CA Clarity™ PPM

Release Notes - On Premise

Release 13.2.00

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Contact CA Support

For your convenience, CA Technologies provides one site where you can access the information that you need for your Home Office, Small Business, and Enterprise CA Technologies products. At http://ca.com/support, you can access the following resources:

- Online and telephone contact information for technical assistance and customer services
- Information about user communities and forums
- Product and documentation downloads
- CA Support policies and guidelines
- Other helpful resources appropriate for your product

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Chapter 1: Welcome to CA Clarity PPM

Welcome to CA Clarity PPM Release 13.2.

This section contains the following topics:

What This Document Covers (see page 7)
Training (see page 7)
International Support (see page 8)
Published Fixes (see page 8)
Known Issues and Resolved Defects (see page 9)
Supported Upgrade Paths (see page 9)
Add-ins Compatibilities (see page 10)
CA Clarity PPM Solution Pack Compatibility (see page 11)

What This Document Covers

This document provides information about enhanced features, documentation, and system requirements for CA Clarity PPM. This release provides a CA Technologies Bookshelf that you can access from the product. For more information about the bookshelf and product documentation, see View the CA Technologies Bookshelf (see page 23).

Note: At publication time, the product supports the operating systems and third-party software listed in this document. The most current Release Notes is found on CA Support at http://ca.com/support. For complete installation instructions, see the *Installation Guide*.

Training

For user training, CA Technologies offers the CA Productivity Accelerator (CA PA) solution. You can use this solution to create custom education materials and practice simulations and assessments. The custom education materials are used in classroom training and online simulations. Your users can access the practice simulations and assessments from the Learn link on the User toolbar or from the learning management system (LMS). The CA PA provides standard content modules that you can upload into your CA PA editor and modify to reflect your configuration of CA Clarity PPM. You can also integrate your organization's processes and procedures into the CA PA solution.

CA Education offers these training solutions. To learn more about the training offerings and CA PA, see the CA Education website at http://ca.com/education.

International Support

An internationalized product is an English product that operates correctly on local language versions of the required operating system and required third-party products, and supports local language data for input and output. Internationalized products also support the ability to specify local language conventions for date, time, currency and number formats.

A translated product (sometimes referred to as a localized product) is an internationalized product that includes local language support for the user interface of the product, online help and other documentation, and local language default settings for date, time, currency, and number formats.

The product is fully localized and supports over 100 regional settings for date, time, and number formatting. The user interface is available in the following languages:

- Brazilian Portuguese
- Czech
- Danish
- Dutch
- English
- Finnish
- French
- German
- Hungarian
- Italian
- Japanese
- Norwegian
- Polish
- Russian
- Simplified Chinese
- Spanish
- Swedish
- Traditional Chinese
- Turkish

Localized versions of some CA Clarity PPM Online Help files and guides are available within 90 days of the product general availability.

The most recent versions of localized product documentation are available at CA Support.

Published Fixes

We recommend that you review the certification matrix for the product and the Solutions and Patches that Technical Support provides at http://ca.com/support. You can review the solutions and patches and any prerequisite published fixes that are required for the product release.

Known Issues and Resolved Defects

Known Issues

For information about known issues, log in to CA Support Online and search using the *clarity13open* keyword. Any related articles and known issues appear.

Note: For the known issues related to the product installation and new features, see the chapter "Installation and Upgrade" in the *Change Impact and Upgrade Guide.*

Resolved Defects

For information about resolved defects, see the Resolved Defects page on CA Support Online.

Java Runtime Environment Defects

The Java Runtime Environment (JRE) is updated frequently with fixes for security issues, including issues that are unknown at the time CA Clarity PPM is released. To ensure that you have the latest fixes, we recommend that you download the most recent version 7 JDK.

Supported Upgrade Paths

If you have any of the following releases installed, you can upgrade to CA Clarity PPM Release 13.2:

- CA Clarity PPM Release 8.1 or Service Pack or Fix Pack 8.1.x
- CA Clarity PPM Version 12.0 or Service Pack 12.0.x
- CA Clarity PPM Release 12.1 or Service Packs

  Supported patch levels:

  - 12.1.0.1 through 12.1.0.8
  - 12.1.1.1 through 12.1.1.7

  - 12.1.2.1 through 12.1.2.3
  - 12.1.3.1 through 12.1.3.6
- CA Clarity PPM Version 13.0 or Service Packs

  Supported patch levels:

  - 13.0.1.1 through 13.0.1.7
- CA Clarity PPM Version 13.1 or Service Packs

  Supported patch levels:

  - 13.1.0.1 through 13.1.0.5

Important! Take caution when attempting an upgrade to Release 13.2 and you are on a CA Clarity PPM patch level that is not listed in the preceding list. You may encounter upgrade issues. For best results, wait for a supported upgrade path to a later release or patch. For more information, contact CA Support or your CA Services representative. You can also find more information on the CA Clarity PPM Global User Community.

Add-ins Compatibilities

The following section describes important information about upgrading installed add-ins, accelerators, and connectors for Release 13.2.

