CA Clarity™ PPM

Connector for Microsoft SharePoint Product Guide - On Premise

Version 03.0.00



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Chapter 1: Release Notes: Microsoft SharePoint Connector

This section contains the following topics:

New Features: Microsoft SharePoint Connector (see page 9)
Installation Requirements (see page 9)
Certified and Supported Versions (see page 10)
Known Issues (see page 10)

New Features: Microsoft SharePoint Connector

The following new features are available with this version of the add-in:

- The user interface has a better look-and-feel.
- This release supports the CA Clarity PPM-supported languages.
- This release provides two minor usability and user interface behavior improvements.
  - When you select Create view in the Gantt view and View the List Web Part, the Gantt view is displayed differently. In SharePoint 2010, the Gantt view appeared with the Standard view and in SharePoint 2007 only the Gantt view was displayed.
  - Synchronize with Clarity is now changed to Sync with Clarity and it is not in the same toolbar.

Installation Requirements

Before you can install CA Clarity PPM Connector for Microsoft SharePoint, you must have a certified version of CA Clarity PPM installed.

You can get CA Clarity PPM from http://support.ca.com.

Existing CA Clarity PPM Customers

For existing CA Clarity PPM customers, you must have a certified version of CA Clarity PPM installed before you can install the add-in.

SharePoint 2010 and SharePoint 2013 web parts are incompatible. Therefore, upgrades from prior versions of CA Clarity PPM Connector for Microsoft SharePoint (such as v1.x and v2.x available on the support site) to v3.0 are not supported.

Certified and Supported Versions

Only the following CA Clarity PPM Connector for Microsoft SharePoint and CA Clarity PPM combinations are certified and supported. Use this table to check that you have the correct CA Clarity PPM Connector for Microsoft SharePoint and CA Clarity PPM combination:

CA Clarity PPM Connector for Microsoft SharePoint Version	CA Clarity PPM Version
2.0	13.0
2.0.1	13.1
2.0.2	13.3, 13.2
3.0	13.3

Known Issues

For more information about known issues, visit CA Support Online http://support.ca.com/.

Note the following known issue:

MSSP-281

In the Site Collection Features page, the labels for CA Clarity PPM features appear in English on all non-English versions of the operating system.

Chapter 2: Overview: Microsoft SharePoint Connector

This section contains the following topics:

Microsoft SharePoint Connector Capabilities (see page 11)
Microsoft SharePoint Connector Components (see page 11)

Microsoft SharePoint Connector Capabilities

CA Clarity PPM Connector for Microsoft SharePoint (Microsoft SharePoint Connector) is a CA Clarity PPM add-in that connects Microsoft SharePoint with CA Clarity PPM. To share CA Clarity PPM project data, you can use Microsoft SharePoint as a frontend for easy access. The Microsoft SharePoint Connector provides real-time project information from CA Clarity PPM in Microsoft SharePoint with drill-down capabilities to view detailed information directly from CA Clarity PPM.

With Microsoft SharePoint, you can view CA Clarity PPM information about projects for collaborative efforts without being a CA Clarity PPM user. You can also publish CA Clarity PPM project information as Microsoft SharePoint project home pages.

Microsoft SharePoint Connector Components

Microsoft SharePoint Connector comprises the following components:

- Customized Microsoft SharePoint site templates for CA Clarity PPM:
  - CA Clarity Project Site
- CA Clarity PPM Web Parts. CA Clarity PPM Web Parts is the collective term that is used to refer to the following customized Web Parts that are included with the add-in:
  - CA Clarity PPM List Web Part. You can configure CA Clarity PPM List Web Parts to display lists of subobjects for CA Clarity PPM projects or the results of Studio queries. Web Parts can also display custom object instance when the related custom object is created based on the Investment as Master Object, like the team, task, or baseline.

- CA Clarity PPM Chart Web Part. You can configure CA Clarity PPM Chart Web Parts to display charts based on CA Clarity PPM project sub-objects or based on Studio queries.

The project data that you display in CA Clarity PPM Web Parts is read-only, and cannot be edited. However, you can change project information in CA Clarity PPM and use the CA Clarity PPM Web Parts synchronization features to update the information in Microsoft SharePoint.

Note: SharePoint Web Parts other than the CA Clarity PPM List Web Part and the CA Clarity PPM Chart Web Part are referred to in this guide as non-CA Clarity PPM Web Parts.

Chapter 3: Installing the Microsoft SharePoint Connector

Before you install Microsoft SharePoint Connector Version 3.0, download, install, and configure the following applications on the SharePoint server:

- Microsoft Windows SharePoint 2013
- A version of CA Clarity PPM certified for the add-in Version 3.0.

  Note:

  - Microsoft SharePoint Connector Version 3.0 supports only SharePoint 2013 and not SharePoint 2007 and SharePoint 2010.
  - Microsoft SharePoint 2013 with Microsoft SharePoint Connector Version 3.0 supports CA Clarity PPM Release 13.3.
  - Microsoft SharePoint 2010 with Microsoft SharePoint Connector Service Pack 2.0.2 supports CA Clarity PPM Release 13.2 and CA Clarity PPM Release 13.3.

See the *Release Notes* for a list of certified CA Clarity PPM versions.

Note: The SharePoint users are also CA Clarity PPM users. Users have to log in again when they use the Link to Clarity feature provided in CA Clarity PPM List Web Parts. To avoid this behavior, enable Single Sign-on (SSO) for CA Clarity PPM on client computers.

This section contains the following topics:

Microsoft SharePoint Connector Supported Environments (see page 13)
How to Install the Microsoft SharePoint Connector (see page 14)
How to Uninstall the Microsoft SharePoint Connector (see page 16)

Microsoft SharePoint Connector Supported Environments

Microsoft SharePoint Connector for SharePoint v3.0 supports Microsoft SharePoint 2013. Any software and hardware configurations of servers and client computers depend upon the software and hardware requirements for Microsoft Windows SharePoint Services.

How to Install the Microsoft SharePoint Connector

You can install the Microsoft SharePoint Connector on a stand-alone Microsoft SharePoint server or in a multi-server Microsoft SharePoint implementation.

Installing the Microsoft SharePoint Connector involves:

1. Installing Microsoft SharePoint Connector (see page 14).
2. Activating the Create CA Clarity PPM Project Site feature in SharePoint Central Administration. (see page 15)
3. Activating the CA Clarity PPM Web Parts. (see page 15)

Install the Microsoft SharePoint Connector Add-in

You must install Microsoft SharePoint Connector on the server on which you installed Microsoft Windows SharePoint Services.

The install process creates a log file, spconn_install.log, in the server's %temp% directory. You can check this log file for any errors that you might encounter while you are installing Microsoft SharePoint Connector.

Note: In a multi-server Microsoft SharePoint implementation, you must install Microsoft SharePoint Connector on the primary Microsoft Windows SharePoint server, that is, the server on which you first installed and configured Microsoft Windows SharePoint Services.

Follow these steps:

1. Double-click CA Clarity Microsoft SP2013 Connector Setup.exe.

   The *License Agreement* screen appears.

2. Click Accept.

   The *Installation Wizard* appears.

3. On the Introduction screen, click Install, and click Next.
4. If the wizard prompts for SharePoint Services Administration service, do the following:
   a. Click Start, Administrative Tools, and Services.
   b. Start the following services:
   - SharePoint 2013 Administration
   - SharePoint 2013 Timer
5. Select all the web applications where the connector needs to be installed.

6. After the installation process is complete, click Finish.

   Microsoft SharePoint Connector is installed and deployed on the Microsoft SharePoint server.

Activate the Create CA Clarity PPM Project Site Feature

After you install Microsoft SharePoint Connector, you must activate the Create CA Clarity PPM Project Site feature from Microsoft SharePoint Central Administration. When activated, a new section, CA Clarity PPM Site Management, is created on the Application Management page in Microsoft SharePoint Central Administration. This section contains the Create CA Clarity PPM Project Site feature, which you can use to create CA Clarity PPM project sites.

Follow these steps:

1. Log in to Microsoft SharePoint.
2. Click the Settings icon and click Site settings.

   The Site Settings page appears.
3. Click Site collections features in the Site Collection Administration section.

