

CA Clarity™ PPM

VersionOne Integration Guide

Release 14.2.00



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Chapter 1: How to Integrate CA Clarity PPM with VersionOne

The VersionOne Connector (VersionOne) is a CA Clarity PPM plugin that connects VersionOne with CA Clarity PPM. This integration provides project managers and business users with the following benefits:

- Seamlessly create and manage projects in CA Clarity PPM while using the agile planning features of VersionOne.
- Have visibility into higher-level feature planning, project definition, and work item assignment.
- Have a top-down picture of all projects from a single system.

By linking your agile projects with VersionOne, you can plan and track all effort, resources, and time as follows:

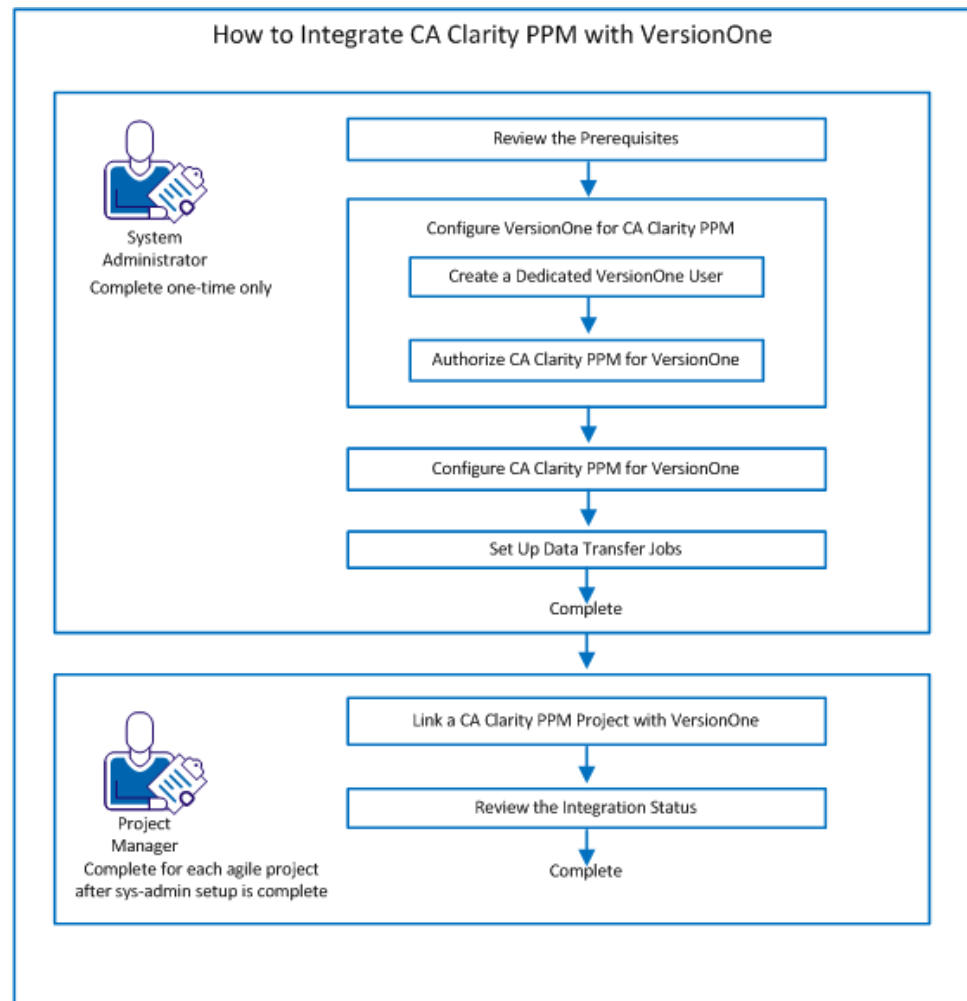
- Create projects in CA Clarity PPM and track them as initiative epics in VersionOne.
- Create workitems (child epics, stories, or defects) in VersionOne and view them in CA Clarity PPM as the project work breakdown structure (WBS).
- Enter effort in VersionOne for workitems (stories, defects, tasks, or tests) and view them in CA Clarity PPM timesheets.