- If you are upgrading from Version 13.0 or Release 13.1 to Release 13.2, the following add-ins are upgraded:
  - PMO Accelerator
  - Clarity Solution Pack (CSP)
  - Accelerator for New Product Development (NPD)
  - Connector for Microsoft SharePoint
  - PPM Essentials Accelerator (PPME)
  - Business Relationship Manager (BRM)
  - CA Clarity Agile
- If you are upgrading from any version before Version 13.0 to Release 13.2, upgrade all installed add-ins.
- A new installation process is available for add-ins, accelerators, connectors.

  Note: For more information, see the *Installation Guide*.

The following table shows the accelerator and connector releases that are compatible with Release 13.2.

Accelerator or Connector	New Installation 13.2	Upgrade from 12.*x* to 13.2	Upgrade from 13.*x* to 13.2
PMO Accelerator	3.2.00	3.2.0	3.2.0
Clarity Solution Pack (CSP)	3.2.0	3.2.0	3.2.0
Earned Value Manager	2.0.1	2.0.1	2.0.1
Accelerator for PRINCE2	2.0.1	2.0.1	2.0.0 or 2.0.1
Accelerator for the PMBOK	2.0.1	2.0.1	2.0.0 or 2.0.1
Accelerator for New Product Development	2.0.2	2.0.2	2.0.2
PPM Essentials Accelerator	2.0.2	2.0.2	2.0.0, 2.0.1, or 2.0.2
BRM Accelerator	3.0.2	3.0.2	3.0.2
Connector for CA Unicenter Service Desk 12.7 & CA Software Change Manager™ 12.1.0.3	2.0.1	2.0.1	2.0.1
Connector for CA Unicenter Asset Portfolio Management 11.3.4	2.0.1	2.0.1	2.0.1
Connector for Microsoft SharePoint 2010	2.0.2	2.0.2	2.0.0, 2.0.1, or 2.0.2
Service Connect	2.0.0	2.0.0	2.0.0
Catalyst Connector	2.5.0 or 3.3.0	2.5.0 or 3.3.0	2.5.0 or 3.3.0
CA Clarity Agile	Spring 2013	Spring 2013	Spring 2013

CA Clarity PPM Solution Pack Compatibility

Before you install the CA Clarity PPM Solution Pack add-in, verify that the compatible versions of CA Clarity PPM and the PMO Accelerator are installed. The CA Clarity PPM Solution Pack installation fails if you do not install the compatible version of the PMO Accelerator add-in before installing the solution pack.

Important! Review the certified and supported versions chart in the CA Clarity PPM Solution Pack Release Notes to determine if an upgrade of CA Clarity PPM and the PMO Accelerator is required, or optional. For complete information, see the CA Clarity PPM Solution Pack Index page on CA Support Online.

Chapter 2: New and Enhanced Features

This section contains the following topics:

New Features (see page 13)
Enhanced Features (see page 15)

New Features

This release includes the following new features:

- Capacity Overview Portlet (see page 13)
- Mobile Time Management (see page 14)
- New Group-by Feature for Charts (see page 14)

For any new features and enhancements in OWB, refer to the *OWB Release Notes*.

Capacity Overview Portlet

The Capacity Overview portlet provides a high-level summary of the capacity, demand, remaining capacity, and the actual hours provided by any given unit in the organization from a Resource OBS hierarchical view. This page provides information both in an aggregated and detailed form using portlets. You can view the aggregated information on the Capacity Overview portlet and the detailed information in the following drill-down portlets:

- **Staff Allocation Overview portlet**

  Displays the resources for the selected OBS unit, their primary role, and their allocation over the same time periods that appear on the Capacity Planning Overview page.

- **Unfilled Roles portlet**

  Displays the unfilled role requests for the OBS unit, the investments that are requesting roles, and allocation information for the role requests.

- **Investment Demand portlet**

  Displays the investments that are associated with the OBS unit, the investment manager, start and finish dates for the investment, and the allocation of resources from the selected OBS.

Note: For more information about the Capacity Overview portlet, see the *Resource Management User Guide.*

Mobile Time Manager

The CA Clarity PPM Mobile Time Manager lets you submit and approve timesheets from a mobile smartphone. The Mobile Time Manager feature lets you do the following tasks:

- Submit timesheets
  - Populate timesheet items from the previous timesheet period.
  - Return a timesheet that was previously submitted.
- Approve timesheets
  - Complete bulk timesheet approvals or returns.
  - Send a reminder to resources who have not submitted their timesheets.
  - Use the standard timesheet notifications.
  - Complete ad-hoc and action item timesheet approvals.

New Group-by Feature for Charts

The Group-by feature allows the chart designers to configure the chart results that would only be possible using NSQL query data providers. This feature lets you narrow a chart result set based on an attribute that groups the results to provide a better display. The grouping feature is available for object data providers and portfolio system data providers.

For example, for a column chart that shows Planned Costs by Project, the readability of the chart depends on the number of projects. Showing 500 projects along the X-axis or Y-axis does not provide a readable chart that scales to the amount of data available. If you group the column chart data by OBS, the chart result set is smaller and more readable.