   The Site Collection Features page appears.
4. Click Activate against the CA Clarity PPM Site Menus field.

   The Create CA Clarity PPM Project Site Menus feature is activated.

Activate CA Clarity PPM Web Parts

You must activate the CA Clarity PPM Web Parts from Microsoft SharePoint's top-level site of each site collection where you want to use these Web Parts. Activating the CA Clarity PPM Web Parts adds the Web Parts to the Web Part Gallery of the site collection.

If you have multiple site collections under a SharePoint Web application and if you want the Web Part Galleries of all the site collections to contain the CA Clarity PPM Web Part, you must activate the Web Parts in all site collections.

Note: It is recommended that you activate the CA Clarity PPM Web Parts from the Site Collection Features page, and not from the Web Part Gallery of the site collection.

Follow these steps:

1. Log in to Microsoft SharePoint.
2. Click the Settings icon and click Site settings.

   The Site Settings page appears.
3. Click Site collections features in the Site Collection Administration section.

   The Site Collection Features page appears.
4. Do the following:

   Against CA Clarity PPM Site Chart

   Click Activate.

   Against CA Clarity PPM Site List

   Click Activate.

   Against CA Clarity Document Objects

   Click Activate.

   Against CA Clarity Objects

   Click Activate.

   Against CA Clarity Task Objects

   Click Activate.

   Against CA Clarity PPM ListSite Menus

   Click Activate.

   The CA Clarity PPM Web Parts are activated and added to the Web Part Gallery of the site collection.

How to Uninstall the Microsoft SharePoint Connector

Once you uninstall the Microsoft SharePoint Connector, you cannot access the CA Clarity PPM project sites that you created, or use the CA Clarity PPM Web Parts that you added unless you reinstall Microsoft SharePoint Connector and reactivate the Create CA Clarity PPM Project Site feature and the CA Clarity PPM Web Parts.

Uninstalling the Microsoft SharePoint Connector add-in involves:

1. Deactivating the Create CA Clarity PPM Project Site feature. (see page 17)
2. Deactivating CA Clarity PPM Web Parts. (see page 17)
3. Retracting and removing the Microsoft SharePoint Connector. (see page 18)
4. Uninstalling Microsoft SharePoint Connector from the server. (see page 18)

Deactivate the Create CA Clarity PPM Project Site Feature

This procedure explains how to deactivate the CA Clarity PPM Site Management feature.

Follow these steps:

1. Log in to Microsoft SharePoint.
2. Click the Settings icon and click Site settings.

   The Site Settings page appears.
3. Click Site collections features in the Site Collection Administration section.

   The Site Collection Features page appears.
4. Click Deactivate against CA Clarity PPM Site Management.

   The CA Clarity PPM Site Management feature is deactivated.

Deactivate CA Clarity PPM Web Parts

This procedure explains how to deactivate the CA Clarity PPM Web Parts.

Follow these steps:

1. Log in to Microsoft SharePoint.
2. Click the Settings icon and click Site settings.

   The Site Settings page appears.
3. Click Site collections features in the Site Collection Administration section.

   The Site Collection Features page appears.
4. Do the following:

   Against CA Clarity PPM Chart

   Click Deactivate.

   Against CA Clarity PPM List

   Click Deactivate.

   The CA Clarity PPM Web Parts are deactivated.

Retract and Remove Microsoft SharePoint Connector from Microsoft SharePoint

This procedure explains how to retract and remove the Microsoft SharePoint Connector from Microsoft SharePoint.

Follow these steps:

1. In SharePoint Central Administration, click Operations.
2. In Global Configuration, click Solution Management.

   The solution management page appears.
3. Click ca_clarity_project_site.wsp.

   The solution properties page appears.
4. Click Retract Solution.

   The solution is retracted from the server.
5. Click Remove Solution.

   The solution is removed from the server.

Uninstall Microsoft SharePoint Connector from the Server

The uninstall process creates a log file, spconn_uninstall.log, in the server's %temp% directory. You can check this log file for any errors that you might encounter while you are uninstalling Microsoft SharePoint Connector from the server.

Follow these steps:

1. Double-click CA Clarity Microsoft SP2013 Connector Setup.exe.

   The *License Agreement* screen appears.
2. Click Accept.

   The *Installation Wizard* appears.
3. Click Install and click Next twice.
4. On the Program Maintenance page, select Remove, and click Next.

   The uninstall process begins.
5. After the uninstall process is complete, click Finish.

   Microsoft SharePoint Connector is uninstalled from the server.

Chapter 4: CA Clarity PPM Project Sites (Microsoft SharePoint Connector)

This section contains the following topics:

About CA Clarity PPM Project Sites (see page 19)
Microsoft SharePoint Connector Site Templates (see page 19)
Advantages of Using CA Clarity PPM Project Sites (see page 20)
CA Clarity PPM Server Binding Parameters (see page 20)
CA Clarity PPM Project Site Creation and Management Options (see page 21)
How to Create CA Clarity PPM Project Sites (see page 22)

About CA Clarity PPM Project Sites

CA Clarity PPM project sites are an extension of a CA Clarity PPM project. Project sites are used for collaborative project activities of team members associated with projects that are managed in CA Clarity PPM.

You can create project sites that help all team members and other project stakeholders track the progress of the project and collaborate with each other.

Microsoft SharePoint Connector Site Templates

The customized Microsoft SharePoint site templates provide you with a starting point for creating sites that bind to a CA Clarity PPM server and display data from a CA Clarity PPM project. You can tailor the templates to match your needs using standard SharePoint and CA Clarity PPM capabilities. You can also create other templates to give you flexibility when creating sites for different kinds of projects or different communities. Use the template to create sites named CA Clarity PPM project sites.

To create or modify CA Clarity PPM project sites, add and remove CA Clarity PPM Web Parts or other standard, custom, and third-party Web Parts. For the same purpose, you can also use other templates created by modifying the existing templates.

The following site template is included with Microsoft SharePoint Connector:

CA Clarity Project Site

The site template contains the basic features to manage a CA Clarity PPM project site. For example, sites that bind to a CA Clarity PPM server and display information from a CA Clarity PPM project. The following features are included:

- Documents. Use documents to create a document library where you can upload and store local SharePoint documents.
- Sites. Contains all the sites created as children of the CA Clarity PPM project site.
- Administration. Use to manage site users and permissions.
- CA Clarity PPM Binding. Use to change the CA Clarity PPM server binding parameters.

Advantages of Using CA Clarity PPM Project Sites

CA Clarity PPM project sites provide you with the following advantages:

- All the parameters that you specify when creating a CA Clarity PPM project site are automatically inherited by the CA Clarity PPM Web Parts that you add to it. You do not have to configure individual CA Clarity PPM Web Parts as you would have to in a non-CA Clarity PPM project site.
- To bind a CA Clarity PPM project site to a different CA Clarity PPM server, change the binding properties of the CA Clarity PPM project site from a single location in the site by using the CA Clarity PPM Binding feature. All CA Clarity PPM Web Parts added to the CA Clarity PPM project site automatically inherit the new binding properties. Therefore, reconfiguring individual CA Clarity PPM Web Parts is not required.

CA Clarity PPM Server Binding Parameters

While creating a CA Clarity PPM project site, provide the following parameters to bind the site to a CA Clarity PPM server:

- CA Clarity PPM server URL
- CA Clarity PPM user account parameters:
  - CA Clarity PPM user name, that is, the CA Clarity PPM proxy user name assigned to the CA Clarity PPM project site
  - The password associated with the CA Clarity PPM user account

Additionally, you require providing the ID of the CA Clarity PPM project to access. The project ID that you provide is used to filter sub-objects that belong to the CA Clarity PPM project. Also, restricts the Studio queries that you write to execute on the particular project to which the CA Clarity PPM project site binds.

The CA Clarity PPM Web Parts that you add to CA Clarity PPM project sites inherit the parameters. Because of this, a CA Clarity PPM project site can be associated with only one project in CA Clarity PPM.

