a view, apply formatting and conditional formatting to your aggregated content without the need to build complicated view templates or create XSLT. The LCWP provides you with an alternative to the Content Query Web Part ([CQWP](#)), which requires the use of [SharePoint Server 2010 Enterprise](#). The LCWP can be used on any version of a [SharePoint 2010](#) on-premises installation, that is, the Web Part can be used on pages in an on-premises installation of [SharePoint Foundation 2010](#) or SharePoint Server 2010 (Standard and Enterprise editions) .

[Lightning Tools](#) has an [Office 365® Apps](#) version of the LCWP, details of which can be found at <http://lightningtools.com/lightning-conductor-app/>.

For an overview of the [Lightning Conductor 2010 Web Part](#) view the following video:



Complete the following tasks to configure the Lightning Conductor Web Part:

1. [Add a Web Part to the page](#).
2. If you wish to use multiple views within your Web Part, enable [multiple views](#) then [Create Views](#) as required.
3. [Configure the Lightning Conductor Web Part](#).

The Lightning Conductor Web Part must be [installed](#), and the [Lightning Conductor Web Part site collection feature](#) must be activated before you can use the Lightning Conductor Web Part on a SharePoint page.

[Request a trial version →](#)

Adding Web Parts to a page

To add a [Lightning Conductor 2010 Web Part](#) to a SharePoint® 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 **Lightning 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.

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

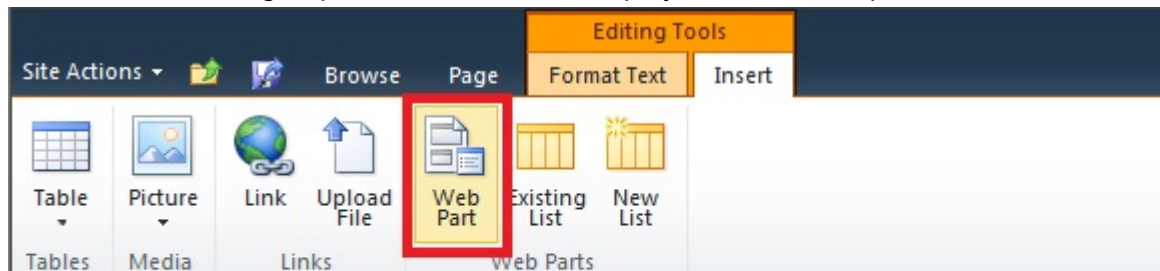
[Overview of Web Parts available in SharePoint Foundation 2010 →](#)

[Change the appearance of a Web Part →](#)

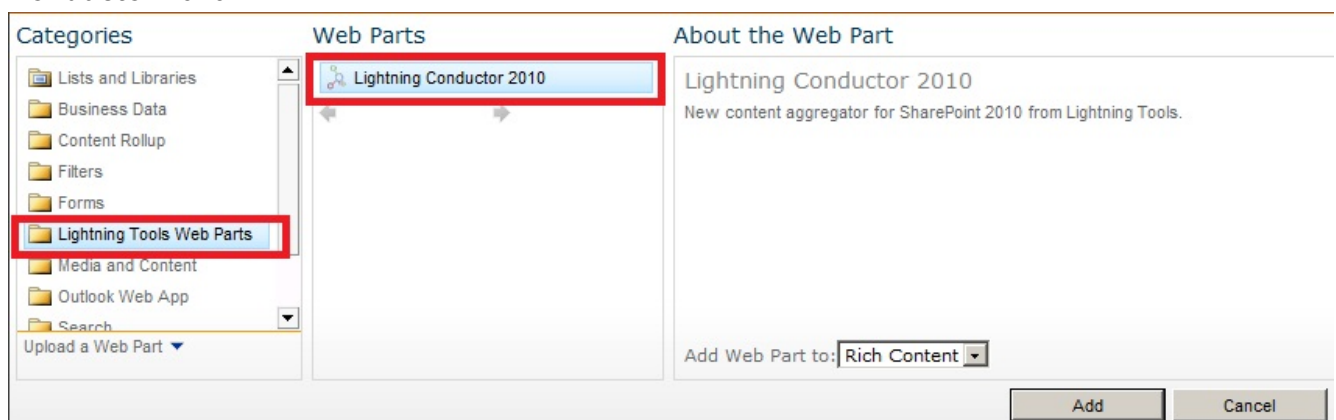
Add a Web Part to a wiki page

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 **Site Actions** and then click **Edit Page**.
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 Conductor 2010**.



6. Click **Add** to add the Web Part to the page.
7. [Configure the Lightning Conductor Web Part.](#)
8. On the **Page** ribbon tab, click **Save & Close**.

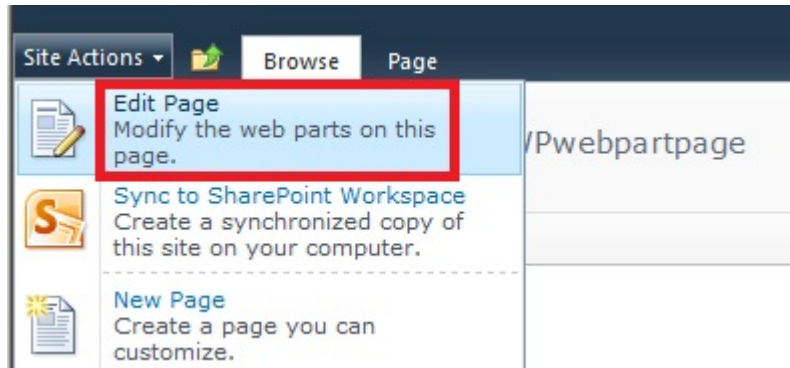
[Using the Lightning Conductor Web Part →](#)

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.

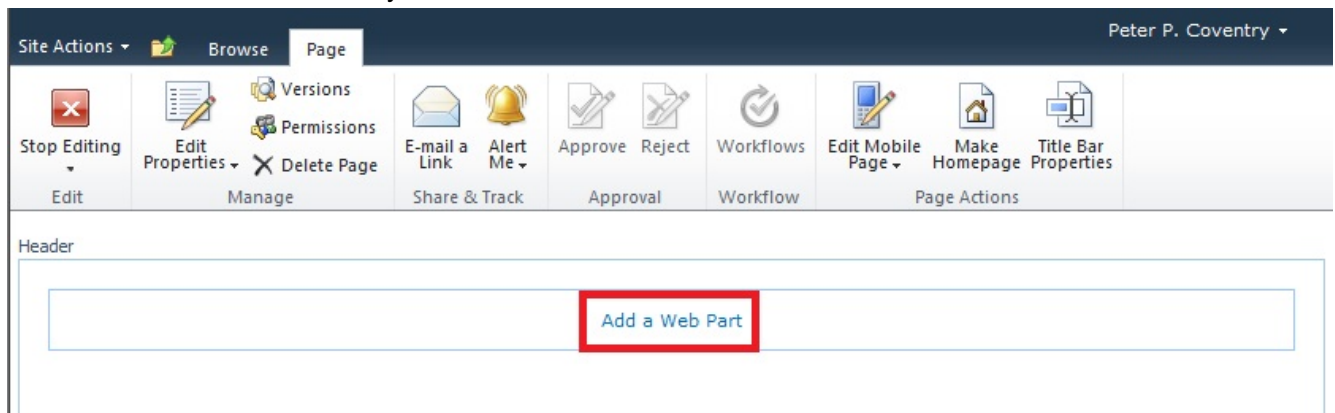
Add a Web Part to a Web Part page

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

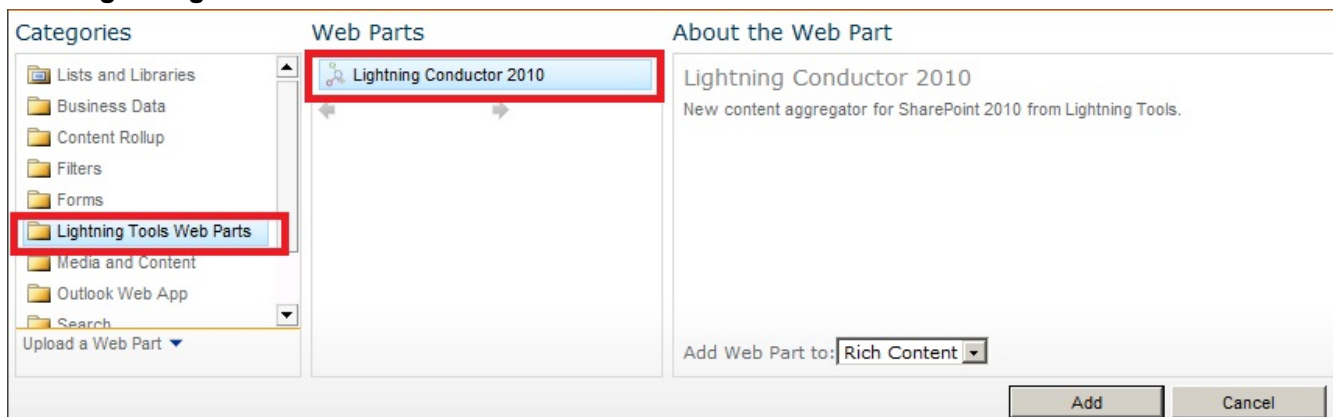
1. In the browser, navigate to the Web Part page where you want to add the Lightning Conductor Web Part.
2. Click **Site Actions**, and then click **Edit page**.



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 Conductor 2010**.



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

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.

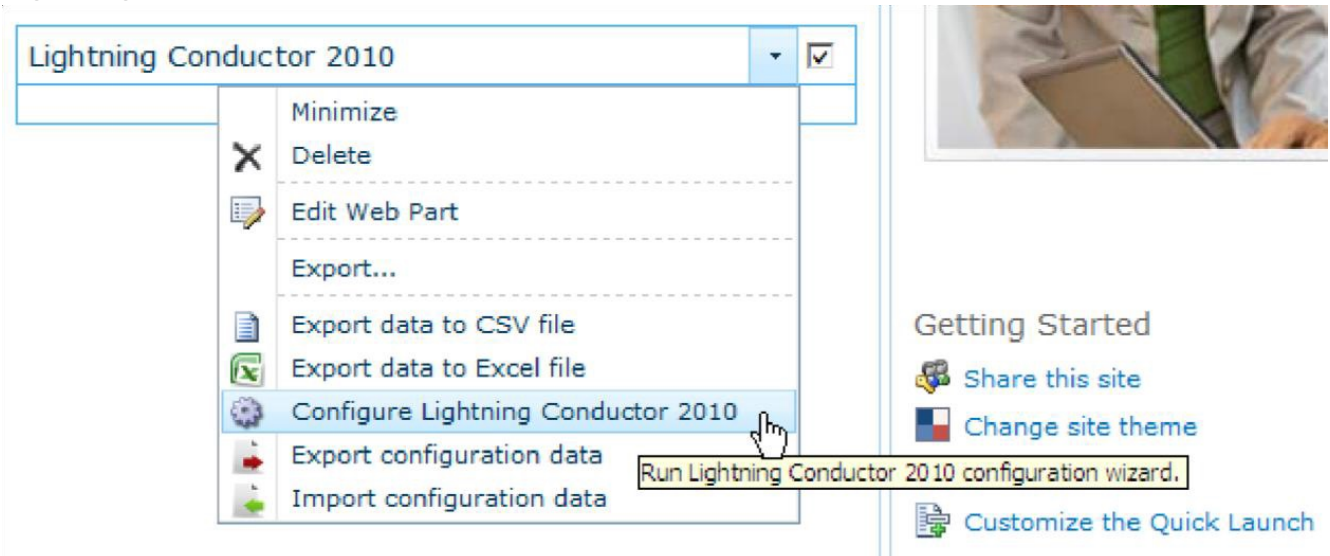
[Using the Lightning Conductor Web Part →](#)

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

Configuring the Lightning Conductor Web Part


Use the **Lightning Conductor 2010 Configuration Wizard**, to configure the [Lightning Conductor Web Part](#) for [Microsoft® SharePoint® 2010](#). Use the following steps to display the wizard and configure the Web Part:

- When the Web Part is not configured for [Multiple views](#), from the Web Part menu click **Configure Lightning Conductor 2010**.

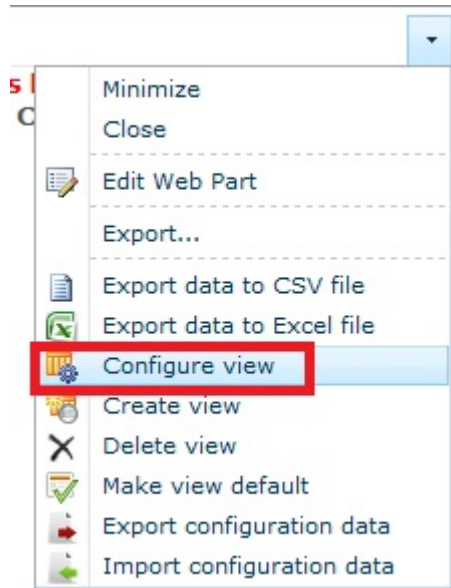


- Otherwise, click the arrow to the right of **View** and select the view you wish to configure.

Lightning Conductor 2010 - TASKS

View	▶ All Tasks ▼		
	<div> <div>  </div> <div>All Tasks</div> </div> <div> <div></div> <div>My Tasks</div> </div> <div> <div></div> <div>Tasks by Due Date</div> </div>		
Title		% Complete	Assigned To
Rollup all		0.5	Brett
Build an XSLT View		0.05	Brett
Build a JSON view		0.12	Zoe
Configure the LCWP		0.5	Brett
Configure the LCWP		0.8	Brett
Purchase Lightning Conductor		0.25	Phill

Then from the Web Part menu, click **Configure view**.



The **Lightning Conductor 2010 Configuration Wizard** dialog is displayed, which consists of three steps:

1. [Core Configuration](#)
2. [Configure Rollup Engine Provider](#)
3. [Configure Display Provider](#)

You are able to navigate through the steps by clicking the **Next** and **Previous** buttons at the bottom of each step. Once you have configured the Web Part, chosen the content to aggregate and how to display the content, at the bottom of the **Configure Display Provider** step, click **Complete**.

The minimum configuration details you must provide are:

- On the [Configure Rollup Engine Provider](#) step:
 - In the [Rollup Source](#) section, select at least one site or list or library
 - Then either select:
 - In the [Displaying Columns Set](#) section select at least one list.
 - Or in the [List/Item Types](#) section, select one list type.
- On the [Configure Display Provider](#) step, in the [Columns Configuration](#) section, select at least one [column](#).