Enhanced Features

This release includes enhancements to the following features:

- New Portfolio Feature (see page 15)
- Capital and Operating Expenses (see page 16)
- Update Investments Created Before Release 13.2 to Display Capital and Operating Expenses (see page 18)
- Configurable OBS Feature (see page 19)
- Auto-recalculation Feature in Microsoft Project (MSP) Connector (see page 19)
- Usability Improvements (see page 20)
- Row Limit Governor for NSQL Queries (see page 21)
- Checkinstall Utility with Additional Scripts (see page 22)

New Portfolio Feature

The previous Portfolio feature has been removed and is replaced with a new Portfolio Management feature. If your home page was a previous Portfolio page or tab, your home page is no longer in the product. In this situation, your home page in Release 13.2 reverts to the system default home page.

Portlets from the previous Portfolio feature have been deleted, but the pages that contained the portlets remain. The pages were retained to accommodate customers who customized the pages by adding other valid portlets. Pages with no custom portlets are still visible, but they are empty.

Portfolio functionality for this version was re-written. Here are some of the major highlights of this feature:

- Plan portfolios by cost Types (Capital or Operating Expense types).
- Plan constraints (cost or resource) by specific period.
- Create portfolio investment ranking rules.
- Manually rank investments.
- Drag and drop capabilities for investment start and end dates and investment rankings.
- The addition of a “sync” job to manually, or at specified time intervals, synchronize investment information with portfolios. Portlet-based portfolios more efficiently gather portfolio information from one central area.
- A new portfolio dataprovider created with a consistent naming convention.
- A job aligned to each portfolio that you can configure to update the portfolio investment information at user-defined intervals, or on a manual basis.

Capital and Operating Expenses

You can show operating and capital costs separately on the simple budget page and in a detailed financial plan. You can enter the cost information in the following ways:

- For a high-level estimate, enter the sums for these expenses directly on the investment budget page.
- For a more detailed view of cost type information, set up an investment financial plan that collects operating and capital expenses. You can collect detailed cost information from tasks or team allocation.

The following table shows the changes for this new feature.

New Attributes Added	Page or Area	Object	Default Value	User Interface Behavior	XML Open Gateway	Security
Cost Type	Investment financial properties	projfinproperties npiofinancial properties	Operating	The attribute is required on the investment financial properties page. In Release 13.2 the attribute is visible on the financial properties view even if the view is customized.	The attribute is not required in the XOG. It is added as part of the investment general properties.	

New Attributes Added	Page or Area	Object	Default Value	User Interface Behavior	XML Open Gateway	Security
Cost Type	Task	task	None	In Release 13.2, the attribute is not visible by default. It must be configured to display.	The attribute is added as part of task in the Investment XOG.	This attribute is editable only if financial access rights are granted. Although you can edit this attribute in Open Workbench and Microsoft Project, you must have financial access rights to save the edits to CA Clarity PPM.
Capitalization Percent	Team	team	None	The attribute is not visible by default. It must be configured to display.	The attribute is added as part of team in the Investment XOG.	This attribute is editable only if financial access rights are granted.

New Attributes Added	Page or Area	Object	Default Value	User Interface Behavior	XML Open Gateway	Security
Planned Capital Cost Planned Operating Cost Budget Capital Cost Budget Operating Cost Planned Capital % Planned Operating % Budget Capital % Budget Operating %	Simple budget	financials	N/A	The attributes are not visible by default. They must be configured to display.	The following fields are not part of the XOG: Planned Capital % Planned Operating % Budget Capital % Budget Operating % The remaining fields will be added with investment general properties. The following existing fields become read only: Planned Cost Total Budget Cost Total	

Update Investments Created Before Release 13.2 to Display Capital and Operating Expenses

After you upgrade to this release, you can update investments that were created before Release 13.2 to show capital and operating expenses. Updating your investments is optional and depends on your business needs. Update only if you want to display capital and operating expenses separately in financial plans.

The following jobs automate the task of adding the Capital and Operating cost type to investments:

Enable Capitalization

This job sets the Cost Type attribute to Operating or Capital on the investments, tasks, and transactions that you select for the update. You select and map investment charge codes to either Operating cost type or Capital cost type. When the job runs, the cost type that is mapped to the charge code is applied to the investment and its tasks and transactions. This job also updates the capitalization percent on the investment team records if you enter a Capitalization Percent value in the job parameters.

Copy Cost Type Plan of Record Charge Code with Cost Type

This job creates a copy of an investment plan of record and adds Cost Type to the list of existing grouping attributes. To make an investment eligible for this job, you are required to run the *Enable Capitalization* job successfully on the investment first.

If you do not run the jobs, you see the following results:

- All existing investments have a cost type of Operating.
- All records in the PPA_WIP table have a cost type of Operating.

Upgrade Action: (Optional) Run the jobs in the order that is listed to update investments that were created before Release 13.2.

If you are processing investments with large amounts of data, limit the number of investments for a job run. When all of your investments have been successfully processed to show capital and operating expenses, we recommend deactivating the jobs.

Note: For more information about the jobs, see the *Administration Guide*.

Configurable OBS Feature

Starting with this release, you can configure an OBS like any CA Clarity PPM attribute. When you associate an object with an OBS, an attribute is created for the OBS. The associated object appears as a hyperlink under the Associated Objects section on the OBS Properties page. Click the hyperlink to view the attribute that is created on the Object Attribute page. On this page, you can set the default value and can make the OBS field read-only.