After you create a CA Clarity PPM project site, you can change the CA Clarity PPM server binding properties of the site to bind the site to a project on a different CA Clarity PPM server. You can change the CA Clarity PPM server binding properties on the CA Clarity PPM Binding page.

Note: The site properties of non-CA Clarity PPM project sites do not include CA Clarity PPM server binding parameters. Therefore, the CA Clarity PPM Web Parts that are added to non-CA Clarity PPM project sites cannot inherit the CA Clarity PPM server binding parameters from the site. When configuring CA Clarity PPM Web Parts on non-CA Clarity PPM project sites, explicitly provide the parameters to bind a CA Clarity PPM Web Part to a CA Clarity PPM server.

CA Clarity PPM Project Site Creation and Management Options

You can create CA Clarity PPM project sites as children of non-CA Clarity PPM project sites or other CA Clarity PPM project sites. With appropriate permission levels for the site, you can add and configure Web Parts—CA Clarity PPM Web Parts and non-CA Clarity PPM Web Parts—to the site. You can create as many CA Clarity PPM project sites as you require in a site collection.

Note: Sites that are not based on the CA Clarity PPM Project Site template are called non-CA Clarity PPM project sites.

After you create CA Clarity PPM project sites, you can modify the sites to suit the needs of CA Clarity PPM project. You can save the sites as site templates and use the templates that are saved to create other CA Clarity PPM project sites. Furthermore, you can create CA Clarity PPM project sites from the templates, and then save the sites as site templates.

Apart from displaying the customized site templates included with Microsoft SharePoint Connector, the Site Template list on the create project site page in SharePoint Central Administration and CA Clarity PPM on the new SharePoint site page display all the modified site templates.

Example

If you create a site, “My Project Site 1”, by using one of the templates that are customized for CA Clarity PPM and save the site as a site template called “My Template 1”, you can use My Template 1 to other CA Clarity PPM project sites. For example, “My Project Site 2”, “My Project Site 3”, and “My Project Site 4”. Then, save My Project Site 2, My Project Site 3, and My Project Site 4 as site templates and use the templates to create more CA Clarity PPM project sites. In this way, you can create a repository of templates from the new sites, and use them to create other sites.

How to Create CA Clarity PPM Project Sites

You can create CA Clarity PPM project sites as site collections. You can also create them as children of any Microsoft SharePoint Web site; you can create them as children of existing CA Clarity PPM project sites or non-CA Clarity PPM project sites.

Use the following process to set up your CA Clarity PPM project sites:

1. Obtain a CA Clarity PPM proxy user account. (see page 22)
2. Create the CA Clarity PPM project site from one of the following locations in Microsoft SharePoint:
   - Microsoft SharePoint Central Administration. (see page 23)
   - A SharePoint Web site. (see page 24)
3. Bind the CA Clarity PPM project sites to different CA Clarity PPM servers. (see page 25)
4. Save CA Clarity PPM project sites as site templates (see page 27).

CA Clarity PPM Proxy User Accounts

Before creating a CA Clarity PPM project site, ensure that a user account is created with *View* access rights for the project in CA Clarity PPM. Obtain a CA Clarity PPM user account because it is a parameter for creating project sites. The CA Clarity PPM proxy user account is required for authentication on the CA Clarity PPM server during the following processes:

- Creating a CA Clarity PPM project site.
- Changing the CA Clarity PPM server to which a CA Clarity PPM project site binds.

The CA Clarity PPM Web Parts that you add to the project sites, inherit CA Clarity PPM server binding parameters from the site properties. The proxy user account is a part of the binding properties that are inherited. The Web Parts use the proxy account for authentication on the CA Clarity PPM server each time the server is accessed. That is, the proxy user account is used each time you configure and synchronize the contents of a CA Clarity PPM Web Part with CA Clarity PPM for the first time.

Note: CA Clarity PPM Web Parts that are added to non-CA Clarity PPM project sites do not inherit CA Clarity PPM server binding parameters from the site properties. Therefore, provide CA Clarity PPM proxy user account information as a part of the server binding parameters for configuring the web parts in non-CA Clarity PPM project sites.

Create CA Clarity PPM Project Sites from SharePoint Central Administration

You can create a CA Clarity PPM project site by using the Create CA Clarity PPM Project Site feature that is included with Microsoft SharePoint Connector. A CA Clarity PPM project site that you create using this feature automatically inherits permissions from the SharePoint Web site that you designate to be its parent site. If you want to set up unique permissions for the CA Clarity PPM project site, you must assign permissions to users of the site after you create it.

Follow these steps:

1. In the left link bar in SharePoint Central Administration, click Application Management.
2. In CA Clarity PPM Site Management, click Create CA Clarity PPM Project Site.

   The create CA Clarity PPM project site provisioning page appears.
3. Do the following:

   CA Clarity PPM Binding

   Values:

   - CA Clarity PPM Server URL. Enter the URL of the CA Clarity PPM server.
   - Proxy User Name. Enter the user name associated with the CA Clarity PPM proxy user account.
   - Proxy Password. Enter the password associated with the CA Clarity PPM proxy user account.
   - Project ID. Enter the ID of the CA Clarity PPM project to access.

SharePoint Site Definition

Values:

- Site Template. Defines the site template.

  The CA Clarity Project Site template

- Site Title. Enter a title for the project site.
- SharePoint Target URL. Enter the URL of the SharePoint site to designate as the parent of the project site.

4. Click OK.

   The CA Clarity PPM project site is created. The CA Clarity PPM Server URL, Proxy User Name, and SharePoint Target URL fields retain and display the details specified for the recently created CA Clarity PPM project site.

Create CA Clarity PPM Project Sites from a SharePoint Web Site

The SharePoint Web site is the Web site that you designate to be the parent site of the CA Clarity PPM project site. You can create a CA Clarity PPM project site from the new SharePoint site page of the SharePoint Web site. While creating the project site from the parent site, you can use the same permissions as the parent site, or can assign unique permissions after you create the site.

Before you create a CA Clarity PPM project site, make sure that you are on the site to designate as the parent of the CA Clarity PPM project site. Since you cannot provide CA Clarity PPM server binding parameters when you use this method to create a CA Clarity PPM project site, bind the site to a CA Clarity PPM server and specify the project after creating the site.

Follow these steps:

1. Click the Settings icon and click Site contents.

   The Site Content page appears.

2. Click new subsite under the Subsites section.
3. Complete the following information:

   Title and Description

   Title: Enter a title for the CA Clarity PPM project site.

   Description: Enter a description for the CA Clarity PPM project site.

   Web Site Address

   URL Name: Enter the site name as it should appear in the URL of the CA Clarity PPM project site.

Template Selection

Specifies the template.

Values:

- CA Clarity Project Site template

Permissions

Specify the CA Clarity PPM project site to inherit permissions from the parent site, or to use a unique set of permissions for the CA Clarity PPM project site.

Navigation

Specify the CA Clarity PPM project site to be displayed on the Quick Launch and the top link bar of the parent site.

Navigation Inheritance

Specify the CA Clarity PPM project site to inherit the top link bar from the parent site.

4. Click Create.

   The CA Clarity PPM project site is created.

Bind CA Clarity PPM Project Sites to a CA Clarity PPM Server

After you create the CA Clarity PPM project site, do the following procedure to bind the site to a CA Clarity PPM server and specify the project to be accessed.

Follow these steps:

1. In the left navigation of the CA Clarity PPM project site, click CA Clarity PPM Binding.
2. In Site properties, do the following:

   CA Clarity PPM Server URL

   Enter the URL of the new CA Clarity PPM server.

   Proxy User Name

   Enter the user name associated with the CA Clarity PPM proxy user account on the new CA Clarity PPM server.

   Proxy Password

   Enter the password associated with the CA Clarity PPM proxy user account.

Project ID

Enter the ID of the project on the new CA Clarity PPM server.

3. Click OK.

   If the specified parameters are valid, the CA Clarity PPM project site binds to the CA Clarity PPM server.