Example: Manage an agile CA Clarity PPM project with VersionOne

At the Documentation Management company, the product development teams use CA Clarity PPM and a separate agile tool to track their software development projects. As more teams embrace agile methodologies, project management receives limited insight into the team efforts. Visibility is suffering both at the program and portfolio levels. Entering time twice in two different systems is leaving developers frustrated. The difficulty in tracking time accurately on these agile projects is leaving the portfolio leaders frustrated.

The company decides to integrate their CA Clarity PPM projects with VersionOne. Project managers can now manage and track all agile projects as epics in VersionOne. They can create workitems for the epics to break down work at the required level of granularity. They can also track effort against the workitems. The effort is synchronized back to the CA Clarity PPM project WBS and timesheets allowing portfolio managers higher-level visibility.

The following diagram describes how the system administrator and project manager integrate CA Clarity PPM with VersionOne:



Follow these steps::

1. [Review the prerequisites](#) (see page 9).
2. [Configure VersionOne for CA Clarity PPM](#) (see page 9):
 - a. [Create a dedicated VersionOne user](#) (see page 9).
 - b. [Authorize CA Clarity PPM with VersionOne](#) (see page 10).
3. [Configure CA Clarity PPM for VersionOne](#) (see page 12).
4. [Set up data transfer jobs](#) (see page 14).
5. [Link a project with VersionOne](#) (see page 14).
6. [Review the integration status](#) (see page 16).

Review the Prerequisites

To use the VersionOne Connector, complete the following tasks:

- Verify that you have the compatible versions of CA Clarity PPM and VersionOne installed. For more information, see the Add-ins Compatibilities section of the *CA Clarity PPM Release Notes - On Demand*.
- Work with CA Support if the VersionOne Connector is not deployed on your instance of CA Clarity PPM.

Configure VersionOne for CA Clarity PPM

To authorize and register CA Clarity PPM as a permitted application, configure VersionOne. After you complete the authorization steps, project data from the product can flow into VersionOne.

Follow these steps:

1. [\(Optional\) Create a dedicated VersionOne user](#) (see page 9).
2. [Authorize CA Clarity PPM for VersionOne](#) (see page 10).

Create a Dedicated VersionOne User

Create a dedicated user in VersionOne responsible for synchronizing data with CA Clarity PPM. The dedicated user has access to all projects in VersionOne and has the default role of Project Admin.

Note: The following procedure is optional. If you decide not to create a dedicated user, the default admin user can complete the steps for authorizing CA Clarity PPM.

Follow these steps:

1. Log in to VersionOne as an administrator.
2. Open Administration and click Members.
3. Click the Invite Members drop-down and select Add Member. If you do not see the drop-down, verify that you are in the Members tab.
4. Complete the requested information for the new member and click OK.
5. Click Project Assignment under Members. The new member that you just created appears in the Members section. Drag-and-drop the new member to "System (All Projects)" in the Projects section.

The new member is given project membership for "System (All Projects)" in the Members section. The member now has all rights to all projects.

6. Log out from VersionOne.

Authorize CA Clarity PPM for VersionOne

Add and authorize CA Clarity PPM as a permitted application for VersionOne. To complete authorization, use an OAuth token generator such as Runscope. Generate the OAuth tokens that you must enter to configure the OAuth settings.

Note: Some of the OAuth tokens that you generate must be saved for later use to configure CA Clarity PPM.

Follow these steps:

1. Log in to VersionOne as the new dedicated user responsible for synchronizing data with CA Clarity PPM. If a dedicated user does not exist, log in as the administrator.
2. Open the *<username>* menu at the top of the page and click Member Details. For example, open the *administrator* menu if you logged in as administrator.
3. Click Permitted Apps.

The Permitted Application Management page appears.

4. In a different browser tab, open the OAuth token generator. For example, enter https://www.runscope.com/oauth2_tool to open Runscope.