Before this release, when you perform the Restore Default action, the view that was created during installation would be restored. Starting with this release, when you perform the Restore Default action on the object, the OBS section moves back to the General Properties subpage with all the OBS attributes in the Selected column.

Starting this release, you can configure, move, or delete an OBS section like any existing section. When you associate an object with an OBS for the first time, an OBS section is created with the OBS attribute in the *Create View* and *Edit View* of the object.

For more information about the configurable OBS, see the *Administration Guide*.

Auto-recalculation Feature in Microsoft Project (MSP) Connector

In Microsoft Project (MSP), the whole project is recalculated after being opened in CA Clarity PPM only if the Calculation Mode for a schedule is set to On.

In previous releases, when you exported a project from CA Clarity PPM to MSP, the End Date and Dependency fields change. These fields are recalculated and updated for some tasks. The update occurs even though the Calculation Mode is set to Manual in MSP.

Starting with this release, you can export a project from CA Clarity PPM to MSP without updating the End Date and Dependency date fields. To prevent these fields from updating, complete the following tasks:

- Set the Calculation Mode for the schedule to Off in MSP.
- Set the Loading Pattern for all tasks in a project to Uniform in CA Clarity PPM.

You can update the end date of a task that is assigned to a resource with a termination date earlier than the task end date. The following table illustrates how task end dates are updated in these cases.

Resource Termination Date	Update to the Task Finish Date
Before the task start date	The task finish date is set to the task start date. The task is changed to a milestone task.
After the task start date but before the task finish date	The task finish date is set as the resource termination date.

In both the cases, the task end date is set according to the resource termination date.

Usability Improvements

This release includes the following usability improvements:

- **New keyboard shortcuts to help you easily navigate within the grids and list in Clarity.**

Action	Keyboard Combination
Move to the end of a row **Note**: If the action is on a TSV row, repeat the keyboard combination to leave the TSV section.	■ Ctrl+Right Arrow
Move to the beginning of a row	■ Ctrl+Left Arrow
Page up or down	■ Ctrl+Alt+Up Arrow ■ Ctrl+Alt+Down Arrow

Action	Keyboard Combination
Move to the top or bottom of a list **Note:** If the action is in the TSV section of a list, repeat the keyboard combination to leave the TSV section.	■ Ctrl+Up Arrow ■ Ctrl+Down Arrow

- **New keyboard shortcuts for Time Scale Value (TSV) grids**

Action	Key Combination
Select a TSV row	■ Shift+Ctrl+Right Arrow
Select a TSV column	■ Shift+Ctrl+Down Arrow
Select a single cell to the left or right of the current cell	■ Shift+Right Arrow Shift+Left Arrow
Select a single row above or below the current cell	■ Shift+Up Arrow Shift+Down Arrow
Copy a TSV cell	■ Ctrl+c
Paste a TSV cell	■ Ctrl+v
Cut a TSV cell	■ Ctrl+x
Undo a cut, copy, or paste operation	■ Ctrl+z

- **Edits preserved when you scroll through the TSV periods**

  You can edit the time-scaled values and can scroll to different time periods in the grid. The edits you make are preserved even if they scroll offscreen. The edits persist until you save them or dismiss them without saving.

Row Limit Governor for NSQL Queries

The Row Limit Governor for NSQL queries restricts the number of rows that are processed. This reduces the chance of an NSQL query using too many server resources. For more information on the scenarios on how and when the row limit governor is applied, see the *Change Impact and Upgrade Guide*.

Checkinstall Utility with Additional Scripts

Starting this release, the CA Clarity PPM checkinstall utility that is invoked during an installation and upgrade has additional scripts to perform the following actions:

- Check the database customizations and the correct database version.
- Prompt for name, email address, and acknowledgment of the review for the *Installation Guide* and *Change Impact and Upgrade Guide*.
- Invoke the utility post upgrade to check for the successful completion of the upgrade process by checking for the presence of the postupgrade records in the cmn_install_history table.

Chapter 3: Documentation

This section contains the following topics:

View the CA Technologies Bookshelf (see page 23)
Documentation Changes (see page 24)

View the CA Technologies Bookshelf

The CA Technologies Bookshelf available on the Documentation page of CA Support Online provides the product documentation set in Section 508-compliant HTML format and in PDF format. You can view the CA Technologies Bookshelf online from CA Support Online, or you can download and view the bookshelf locally on your computer.

The CA Technologies Help Bookshelf is installed automatically with the product and provides the core documentation set in HTML format. You can access the Help Bookshelf by clicking the Help link in the product.

To extract the ZIP file and view the CA Technologies Bookshelf

1. Use an archive product such as WinZip.
2. Extract the content to a local folder.
3. Double-click the Bookshelf.html file in the Bookshelf folder.

   The CA Technologies Bookshelf opens, and you can use it to view and search the product documentation.

Where to Find Documentation

You can access the product documentation in the following locations:

- Click the Help link in the product.
- The Docs directory on the installation media.
- Technical Support at http://ca.com/support.