Chapter 5: Manage CA Clarity PPM Project Sites (Microsoft SharePoint Connector)

This section contains the following topics:

Permissions for Managing CA Clarity PPM Project Sites (see page 27)
Save CA Clarity PPM Project Sites as SharePoint Site Templates (see page 27)
Change CA Clarity PPM Project Site Binding Properties (see page 28)

Permissions for Managing CA Clarity PPM Project Sites

To create and manage CA Clarity PPM project sites in Microsoft SharePoint, users require the following permission levels:

Task	Required Permission Level in Microsoft SharePoint
Create CA Clarity PPM project sites from Microsoft SharePoint Central Administration (using the Create CA Clarity PPM Project Site feature)	Administrator privileges for SharePoint Central Administration
Create CA Clarity PPM project sites from the SharePoint Web Site that you designate to be the parent site	A permission level of Full Control on the site that you designate to be the parent site
Change the binding properties of a CA Clarity PPM project site	A permission level of Full Control on the CA Clarity PPM project site

Save CA Clarity PPM Project Sites as SharePoint Site Templates

After you create a CA Clarity PPM project site and before or after you add lists, libraries, and Web Parts (CA Clarity PPM Web Parts and other Web Parts available in your site collection Web Part Gallery), you can save the CA Clarity PPM project site as a SharePoint site template. Use the site template to create other CA Clarity PPM project sites with the same site structure.

Follow these steps:

1. Click the Settings icon and click Site settings.
2. Click Save site as template under the Site Actions section.

3. Enter a name for the template file, and a name and description for the template.
4. Select the Include Content check box if you have pages that are in a document library, or to include the contents of non-CA Clarity PPM Web Parts in the template.

   Note: Selecting Include Content has no effect on the CA Clarity PPM Web Parts because they automatically display information from the new project when you use the template to create a CA Clarity PPM project site. For example, if you configure a CA Clarity List Web Part in the CA Clarity PPM project site to display tasks, it automatically displays tasks from the new CA Clarity PPM project when you use the template to create a CA Clarity PPM project site.
5. Click OK.

   The CA Clarity PPM project site is saved as a SharePoint site template. After you save the CA Clarity PPM project site as a site template, the template is displayed in the Site Template list on the Create CA Clarity PPM Project Site page in SharePoint Central Administration. The saved template is also displayed in the CA Clarity PPM tab on the New SharePoint Site page, that is used to create child sites in Microsoft SharePoint.

Change CA Clarity PPM Project Site Binding Properties

After you create a CA Clarity PPM project site and bind it to a CA Clarity PPM server, you can change the site properties of the CA Clarity PPM project site; you can bind the CA Clarity PPM project site to a different CA Clarity PPM server and provide a new project ID to access data.

Once you change the project site binding properties, all the CA Clarity PPM Web Parts, added to the CA Clarity PPM project site, automatically inherit the new binding properties. The site properties also display data from the data providers (objects) of the project from the new CA Clarity PPM server.

Note: Change only the parameters requiring a change. For example, to access data from a different project on the same CA Clarity PPM server, you can retain the CA Clarity PPM server URL, change the project ID, provide CA Clarity PPM proxy user account information with appropriate access rights for the project.

Follow these steps:

1. In Quick Launch of the CA Clarity PPM project site, click CA Clarity PPM Binding.

   The site properties page appears.
2. Complete the following fields:

   CA Clarity PPM Server URL

   Defines the URL of the CA Clarity PPM server.

Proxy User Name

Defines the user name that is associated with the CA Clarity PPM proxy user account on the CA Clarity PPM server.

Proxy Password

Defines the password that is associated with the CA Clarity PPM proxy user account.

Project ID

Defines the ID of the project where User is the manager.

3. Click OK.

If the parameters you enter are valid, the CA Clarity PPM project site binds to the new CA Clarity PPM server. The site properties of the CA Clarity PPM project site are updated with the new parameters.

Chapter 6: CA Clarity PPM Data Providers Used for CA Clarity PPM Web Parts (Microsoft SharePoint Connector)

This section contains the following topics:

About CA Clarity PPM Data Providers for CA Clarity PPM Web Parts (see page 31)
CA Clarity PPM Stoplights Available in CA Clarity PPM List Web Parts (see page 32)
CA Clarity PPM Project Sub-Objects Accessible from CA Clarity PPM List Web Parts (see page 32)
About Using Studio Queries as Data Providers for CA Clarity PPM Web Parts (see page 33)

About CA Clarity PPM Data Providers for CA Clarity PPM Web Parts

You can use CA Clarity PPM data providers to source data for CA Clarity PPM Web Parts. The data providers that are available in CA Clarity PPM Web Parts are stock and custom subobjects of CA Clarity PPM projects and Studio queries.

The available data providers depend on the CA Clarity PPM server, proxy user, and project that the CA Clarity PPM project site is bound to. For a non-CA Clarity PPM project site, the available data providers depend on the CA Clarity PPM Web Part. When configuring a CA Clarity PPM Web Part, the following factors affect the list of data providers:

- the configuration of the selected server
- the access rights of the selected proxy user
- the partition of the selected project

Verify that your Studio queries conform to certain requirements before you use them as data providers in Microsoft SharePoint. For example, you can add a CA Clarity PPM Web Part to a CA Clarity PPM project site or to an external project site. In either case, the query executes on the particular CA Clarity PPM server that retrieves the information.

CA Clarity PPM Stoplights Available in CA Clarity PPM List Web Parts

In CA Clarity PPM, you can define a display mapping for numeric attributes. Display mappings represent values using a series of icons or colors. Map values or ranges of values to icons or colors in lists and forms instead of, or in addition to, the numeric value. The set of available icons is fixed in CA Clarity PPM. The system uses a standard set of images with the corresponding color.

To make these mappings available in lists in CA Clarity PPM List Web Parts, all numeric attributes are represented twice in CA Clarity PPM. The attribute name (*My_Attribute*) is the value. The attribute name with a trailing asterisk (*My_Attribute**) is the icon. Columns for some stoplights appear by default in CA Clarity PPM List Web Parts. To display more stoplight columns, modify the list view.

CA Clarity PPM Project Sub-Objects Accessible from CA Clarity PPM List Web Parts

Sub-objects of CA Clarity PPM projects can be stock objects or custom objects created in the organization implementation of CA Clarity PPM. Team, Risks, and Tasks are examples of stock objects. Additionally, each sub-object can have stock attributes, which are predefined in CA Clarity PPM, and custom attributes, which are user-defined.

You can define the following kinds of attributes for CA Clarity PPM objects:

- Large strings
- Multi-valued lookups
- Document attachments
- Time-varying attributes

Note: The attributes are not exposed in Microsoft SharePoint.

The following table provides information about the stock CA Clarity PPM project sub-objects that you can access using CA Clarity PPM List Web Parts and the associated pages in CA Clarity PPM from which the lists are retrieved.

CA Clarity PPM Data Provider	Associated Page in CA Clarity PPM
Baseline	Project: Properties: Baseline
Change Request	Project: Risks/Issues/Changes: Change Requests

CA Clarity PPM Data Provider	Associated Page in CA Clarity PPM
Documents	Project Document Manager (the Documents subtab that displays on the project's Collaboration tab)
Issue	Project: Risks/Issues/Changes: Issues
Requisition	Project: Team: Requisitions
Risk	Project: Risks/Issues/Changes: Risks
Task	Project: Tasks: Work Breakdown Structure
Team	Project: Team: Staff

The columns that appear by default in the All Items view of the list in a CA Clarity PPM List Web Part are the columns that are in the System partition default list view for that object in CA Clarity PPM. Additional information about some of the available data providers is included in the following list:

- Documents. All the documents contained in the CA Clarity PPM project Document Manager are displayed in a non-hierarchical list. The Parent Folder column, which appears by default, indicates each document's parent folder.

  Note: Document Manager security is honored when you access documents. Therefore, you can provide appropriate access rights to the CA Clarity PPM proxy user account for the project Document Manager to allow, or disallow access to certain documents.

- Task. A CA Clarity PPM List Web Part that displays tasks from a CA Clarity PPM project displays all the tasks in the entire work breakdown structure, regardless of the level that they are at. That is, the CA Clarity List Web Part displays task breakdown from the WBS page of project tasks. Additional fields, such as Work Breakdown Structure (WBS) Level and WBS Sequence, can be added by as columns by modifying the Web Part view.