Note: A free registration is needed to this site to generate the required tokens.

5. Copy the Callback URL from the token generator site (for example, https://www.runscope.com/oauth_tool/callback).
6. In VersionOne, in the Permitted Application Management page, complete the following steps to add and register CA Clarity PPM:
 - a. Select Web for Add Application Type.
 - b. Enter an alias name for the application that VersionOne identifies (for example, CA Clarity PPM). Use this value later to configure CA Clarity PPM.
 - c. Paste the Callback URL that you copied from the token generator in Step 5.
7. Click Add Application to add CA Clarity PPM to your account as a permitted application. The page automatically populates with the client ID, permitted redirect URI, and other registration details.
8. Navigate to the token generator (for example, Runscope) and copy the following registration details from the Permitted Application Management page in VersionOne:
 - Client ID
 - Client Secret
 - Authorize URL. The value appears at the top of the VersionOne page, for example: <https://www6.v1host.com/ClarityTest/oauth.v1/auth>.
 - Access Token URL. the value appears at the top of the VersionOne page, for example: <https://www6.v1host.com/ClarityTest/oauth.v1/token>.
 - Scope. Enter: `apiv1 query-api-1.0 ~/notification.v1`.

9. Click Generate Token.
10. In VersionOne, click Allow to generate auth tokens in JSON form. Copy the following JSON tokens from the token generator page (for example, the Runscope page) and paste them into Notepad and save. Use the saved tokens later to complete the remote configuration settings in CA Clarity PPM.
 - access_token
 - token_type
 - expires_in
 - refresh_token
 - scope
11. In VersionOne, on the Permitted Application Management page, click the Download JSON link to download the JSON file to your desktop. You can also right-click the link and select Save As. To complete the remote configuration settings in CA Clarity PPM later, use the following tokens from the saved JSON file.
 - client_name
 - client_id
 - client_secret
 - auth_uri
 - token_uri
 - server_base_uri

Configure CA Clarity PPM for VersionOne

Configure CA Clarity PPM for VersionOne so data can synchronize between them. To complete this procedure, use the following values that you generated and saved in the previous procedure to authorize CA Clarity PPM for VersionOne:

- OAuth tokens generated in JSON form
- Tokens from the downloaded JSON file.

Note: After installing the connector and before starting the background services, edit the default URL that the product uses to access VersionOne. The default URL is not a valid web address. To point to your correct VersionOne instance, update this URL.

Follow these steps:

1. Log in to CA Clarity PPM.
2. Open Administration, and from General Settings, click Remote API Setup.

If multiple plugins are installed, the Remote Access Implementations page appears. Select VersionOne and click the link for it to go to the remote API admin settings page for the plugin. If multiple plugins are not installed, you go directly to the Remote API Admin Settings page.

3. Complete the following information:

Remote Environment Endpoint URL

Specifies the URL that the product uses to access the VersionOne production or sandbox environment. For example: <https://www6.v1host.com/ClarityTest/>

Remote System Base URL

Specifies the URL that the product uses to access the remote system. You can either enter the same URL as the remote environment endpoint or leave this field blank.

Client Name

Defines the name that the authorization server assigned to the client application at registration. Enter this value from the downloaded JSON file.

Client ID

Defines the unique ID that the authorization server assigned to the client application at registration. Enter this value from the downloaded JSON file.

Client Secret

Defines the unique password that the authorization server assigned to the client application at registration. Enter this value from the downloaded JSON file.

Auth URI

Defines the authorization URL that you used to authorize the product for VersionOne using the token generator. For example, `https://www6.v1host.com/ClarityTest/oauth.v1/auth`.

Token URI

Defines the access token URL that you used to authorize the product for VersionOne using the token generator. For example, `https://www6.v1host.com/ClarityTest/oauth.v1/token`.

Scope

Defines the endpoints that the integration is authorized to use. For example: `apiv1 query-api-1.0 ~/notification.v1`.