You can also configure programmatically a Lightning Conductor Web Part.

Using Multiple Views

You can configure the [Lightning Conductor 2010 Web Part](#) to display one view of the data or multiple views. Multiple Views allow you to display content from different lists or the same list within the same instance of the Web Part, so that you do not have to add multiple instances of the Web Part on the same page. You can also use Web Part connections to [dynamically select a view](#).

If you wish to take advantage of multiple views within your Lightning Conductor Web Part, you must first [enable multiple views](#).

By default one view is created when you add the Lightning Conductor Web Part to your page. You can then subsequently [create additional views](#).

When you enable multiple views on the Lightning Conductor Web Part the following changes are made to the links on the Web Part menu:

Links removed:

- Configure Lightning Conductor

Links added:

- [Configure view](#)
- [Create view](#)
- Delete view
- Make view default

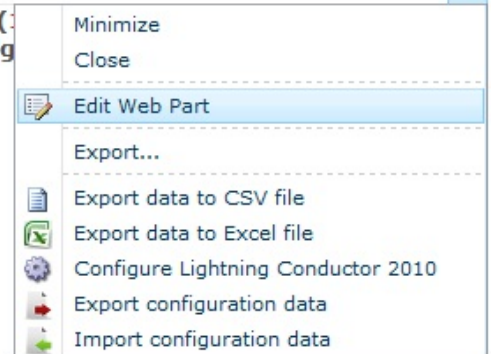
Enable Views

To enable [multiple views](#) for the [Lightning Conductor Web Part](#) in [Microsoft® SharePoint® 2010](#), use the following steps:

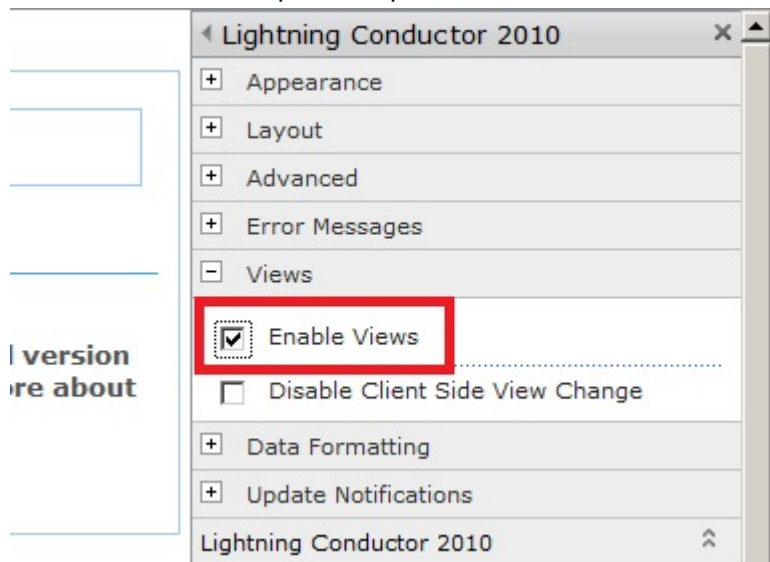
1. From the Web Part menu of the Lightning Conductor Web Part, click **Edit Web Part**.

Lightning Conductor 2010

You're using trial version of Lightning Conductor 2010 Web Part ()
Please, contact [Lightning Tools Ltd.](#) to purchase full version of Lig
learn more about great SharePoint Tools and Web Parts.



2. In the Web Part tool pane, expand the **Views** section and select **Enable Views**.



3. At the bottom of the Web Part tool pane, click **OK**.

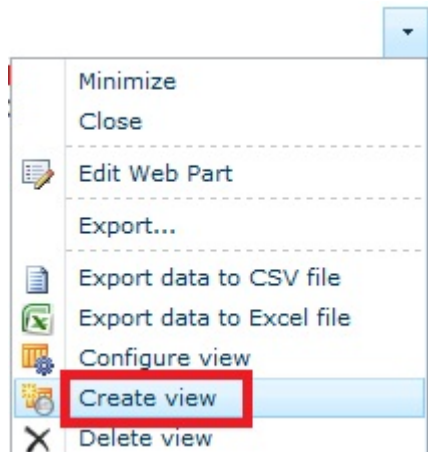
Select the **Disable Client Side View Change** check box to remove the dropdown Views menu on the Lightning Conductor Web Part. This prevents users from changing from either the default view, or the view which is selected when using a filter Web Part connection.

[Multiple Views →](#)

Create a View

To create a [Lightning Conductor 2010 Web Part](#) view in [Microsoft® SharePoint® 2010](#), use the following steps:

1. From the Web Part menu of the Lightning Conductor Web Part, click **Create view**.



Troubleshooting: If you cannot see the **Create view** on the Web Part menu, the [Enable View](#) check box has not been selected in the **Views** section in Web Part tool pane. Ensure that you have click **OK** or **Apply** at the bottom of the Web Part tool pane once you have selected the check box.

[Multiple Views →](#)

Configure View

Use the following steps to configure a [Lightning Conductor 2010 Web Part](#) view.

1. From the Web Part menu, click **Configure view**.
2. The [Configure Lightning Conductor Web Part](#) dialog is displayed.

Troubleshooting: If you cannot see the **Configure view** on the Web Part menu, the [Enable View](#) check box has not been selected in the **Views** section in Web Part tool pane. Ensure that you have click **OK** or **Apply** at the bottom of the Web Part tool pane once you have selected the check box.

[Multiple Views →](#)

Dynamically selecting a view

When you have created [multiple views](#) for a Lightning Conductor Web Part, you can then connect another Web Part to the Lightning Conductor Web Part. When a user selects an item in the other Web Part, the view in the Lightning Conductor Web Part changes. Use the following steps to, create a Web Part connection solution between the Filter Web Part and the Lightning Conductor Web Part.

1. [Create a Web Part page](#).
2. [Add a filter Web Part](#), such as, the **Text Box Filter Web Part**.
3. [Add](#) a Lightning Conductor Web Part to the page, [enable multiple views](#), [create multiple views](#) and [configure the views](#).
4. From the Web Part menu of the filter Web Part, select **Connections**, select **Send Filter Values To** and then select the Lightning Conductor Web Part that you want to filter.
5. On the **Choose Connections** dialog box, select **Get View From** and then click **Configure**.
6. Select **View Title** or **View ID** depending on whether you are passing the name of the view or the numerical value (index) of the view.
7. Click **Finish**.
8. Save the page.
9. Users can now check the view in the Lightning Conductor Web Part, using the filter Web Part.

References

[Connect data in Web Parts →](#)

[Connecting Web Parts in SharePoint 2010 →](#)

[Work with Filter Web Parts →](#)

[Use a Text Filter Web Part →](#)

[Connect a Filter Web Part to a List View Web Part →](#)

Core Configuration

Use the **Core Configuration** step of the [Lightning Conductor 2010 Configuration Wizard](#), to choose Rollup Engine and Display Providers, page loading options and caching settings. The **Core Configuration** step is displayed when the **Display Advanced Configuration Options** check box is selected.

The screenshot shows the 'Lightning Conductor 2010 Configuration Wizard' window. The title bar includes a maximize button and a close button. The window has a dark blue header with the title. Below the header, there's a tab labeled 'Display Advanced Configuration Options' with a checkmark icon. The main content area is titled 'Core Configuration' and contains several sections:

- Configure Rollup Engine Provider**: A section with a description 'Specify Rollup Engine Provider which will most suitable for your needs.' and a dropdown menu set to 'Object Model Rollup Engine Provider'. Below the dropdown is a detailed description of the provider.
- Configure Display Provider**: A section with a description 'Specify Display Provider which will most suitable for your needs.' and a dropdown menu set to 'SPGridView Display Provider'. Below the dropdown is a detailed description of the provider.
- Configure Data Refreshing Interval**: A section with a description '(seconds, 0 or empty - no data refreshing)' and a text input field.
- Configure Initial Loading**: A section with a description 'Check to make data rollup to run asynchronously, so it will not hang up loading of entire page.' and a checkbox labeled 'Allow Asynchronous Initial Loading' which is checked.
- Configure Statistical Information**: A section with a description 'Check to display data rollup process statistical information.' and a checkbox labeled 'Display Statistical Information' which is unchecked.
- Caching Settings**: A section at the bottom of the wizard.

Select the necessary options are described below, and then at the bottom of the step, click **Next** to display the [Configure Rollup Engine Provider](#) step.

Configure Rollup Engine Provider

There are two data source providers:

- **Object Model Rollup Engine Provider.** Use this provider for small queries when performing multiple filters. The Object Model provider produces CAML which is then passed by the Object Model to the Content Database(s). The Object Model Engine Provider should be used for backwards compatibility when using the Lightning Conductor Web Part prior to version 2.0.0.1.
- **SPSiteDataQuery Rollup Engine Provider.** Use this provider for large queries across multiple site collections.

Configure Display Provider

There are three display providers that allow different approaches to displaying your content.

- **SPGridView Display Provider.** This is the default 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, often referred to as the no-code or grid like display provider.

Lightning Conductor 2010

Title ▼	Priority ▼	Start Date ▼	Status ▼
Demo to SPX	(2) Normal	2011-01-28 00:00:00	Completed
Test Number	(2) Normal	2011-05-16 00:00:00	Not Started
IT	(2) Normal	2011-06-09 00:00:00	Not Started

- [XSLT Style Display Provider](#). Use this provider to write your own eXtensible Stylesheet Language Transformations (XSLT) code, for example to include your own branding. We provide XSLT code for views such as a Calendar view
- [JSON Provider](#). Build your own view using jQuery/JavaScript.

Configure Data Refreshing Interval

The Lightning Conductor Web Part is a Ajax Web Part, which means that the Web Part does not require a manual page refresh to refresh the rolled up of content. In the text box, type the interval of time in seconds that you wish that the Lightning Conductor Web Part will fetch the content from the SharePoint SQL content databases and refresh the page. When you type 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 content is obtained from the cache and not from the data source.

Configure 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.

[Configure Statistical Information](#)

[Caching Settings](#)

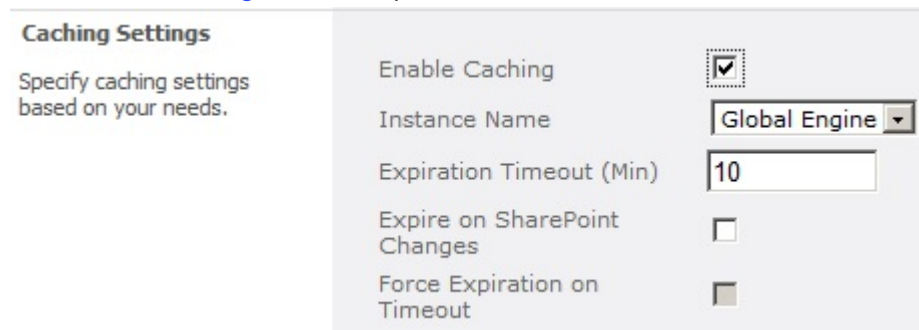
[Configuring the Lightning Conductor Web Part →](#)

Caching Settings

Caching improves the performance of the Lightning Conductor Web Part. Without caching the content source is queried each time:

- The page loads
- On every page refresh
- Each refresh interval.

By default [Lightning Conductor Web Part](#) displays the results of the [rollup](#) query without using the caching mechanism. To enabling caching, select the **Enable Caching** check box in the **Caching Settings** section on the [Core Configuration](#) step.



The screenshot shows the 'Caching Settings' panel. On the left, it says 'Specify caching settings based on your needs.' The main area contains five settings: 'Enable Caching' with a checked checkbox, 'Instance Name' with a dropdown menu showing 'Global Engine', 'Expiration Timeout (Min)' with a text box containing '10', 'Expire on SharePoint Changes' with an unchecked checkbox, and 'Force Expiration on Timeout' with an unchecked checkbox.

Setting	Value
Enable Caching	<input checked="" type="checkbox"/>
Instance Name	Global Engine
Expiration Timeout (Min)	10
Expire on SharePoint Changes	<input type="checkbox"/>
Force Expiration on Timeout	<input type="checkbox"/>

The first time the Lightning Conductor Web Part is displayed on a page, the resulting content from the data source query is stored in the memory assigned to the cache engine selected from the **Instance Name** drop down list. Subsequently the Web Part displays the content from the cache. The default instance engine is, **Global Engine**, which is pre-defined. Your [Microsoft® SharePoint® 2010](#) server administrator can [configure additional caching engine instances](#) using the SharePoint 2010 Central Administration web site.

Each SharePoint object stored in the cache is tagged with the time it was last retrieved from the SQL Server® content database. The caching engine first tries the cache to retrieve the metadata associated with a SharePoint object. If the object is not there or has expired, the caching engine retrieves the object from the SQL Server content database and stores the updated object in the cache and updates the retrieving time of that object.

There are three cache object expiration strategies based on the configuration of the **Expiration Timeout** text box, and the two check boxes: **Expire on SharePoint Changes** and **Force Expiration on Timeout**:

1. **Expiration Timeout** only:

The SharePoint object will be fetched from the content database at the interval typed in the **Expiration Timeout** text box.

2. **Expiration Timeout** and **Expire on SharePoint Change** check box selected.

The cached object is considered as expired when the caching engine detects, that this object has been changed in SharePoint content database since the retrieving time of that object. This option is dependant on the use of the [SPChange log](#), which is a setting in the SharePoint 2013 Central Administration web site. The caching engine will use strategy based only on timeout for those objects when changes could not be determined using SharePoint change log.

3. **Expiration Timeout** and both **Expire on SharePoint Change** and **Force Expiration on Timeout** check boxes selected:

The cached object is considered as expired, if that object has been retrieved more than X minutes ago or when caching engine detects, that this object has been changed in the SharePoint content database since the retrieving time of that object, where X is the value taken from the “Expiration Timeout (Min)” text box.

What expiration strategy is best and what value should be specified in “Expiration Timeout (Min)” text box? There is no common answer to this question for all cases. It depends on the environment in which Lightning Conductor Web Part (LCWP) runs, on the user requirements, on the sort of items rolled up by LCWP, and so on. However, we can mention several situations for which the answer is precise:

- When items rolled up by LCWP are changed rarely, better performance is to use a strategy based on timeout only and to use large value as expiration timeout, for example, 180 minutes or more.
- When items rolled up by LCWP are changed often, but it is allowed to see the old states of that items but not older than several minutes. In this case it will be better for performance to use strategy based only on timeout and to use small value as expiration timeout (e.g. 10 minutes).
- When it is necessary to see only the current states of the items rolled up by LCWP, than it is required to use strategy based on detecting changes in SharePoint database (with or without forcing expiration on timeout). In this case it is not so important which value will be used as expiration timeout. Using “Force Expiration on Timeout” option could be used in situations when it is required to retrieve cached objects again even in the situation, when such changes will not be detected in SharePoint change log (e.g. in situations when in some reason several kinds of changes has not been logged in SharePoint change log).