  Note: For CA Clarity PPM List Web Part to display tasks in the same order as in the project Work Breakdown Structure (WBS) page, sort the Web Part by the WBS Sequence attribute. To show the tasks at a certain level of the work breakdown structure, filter the list by the WBS Level attribute. For example, to show all top-level tasks, filter the list to show only those items whose WBS Level is 1.

About Using Studio Queries as Data Providers for CA Clarity PPM Web Parts

You can use the Studio queries that you create and configure in CA Clarity PPM as data providers for CA Clarity PPM Web Parts. However, the queries require conforming to certain requirements before using them as data providers for CA Clarity PPM Web Parts.

Important! Using Studio queries as data providers for CA Clarity PPM Web Parts can produce unexpected results if the queries do not conform to the requirements described in this section.

Note: Standard Studio queries used for grid and graph portlets in CA Clarity PPM do not work in Microsoft SharePoint and Studio queries created for use in Microsoft SharePoint do not work in CA Clarity PPM.

Query Requirements for Use in Microsoft SharePoint

The queries created using Studio need to meet the following requirements before you can use them as data providers for CA Clarity PPM Web Parts:

- The query ID begins with “sp_qry_”.

  “sp_qry_” is in lower case.

- The query category is Project.

  Queries that do not belong to the Project category do not appear in the CA Clarity PPM Data Provider list in the tool panes of CA Clarity PPM Web Parts.

- The WHERE statement in the NSQL query includes a filter that confines the scope of the query to the project that the CA Clarity PPM project site is bound to. For a CA Clarity PPM Web Part in a non-CA Clarity PPM project site, the project that the Web Part is bound to.

  You can write a WHERE statement that restricts the query to run on a particular CA Clarity PPM project.

- The following two properties, which enable incremental synchronization with the information in CA Clarity PPM Web Parts, are included in the NSQL query:

  change_key

  A string value that changes whenever the query-returned values change. Using the LAST UPDATED DATE, cast to a string, is a good choice for CA Clarity PPM sub-objects.

  merge_key

  A string value that uniquely and persistently identifies each record retrieved by the query. It is used as a key to determine the items in SharePoint required to be updated, created, and deleted. Using the ID, cast to a string, is a good choice for CA Clarity PPM sub-objects.

- For the query, define a link that begins with sp_link_ to allow the user to be able to use the Link to Clarity feature provided in CA Clarity PPM List Web Parts.

- The query is required to be a single-dimension query.

Note the following:

- Do not omit the change_key and merge_key properties from the NSQL query. If you omit these properties from the query, all items for that list in SharePoint will be completely replaced when you synchronize the list. This will have undesirable results, such as synchronization being slow, all items in the list being incorrectly shown as new and changed, and excessive notifications.
- LAST_UPDATED_DATE from multiple source tables can be concatenated in a query to generate a single change key that will change whenever any data in the source tables change.
- The first string property in the query will become the “Title” field (column) in SharePoint.
- The first six fields in the query will by default be included in the All Items view in SharePoint.
- Only the properties defined in the query will appear as fields and available choices for creating charts in SharePoint. Metrics will not.

Restrict a Studio Query to Execute on a Particular Project

You can include the following WHERE statement to restrict queries to run on particular project in CA Clarity PPM. The WHERE statement has the following format:

```
project ID = @WHERE:PARAM:USER_DEF:INTEGER:SP_PROJECT_ID@
```

project ID

Any valid SQL expression that can represent the ID of the CA Clarity PPM project.

The right-hand side of the statement retrieves the associated project ID for the CA Clarity PPM project site. The statement retrieves the associated project for the Web Part in a non-CA Clarity PPM project site.

Note: You can include the WHERE statement multiple times in the same query. Use multiple WHERE statements in a query that includes UNION expressions or WHERE statements.

How to Write Useful Studio Queries for Microsoft SharePoint

Use the following hints to write useful queries to use as data providers for CA Clarity PPM Web Parts. Or, to display important project information on the sites that you create. More hints are included in other sections of the guide.

- Filtering the items in a list by using a Studio query is generally faster and better than retrieving all of the items and then filtering the list in the SharePoint view. Therefore, consider writing Studio queries to filter down large lists.

Example: If Work Breakdown Structure has a large number of tasks, use a query to retrieve only key or current tasks.

- Write and use NSQL queries that use the WBS Level attribute to filter a task list to show tasks that are at the top level of the work breakdown structure (where WBS Level equals 1).

Chapter 7: CA Clarity PPM Web Parts in CA Clarity PPM Project Sites (Microsoft SharePoint Connector)

This section contains the following topics:

About CA Clarity PPM Web Parts (see page 37)
About CA Clarity PPM List Web Parts (see page 40)
About CA Clarity PPM Chart Web Parts (see page 45)

About CA Clarity PPM Web Parts

Microsoft SharePoint Connector includes custom Web Parts that enable you to access and display CA Clarity PPM project information in your SharePoint sites. You can use these customized Web Parts to access predefined (stock) and customized data providers in a CA Clarity PPM project. You can add one of the following CA Clarity PPM Web Parts:

- CA Clarity PPM List Web Part. You can add and configure this Web Part to view a list of instances of a CA Clarity PPM project sub-object, such as baselines, resources, issues, and tasks. You can also configure this Web Part to display the results of certain Studio queries.
- CA Clarity PPM Chart Web Part. You can add and configure Chart Web Parts to view charts based on CA Clarity PPM project sub-objects. You can also create charts that are based on the results of Studio queries.

You can configure more than one Web Part to access the same CA Clarity PPM project information. You can add CA Clarity PPM Web Parts to more than one Web Part zone or site and configure them to display the same CA Clarity PPM project information concurrently. For example, you can add two CA Clarity PPM List Web Parts: one Web Part to a CA Clarity PPM project site and another Web Part to a non-CA Clarity PPM project site. You can then configure both Web Parts to access the same data provider and the same CA Clarity PPM project. Similarly, you can configure two or more CA Clarity PPM List Web Parts in the same CA Clarity PPM project site, or in the same non-CA Clarity PPM project site, to access the same data provider.

Add CA Clarity PPM Web Parts to Project Sites

After creating a CA Clarity PPM project site, you can add CA Clarity PPM Web Parts to the site and configure the Web Parts to view data from a selected CA Clarity PPM data provider.

To manage CA Clarity PPM Web Parts, you require a Microsoft SharePoint permission level of Design or Full Control.

Follow these steps:

1. On the Web Part page to add a CA Clarity PPM Web Part, click Site Actions, and then click Edit Page.

   You can edit the web part page.

2. In the Web Part zone to add a Web Part, click Add a Web Part.

   The add web parts page appears.

3. In the All Web Parts list, select the CA Clarity PPM Web Part, and click Add.

   The CA Clarity PPM Web Part is added to the Web Part zone.

Integrate Lists with Microsoft Outlook 2010

Some CA Clarity PPM data providers, such as the Tasks project sub-object, lay emphasis on attributes such as dates and milestones. After you configure a CA Clarity PPM List Web Part to display such a list, to track the list regularly, you can integrate the list with Microsoft Outlook 2010 and track the list from Microsoft Outlook.

Note: You can write and use NSQL queries that filter major milestones, such as phase gates, or common tasks, such as quarterly project review meetings. You can then use the Connect to Outlook command in a CA Clarity PPM List Web Part to get this information on everyone's task list in Microsoft Outlook.

You can integrate a list that is contained in a CA Clarity PPM List Web Part with Microsoft Outlook 2010 only if you selected the Task List check box while you configured the CA Clarity PPM List Web Part.

Follow these steps:

1. In CA Clarity PPM List Web Part, click Actions, and then click Connect to Outlook.
2. At the prompt, click Yes.

   The contents of the list appear in a new task folder that is created automatically in Other Tasks in Microsoft Outlook 2010.

Note: After you integrate the list with Microsoft Outlook, do not modify list items from the task folder that was automatically created in Microsoft Outlook. To modify any of the list items from within Outlook, first create a new task folder in Microsoft Outlook, move the list to the new task folder, and then modify list items from the new task folder.