How to View and Search PDFs

To view PDF files, download and install the Adobe Reader from the Adobe website if it is not already installed on your computer.

If you open a PDF file in Adobe Reader in the CA Technologies Bookshelf and search, the individual PDF file is searched and you see the individual instances of the search term.

Documentation Changes

The CA Clarity PPM documentation has been improved to help you find information faster. The documentation changes include the following improvements:

- The product documentation that does not require a login to CA Support Online is also available through third-party search engines such as Google.
- The *Portfolio Management User Guide* is no longer included in the documentation set. The portfolio scenarios that are available on the bookshelf (Release Information and Announcements section) describe the new way to manage your portfolios.

Chapter 4: Compatibilities

This appendix contains operating environment information for this release, which is also available from the Compatibilities link on support.ca.com.

Some of the products listed in this appendix are not delivered with CA Clarity PPM, and you must purchase the product. For information about the software that is included with CA Clarity PPM, see Products Included with CA Clarity PPM (see page 31). Refer to your licensing agreement for more information.

This section contains the following topics:

CA Clarity PPM Servers (see page 25)
Integrated Servers (see page 28)
Clients (see page 28)
Clarity Mobile Time Manager (see page 30)
Products Included with CA Clarity PPM (see page 31)
Change History (see page 31)
FIPS Operating Mode Restrictions (see page 36)
IPv6 Network Compatibility Restrictions (see page 36)
CA Business Intelligence Release 3.3 - (SAP BusinessObjects Enterprise XI 3.1 Service Pack 5) Supported Configurations (see page 38)

CA Clarity PPM Servers

The following table presents supported platforms for servers running CA Clarity PPM server software (application and background servers).

New Installations

	Microsoft Windows	Linux	IBM AIX

Operating System[1)]	■ Microsoft Windows Server 2008 (R2) SP1 64-bit (Standard, Enterprise Edition) ■ Microsoft Windows Server 2012 64-bit (Standard)	■ Red Hat Enterprise Linux 6 64-bit for x86 chipsets: any maintenance release ■ Red Hat Enterprise Linux 5.5 64-bit for x86 chipsets: any maintenance release ■ SUSE Linux Enterprise Server 11 64-bit for x86 chipsets; any maintenance release[2)] ■ SUSE Linux Enterprise Server 10 SP4 64-bit for x86 chipsets: any maintenance release[2)] ■ Oracle Enterprise Linux Server 6u2 64-bit for x86 chipsets; any maintenance release[3)]	■ AIX 7.1; TL0: any maintenance release ■ AIX 6.1; TL2: any maintenance release

Additional Support for Upgrading Customers

	Oracle Solaris	**Hewlett-Packard HP-UX**
Operating System	■ Solaris 10 SPARC64 64-bit: any maintenance release[4, 5)]	■ HP-UX 11iv3 IA64: any maintenance release[6)]

Notes:

- [1)]CA Clarity PPM is supported on any localized version of the supported operating systems.
- [2)]CA Clarity PPM on SUSE Linux connecting to a Microsoft SQL Server database is not currently supported.
- [3)]CA Clarity PPM on OEL 6u2 connecting to Microsoft SQL Server database is not currently supported.
- [4)]The Oracle UltraSPARC T2, T3, and T4 processors are not supported. Solaris (x86) is not supported.
- [5)]Solaris support will be dropped in the next major Clarity release (i.e. CA Clarity PPM v14.0.00).
- [6)]HP-UX support will be dropped in the next major Clarity release (i.e. CA Clarity PPM v14.0.00).

Components

Virtualization	See the CA Support Statement for Virtualization. To find this document, log in to CA Support Online, go to the CA Clarity Project & Portfolio Manager Support page, scroll to the Product Status area, and click the Virtualization Support information link. For information about database virtualization, see [7)] under notes.
Database[7)]	■ Oracle 11.2 Standard and Enterprise Edition: version 11.2.0.2.x or higher patch level[7a, 7b)] ■ Oracle 11.2 Standard and Enterprise Edition: version 11.2.0.3.x or higher patch level[7a, 7b)] ■ Microsoft SQL Server 2008 Enterprise Edition: Any service pack[7c), 7d)] ■ Microsoft SQL Server 2008 R2 Enterprise Edition: Any service pack[7c), 7d)] ■ Microsoft SQL Server 2012 Enterprise Edition: Any service pack[7d)]
Database Interface	■ CA Clarity PPM DataDirect Type 5 (v5.0.1) Drivers for Oracle and SQL Server (included in CA Clarity PPM distribution).
Java Runtime	■ Oracle Java SE JDK 1.7 update 21 (64-bit) or higher patch level[8)] ■ HP JDK 7 (64-bit): 7.0.01 or higher patch level[8)] ■ IBM Java 7 (64-bit): 7.0.0 or higher patch level[8)]
Application Server[9)]	■ Apache Tomcat 7.0.33 or higher patch level (64-bit) ■ Oracle WebLogic Server 12.1.1: Any service pack (64-bit) ■ IBM WebSphere Application Server 8.5[9a)]
Report Server	CA Business Intelligence™ Release 3.3 (BOXI 3.1 SP 5). For more information, see CA Business Intelligence Release 3.3 (see page 38).
Mail Server	Any SMTP/IMAPI/POP3 mail server can be used. CA Clarity PPM does not explicitly support any one vendor.