Caching Settings where first made available with Lightning Conductor 2010 Web Part v3.0.

[Configure Rollup Engine Provider step →](#)

Using an XSLT view

The JSON display provider allows you to configure the [Lightning Conductor Web Part](#) to display the aggregated content using [XSLT](#) (Extensible Stylesheet Language Transformations). Use this option if you have or you know someone with XSLT knowledge. The SPGridView Display Provider is most suited to users who have no coding experience.

To use an XSLT view complete the following steps:

1. On the **Configure Rollup Engine Provider** step, select the **Display Advanced Configuration Options** check box.
2. On the [Core Configuration](#) step in the **Configure Display Provider** section select **XSLT Style Display Provider**.



3. Click **Next**.
4. On [Configure Rollup Engine Provider](#) step, select your data sources to aggregate and then click **Next**.
5. On the [Configure Display Provider](#) step:
 - In the **Columns Configuration** section, select the column, sorting and filtering configurations you require.

- In the **XSL Styles** section, [upload your own XSLT](#) or select a [pre-existing XSLT file](#) such as **LightningTools Calendar**.

The screenshot shows the 'XSL Styles' configuration section of a web part. It contains a 'Choose XSL Style' dropdown menu with 'LightningTools Calendar' selected. To the right of the dropdown are icons for a document and a gear. Below this is an 'Add XSL Style' section with a text input field and a 'Browse...' button. A green plus icon is centered below the input field. The 'Miscellaneous' section below contains an 'XSL Styles Library Path' text field, a 'Date Format' text field, and a checkbox labeled 'Hide built-in XSL styles' which is currently unchecked.

XSL Styles

Choose XSL Style

LightningTools Calendar

Add XSL Style

Browse...

Miscellaneous

XSL Styles Library Path

Date Format

☐ Hide built-in XSL styles

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

Pre-defined XSLT Files

The following 5 XSLT styles exist for your use or customization with the [Lightning Conductor Web Part](#):

- **Calendar:** Use to display list items from a Calendar (Event) list.

Lightning Conductor



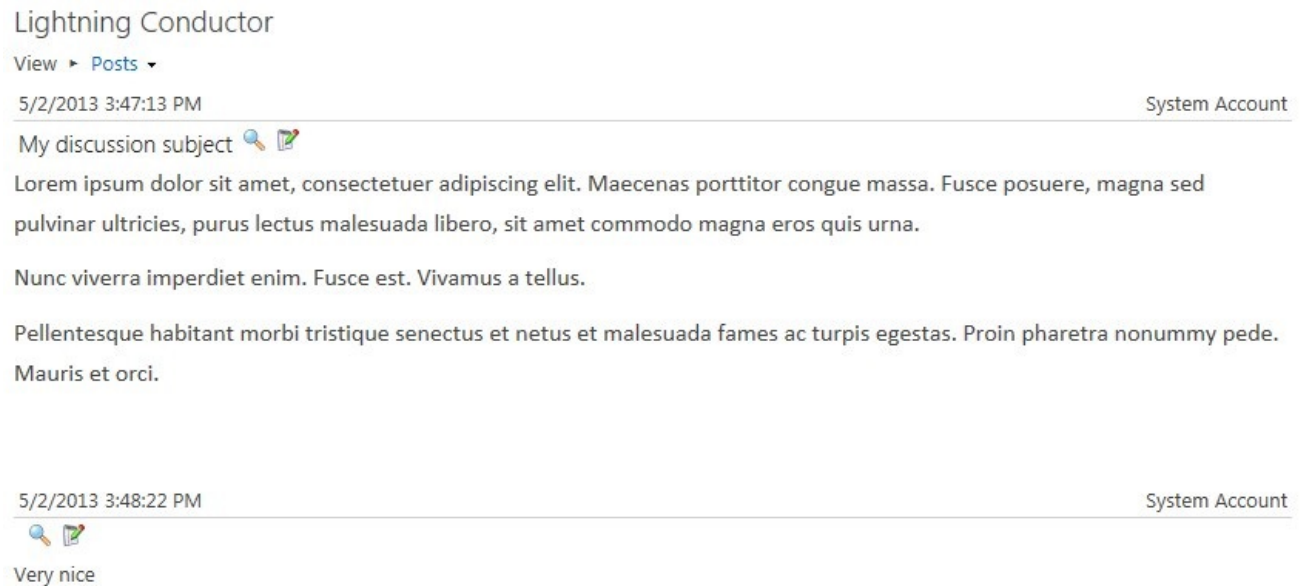
View ▶ Calendar ▼

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Prev	Next	Day	Week	Month	2013 ▼
May, 2013																	
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday											
28	29	30	1	2	3	4											
5	6	7	8	9	10	11											
					Release the Lightning Conductor 2013 Web Part												
12	13	14	15	16	17	18											
19	20	21	22	23	24	25											
26	27	28	29	30	31	1											

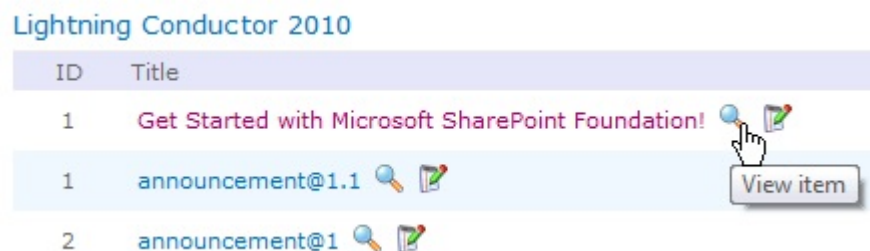
- **Announcements:** This XSLT file shows how to brand list items using formatting and colour options.



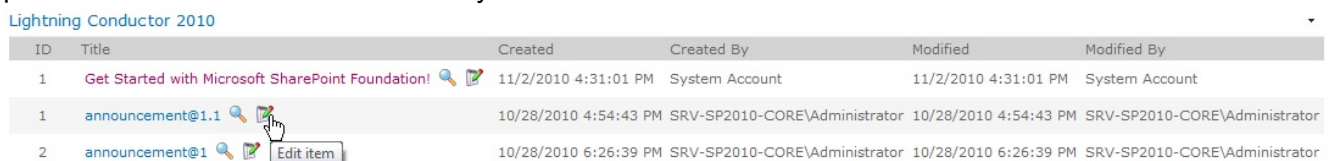
- **Posts:** Use to display Discussion Board items within a discussion view.



- **Sample XSL Style #1:** Displays the ID, and Title columns plus icons which when clicked allow you to view or edit the item.



- **Sample XSL Style #2:** Displays the ID, Title, Created, Created By, Modified and Modified By columns plus icons which when clicked allow you to view or edit the item.




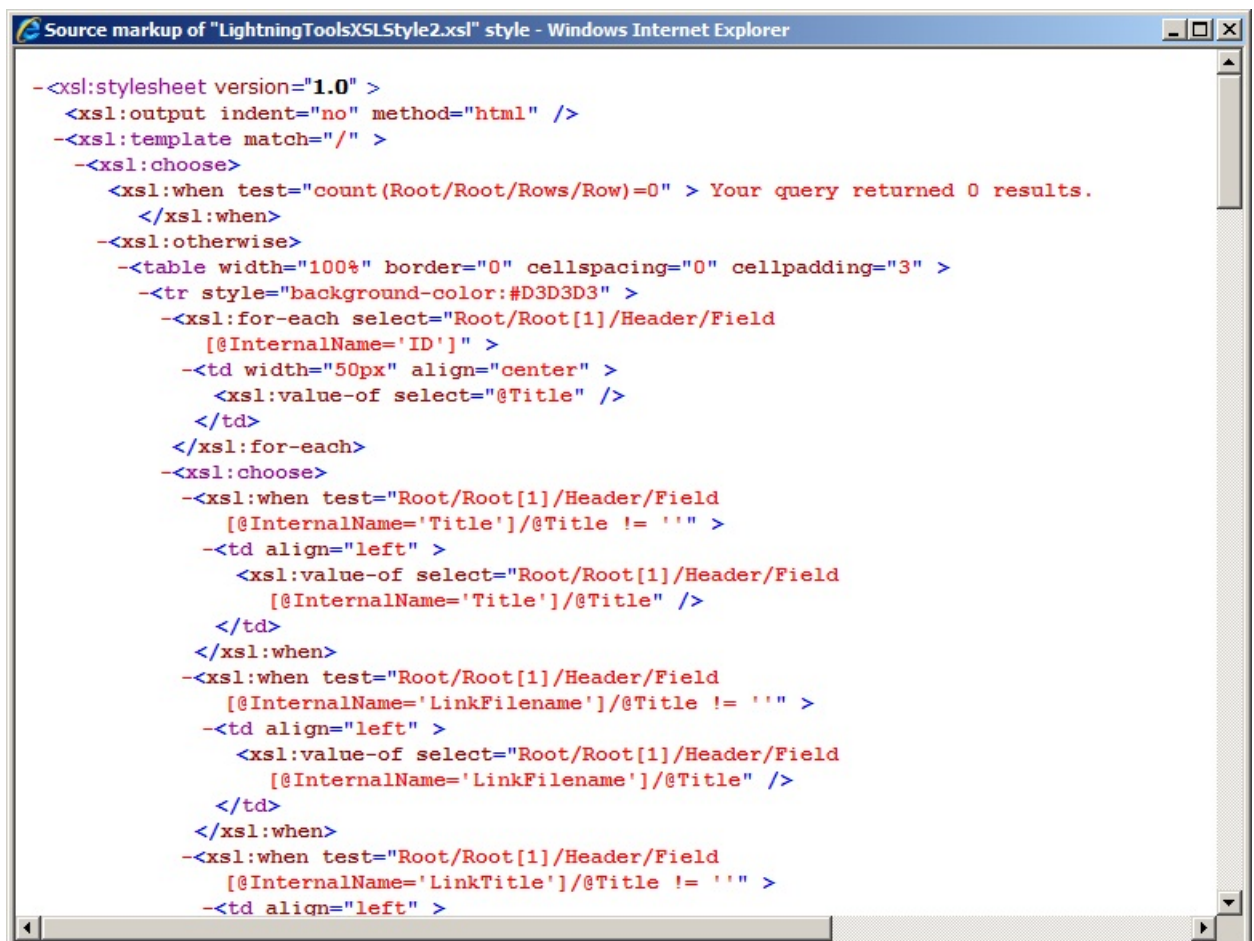
[Using an XSLT view →](#)

Uploading Custom XSLT views

To create and upload you own custom XSLT view for the [Lightning Conductor Web Part](#) use the following steps:

1. Using the **Lightning Conductor 2010 Configuration Wizard**, select the **Display Advanced Configuration Options** check box.
2. On the [Core Configuration](#) step, from the **Display Provider** list, select **XSL Style Display Provider** and the click **Next**.
3. On the [Configure Rollup Engine Provider](#) step, in the **Rollup Source** section select a data source and any other configurations, for example, in the **List/Items Types** section select a List Type. Click **Next**.
4. On the [Configure Display Provider](#) step:

- In the **XSL Styles** section select one of the [predefined styles](#) and then click the cog icon  , to view the XSLT source.




```

- <xsl:stylesheet version="1.0" >
  <xsl:output indent="no" method="html" />
  <xsl:template match="/" >
    <xsl:choose>
      <xsl:when test="count(Root/Root/Rows/Row)=0" > Your query returned 0 results.
      </xsl:when>
      <xsl:otherwise>
        <table width="100%" border="0" cellpadding="3" >
          <tr style="background-color:#D3D3D3" >
            <xsl:for-each select="Root/Root[1]/Header/Field"
              [&@InternalName='ID']" >
              <td width="50px" align="center" >
                <xsl:value-of select="@Title" />
              </td>
            </xsl:for-each>
            <xsl:choose>
              <xsl:when test="Root/Root[1]/Header/Field
                [&@InternalName='Title']/@Title != ''" >
                <td align="left" >
                  <xsl:value-of select="Root/Root[1]/Header/Field
                    [&@InternalName='Title']/@Title" />
                </td>
              </xsl:when>
              <xsl:when test="Root/Root[1]/Header/Field
                [&@InternalName='LinkFilename']/@Title != ''" >
                <td align="left" >
                  <xsl:value-of select="Root/Root[1]/Header/Field
                    [&@InternalName='LinkFilename']/@Title" />
                </td>
              </xsl:when>
              <xsl:when test="Root/Root[1]/Header/Field
                [&@InternalName='LinkTitle']/@Title != ''" >
                <td align="left" >

```

- Right click and then select **View Source**. Copy the contents into Visual Studio or Notepad if you want to modify them, and save your XSLT to a file with either a .xsl or .xslt extension.

- Click **Browse** and then click the green plus icon  to save your new style sheet file to the **Style Library** at the top level site of the site collection.
- In the **Choose XSL Style** list, select the file you have just uploaded.
- Configure any column, sorting or filtering requirements, and then click **Complete**.

[Using an XSLT view →](#)

Using the JSON Display Provider

The [Lightning Conductor 2010 Web Part](#) provides several different ways of displaying the aggregated content from lists and libraries. You can select one of the 3 display providers on the [Core Configuration](#) step in **Configure Lightning Conductor 2010 Configuration Wizard**:

- SPGridView Display Provider
- [XSL Style Display Provider](#)
- JSON Display Provider.

The JSON display provider allows you to configure the [Lightning Conductor 2010 Web Part](#) to display the aggregated content using client-side code. Use this option if you have a developer with knowledge of SharePoint, JavaScript and most likely JQuery. The SPGridView Display Provider is most suited to users who have no coding experience.

This page describes how to configure the Lightning Conductor 2010 Web Part (LCWP) to use the JSON Display Provider, and the JavaScript you need to include.

Procedure

1. Open the [Lightning Conductor 2010 Configuration Wizard](#).
2. Select the **Display Advanced Configuration Options** check box.
3. On the [Core Configuration](#) step, in the **Configure Display Provider** section, select **JSON provider**.
4. At the bottom of the step click **Next**.
5. Use the [Configure Rollup Engine Provider](#) step to select the content you wish to aggregate.
6. At the bottom of the step click **Next**.
7. Use the [Configure Display Provider](#) step to select columns, and configure filters and sorting.
8. At the bottom of the step, click **Complete**.