Redirect URI

Defines the redirect URI that the resource owner uses to redirect back to the client application after successful authorization. This value is not needed since you used a token generator (for example, Runscope).

Access Token

Defines the access token that you generated in JSON form using the OAuth token generator tool. Use the value that you saved in Notepad when authorizing the product for VersionOne.

Refresh Token

Defines the refresh token that you generated in JSON form using the OAuth token generator. Use the value that you saved in Notepad when authorizing the product for VersionOne.

Auth Token

Defines the authorization token that is generated when the request is submitted to the server. You can also leave this field blank.

4. (Optional). Complete the proxy server information and save your changes.

The product is now integrated with VersionOne.

Set Up Data Transfer Jobs

Set up the following jobs to transfer data between the product and VerisonOne.

- Remote Project Sync. The job synchronizes projects and teams from CA Clarity PPM to epics in VersionOne.
- Remote Timesheet Sync. The job synchronizes worklogs to epics in VersionOne and creates timesheets in CA Clarity PPM.

Follow these steps:

1. Open Home, and from Personal, click Reports and Jobs.
2. Click Jobs and specify the filter criteria, or click Show All to view all available jobs.
3. Click the name of the job you want to run or schedule (for example, Remote Project Sync).
4. To run the job immediately, select Immediately next to When and click Submit.
5. To schedule the job to run later, select the Scheduled check box next to When. Specify the following information and click Submit.
 - Start date and time
 - Recurrence
 - Resources that you want to notify or share the job with
6. (Optional). If the product is also integrating with another plugin, set the Remote API Implementation parameter for the job. For example, if you are also integrating with Clarity Agile, select Clarity Agile. Click Save Parameters.
7. Submit your changes.

Link a CA Clarity PPM Project with VersionOne

Link all agile CA Clarity PPM projects with VersionOne epics so that the synchronization jobs can start transferring data.

Follow these steps:

1. Open Home, and from Portfolio Management, click Projects.
2. Click the project that you want to link to VersionOne.
3. In the project properties, complete the following fields:

Remote Link

Defines the project as an agile project linked to VersionOne. After you select this check box, the VersionOne subpage appears in the properties menu of the project.

Remote Integration

Defines the application with which the project is remotely integrating (for example, VersionOne). The field appears only if the product is also integrating with another application such as Clarity Agile.

4. Click Save.
5. Click Properties and select VersionOne.
6. To link the project to an existing VersionOne epic, complete the following information and save. To create a new epic and to use the project name as the epic name, skip this step.

Remote Epic ID

Defines the existing VersionOne unique epic ID with which you are linking the project.

Remote Epic Name

Defines the VersionOne epic name with which you are linking the project. If you do not define a remote Epic ID, a new epic by this name is created in VersionOne.

7. To link each agile CA Clarity PPM project to VersionOne, repeat these steps.

Review the Integration Status

To verify that data is successfully transferring to VersionOne and back to CA Clarity PPM, check the synchronization job details and the CA Clarity Background (bg) services log file. For more information on how to do this, contact your system administrator.

You can also review the project integration status. An unsuccessful integration can indicate one of the following issues:

- The VersionOne credentials are incorrect on the Remote API Admin Settings page.
- The VersionOne server is down.

If any information is entered incorrectly, try integrating again by reentering the correct values and running the Remote Project Sync job.

The following procedure describes how to review the project integration status.

Follow these steps:

1. Open Home, and from Portfolio Management, click Projects.
2. Open the project, and from the Properties, click VersionOne.
3. Review this information:

Sync Status

Displays the status of the Remote Project Sync job as successful, pending, or failed. A pending status means that the synchronization job has not run after linking a project to VersionOne.

Sync Detail Information

Displays the details of the job status such as date and time when it was last run. If the job failed, displays details of the errors.

Last WBS Sync Time

Displays the last time the epic tasks were synchronized with the project WBS in CA Clarity PPM.

Last Timesheet Sync Time

Displays the last time the epic worklogs were synchronized with the project timesheets in CA Clarity PPM.