Notes:

- [7)]Databases can be run on any vendor-supported operating system. Production databases are not supported on software virtualized operating systems. It is also recommended that any downstream environments that are intended for performance or high concurrency testing match what is used in production.
  - [a)]Oracle Real Application Cluster (RAC) is supported.
  - [b)]Where (x) represents the patch level supported. (For example, 11.2.0.4 is a new release and is not inherently supported).
  - [c)]SQL Server Named Instances are supported. SQL Server Clustering is supported with manual intervention after a database failure to restart failed background processes.
  - [d)]Any Microsoft SQL Server deployment for more than five thousand users must be approved by CA Technologies. If the user base is five thousand and more, then you must use Oracle.

- [8)]CA recommends running the latest patch level.
- [9)]CA Clarity PPM is supported on any localized version of the supported application servers.
  - [a)]Existing installations of WebSphere will only be supported on AIX in the next major release.

Integrated Servers

The following table presents supported software for servers integrating with CA Clarity PPM.

Single Sign On Server	CA SiteMinder 12.0 SP3
LDAP Server	Supports any LDAP v3 compliant directory server (such as CA Directory, Microsoft Active Directory, Novell eDirectory, Oracle Directory Server, Sun One Directory).
SharePoint Server	SharePoint Server 2010 (64-bit), Enterprise Edition[1)]

Notes:

- [1)]SharePoint Connector version 2.0.2.

Clients

The following table shows supported software for client computers accessing CA Clarity PPM.

	Microsoft Windows	**Apple Mac OS**	**Desktop Linux**
Operating System	■ Microsoft Windows XP Professional: SP3 or higher ■ Microsoft Windows 7 SP1 32-bit and 64-bit, all editions ■ Microsoft Windows 8 32-bit and 64-bit	■ Mac OS X: Release 10.8.2 or higher patch level	■ Any vendor or version with support for browsers listed under the Web Browser section.

	Microsoft Windows	Apple Mac OS	Desktop Linux
Web Browser	■ Microsoft Internet Explorer 10.0 and higher patch level (Microsoft Windows 8 only) ■ Microsoft Internet Explorer 9.0 and higher patch level ■ Microsoft Internet Explorer 8.0 and higher patch level ■ Firefox 19.0.2 and higher release level[2)] ■ Firefox ESR 17.0.4 and higher release level[2)] ■ Google Chrome 25.0.1364.172m and higher release level[2)]	■ Safari 6.0.2 and higher patch level ■ Firefox 19.0.2 and higher release level[2)]	■ Firefox 19.0.2 and higher release level[2)]
Client Applications[1)]	■ Microsoft Excel 2007-2013 32-bit, all editions or Microsoft Excel 2003 with 2007 compatibility pack ■ Microsoft Excel 2010-2013 64-bit, all editions ■ Microsoft PowerPoint 2007-2010 32-bit, all editions ■ Microsoft PowerPoint 2010-2013 64-bit, all editions ■ Microsoft Project 2007-2013 32-bit, all editions[3), 3a)] ■ Microsoft Project 2010-2013 64-bit, all editions[3b)] ■ Java 7 Runtime Environment: 1.7 or higher patch level[4)] ■ Adobe Flash Player 10 or higher[5)] ■ Acrobat Reader 7.0 or higher[6)] ■ CA Open Workbench 2.1 ■ Crystal Reports 2008 Designer Client SP5[7)]	■ Microsoft Excel 2011 ■ *No Microsoft Project support* ■ Adobe Flash Player 10 or higher[5)] ■ Mac OS Preview PDF viewer[6)] ■ *No Open Workbench support* ■ *No Crystal Reports Designer support*	■ *No Excel Export support* ■ *No Microsoft Project support* ■ Adobe Flash Player 10 or higher[5)] ■ Acrobat Reader 7.0 or higher[6)] ■ *No Open Workbench support* ■ *No Crystal Reports Designer support*

	Microsoft Windows	Apple Mac OS	Desktop Linux
Third-party SOAP Integration Toolkits	■ Microsoft Visual Studio 2005 (.NET Framework 2.0) ■ Apache AXIS 1.4	■ Apache AXIS 1.4	■ Apache AXIS 1.4

Notes:

- [1)] Using multiple versions of third-party software concurrently is not supported as it can cause out-of-sync and compatibility issues. CA Technologies supports only versions of third-party software that the vendor supports.
- [2)] New Firefox and Chrome releases may be supported with minimal testing after being released. Browsers such as Firefox and Chrome update frequently. Releases will be updated as needed.
- [3)] Microsoft Project 2007 support will be dropped in CA Clarity PPM release 13.3.
- [3a)] Install JRE x86 for x86.
- [3b)] Install JRE x64 for x64.
- [4)] Required for Open Workbench, CA Clarity PPM Microsoft Project interface, and XOG Client.
- [5)] For viewing Xcelsius dashboards.
- [6)] For viewing the product documentation and offline reports.
- [7)] Required only for custom report development.