The Web Part properties are updated and the Web Part attempts to call a JavaScript function with a signature **LightningConductor(jsonData)**.

9. Link the JavaScript file to the page where you have added the Lightning Conductor Web Part. The JavaScript file should contain the **LightningConductor(jsonData)** function and the client-side code to render the content provided by the Lightning Conductor Web Part.

Contents of the JavaScript file

The JavaScript file should contain the **LightningConductor** function:

```
< script language="JavaScript" >
  function LightningConductor(jsonData) {
    // Your code here
  }
< /script >
```

Otherwise the following notification message is displayed:



You could upload the JavaScript file, for example, to the **Site Assets** library, add a **Content Editor** Web Part (CEWP) on the same page as the LCWP, and then point to the JavaScript file using the **To link to a text file, type a URL** text box in the **Content Link** section in the Web Parts tool pane.

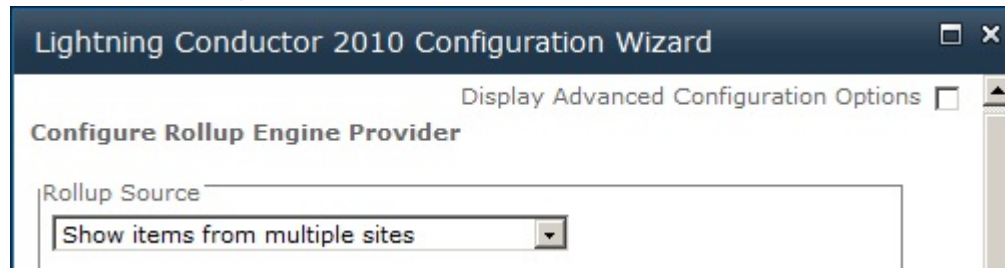
Alternatively you can include the script directly on the page using one of the following methods:

- Add the CEWP to your page. You will find the CEWP in the Web Part pane, by clicking, under **Categories, Media and Content**.
 - Place the cursor inside CEWP.
 - On the **Format Text** tab, click **Edit Source** in the **Markup** group to display the **HTML Source** dialog.
 - Type the JavaScript in the **HTML Source** text box, and then click **OK**.
 - On the **Page** tab, click **Stop Editing** if this is a Web Part page or if you have added the CEWP to a wiki page, on the **Page** tab, click **Save**.
- Add the HTML Form Web Part to your page. You will find the HTML Form Web Part in the Web Part pane, by clicking, under **Categories, Forms**.
 - From the Web Part menu, click **Edit Web Part**.

- In the Web Part tool pane, in the **Form Content Editor** section, click **Source Editor** to display the **Text Editor — Webpage Dialog**.
 - Delete the existing code, and then type your JavaScript into the text box, and then click **OK**.
 - In the Web Part tool pane, click **OK** or **Apply**.
 - On the **Page** tab, click **Stop Editing** if this is a Web Part page or if you have added the CEWP to a wiki page, on the **Page** tab, click **Save**.
-
- On a wiki page, include content directly in the page.
 - Place the cursor in the same column as the LCWP and then on the **Format Text** tab, click **Edit Source** in the **Markup** group to display the **HTML Source** dialog.
 - Type the JavaScript in the **HTML Source** text box, and then click **OK**.
 - On the **Page** tab, click **Save**.

Configure Rollup Engine Provider

Use the **Configure Rollup Engine Provider** step of the [Lightning Conductor 2010 Configuration Wizard](#), to build your rollup query. This step consists of a check box, **Display Advanced Configuration Options**. This check box, by default, is not selected.



When it is selected the [Core Configuration](#) step is displayed.

The **Configure Rollup Engine Provider** step consists of six sections:

1. [Rollup Source](#)
2. [Displaying Column Sets](#)
3. [List/Item Types](#)
4. [Audience Targeting Settings](#)
5. [Filtering Settings](#)
6. [Miscellaneous](#)

Once you have configured this step to meet your requirements, click **Next** at the bottom of the page to display the Configure Display Provider step. If the **Display Advanced Configuration Options** check box at the top of the step, is selected then you will also see a **Previous** button at the bottom of the page, which when clicked, the [Core Configuration](#) step is displayed.

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

Rollup Source


The **Rollup Source** section, is the first of six section on the [Configure Rollup Engine Provider](#) step. Use this section to configure the Web Application(s), site collection(s), site(s) or list(s) that you would like to aggregate. Use the following steps to configure this section:

1. From the **Rollup Source** drop down list, select one of the following options;
 - **Show Items from entire farm**
(this option is only available if you are a SharePoint farm administrator, that is, only SharePoint farm administrators can automatically select across the farm).
 - **Show Items from multiple applications**
(this option is only available if you are a SharePoint farm administrator, that is, only SharePoint farm administrators can automatically select across multiple web applications).
 - **Show items from entire application**
(this option is available if you are not a SharePoint farm administrator, that is, if you're not a SharePoint farm administrator, you can automatically select only from the web application where you are trying to use the Lightning Conductor Web Part).
 - **Show Items from multiple site collections**
 - [Show Items from multiple sites](#) (selected by default)
 - [Show Items from multiple lists](#)






Note: You may aggregate the content from the entire farm, across multiple web applications or also across multiple site collections. When selecting the content source, keep in mind that you can still get the content from anywhere in the farm. For example, you may choose individual lists from different web applications in your aggregation.

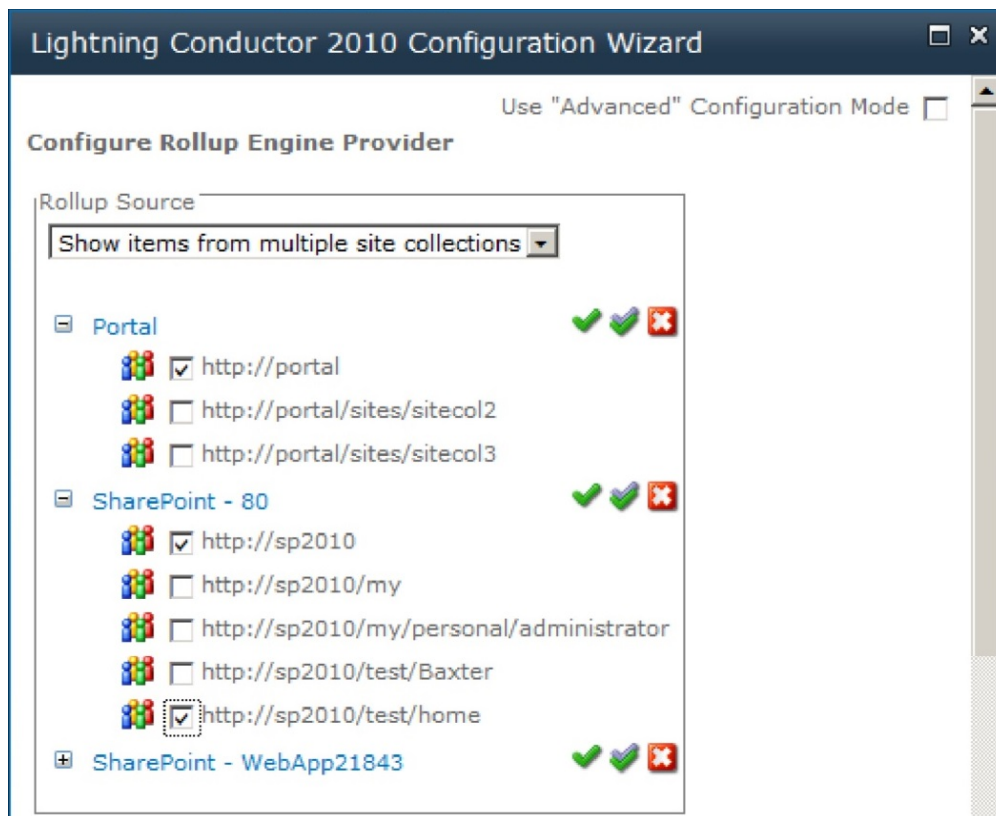
If you choose anything besides **Show Items from the entire farm** a tree view is displayed below the **Rollup Source** list. The tree view will differ depending whether the options selected contains Web Applications, Site Collections, Sites or Lists.

7. In version 5.1.0.0, if you are not a SharePoint farm administrator, and have not selected **Show Items from entire applications**, you can add additional accessible site collections in other web applications to the tree view. Use the text box to type or cut/paste the URL of the SharePoint site collection in other web application in your SharePoint farm that you would like to include in the rollup query. Click the green plus  icon to the right of the text box.



A new tree view of the site collection is added to the *Rollup Source* section. If the user who is configuring the LCWP, does not have permission to that site collection, that is, to the root site of site collection, or no such site collection exists, then no URL is added to the tree view. You use the text box more than once to add multiple site collections to the tree view.

8. Expand the tree view(s) by clicking the plus sign (+).
9. Select the check box to the left of the SharePoint object that you want to include within the rollup query. Three icons are displayed to the right of an object. You can use the icons to help you quickly select multiple items. You can use these icons to:
-  Select all child object
 -  Invert selection
 -  Uncheck all child objects



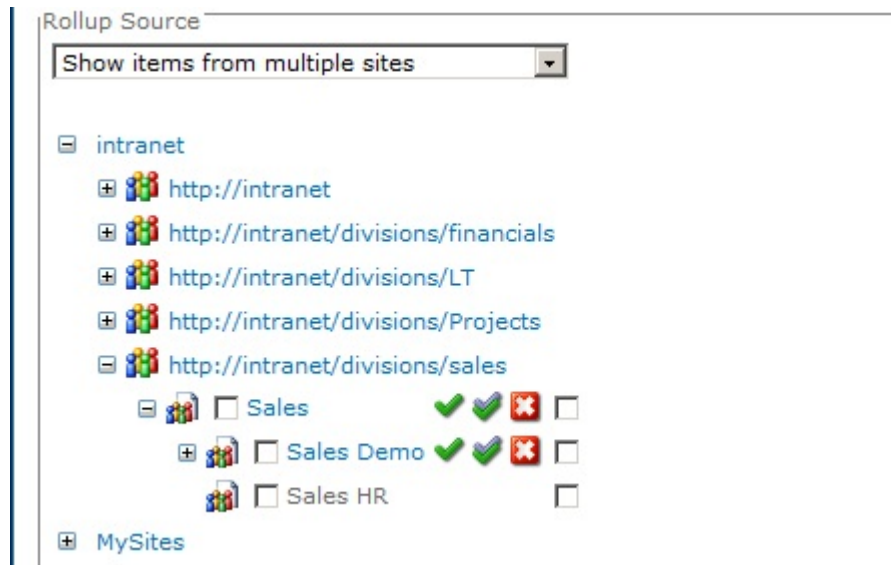
You will only be able to configure a query based upon the permissions you have. Items returned are security trimmed for all users. Therefore it is recommended to configure the Web Part with a user id that has permissions to all content in your installation, thereby allowing you to configure the rollup of content across the farm.

[Go to top →](#)

Show items from multiple sites

When you have selected **Show items from multiple sites** there is also a checkbox to the right of the 3 icons, which when selected includes in your rollup query sub sites, both current and yet to be created sub

sites.



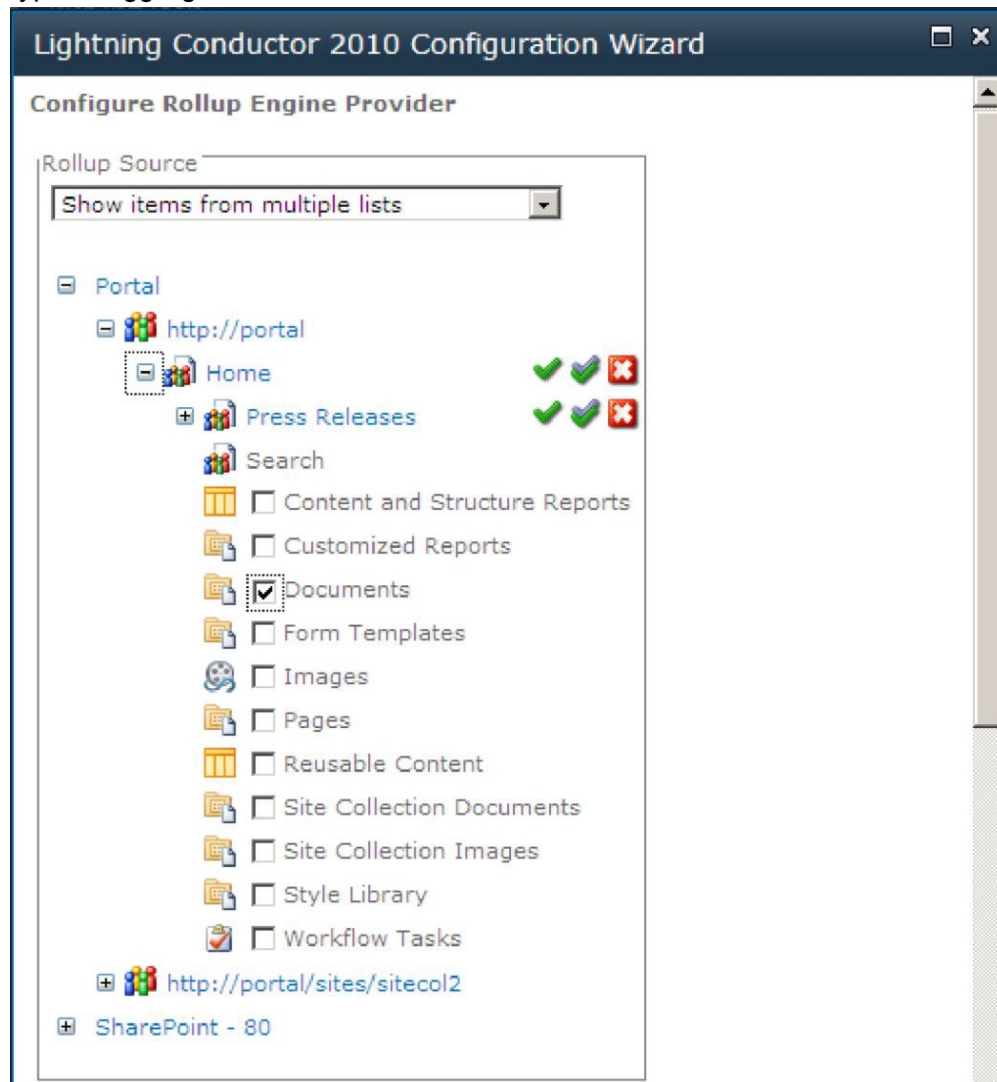
When aggregating content across multiple site collections, note that the list types displayed in the List/Items Types section are only those List Types available in each site collection where you have selected a SharePoint object.