Open List Items in CA Clarity PPM from Microsoft SharePoint

The list displayed in a CA Clarity PPM List Web Part may have to be updated regularly. The existing list items can be modified and new items require to be added. However, because you cannot modify the list in a CA Clarity PPM List Web Part directly, but from within CA Clarity PPM.

You can use the Link to Clarity feature that is provided on the list item menu to open the CA Clarity PPM properties page. The item CA Clarity PPM properties page opens in a new browser window to make the required changes.

You can change the list item in CA Clarity PPM. However, any changes you make in CA Clarity PPM are not reflected in Microsoft SharePoint on the CA Clarity PPM List Web Part. If you modify or delete a list item in CA Clarity PPM, synchronize the list with CA Clarity PPM before the changes display in the CA Clarity PPM List Web Part.

Follow these steps:

1. Point to the title of the list item, click the arrow that appears, and click Link to Clarity.

   If you are logged into CA Clarity PPM, the CA Clarity PPM properties page appears in a new browser window.

2. If you are not logged into CA Clarity PPM, on the CA Clarity PPM login page that appears, enter your CA Clarity PPM user name and password, and then click Login.

   The CA Clarity PPM properties page for the list item appears.

Configure CA Clarity PPM Web Part to Display CA Clarity PPM Documents

You can configure a CA Clarity PPM Web Part to display documents from a CA Clarity PPM project Document Manager repository.

Note: A CA Clarity PPM List Web Part displays a nonhierarchical list of the documents that are contained in all the folders in the CA Clarity PPM project Document Manager. Additional information about the documents, such as a document parent can be displayed in columns in the Web Part.

Follow these steps:

1. In the Web Part menu of the CA Clarity PPM List Web Part, click Edit, and click Modify Shared Web Part.

   The tool pane appears.

2. In the CA Clarity PPM section of the tool pane, from the CA Clarity PPM Data Provider list, select Documents, and wait for the page to refresh.

3. (Optional) Customize the Web Part by providing details in the Appearance, Layout, and Advanced sections.

   Note: For more information about customizing the Web Part, see the Microsoft Windows SharePoint documentation.

4. Click OK.

   The CA Clarity PPM List Web Part displays all the documents that are stored in the CA Clarity PPM project Document Manager repository.

View the Contents of a CA Clarity PPM Project Document from Microsoft SharePoint

You can configure a CA Clarity PPM List Web Part to display a list of documents that are stored in the CA Clarity PPM project Document Manager repository. In this case, you can view the contents of any document from within Microsoft SharePoint without having to log into CA Clarity PPM.

Follow these steps:

Point to the title of the document, click the arrow that appears, and then click Open from Clarity. The CA Clarity PPM project document opens in a new browser window or in the associated application.

Note: You can edit a document that the associated application opens, but you cannot save the changes into CA Clarity PPM. To modify the document, do so from within CA Clarity PPM.

About CA Clarity PPM List Web Parts

Use CA Clarity PPM List Web Parts to view and share lists of project sub-object instances or the results from Studio queries. After you add and configure a CA Clarity PPM List Web Part, you can use Microsoft SharePoint to manage the list retrieved from CA Clarity PPM.

CA Clarity PPM List Web Part Compatibility with Microsoft SharePoint Features

After you add and configure a CA Clarity PPM Web Part to a CA Clarity PPM project site, you can use the various Microsoft SharePoint features provided in the Web Part or the associated list, with the exception of a few features that you use to modify information in the list.

CA Clarity PPM List Web Parts are compatible with the following Microsoft SharePoint features:

- Views. You can create and modify views using the Create View and Modify this View commands respectively. You can use the views that the Web Part provides by default, such as Gantt View and Datasheet View, or create your own custom views. Additionally, you can use Web Part features such as Sort, Group By, Style, Totals, and Item Limit.

  You can Add/Remove columns of the Data in the Web Part using Modify this View command (Ex: You can add a column called Reporting Manager of the Resource for Team Web Part which will not be displayed by default).

- List Settings: You can Insert/Delete columns of data displayed in the Web Part. You can even Delete the List/Data displayed in the Web Part (without deleting the Web Part). You can also assign permissions for particular users for the displayed Web Part.

  Note: For more information about creating and managing views, see the Microsoft Windows SharePoint documentation.

- Connect to Outlook. Some CA Clarity PPM project data providers lay emphasis on dates, milestones, and priorities. Items retrieved from such data providers can be integrated with Microsoft Outlook 2010. A CA Clarity PPM List Web Part can be specially configured as a list that can be integrated with Outlook by selecting the Task List check box in the Web part tool pane. A CA Clarity List Web Part that has been configured to enable Outlook integration displays the Connect to Outlook option on the Actions menu.

- Export to Spreadsheet. You can export a list to a spreadsheet if you have a Windows SharePoint Services-compatible application installed on your client computer.

- Open with Access. You can open the list in the CA Clarity PPM List Web Part in Microsoft Access. However, you can edit the list from Microsoft Access only if you export a copy of the data to Microsoft Access. If you link the exported list to the data in Microsoft SharePoint, you cannot save the changes that you make to the list into the Microsoft Access database.

CA Clarity PPM List Web Part Model

Every CA Clarity PPM List Web Part is associated with the following:

- A tool pane. This is a default Web Part feature. Use the tool pane to configure which data provider the CA Clarity PPM List Web Part retrieves data from.
- A SharePoint list. When you add a CA Clarity PPM List Web Part, a new SharePoint list is automatically created in the site to support it. After you configure the CA Clarity PPM List Web Part, the data that is retrieved from CA Clarity PPM is stored in this SharePoint list and displayed in the CA Clarity PPM List Web Part.

Essentially, a CA Clarity PPM List Web Part and the SharePoint list that is automatically created provide the same set of features. The CA Clarity PPM List Web Part acts as a container for the list and provides the features that are available in SharePoint lists. You cannot modify or delete list items or add and delete columns on CA Clarity PPM List Web Parts or their underlying lists, thus ensuring that data is not lost when you synchronize the list with CA Clarity PPM.

When you reconfigure the CA Clarity PPM List Web Part to access a different CA Clarity PPM provider, a new list is not created. When you reconfigure a CA Clarity PPM List Web Part to display information from a different data provider or a data provider on a different CA Clarity PPM server, the associated list is updated with information from the new data provider.

Note: You can use the list that is associated with a CA Clarity PPM Web Part even after you delete the List Web Part; the associated list is not deleted from the site. However, when you delete the List Web Part, the synchronize functionality no longer works on the list.

Configure CA Clarity PPM List Web Parts

Configure the CA Clarity PPM List Web Part to display the list of items that you want to view. You configure the CA Clarity PPM List Web Part to access CA Clarity PPM project data by selecting the desired CA Clarity PPM data provider.

You can configure a CA Clarity PPM List Web Part by using its tool pane. The CA Clarity PPM Data Provider list in the tool pane displays all the data providers that are available for the configured binding parameters.

Follow these steps:

1. Open the Web Part menu of the CA Clarity PPM List Web Part, and from Edit, click Modify Shared Web Part.

   The tool pane appears.

2. In the CA Clarity PPM section of the tool pane, from the CA Clarity PPM Data Provider list, select the data provider.

   The page refreshes.

3. (Optional) To configure this Web Part as a list that can be integrated with Microsoft Outlook, do the following:

   Task List

   Select the Task List check box.

   Start Date Attribute

   Select the start date attribute.

   Required: No

   Due Date Attribute

   Select the finish date attribute.

   Required: No

   Priority Attribute

   Select the attribute that indicates the priority.

   Required: No

   % Complete Attribute

   Select the attribute that indicates the percentage of completion.

   Required: No

   If you do not select the Task List check box, the Actions menu does not display the Connect to Outlook command, which enables the integration of the list with Microsoft Outlook. Selecting an attribute from the Start Date Attribute, Due Date Attribute, Priority Attribute, and % Complete Attribute lists ensures that these attributes are included in the list in Microsoft Outlook.