Clarity Mobile Time Manager

The following table presents the mobile operating system platforms that are supported for the Clarity Mobile Time Management application.

	iOS	Android
Mobile Operating System	■ Apple iOS 6.0 or higher	■ Google Android OS 4.0 or higher

Products Included with CA Clarity PPM

The following table includes third-party software that is licensed and delivered with CA Clarity PPM. All of the following software is included on the CA Clarity PPM installation media.

Component	Notes
Java Runtime	The JDK installers for all supported operating systems.
Application Server	Apache Tomcat for all supported operating systems.
Report Server	CA Business Intelligence r3.3
Client Applications	Xcelsius Designer 2008 SP5

Notes:

- Oracle WebLogic and IBM WebSphere are not included with CA Clarity PPM. Customers wishing to use either of these servers over Tomcat must acquire their licenses independent of CA Clarity PPM.
- Crystal Reports Designer is required only for custom report development and is not included with CA Clarity PPM. You can download it from CA Support Online.
- Crystal Reports Designer 2008 SP5 client is available for customers to download for use and it is now included with Clarity.

Change History

Changes in CA Clarity PPM Release 13.2.00

Component	Description
Operating Systems	■ Added support for Microsoft Windows XP, SP3. ■ Dropped support for Microsoft Windows XP, SP2. ■ Added support for Microsoft Windows 8, 32-bit and 64-bit, all editions. ■ Dropped support for Microsoft Windows Vista, all editions. ■ Dropped support for Microsoft Windows Server 2008 (non-R2). ■ Added support for Mac OS X 10.8.2. ■ Dropped support for Mac OS X 10.4. ■ Added support for Oracle Enterprise Linux 6u2.

Component	Description
Server Java Runtime	■ Added support for Java JDK 1.7 update 21 and higher.
Mobile Operating Systems[1)]	■ Added support for Apple iOS 6.0 and higher. ■ Added support for Google Android 4.0 (Ice Cream Sandwich) and higher.
Database Server	■ Added support for Oracle 11.2.0.3 Standard and Enterprise Editions. ■ Added support for Microsoft SQL Server 2012 Enterprise Edition.
Application Server	■ Added support for Tomcat 7.0.33 or higher patch level (64-bit). ■ Dropped support for Tomcat 7.0.26 or higher patch level (64-bit).
Report Server	■ No changes.
Client Browser	**Note:** CA Technologies only supports browser versions that are supported by their associated third-party vendors. ■ Added support for Firefox 19.0.2. ■ Added support for Firefox ESR 17.0.4. ■ Dropped support for Firefox ESR 10.0.5. ■ Added support for Microsoft Internet Explorer 10 (Windows 8 only). ■ Added support for Chrome 25.0.1364.172m. ■ Added support for Apple Safari 6.0.2 (on Mac OS X 10.8.2 or higher).
Client Applications	■ Added support for Microsoft Project 2010-2013 32-bit and 64-bit, all editions. ■ Added support for Microsoft Excel 2010-2013 64-bit,all editions. ■ Added support for Microsoft PowerPoint 2010-2013 64-bit, all editions. ■ Added support for CA Open Workbench 2.1. ■ Dropped support for CA Open Workbench 2.0.
Database	■ Clarified support around running databases on software virtualized operating systems. ■ Dropped support for Oracle 10.2.0.5.

Notes:

- [1)]This support is for the Clarity Mobile Time Management application only.

Changes in CA Clarity PPM Release 13.1.00

Component	Description
Operating Systems	■ Added support for OEL Server 6u2. ■ Added support for Red Hat Enterprise Linux 5.5 64-bit for x86 chipsets: any maintenance release. ■ Dropped support for Red Hat Enterprise Linux 5 64-bit for x86 chipsets: any maintenance release. ■ Added support for Microsoft Windows Server 2008 R2 Service Pack 1. ■ Dropped support for Microsoft Windows Server 2008 R2 (64-bit) Standard Edition or Enterprise Edition. ■ Dropped support for Microsoft Windows Server 2003 64-bit Standard Edition or Enterprise Edition up to Service Pack 2. ■ Added support for SUSE Linux Enterprise Server 10 Service Pack 4 (64-bit) for x86 chipsets. ■ Dropped support for SUSE Linux Enterprise Server 10 (64-bit) for x86 chipsets: any maintenance release. ■ Added support for AIX 7.1: any maintenance release. ■ Dropped support for AIX 5.3: any maintenance release. ■ Added support for Microsoft Windows Vista Service Pack 2, all editions. ■ Dropped support for Microsoft Windows Vista, all editions. ■ Added support for Microsoft Windows 7 Service Pack 1, 32-bit and 64-bit, all editions. ■ Dropped support for Microsoft Windows 7, 32-bit and 64-bit, all editions.
Server Java Runtime	■ Added support for Oracle Java SE JDK 1.7.0_4 or higher patch level (64-bit). ■ Added support for HP JDK v7: 7.0.01 or higher patch level (64-bit). ■ Dropped support for HP JDK 6: 6.0.05 or higher patch level (64-bit). ■ Added support for IBM Java 7.0.0 64-bit: higher patch level (64-bit). ■ Dropped support for IBM Java 6 64-bit: SR6 or higher patch level (64-bit). ■ Dropped support for Sun J2SDK 1.6.0: version 1.6.0_20 or higher patch level (64-bit).