[Go to top →](#)

Show items from multiple lists

Instead of rolling up a list type from multiple sites, site collections or web applications, it is also possible to choose individual lists or libraries within your query, by selecting **Show items from multiple lists**. For example, the *Contacts* list from *Site A* and the *Contacts* list from *Site B*. It is also possible to aggregate the *Contacts* list from *Site A* and the *Tasks* list from *Site A* as long as the lists selected have at least one column in common. You may select the lists/libraries from any site within any site collection contained within the current SharePoint Farm. If you select individual lists or libraries, you will not be prompted for the list

type to aggregate from.



[Go to top →](#)


[— Configure Rollup Engine Provider](#)

[Displaying Columns Set —>](#)

Displaying Columns Set

The **Displaying Columns Set** section is the second of six sections on the [Configure Rollup Engine Provider](#) step. It is not necessary to use this section, when the lists you have selected in the [Rollup Source](#) section, have identical columns, for example, they all use the same content type(s). You only need to use this section when lists you have selected have custom column(s) and you want to use those custom column(s) to decide what to display in the Lightning Conductor Web Part. You can select more than one list when the custom columns are unique to each list. The columns from the selected lists are then displayed in the [Columns Configuration](#) section on the [Configure Display Provider](#) step.

For example, you have two Task lists: *TaskListA* and *TaskListB*. *TaskListB* has a custom column called *MyCustomColumn*. All other columns are the same in both Tasks lists. If you want to display *MyCustomColumn* or use the values in the *MyCustomColumn* to filter what is displayed in the Lightning Conductor Web Part, select the check box to the left of *TaskListB* when you have expanded the tree view for that site in the **Displaying Columns Set** section. Complete any other configurations on the [Configure Rollup Engine Provider](#) step, and then at the bottom of the step, click **Next**. Then use the custom columns from each selected list to build what is to be displayed with the Lightning Conductor Web Part.

In version 5.1.0.0, if you are not a SharePoint farm administrator, and in the [Rollup Source](#) section you have not selected **Show Items from entire applications**, you can add additional accessible site collections in other web applications to the tree view. Use the text box to type or cut/paste the URL of the SharePoint site collection in other web application in your SharePoint farm that you would like to include in the rollup query. Click the green plus  icon to the right of the text box.



A new tree view of the site collection is added to the *Rollup Source* section. If the user who is configuring the LCWP, does not have permission to that site collection, that is, to the root site of site collection, or no such site collection exists, then no URL is added to the tree view. You use the text box more than once to add multiple site collections to the tree view.

[Configure Rollup Engine Provider step →](#)
[Configure Display Provider step](#)

List / Item Types

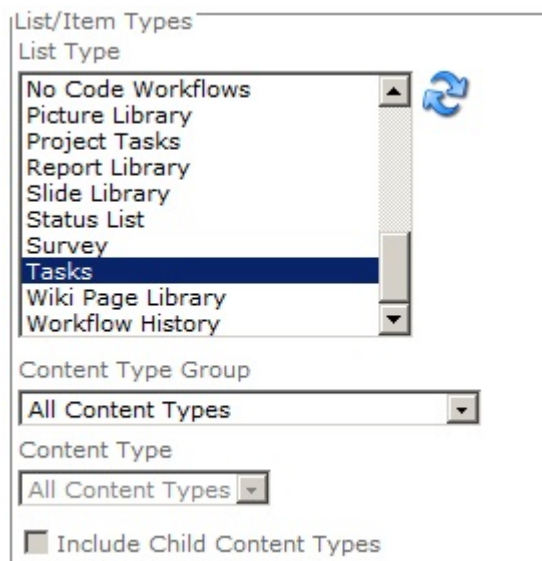
The **List/Item Types** section is the third of six sections on the [Configure Rollup Engine Provider](#) step of the [Lightning Conductor 2010 Configuration Wizard](#). You use this section to decide which columns are displayed in the [Columns Configuration](#) section on the [Configure Display Provider](#) step. You use the [Columns Configuration](#) section to decide what to display in the [Lightning Conductor 2010 Web Part](#).

You do not need to use this section when **Show items from multiple lists** is selected from the [Rollup Source](#) drop down list or you have selected list(s) in the [Displaying Columns Set](#) section, since you have already selected the list type for your rollup query.

Once you have selected the [rollup source](#), you can then select the type of list.

1. Select a list type from the **List Type** list box.

The list types displayed in the list box, includes custom list templates and custom list definitions, as well as the out-of-the-box list definitions. For example you may choose *Tasks* as the selected list type as you want to display items from all Tasks lists in your Lightning Conductor Web Part.



The screenshot shows a configuration window titled "List/Item Types". It contains a "List Type" list box with the following items: No Code Workflows, Picture Library, Project Tasks, Report Library, Slide Library, Status List, Survey, **Tasks** (highlighted), Wiki Page Library, and Workflow History. To the right of the list box is a blue refresh icon. Below the list box are two dropdown menus: "Content Type Group" and "Content Type", both set to "All Content Types". At the bottom is an unchecked checkbox labeled "Include Child Content Types".

If the list box does not show list type you expected to see, then the specific List Template feature may not be activated at the top-level site of the site collection. Only list templates available for the site collection selected in the [Rollup Source](#) section will be displayed in the list box. If you change the source selected in the [Rollup Source](#) section, you should click the refresh icon to the right of the list box.

2. Optionally select a content type to further refine your query. This is only required if your lists contain multiple Content Types:
 - Select the required **Content Type Group**.
 - From the **Content Type** drop down list, select the required content type.
 - If your content type contains child content types, optionally select the **Include Child Content Types** check box, to include items from the child content types.

Selecting **Child Content Types** will include that of any content type that derives from your selection.

[Configure Rollup Engine Provider step →](#)

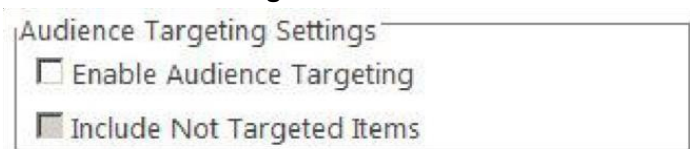
Audience Targeting Settings

The **Audience Targeting Settings** section is the fourth of six sections on the on the [Configure Rollup Engine Provider](#) step.

[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 Settings** 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.

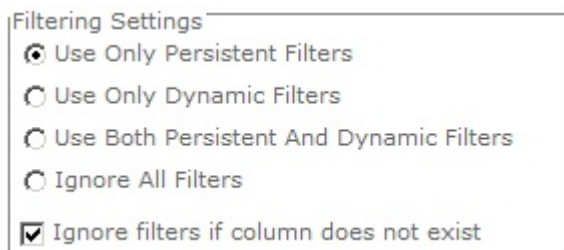
[Audience and content targeting planning \(SharePoint Server 2010\) →](#)
[Configure Rollup Engine Provider step →](#)

Filtering Settings

The **Filtering Settings** section is the fifth of six sections on the [Configure Rollup Engine Provider](#) step of the [Lightning Conductor 2010 Configuration Wizard](#).

On the [Lightning Conductor Web Part](#), there are two different types of filters that you can configure;

- **Persistent:** The persistent filters are set by the person who is configuring the Web Part using the [Columns Configuration](#) section on the [Configure Display Provider](#) step. Persistent filters limits the items of data that is seen to each user that visits the page. The Web Part can then be configured to allow users to dynamically filter the items using the columns displayed within the Web Part. It is worth pointing out that you cannot set persistent filter on every column type. This is a [Microsoft® SharePoint®](#) restriction and not a restriction of the Lightning Conductor Web Part.
- **Dynamic.** Dynamic filters are applied when users use the Web Part's filter icon . Dynamic filtering is enabled, that is, the filter icon  is displayed, when one of the dynamic filtering radio buttons is selected in the **Filtering Settings** section and the **Hide Dynamic Filtering Controls** check box is not selected, in the [Miscellaneous](#) section on the [Configure Display Provider](#) step.





Filtering Settings

- ☒ Use Only Persistent Filters
- ☐ Use Only Dynamic Filters
- ☐ Use Both Persistent And Dynamic Filters
- ☐ Ignore All Filters
- ☒ Ignore filters if column does not exist

The following options are available in the **Filtering Settings** section on the [Configure Rollup Engine Provider](#) step:

1. Select one of the following radio buttons:

- Select **Use Only Persistent Filters** to allow all users see the same filtered values. Users can not use the dynamic filtering capabilities of the Web Part. This is the default setting.
- Select **Use Only Dynamic Filters** when you want all items displayed, and that users will then use the Web Part's filter icon  to limit the items displayed on the page, that is, ignore any persistent filter settings selected on the [Configure Display Provider](#) step.
- Select **Use Both Persistent and Dynamic Filters** to use a combination of persistent filters and dynamic filters. The persistent filter is used first by the Web Part to display a subset of items from the rollup source. The user can then use the Web Part's filter icon  to further limit the items displayed.

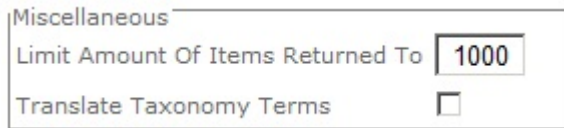
- Select **Ignore All Filters** to display all items from the rollup source, that is, the persistent filter settings selected on the [Configure Display Provider](#) step are ignored and users cannot use dynamic filters.

2. Select the check box to ignore filters if the column does not exist. This is the default setting.

[Configure Rollup Engine Provider step →](#)

Miscellaneous

The **Miscellaneous** section is the last section on the [Configure Rollup Engine Provider](#) step, of the [Lightning Conductor 2010 Configuration Wizard](#).



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 by the rollup query. The default is 1000. Use this option for performance reasons. If you would like to show a query such as “Top Ten latest Announcements”, instead of typing a number in the **Limit Amount Of Items Returned To** text box, on the [Configure Display Provider](#) step, use pagination and 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.

[Configure Rollup Engine Provider step →](#)

Configure Display Provider

This page describes the options on the **Configure Display Provider** step, when the **SPGridView Display Provider** is selected in the **Display Provider** drop down list on the [Core Configuration](#) step.

The **Configure Display Provider** step contains three or four sections.

Lightning Conductor 2010 Configuration Wizard

Display Advanced Configuration Options ☐

Configure Display Provider

View Configuration

View Title

☒ Set as Default

Paging

Items Per Page

Pager Horizontal Align

Pager Position

Miscellaneous

☒ Show Grid Header

Grid Header Horizontal Align

☐ Show Item Submenu

☐ Link to Item Directly

☐ Show Document Type Icon
(this option works only for document libraries)

☒ Hide Dynamic Filtering Controls

☐ Store Dynamic Filters in Server

☐ Group by Folders

Columns Configuration

Update columns configuration Remove columns configuration Advanced filtering

Name	Alias	Width, px	Display Format	Sorting	Allow Tags	Ordering	Filtering	Formatting
<input checked="" type="checkbox"/> Title				None	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/> % Complete			Percent	None	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/> Due Date			Short Date	None	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/> Priority				None	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/> Start Date			Short Date	None	<input checked="" type="checkbox"/>			
<input checked="" type="checkbox"/> Status				None	<input checked="" type="checkbox"/>			
<input type="checkbox"/> Parent Folder Name				None	<input checked="" type="checkbox"/>			
<input type="checkbox"/> Parent Application Name				None	<input checked="" type="checkbox"/>			

The sections included on this step are:

- **View Configuration:** This section is only visible when you have enabled [multiple views](#). In the **View Title** text box, type the name of the view as you want it shown to users in the Web Part. The default name of a view is **Viewn**, where *n* is a number that is auto generated when you create a view. View names must be unique for the Lightning Conductor Web Part that you are configuring. Select the **Set as Default** checkbox to use the view when the Web Part is first displayed. You cannot select this checkbox (greyed) when you only have one view.
- [Paging](#)
- [Miscellaneous](#)
- [Columns Configuration](#)

Once you have configured this step to meet your requirements, at the bottom of the page, click **Complete**. At the bottom of the page if you click **Previous** the [Configure Rollup Engine Provider](#) step is displayed.

Note: This tab is not displayed if **JSON Provider** is selected in the **Configure Display Provider** drop down list on the Web Part tab.

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

Pagination

The **Paging** section is on the [Configure Display Provider](#) step of the [Configure Lightning 2010 Configuration Wizard](#). Use this section to configure your pagination options. It contains three options:

1. **Items Per Page:** Type the number of items to display, for example **25**. The default is
2. **Pager Horizontal Align.** Select from the drop down list: **Left**, **Right** or **Center**. Left is the default.
3. **Pager Position.** From the drop down list select; **Top**, **Bottom** or **Both**. Bottom is the default.



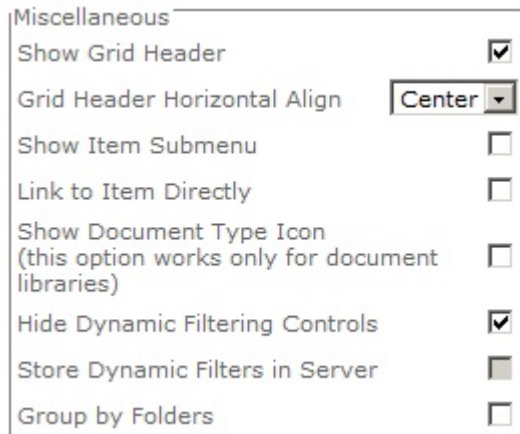
The screenshot shows a configuration box titled "Paging". It contains three settings: "Items Per Page" with a text input field, "Pager Horizontal Align" with a dropdown menu set to "Left", and "Pager Position" with a dropdown menu set to "Bottom".

[Configure Display Provider step →](#)

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

Miscellaneous

This **Miscellaneous** section is on the [Configure Display Provider](#) step of the [Lightning Conductor 2010 Configuration Wizard](#).