4. (Optional) Customize the Web Part by providing details in the Appearance, Layout, and Advanced sections.

   Note: For more information about customizing the Web Part, see the Microsoft Windows SharePoint documentation.

5. Click OK.

   The CA Clarity PPM List Web Part displays a list of items retrieved from the data provider.

If you do not select the Task List check box, you can reconfigure the CA Clarity List Web Part to integrate the list with Microsoft Outlook. To integrate the list with Outlook, access the tool pane of the CA Clarity List Web Part and select the Task List check box. Optionally, select the start date, due date, priority, and percentage complete attributes to include the fields in Microsoft Outlook.

Modify Columns in CA Clarity PPM List Web Parts

CA Clarity PPM Web Parts display certain columns by default. However, additional columns are retrieved from CA Clarity PPM but are not displayed by default. You can change the columns that are displayed.

You can:

- Select the columns for the Web Part to display.
- Hide the columns that the Web Part is not display.
- Specify the order of the columns in the list.

Follow these steps:

1. Open the View menu from Web Part.
2. Click Modify this View.
3. In the Columns section, do the following:

   Column Name

   Select the check boxes against the columns for the Web Part to display.

   (Optional) Position from Left

   Select the positions for displaying the columns.
4. Click OK.

   The selected columns are displayed in CA Clarity PPM List Web Part.

Synchronize CA Clarity PPM List Web Parts with CA Clarity PPM

The data you retrieve from a data provider may undergo periodic changes in CA Clarity PPM. Some of the existing items may be deleted or modified in CA Clarity PPM, and new items may be added. If you want to update the list in the CA Clarity PPM Web Part to reflect the changes, synchronize the list in the Web Part with CA Clarity PPM.

Follow this step:

In the menu bar of the Web Part, Click Synchronize with Clarity. The list in the CA Clarity PPM List Web Part is updated with the latest information in CA Clarity PPM.

Note: Without the Design or Full Control permission, the list appears to synchronize with CA Clarity PPM because the Web page refreshes. However, the list continues to display the information that was retrieved when it was last synchronized by a user having Design or Full Control permissions.

About CA Clarity PPM Chart Web Parts

The CA Clarity PPM Chart Web Part is based on standard Microsoft Office Excel charting features. You can use CA Clarity PPM Chart Web Parts to view pictorial representations of data from a CA Clarity PPM data provider. You can refresh charts displayed in CA Clarity PPM Chart Web Parts periodically to display charts based on the updated data in CA Clarity PPM.

A CA Clarity PPM Chart Web Part can represent CA Clarity PPM data that are of the following data types:

- Numeric. Attributes of this data type can be plotted along the category and series axes.
- Date. Attributes of this data type can be plotted only along the category axis.
- String. Attributes of this data type can be plotted only along the category axis.

Note: If two or more records retrieved by the project data provider have the same category attribute values, only the first instance is plotted on the chart. Therefore, ensure that the CA Clarity PPM project data provider for retrieving data for display in CA Clarity PPM Chart Web Parts contains unique values for the attributes to plot on the horizontal (category) axis. This frequently means a Studio query that does aggregation by the selected category attribute.

CA Clarity PPM Chart Web Part Compatibility with Microsoft SharePoint Features

CA Clarity PPM Chart Web Parts are restricted to displaying charts based on CA Clarity PPM project data. Therefore, CA Clarity PPM Chart Web Parts do not have the standard Web Part menu. You cannot use SharePoint features with this Web Part. You can, however, customize the appearance and layout of the Web Part by using the tool pane that is associated with the CA Clarity PPM Chart Web Part.

How to Set Up CA Clarity PPM Web Parts To Connect CA Clarity PPM with Microsoft SharePoint

Use the following process to set up CA Clarity PPM Web Parts to connect CA Clarity PPM with Microsoft SharePoint:

- Add CA Clarity PPM Web Parts (see page 38)
- Configure the CA Clarity PPM List Web Parts (see page 42)
- To track the list in Microsoft Outlook, integrate the list with Microsoft Outlook 2010 (see page 38)

Use the following process to manage CA Clarity PPM Project Information in Microsoft SharePoint Sites:

- Modify columns in List Web Parts (see page 44)
- Open list items in CA Clarity PPM (see page 39)
- Configure Web Part to display CA Clarity PPM documents (see page 39), and then view the contents of the document (see page 40)
- Synchronize lists in CA Clarity PPM Web Parts with CA Clarity PPM (see page 44)

Supported Chart Types

You can configure CA Clarity PPM Chart Web Parts to display various types of charts, such as area charts, bar charts, line charts, and pie charts.

Note: Some chart types, such as pie charts and doughnut charts, do not support multiple series. Therefore, select only one series attribute for such chart types. Also, the colors used in the charts are system-generated. So, you cannot specify the colors to represent the elements of the chart with.

Configure CA Clarity PPM Chart Web Parts

After adding a CA Clarity PPM Chart Web Part to a CA Clarity PPM project site, configure it to create the chart to view. You configure a CA Clarity PPM Chart Web Part by using the tool pane associated with the Web Part. The CA Clarity PPM Data Provider list in the tool pane displays all the available data providers.

The CA Clarity PPM Chart Web Part also displays a legend that identifies each series in the chart.

Note: If two or more records with the same category value are retrieved for the selected data provider, only the first is included in the chart. For example, if you select Task as the data provider for the chart and the task name as the category attribute. If the same task name appears for multiple tasks, only the first task is included in the chart. Therefore, ensure that the selected attributes display as categories on the chart have unique values.

Follow these steps:

1. In the CA Clarity PPM Chart Web Part, click Edit, and then click Modify Shared Web Part.

   The tool pane appears.

2. In the CA Clarity PPM section of the tool pane, do the following:

   CA Clarity PPM Data Provider

   Specifies the data provider. After you select a data provider from the CA Clarity PPM Data Provider list, the Category Attribute and Series Attributes fields are automatically populated with the attributes contained in the data provider.

   Chart Type

   Select the type of chart.

   Chart Title

   Enter a title for the chart.

   Category Attribute

   Select the attribute for plotting on the category axis.

   Series Attributes

   Select the attributes for plotting on the series axis. You can select multiple series attributes. However, certain chart types, such as pie charts and doughnut charts, do not support multiple series attributes.

   Value (Y) Axis Label

   Enter a name for the set of series attributes selected.

3. (Optional) Customize the Web Part by providing details in the Appearance, Layout, and Advanced sections.

   Note: For more information about customizing the Web Part, see the Microsoft Windows SharePoint documentation.

4. Click OK.

   The CA Clarity PPM Chart Web Part displays the chart.

Refresh Charts Displayed in CA Clarity PPM Chart Web Parts with CA Clarity PPM

The chart displayed in a CA Clarity PPM Chart Web Part is based on values of attributes that can change in CA Clarity PPM. Refresh the chart periodically so that the chart is based on the latest values in the CA Clarity PPM data provider. When you refresh the chart, the chart is re-created based on the new values in CA Clarity PPM.

Follow this step:

Click the Refresh Chart button that is provided above the chart area in the CA Clarity PPM Chart Web Part. The chart is refreshed. If the category and series attribute values have changed in CA Clarity PPM, they are plotted using the new values in the CA Clarity PPM data provider.

Note: Without the Design or Full Control permission, the chart appears to refresh because the Web Page refreshes. However, the chart continues to display the graph as last refreshed by a user having Design or Full Control permissions.

Chapter 8: Configuring CA Clarity PPM Web Parts in Non-CA Clarity PPM Project Sites (Microsoft SharePoint Connector)

This section contains the following topics:

Configure CA Clarity PPM Web Parts in Non-CA Clarity PPM Project Sites (see page 49)
Configure CA Clarity PPM List Web Parts in Non-CA Clarity PPM Project Sites (see page 50)
Reconfigure CA Clarity PPM List Web Parts (see page 52)
Configure CA Clarity PPM Chart Web Parts in Non-CA Clarity PPM Project Sites (see page 52)
Reconfigure CA Clarity PPM Chart Web Parts (see page 54)

Configure CA Clarity PPM Web Parts in Non-CA Clarity PPM Project Sites

CA Clarity PPM Web Parts are not restricted to CA Clarity PPM project sites, and you can add them to any existing SharePoint site on your organization network. Also create a site by using a site template of your choice and add CA Clarity PPM Web Parts to it.