The screenshot shows a configuration window titled "Miscellaneous" with the following options:


Show Grid Header	<input checked="" type="checkbox"/>
Grid Header Horizontal Align	Center
Show Item Submenu	<input type="checkbox"/>
Link to Item Directly	<input type="checkbox"/>
Show Document Type Icon (this option works only for document libraries)	<input type="checkbox"/>
Hide Dynamic Filtering Controls	<input checked="" type="checkbox"/>
Store Dynamic Filters in Server	<input type="checkbox"/>
Group by Folders	<input type="checkbox"/>

Use this section as described below:

1. Select the **Show Grid Header** check to show the column names for each column selected in the [Column Configuration](#) section. When the check box is not select, the column names are not displayed. The default is to show column names.
2. From the **Grid Header Horizontal Align** drop down list, select **Left**, **Center** or **Right** to align the column names. The default is **Center**.
3. **Show Item Submenu**: By default this check box is not selected. When the check box is selected, and you have selected a column name in the **Choose Column To Be Link To Item** check box in the [Column Configuration](#) section, then a item sub menu is available. The sub menu is, also known as a list item menu (LIM). The sub menu provides two links: **View Properties** or **Edit Properties**. In document libraries, when the check box is select, the hyperlink when clicked, opens the file with the program associated with the extension of the file rather displaying the properties of the file.
Note: The Lightning Conductor 2010 Web Part does not display the FULL list item menu that you usually see on the out-of-the-box lists and libraries Web Parts, that is, the Lightning Conductor Web Part does not fully replicate the functionality of the LIM on the out-of-the-box Web Parts, which display the contents of lists and libraries.
4. **Link to Item Directly**: By default this check box is not selected. This check box is only applicable to libraries and when you have you have selected a column to be the link for the list item at the bottom of the [Columns Configuration](#) section. This check box is not needed when the **Show Items Submenu**

check box is selected. In future release, when the **Show Items Submenu** check box is selected, this check box will be inactive (greyed).

When both the **Show Items Submenu** and the **Link to Item Directly** check boxes are not selected and you have selected a column to be the link, then in the Web Part, when the link is clicked, the properties of the file are displayed. When the **Show Items Submenu** is not selected and the **Link to Item Directly** check box is selected, then in the Web Part, when the file link is clicked, the file is opened in the program that is associated with the file's extension on the user's computer.

5. **Show Document Type Icon.** This option is only applicable when you have decided to include document libraries in your rollup query. By default this check box is not selected. Select this check box when you want an icon to be 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.
6. Select the **Hide Dynamic Filtering Controls** check box to prevent users from dynamically filtering items displayed in the Lightning Conductor Web Part. By default the check box is selected, that is, the filter icon  is displayed to the right of the column names in the Web Part, when dynamic filtering is enabled in the **Filtering Settings** section on the [Configure Rollup Engine Provider](#) step. When this check box is selected, and no dynamic filter option is selected in the **Filtering Settings** section, then the filtering icon is not displayed.
7. **Store Dynamic Filters in Server:** You can only select this check box, when the Hide Dynamic Filtering Controls check box is not selected. By default when a user dynamically filters the items displayed by the Web Part, their filter choices are saved in memory on the computer where the user's browser is launched. Select the Store Dynamic Filters in Server check box, when the user's computer is running low on memory.
8. **Group by Folders.** By default this check box is not selected. If your lists and libraries contain folders, you can set the folder structure to display within the Lightning Conductor Web Part by checking the Group By Folders check box. When the check box is selected, another option: **Hide Empty Folders** is

displayed. Ensure that the Parent Folder name column is selected to be displayed.

Lightning Conductor 2010 - DOCUMENTS	
View ▸ Web Parts Managed Meta Data ▾	
Parent Folder Name	Title
Folder A	
Folder AA	
Folder AAA	
Folder AAA	Slide 1
Folder AAA	Slide 1





[Configure Display Provider step →](#)

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

Columns Configuration

Use the **Columns Configuration** section on the [Configure Display Provider](#) step to select columns that should be displayed by the [Lightning Conductor Web Part](#) decide when data to display and how that data should be formatted.




There are four links at the top right of the section that allows you to:

- Update the Lightning Conductor Web Part with the columns selected. 
- Remove all column configurations. 
- [Add calculated column](#) (new in version 5.1) 
- Configure [Advanced filtering](#). 

Below these links you can configure, [column selection](#), and [additional selection criteria](#), such as, sort priority and [grouping](#) name="col">



Column Selection




Use the grid representation of check boxes, drop down list and icons to select the columns that should be displayed, the items to be displayed and how the items should be formatted.









- Columns to be displayed, by selecting the check box to the left of the column name. The three icons above the left checkboxes allow you to select all columns , invert the selection , and uncheck all columns .
- Column alias: Type in the **Alias** text box an alternate name for the column title.
- Column width: Type in the **Width, px** text box the width of the column in pixels.
- Number format: Select from the **Display Format** drop down list the format of numerical columns, for example, Date/Time, Number columns. You can also type a [custom date format](#), of the same format

as you use when using the [XSL view](#).

Columns Configuration

Update columns configuration  Remove columns configuration 

  	Name	Alias	Width, px	Display Format	Sorting	Allow Tags
<input checked="" type="checkbox"/>	Name				None	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Description				None	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	Assigned To			None	None	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	% Complete			None	None	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Parent Folder Name			None	None	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Parent Application Name			Currency	None	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Parent Site Collection URL			Scientific	None	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Parent Web URL			Fixed-point	None	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Parent Web Title			General	None	<input checked="" type="checkbox"/>
				Number	None	<input checked="" type="checkbox"/>
				Percent	None	<input checked="" type="checkbox"/>


- **Sorting:** Use the **Sorting** drop down list to sort the items displayed using that column in ascending or descending order. To improve the performance of a lists or libraries, that contain a large number of items, you can create [indexes](#) on the columns you will be sorting on.
- **Allow Tags:** Use this check box when for Rich Text column types. If the column contains HTML you can show or hide the HTML tags.
- **Ordering:** You can set the order of that the columns will appear in the Web Part, by using the Top , Bottom , Up  and Down  blue arrows.
- **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 Configuration** section. Click the **Remove All Filters** icon , to remove all persistent filters from all columns.
- **Conditional Formatting.** Click the **formatting** icon  to display the **Configure Conditional Formatting** dialog, which you can use to apply formatting to the items in the Lightning Conductor Web Part. Click the **Remove All Formatting** icon , to remove all filters from all columns.

On the [Core Configuration](#) step, when you select either the [XSL Style Display Provider](#) or [JSON Provider](#), then on the [Columns Configuration](#) section, you will not be able to configure **Alias**, **Width**, **Display Format**, **Ordering** or **Formating**. You or your developer will need to provide this functionality, if required in the code. For both of these display providers, in the Columns Configuration section, you are only able to configure, **Sorting**, **Allow Tags** and **Filtering** and **Advanced Filtering**.

Additional selection criteria

At the bottom of the [Column Settings](#) section on the [Configure Display Provider](#) step, there are some additional drop down lists and a text box that allows you to type text that you want to be displayed if not items are returned from your rollup query. These drop down lists are described below.


Choose Columns Sorting Priority

Choose Column To Group By
 

Choose Column To Be Link To List Item

Choose How Grouped Rows Should Be Displayed

Enter text for displaying if no items was rolled up

- **Choose Columns Sorting Priority:** If you have selected the Sorting drop down list for than one column, then you can select the order. To improve the performance of a lists or libraries, that contain a large number of items, you can create [indexes](#) on the columns you will be sorting on.
- **Choose Column To Group By:** Select a column to determine what type of [group](#) to display the items in the Lightning Conductor Web Part. To add a subgroups click the green plus  icon to the right of the drop down list. To remove grouping, select **No Grouping** from the drop down list.
- **Choose How Grouped Rows Should Be Displayed:** Select whether you like the [groupings](#) to be expanded or collapsed when the Lightning Conductor Web Part is first displayed. By default the

groups are expanded. When you want the initial display of the Web Part to be smaller, then select **Groups Collapsed**. In the Web Part, click the Plus/Minus icon to expand/collapse a specific group of items.

- **Choose Column To Be Link To List Item:** When **SPGridView** is selected as the display provider on the [Core Configuration](#) step, which is the default display provider, you can select one column which becomes a link to the SharePoint list item or document. The column that you want to use as the link, must be selected to displayed, otherwise an error is displayed. Usually you would select the **Title** or **Name** column within a document library. By default the link, when clicked displays the property page for the item or document. When the rollup query returns documents, and you want the column link, when clicked, to open the document with the program associated with the extension then in the [Miscellaneous](#) section, select **Show Item Submenu** checkbox. The sub menu provides two links: **View Properties** or **Edit Properties**.

You can group on multiple columns by using the [XSL Style Display Provider](#) and writing your own XSLT. Also, to link to another hyperlink stored in a URL column, you would need to write your own custom XSLT.

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

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Calculated Columns

From Lightning Conductor Web Part (LCWP) version 5.1.0.0, you can add calculated columns to your LCWP views.


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 Lightning Conductor 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 LCWP 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 LCWP calculated column, is not based on Microsoft Excel formulas, but on C# based operators, calculations and functions.

As with other columns, with a LCWP 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 LCWP calculated column](#) and information on [formulas](#) you can use.

Adding a Calculated Column

To add a LCWP calculated column, use the following steps:

1. Click the **Add calculated column**  icon in the top right hand corner of the [Columns Configuration](#) section on the [Configure Display Provider](#) step.

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.

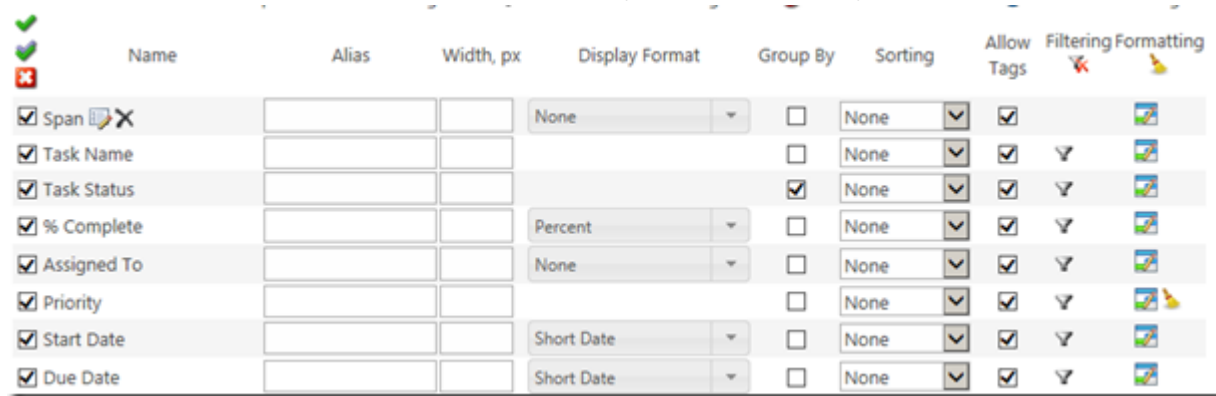
- **Expression:** Use this section to create the formula for the calculated column. A formula can contain functions, column references, operators, and constants. To insert a column reference, select the column in the dropdown list and then click **Insert field**.

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.

4. 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.

5. Select the check box to the left of the column if you wish to display the column in the LCWP.



	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"/>	
<input checked="" type="checkbox"/>	Task Status				<input checked="" type="checkbox"/>	None	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	% Complete			Percent	<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	Assigned To			None	<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	Priority				<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	Start Date			Short Date	<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<input checked="" type="checkbox"/>	Due Date			Short Date	<input type="checkbox"/>	None	<input checked="" type="checkbox"/>	<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.

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Information on calculated column formulas

This section contains examples of formulas you can use in the LCWP 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 →](#)

[Column Filtering —>](#)

Column Filtering


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

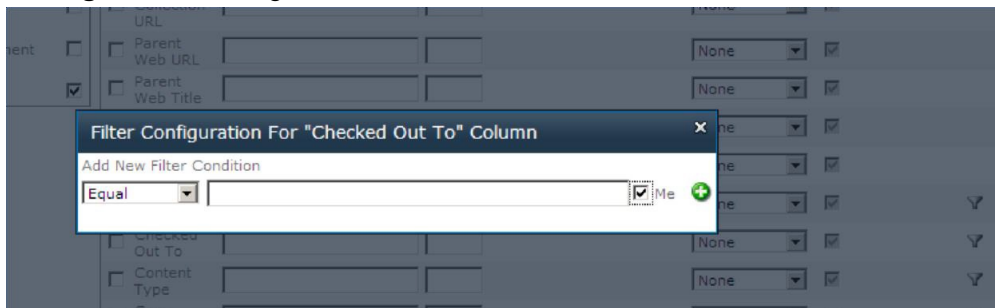
- Values in one column using the [filtering icon](#)
- Values in more than one columns using the [Advanced filtering](#) link.


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.

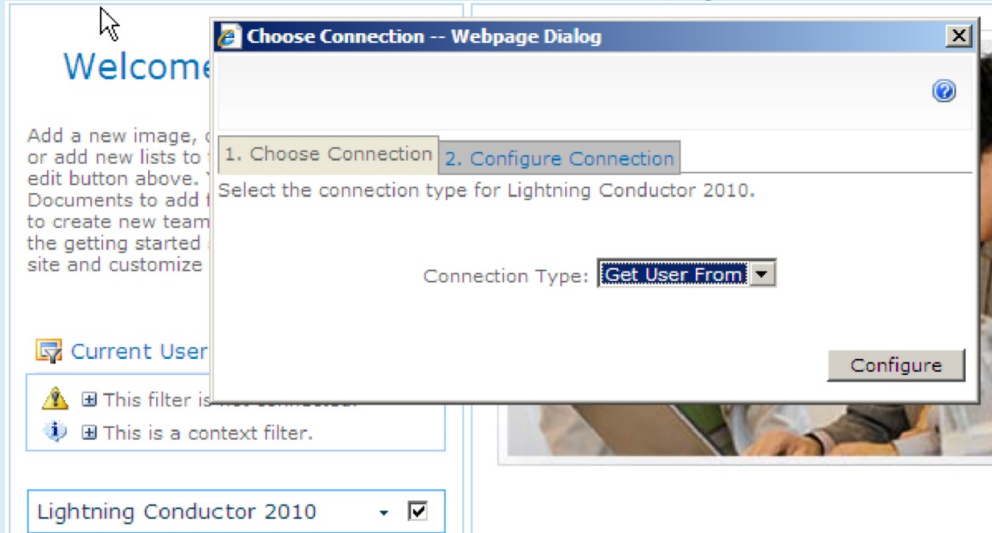
You can apply the filter and remove the filter using the **Filtering** icon  , which displays the **Filter Configuration** dialog.



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.



The [Lightning Conductor Web Part](#) can also be filtered using [web part connections](#). You can obtain a filter such as a current user filter connected to the assigned to column. To connect the Lightning Conductor Web Part to consume data from another Web Part, on the Lightning Conductor, Web Part menu, click **Connections** to display the **Choose Connection** dialog. To see the **Connections** link on the Web Part, the page must be in edit mode.



Advanced Filters

Occasionally, you may want to filter on more than one column using And or Or operators. This can be done with the [Lightning Conductor Web Part](#) using the **Advanced filtering** link, which is display in the top right of the [Columns Configuration](#) section of the [Configure Display Provider](#) step.