You can add CA Clarity PPM Web Parts to a non-CA Clarity PPM project site if you have a permission level of Design or Full Control for the Web Part page. You would also require a CA Clarity PPM proxy user account that has View access rights in CA Clarity PPM for the project to bind the Web Part.

Unlike the site properties of CA Clarity PPM project sites, the site properties of non-CA Clarity PPM project sites do not include CA Clarity PPM server binding parameters. Therefore, the CA Clarity PPM Web Parts that you add to non-CA Clarity PPM project sites cannot inherit the CA Clarity PPM server binding parameters from the site. In non-CA Clarity PPM project sites, explicitly provide these parameters to bind a CA Clarity PPM Web Part to a CA Clarity PPM server.

To provide this information while configuring CA Clarity PPM Web Parts in non-CA Clarity PPM project sites, you can configure individual CA Clarity PPM Web Parts that are in the same site to connect to:

- Different projects on the same CA Clarity PPM server
- Projects from different CA Clarity PPM servers.
- Therefore, you can have CA Clarity PPM Web Parts displaying CA Clarity PPM project information-lists, documents, and charts that are based on information from various projects on different CA Clarity PPM servers-in a non-CA Clarity PPM project site alongside non-CA Clarity PPM List Web Parts, SharePoint lists, and libraries. CA Clarity PPM users can view this aggregated CA Clarity PPM project information and collaborate with each other. For example, you can use CA Clarity PPM Web Parts to display finance information, from various finance projects, on a site that is meant for members of the finance department. People who are interested in these projects, and who have appropriate permission levels for the site, can view this aggregate information.

In non-CA Clarity PPM project sites, except for configuring the binding information, you can manage CA Clarity PPM Web Parts in the same way you manage CA Clarity PPM Web Parts in a CA Clarity PPM project site.

Configure CA Clarity PPM List Web Parts in Non-CA Clarity PPM Project Sites

After you add a CA Clarity PPM List Web Part to a non-CA Clarity PPM project site, configure it to access a list of instances of a CA Clarity PPM project sub-object. You can configure a CA Clarity PPM List Web Part by using the tool pane associated with the Web Part. Provide the CA Clarity PPM server binding information while you configure the Web Part.

Every time you add a List Web Part or Chart Web Part in Non CA Clarity PPM Project Site, specify CA Clarity PPM server binding information.

Follow these steps:

1. In the Web Part menu of the CA Clarity PPM List Web Part, click Edit, and then click Modify Shared Web Part.

   The tool pane appears.

2. In the CA Clarity PPM section of the tool pane, do the following:

   CA Clarity PPM Server URL

   Enter the URL of the CA Clarity PPM server. When you enter the URL, add /niku/app to the end of the address.

Proxy User Name

Enter the user name associated with the CA Clarity PPM proxy user account.

Proxy Password

Enter the password associated with the CA Clarity PPM proxy user account.

Project ID

Enter the ID of the CA Clarity PPM project.

3. Click Verify.

   If the parameters are valid, the text boxes are dimmed, and the CA Clarity PPM Data Provider list is automatically populated with the data providers that are defined for the parameters.

4. From the CA Clarity PPM Data Provider list, select the data provider that the Web Part requires to access and display.

5. (Optional) To configure the Web Part as a list for integrating with Microsoft Outlook, do the following:

   Task List

   Select the Task List check box.

   Start Date Attribute

   Select the start date attribute.

   Due Date Attribute

   Select the finish date attribute.

   Priority Attribute

   Select the attribute that indicates the priority.

   % Complete Attribute

   Select the attribute that indicates the percentage of completion.

   Note: If you do not select the Task List check box, the CA Clarity PPM List Web Part Actions menu does not display the Connect to Outlook option.

6. (Optional) Customize the Web Part by providing details in the Appearance, Layout, and Advanced sections.

   Note: For more information about customizing the Web Part, see the Microsoft Windows SharePoint documentation.

7. Click OK.

   The CA Clarity PPM List Web Part displays the list of items that are retrieved from the data provider. If you do not select the Task List check box, you can access the tool pane, and select it to integrate the list with Microsoft Outlook.

Reconfigure CA Clarity PPM List Web Parts

You can change the CA Clarity PPM server binding parameters to retrieve data from a different data provider, to access a different CA Clarity PPM server, or to use a different proxy user. To change the CA Clarity PPM server binding parameters, make the CA Clarity PPM server binding parameter fields available for editing.

Once you make the fields available for editing, you can configure the CA Clarity PPM List Web Part.

Follow these steps:

1. In the Web Part menu of the CA Clarity PPM List Web Part, click Edit, and then click Modify Shared Web Part.

   The tool pane appears.

2. Click Reset.

   The CA Clarity PPM server binding parameters become available.

Configure CA Clarity PPM Chart Web Parts in Non-CA Clarity PPM Project Sites

After you add a CA Clarity PPM Chart Web Part to a non-CA Clarity PPM project site, configure it to create the chart to view. You can configure a CA Clarity PPM Chart Web Part by using the tool pane associated with the Web Part.

The parameters—the URL of the CA Clarity PPM server, the project ID, and user account information—that enable a CA Clarity PPM Chart Web Part to access project information from CA Clarity PPM are not stored in the site properties of a non-CA Clarity PPM project site. Therefore, provide the parameters while configuring a CA Clarity PPM Chart Web Part in a non-CA Clarity PPM project site.

Follow these steps:

1. In the Web Part menu of the CA Clarity PPM Chart Web Part, click Edit, and then click Modify Shared Web Part.

   The tool pane appears.

2. In the CA Clarity PPM section of the tool pane, do the following:

   CA Clarity PPM Server URL

   Enter the URL of the CA Clarity PPM server. When you enter the URL, add /niku/app to the end of the address.

   Proxy User Name

   Enter the user name associated with the CA Clarity PPM proxy user account.

Proxy Password

Enter the password associated with the proxy user account.

Project ID

Enter the ID of the CA Clarity PPM project.

3. Click Verify.

   If the parameters are valid, the CA Clarity PPM Chart Web Part binds to the CA Clarity PPM server, and the text boxes for the parameters are dimmed. Additionally, the CA Clarity PPM Data Provider list automatically displays the data providers that are defined for the parameters.

4. Do the following:

   CA Clarity PPM Data Provider

   Select the data provider. After you select a data provider, the Category and Series fields are automatically populated with the attributes contained in the data provider.

   Chart Type

   Select the type of chart to create.

   Chart Title

   Enter a title for the chart.

   Category Attribute

   Select the data provider attribute to plot on the category axis.

   Series Attributes

   Select the data provider attributes to plot on the series axis. For most chart types, select multiple series axis attributes.

   Value (Y) Axis Label

   Enter a label for the set of series axis attributes selected.

5. (Optional) Customize the Web Part by providing details in the Appearance, Layout, and Advanced sections.

   Note: For more information about customizing the Web Part, see the Microsoft Windows SharePoint documentation.

6. Click OK.

   The CA Clarity PPM Chart Web Part displays the chart. The CA Clarity PPM Chart Web Part also displays a legend that identifies each series in the chart.

Reconfigure CA Clarity PPM Chart Web Parts

You can change the CA Clarity PPM server binding parameters to create a chart based on data. The data can come from a different data provider that accesses a different CA Clarity PPM server, or that uses a different proxy server. To change the CA Clarity PPM server binding parameters, make the CA Clarity PPM server binding parameter fields available for editing.

Once the fields are available, you can configure the CA Clarity PPM Chart Web Part.

Follow these steps:

1. In the Web Part menu of the CA Clarity PPM Chart Web Part, click Edit, and then click Modify Shared Web Part.

   The tool pane appears.

2. In the tool pane, Click Reset.

   The CA Clarity PPM server binding parameters become available.

Note: You should not create list web part or chart web part in SharePoint administration because it may impact the performance of SharePoint and Sharepoint Connector.