To filter on more than one column:

1. Click the **Advanced filtering**  link in the top right hand corner of the **Columns Configuration** section on the **Configure Display Provider** step.
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

Today

Days Offset

Negative

Save



Cancel

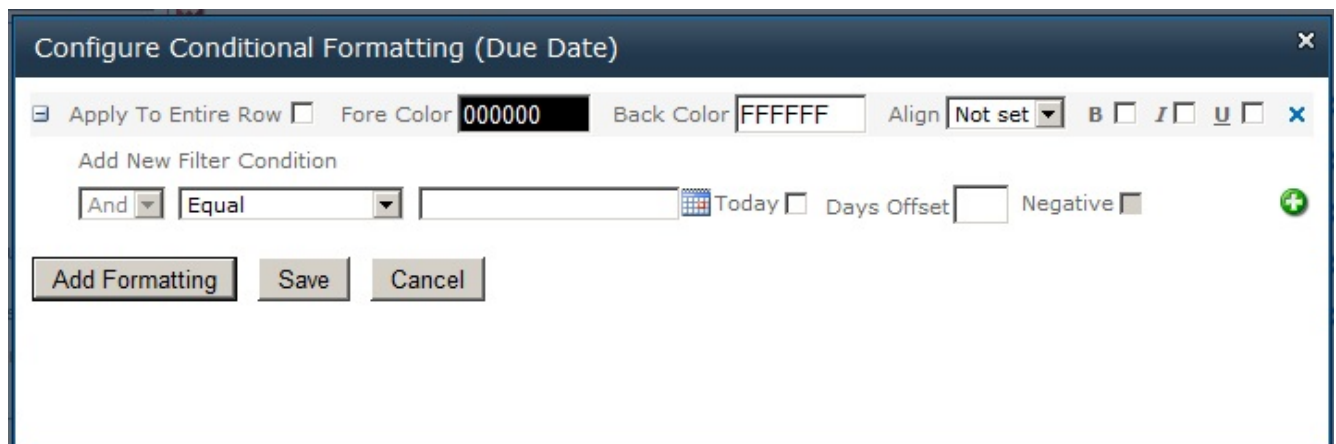
[Columns Configuration section →](#)

Conditional Formatting

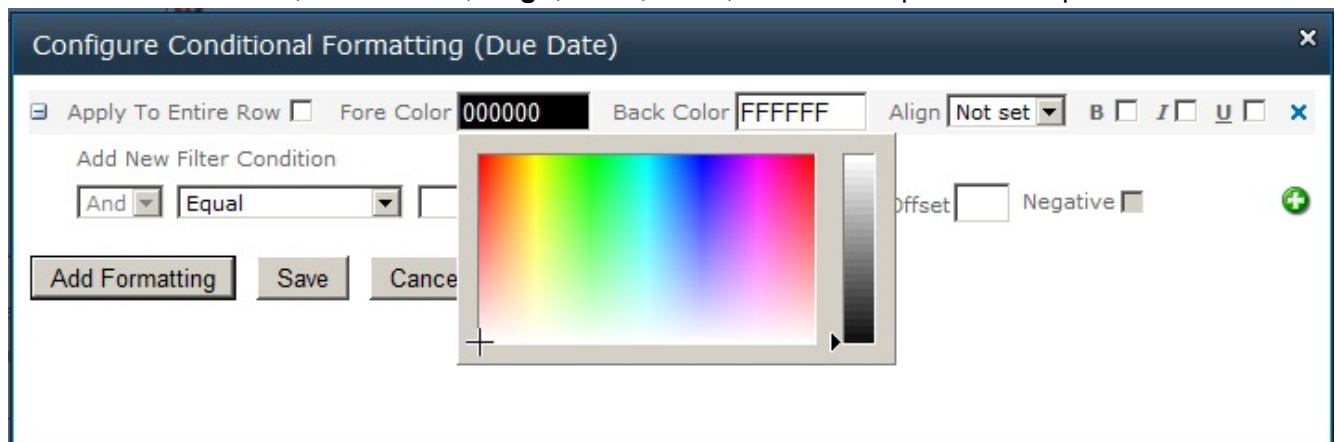
Formatting can be applied to the content of your [Lightning Conductor Web Part](#) based upon a condition being true or false. For example, if you are rolling up Task items from Task Lists, you may want to display Tasks that are past due in red font rather than black font. It is possible to have multiple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

To apply conditional formatting:

1. On the [Configure Display Provider](#) step, in the [Column Configuration](#) section, click the formatting icon  to the right of the column that contains the value which you want to use as the condition when making the decision to format items. For example, click the formatting icon  to the right of the **Due Date** column, if you wanted to display over due tasks in red.
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.

5. Click **Add Formatting** to add additional formatting options.
6. Click **Save** to apply the formatting to the Web Part

Lightning Conductor 2010

View ▸ All Tasks ▾

	Title	% Complete	Due Date	Priority	Start Date	Status
[-] Completed						
[-] (1) High						
	Configure the LCWP	70.00 %	12/24/2012	(1) High	4/2/2012	Completed
[-] In Progress						
[-] (1) High						
	Make Coffee	5.00 %	9/11/2013	(1) High	2/4/2013	In Progress
[-] (2) Normal						
[-] Not Started						
1 2 >						

[Columns Configuration section →](#)

Grouping

On the [Configure Display Provider](#) step, in the [Columns Configuration](#) section, you can group the items returned from the rollup query. You must first select the check box to the left of the column, and then at the [bottom of the section](#), select column(s) you group by and then you can then enable whether to initially show items expanded or collapsed within the group.

An example would be to group by the **Status** column inside a **Tasks** list, as shown in the following figure.

Lightning Conductor

View ▸ All Tasks ▾

Task Name	Assigned To	Due Date	Priority	Task Status
☐ In Progress				
Task2	SP2013\brett	4/4/2013	(2) Normal	In Progress
Task3	SP2013\brett	5/5/2013	(2) Normal	In Progress
Task4	Zoe	6/6/2013	(2) Normal	In Progress
☐ Not Started				
Task1	SP2013\brett	1/4/2013	(2) Normal	Not Started
Task5	SP2013\brett	7/7/2013	(2) Normal	Not Started

If you wish to group using multiple columns, you can change the order of the grouping, then at the bottom of the section select the columns in group order in the [Choose Column To Group By](#) drop down list.

[Columns Configuration section →](#)

How to Configure LCWP Programmatically

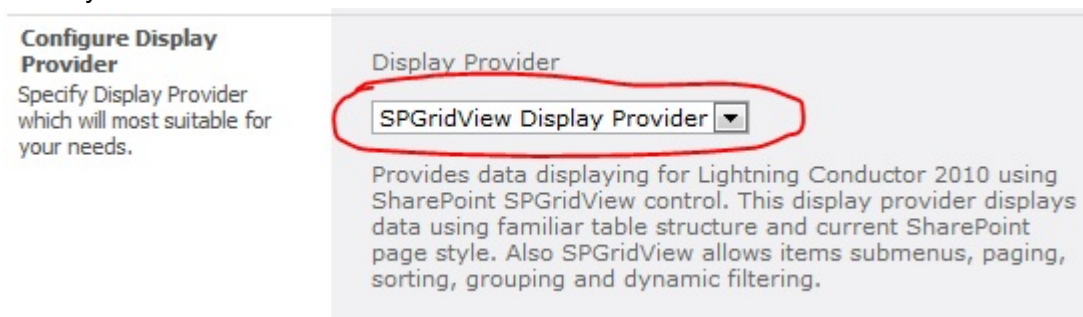
This page describes how to programmatically configure the [Lightning Conductor Web Part](#) (LCWP) for [Microsoft® SharePoint® 2010](#). This page uses the following scenario to describe how to program the LCWP:

Scenario: You wish to configure the LCWP, which is located in some site, in such way, that it will roll up all documents from current site, excluding sub sites. You wish to display those file that were created within the last 5 days and display the content in a grid, with paging enabled and each page contains 10 items.

The following steps describes how you might achieve this:

1. [Add a LCWP on a page](#) in the site, where you want to programmatically configure a LCWP and [configure the Web Part](#) as you would to achieve the same results as you want to achieve programmatically. For our scenario the important aspects for the configuration are as follows:

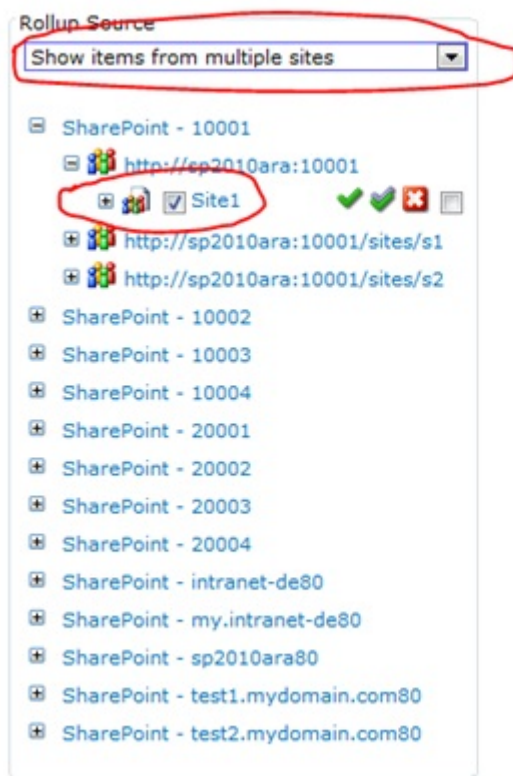
- Select the **Display Advanced Configuration Options** check box, and then on the [Core Configuration](#) step, in the **Configure Display Provider** section, select **SPGridView Display Provider** if it is not already selected.



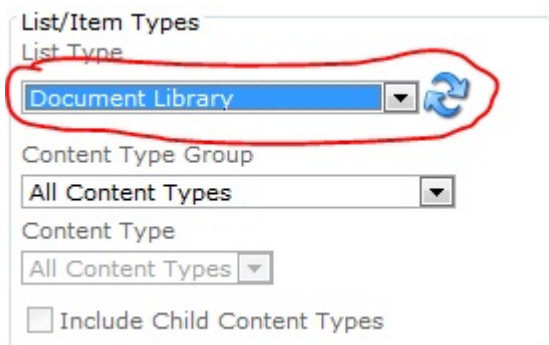
- Click **Next**, and then on the [Configure Rollup Engine Provider](#) step:
 - In the [Rollup Source](#) list, select **Show items from multiple sites** if not already selected, and then select one of the sites from the hierarchy tree. Ensure you do not include the include sub


sites checkbox. Also no not select any list or library.

Configure Rollup Engine Provider

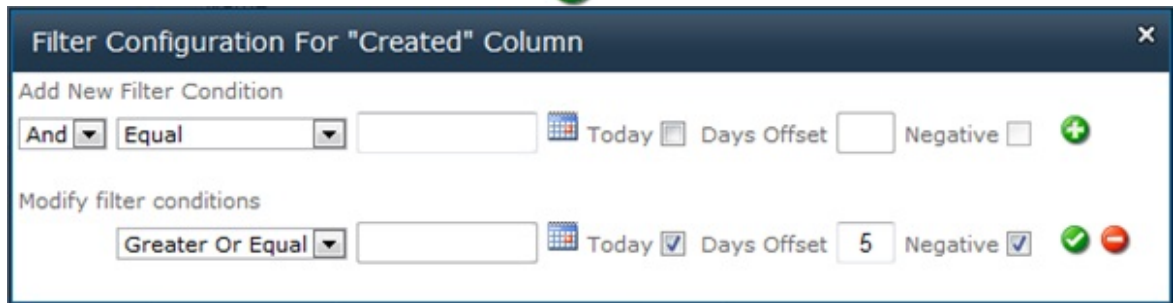


- In the [List Type](#) list, select **Document Library**.




- Click **Next**.
- On the [Configure Display Provider](#) step:
 - In the Columns Settings section select the columns you wish to display, for example, **Name**, **File Size** and **Created**.
 - Then to the right of **Created**, click the **Filter** icon .
 - On the **Filter Configuration (Created) Column** dialog:
 - Select **Greater or Equal**,
 - Select the **Today** check box,
 - Type **5** in the **Days Offset** text box
 - Select the **Negative** check box

- Click the **Save new filter condition** icon .





Filter Configuration For "Created" Column

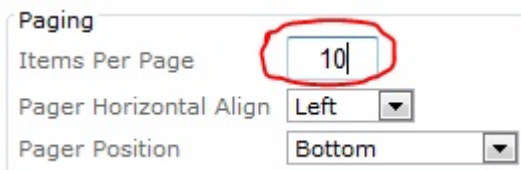
Add New Filter Condition

And Equal Today ☐ Days Offset Negative ☐ 

Modify filter conditions

Greater Or Equal Today ☒ Days Offset 5 Negative ☒  

- Click **OK** to close the dialog box with the message: **Filters configuration have been updated successfully.**
- In the [Paging](#) section, type **10** in the Items Per Page text box.



Paging

Items Per Page

Pager Horizontal Align Left

Pager Position Bottom

- Click **Complete**. The LCWP displays the documents from the document libraries in the chosen site.
- Save the page.

2. From the Web Part menu of the LCWP, click **Export Configuration Data**.



and then save the XML file to your desktop or to a folder on your computer.

3. If necessary modify the configuration xml file and use the supported LCWP custom tokens, in place of some the Id attributes. Custom tokens are similar to variables which you can refer to in your code to obtain information. The LCWP supports the following custom tokens:

- #CurrentWebAppId#**. Use this custom token for the value of the **Id** attribute of the **Application** element, which is the child element of the **SearchScopeTree** element. LCWP replaces this token with the id of current web application at runtime.

- **#CurrentSiteId#**. Use this custom token for the value of the **Id** attribute of the **SiteCollection** element, which is the child element of the **SearchScopeTree** element. LCWP replaces this token with the id of current site collection at runtime.
- **#CurrentWebId#**. Use this custom token for the value of **Id** attribute of the **Web** element, which is the child element of the **SearchScopeTree**. LCWP replaces this token with the id of current web at runtime. **Note** developers refer to sites as webs, and site collections as sites.
- **#CurrentWebId#**. Use this custom token as value of the **WebId** attribute of the **List** element, which is the child element of the **SearchScopeTree** element. LCWP uses value of **Title** attribute at runtime to find the list from current site with given title and replaces value of **WebId** attribute with Id of found list.

Note: the **SearchScope** element is a child element of the **DataSourceProviderConfiguration**, **Settings** portion of the xml file, and can usually be found towards the end of the xml file.

For our example we need to modify the **Id** attribute of the **Web** element to use the **#CurrentWebId#** custom token. After the modification, the **DataSourceProviderConfiguration** portion of the xml file will look similar to the following figure:

```

</Column>
</Columns>
</DisplayProviderConfiguration>
- <DataSourceProviderConfiguration>
- <Settings p3:type="RollupEngineProviderSettings" EnableAudienceTargeting="false"
  IncludeNotTargetedItems="false" FilterUsage="PersistentOnly" TranslateTaxonomyTerms="false"
  IgnoreNotExistingColumnFilters="true" xmlns:p3="http://www.w3.org/2001/XMLSchema-instance">
  <CachingSettings EnableCaching="false" Timeout="10" ExpireOnSPChange="false"
    ForceTimeoutExpiration="false" />
  - <SearchScope SearchScopeType="Webs">
    <Web WebApplicationId="a77a7509-1913-4231-9870-a5b0bdf9595c" SiteCollectionId="29f3fc5a-
      d330-4169-aa2e-0985c6293f68" Id="#CurrentWebId#" ServerRelativeUrl="/sites/LT/LCWP"
      IncludeSubWebs="false" RollupFromItself="true" />
    </SearchScope>
    <ListType Id="101" Type="DocumentLibrary" />
    <ContentType Name="All Content Types" Id="-1" Group="" IncludeChildContentTypes="false" />
    <AmountOfItemsReturned>-1</AmountOfItemsReturned>
  </Settings>
</DataSourceProviderConfiguration>
</Configuration>

```

4. Programmatically modify the configuration of the LCWP using data from the saved xml file. First in your Visual Studio project, add a reference to the Lightning Conductor Web Part :

C:\Windows\assembly\GAC_MSIL\LightningConductor2010\1.0.0.0__3c1c941f3875b35a\LightningConductor2010.dll

Then add code to modify the LCWP configuration, which will be similar to the following code:

```

// retrieve 4 (WebPart, Common, RollupEngineEngineProvider and DisplayProvider)
// configuration parts from configuration xml
XElement configXml = XElement.Parse(File.ReadAllText("C:\\LCWPConfig.xml"));

```

```
XElement wpConfigElement = configXml.Element(XName.Get("WebPartConfiguration"));
XElement commonConfigElement = configXml.Element(XName.Get("CommonConfiguration"));
XElement rollupConfigElement =
    configXml.Element(XName.Get("RollupEngineProviderConfiguration"));
XElement displayConfigElement = configXml.Element(XName.Get("DisplayProviderConfiguration"));

// change the names of root element to "Configuration"
wpConfigElement.Name = XName.Get("Configuration");
commonConfigElement.Name = XName.Get("Configuration");
rollupConfigElement.Name = XName.Get("Configuration");
displayConfigElement.Name = XName.Get("Configuration");

// In our scenario, the LCWP that we want to configure programmatically is located
// on the page http://sp2010ara/SitePages/LCWPPage.aspx
using (SPSite site = new SPSite("http://sp2010ara"))
using (SPWeb web = site.OpenWeb())
using (SPLimitedWebPartManager wpMgr =
    web.GetLimitedWebPartManager("SitePages/LCWPPage.aspx", PersonalizationScope.Shared))

using (wpMgr.Web)
{
    //get LCWP using web part manager of that page
    LightningConductor2010WebPart lcwp =
        wpMgr.WebParts [0] as LightningConductor2010WebPart;

    //set LCWP properties
    lcwp.strWebPartConfiguration = wpConfigElement.ToString();
    lcwp.strCommonConfiguration = commonConfigElement.ToString();
    lcwp.strRollupEngineProviderConfiguration = rollupConfigElement.ToString();
    lcwp.strDisplayProviderConfiguration = displayConfigElement.ToString();
    lcwp.strConfigurationVersion = "3.1.0.0"; //LCWP current version

    //update LCWP
    wpMgr.SaveChanges(lcwp);
}
```

[Go to top →](#)

Troubleshooting

This section contains issues that may be experienced when installing the [Lightning Conductor Web Part](#) for [Microsoft® SharePoint® 2010](#).

SharePoint 2010 Central Administration Web Site:

The following errors are related to tasks that are completed using the SharePoint 2010 Central Administration web site.

- Missing: [Manage Lightning Tools Products Licensing link](#) on the **System Settings** page.
- Missing: [Lightningconductor2010webpart.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 Conductor Web Part site collection feature](#).
- Missing: [Lightning Tools Web Parts category](#) in the Web Part pane.
- Missing: [Lightning Conductor Web Part](#) in the Web Part pane.

Statistical Information

For performance and testing purposes, you can display details on the data retrieving process of the [Lightning Conductor Web Part](#). To display this statistical information at the top of the Web Part, on the [Core Configuration](#) step of the [Lightning Conductor 2010 Configuration Wizard](#), select the **Display Statistical Information** check box in the **Configure Statistical Information** section. An example of the statistic information that is display above the rollup contents is shown in the next screenshot.

Lightning Conductor 2010
☐

Statistic Information

Current Rollup

rollup duration:	606	ms
items retrieving duration:	571	ms
items converting duration:	34	ms
total lists:	5	
total items:	13	

Previous Rollups

rollup duration average:	606	ms
items retrieving duration average:	571	ms
items converting duration average:	34	ms
total rollups:	1	

Rollup Performance Indicator: 0.021

assembly file version:	2.1.0.0
data format:	DataTable
server name:	SP2010
date:	03/07/2012
time:	04:32:19

Title	Modified By	% Complete	Assigned To
Demo to SPX	SP2010		DP\Brett

Licensing Error

Symptom:

When you try to activate the license for the [Lightning Conductor Web Part](#) a dialog box is displayed with a title: Licensing Error. In the **Inner Error #1** section, the description is **The remote name could not be resolved: 'register.lightningtools.com'**. You may have to scroll down the dialog box, to see the **Inner Error #1** section.

Licensing Error



Error Information

Correlation ID: db3f689c-2cfe-70bb-eaad-396f561ca00c



Error occurred during operation

Description: There was no endpoint listening at https://register.lightningtools.com/ActivationService.svc that could accept the message. This is often caused by an incorrect address or SOAP action. See InnerException, if present, for more details.

Date: 1/8/2014 12:26 PM

Method: Void HandleReturnMessage(System.Runtime.Remoting.Messaging IMessage, System.Runtime.Remoting.Messaging IMessage)

Type: System.Runtime.Remoting.Proxies.RealProxy

Source: mscorlib, Version=4.0.0.0, Culture=neutral, PublicKeyToken=b77a5c561934e089

Exception Type: System.ServiceModel.EndpointNotFoundException

Stack Trace: Server stack trace: at System.ServiceModel.Channels.HttpOutput.WebRequestHttpOutput.GetOutputStream() at System.ServiceModel.Channels.HttpOutput.Send(TimeSpan timeout) at System.ServiceModel.Channels.HttpChannelFactory`1.HttpRequestChannel.HttpChannelRequest.SendRequest(Message message, TimeSpan timeout) at System.ServiceModel.Channels.RequestChannel.Request(Message message, TimeSpan timeout) at System.ServiceModel.Channels.ServiceChannel.Call(String action, Boolean oneway, ProxyOperationRuntime operation, Object[] ins, Object[] outs, TimeSpan timeout) at System.ServiceModel.Channels.ServiceChannelProxy.InvokeService(IMethodCallMessage methodCall, ProxyOperationRuntime operation) at System.ServiceModel.Channels.ServiceChannelProxy.Invoke(IMessage message) Exception rethrown at [0]: at System.Runtime.Remoting.Proxies.RealProxy.HandleReturnMessage(IMessage reqMsg, IMessage retMsg) at System.Runtime.Remoting.Proxies.RealProxy.PrivateInvoke(MessageData& msgData, Int32 type) at LightningTools.Licensing.SP2013LicensingManager.LTLicensingService.IActivationService.DoActivate(String regkey, String useridentity, String productName, String organization, String userName, String userEmail) at LightningTools.Licensing.SP2013LicensingManager.LicensingManager.p(String A_0, String A_1, String A_2, String A_3) at LightningTools.Licensing.Controls.LicenseActivation.ButtonActivate_Click(Object sender, EventArgs e)

Inner Error #1

Description: The remote name could not be resolved: 'register.lightningtools.com'

Method: System.IO.Stream GetRequestStream(System.Net.TransportContext byRef)

Type: System.Net.HttpWebRequest

Source: System, Version=4.0.0.0, Culture=neutral, PublicKeyToken=b77a5c561934e089

Exception Type: System.Net.WebException

Stack Trace: at System.Net.HttpWebRequest.GetRequestStream(TransportContext& context) at System.Net.HttpWebRequest.GetRequestStream() at System.ServiceModel.Channels.HttpOutput.WebRequestHttpOutput.GetOutputStream()

Resolution:

This Inner Error description is displayed when your SharePoint server does not have Internet access, use the [Manual Activate](#) method of activating your license key.

Missing: Lightningconductor2010webpart.wsp solution

Symptom:

On the **Solutions Management** page of the SharePoint 2010 Central Administration web site, the Lightningconductor2010webpart.wsp – solution is missing.

Resolution:

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

Missing: Manage Lightning Tools Product Licencing link

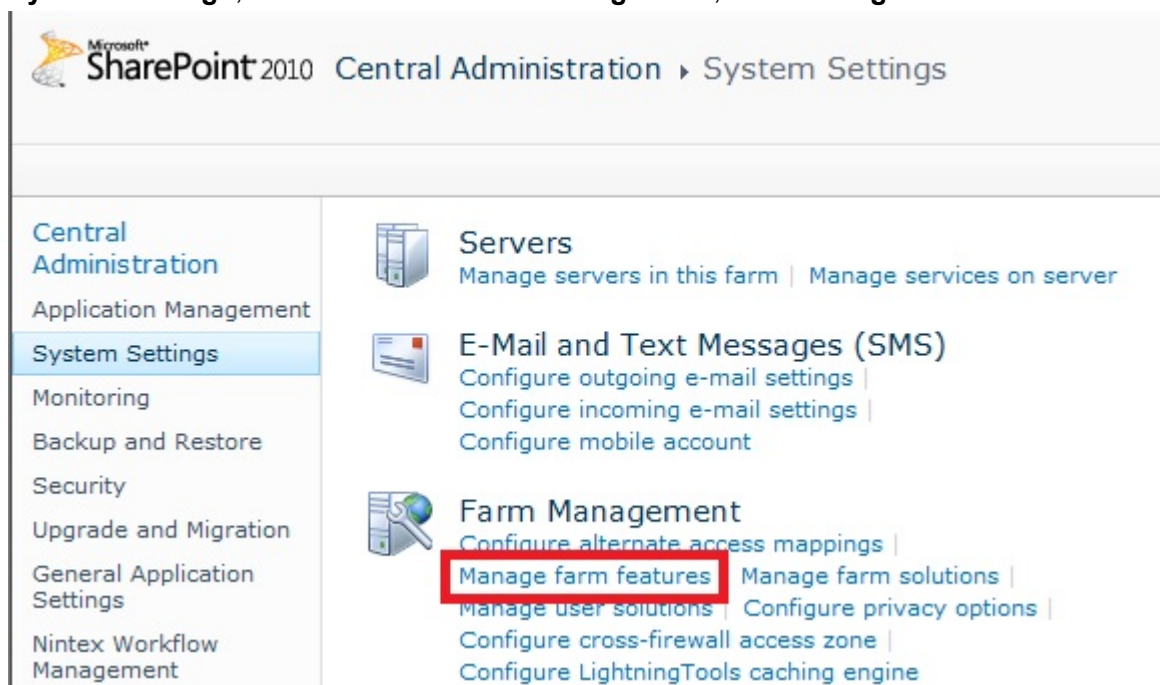
Symptom:

On the **System Settings** page of the SharePoint 2010 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**.

	FAST Search Server 2010 for SharePoint Master Job Provisioning Provisions FAST Search Server 2010 for SharePoint Master Job.	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	
	Office.com Entry Points from SharePoint This feature enables entry points from the SharePoint user interface that allow users to browse SharePoint solutions from Office.com	Deactivate	Active

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

Symptom:

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

Resolution:

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

Missing: Lightning Conductor Web Part in the Web Part pane

Symptom:

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

Resolution:

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

Missing: Lightning Conductor Web Part site collection feature

Symptom:

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

Resolution:

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

Lightning Conductor 2010 V5.1.0.0

Improvements

This page contains information of the changes that are incorporated in [Lightning Conductor Web Part 2010](#) version 5.1.0.0

In 5.0.0.1 hotfix:

1. Ability to expand/collapse groups by clicking on group header.
2. User Presence formatting option for user fields.
3. Configurable ability to show count of items in each group.
4. Fixed the bug related to handling audience targeting.
5. Fixed issue related to import/export LCWP .webpart files.

In 5.0.0.2 hotfix:

1. Optimized process of license checking.
2. Applied German translation fixes.
3. Assigned CSS classes to pager control parts generated by SPGridView display provider.
4. Changed all occurrences of 'top' with 'window.top' in JavaScript files.
5. Fixed the bug related to multiple filter values provided via web part connections when using object model rollout engine provider.
6. Fixed draft items visibility issue in caching engine when using XSL Style display provider and SPSiteDataQuery rollout engine provider.

In 5.0.0.3 hotfix:

1. Fixed caching engine "Null reference exception" issue.
2. Fixed "Parent Web Title" and "Parent List Title" fields not displaying issue for SPSiteDataQuery engine and when caching engine is enabled.
3. Added en-GB and en-AU resource files to wsp package.
4. Added "Hyperlink (New Window)" formatting option.
5. Added ability to render display control after data retrieving error.

Changes, that were not included in hotfixes:

1. Fixed regression bug related to filtering by content type.
2. Fixed conditional formatting issue for Boolean fields.
3. [Calculated columns](#) functionality.
4. Ability to display document locked state in document type icon.
5. Ability (for non farm admins) to add additional accessible site collections (by providing site collection url) to [rollup source](#) selection tree view.
6. Enhancement in JSON style display provider to specify rendering JS function name.
7. Include XSL style transformation duration in displayed statistic information for xsl style display provider.
8. For choice fields display available values (in drop down) when configuring filtering or conditional formatting for that field.
9. Limited size of icons displayed in rollup source tree view.
10. "No Extension" formatting option for file name column.
11. Some style changes in configure conditional formatting dialog (tooltip for "Add Formatting" button, different background color for new criteria filling row, after adding new condition row clear values filled in controls of new criteria row) .
12. Filter by "All Tags" similar to CQWP.