Component	Description
Application Server	■ Added support for Tomcat 7.0.26 or higher patch level (64-bit). ■ Dropped support for Tomcat 6.0.35. ■ Added support for Oracle Weblogic Server 12.1.1: any service pack (64-bit). ■ Dropped support for Oracle WebLogic Server 10.3: any service pack (64-bit). ■ Added support for IBM WebSphere Application Server 8.5 (64-bit). ■ Dropped support for IBM WebSphere Application Server 7.0.0.7 (64-bit).
Report Server	■ Added support for CA Business Intelligence Release 3.3 (BOXI 3.1 Service Pack 5). ■ Dropped support for CA Business Intelligence Release 3.2 (BOXI 3.1 Service Pack 3).
Client Browser	**Note:** CA Technologies only supports browser versions that are supported by their associated third-party vendors. ■ Added support for Firefox ESR 10.0.5 and higher release level. ■ Added support for Firefox 13.0 and higher release level. ■ Dropped support for Firefox 3.5. ■ Dropped support for Firefox 8.0. ■ Added support for Chrome 18.0.1.25.152m and higher release level.
Client Applications	■ Added support for Xcelsius Designer 2008 Service Pack 5. ■ Dropped support for Xcelsius Designer 2008 Service Pack 3. ■ Added support for Crystal Reports Designer 2008 Service Pack 5. ■ Dropped support for Crystal Reports Designer 2008 Service Pack 3.
Database	■ Clarified support around running databases on software virtualized operating systems. ■ Dropped support for Oracle 10.2.0.5.

Changes in CA Clarity PPM Service Pack 13.0.01

Component	Description
Client Browser	■ Added support for Firefox 10.0. ■ Dropped support for Firefox 8.0. ■ Added support for Firefox 3.6. ■ Dropped support for Firefox 3.5.
Application Server	■ Added support for Tomcat 6.0.35. ■ Dropped support for Tomcat 6.0.26.

Changes in CA Clarity PPM Version 13.0.00

Component	Description
Server Operating System	■ CA Technologies provides support only for upgrading customers with pre-existing installations on Solaris and HP-UX. ■ Added support for SUSE Enterprise Linux 11. ■ Added support for RHEL 6.0. ■ Dropped 32-bit operating systems.
Server DB	■ Added Microsoft SQL Server 2008 R2. ■ Dropped support for Microsoft SQL Server 2005.
Server Java Runtime	■ Dropped 32-bit support.
Application Server	■ Dropped 32-bit support.
Report Server	■ Added support for CA Business Intelligence Release 3.2. ■ Dropped support for Actuate. ■ Dropped support for CA Business Intelligence Release 3.0.
Client Browser	■ Added support for Firefox 8.0. ■ Added support for Safari 5.1.1. ■ Added support for IE 9.0. ■ Dropped support for IE6 and IE7.
Client Applications	■ Dropped support for Microsoft Project 2000, 2002 and 2003. ■ Defined support for Crystal Reports Designer 2008 as SP3 or higher (instead of any service pack).
SharePoint Server	■ Added support for SharePoint Server 2010. ■ Dropped support for SharePoint Server 2007.

FIPS Operating Mode Restrictions

Not all CA Clarity PPM platforms support RSA BSAFE Crypto-J 6.0.0.1 for FIPS 140-2 certification. The following table displays the compatible platforms and operating systems that RSA documents. While other platforms are likely to function correctly, CA Technologies cannot verify support for Crypto-J 6.0.0.1 on any other than those platforms listed here.

Platform	Operating System	Number of Bits	Release
Microsoft Windows	2008 Server	64	Oracle JDK 1.7 update 21
Red Hat Linux	Advanced Server 6.0	64	Oracle JDK 1.7 update 21
IBM AIX	AIX 6.1	64	IBM Java 7 (64-bit)

Notes:

- The file 'java.security' under '<JAVA_HOME>/jre/lib/security' lists all the security providers along with their preference order. CA Clarity PPM automatically places the Crypto-J provider above the SunJCE provider's location in the providers list. To use the Crypto-J provider with CA Clarity PPM, you must explicitly set the security provider entry in the first index position: security.provider.1=com.sun.crypto.provider.SunJCE. The index numbers for the other positions must be adjusted accordingly. Verify that the Sun SunJCE security provider is the first one.
- If you are using the IBM FIPS provider on AIX, you do not need to make the changes described in the previous bullet. AIX uses the IBM FIPS provider for FIPS mode.

IPv6 Network Compatibility Restrictions

CA Clarity PPM is certified to operate in an IPv6 networking environment with restrictions. Other configurations of CA Clarity PPM using IPv6 are likely to work but have not been certified. For mixed IPv6/IPv4 environments, it is assumed that the server instance uses two network interface cards, one configured for IPv6 and the other for IPv4.

Clarity Installations on Standard Configurations

Configuration	App Server	OS for App Server	Database	OS for Database	Status
1	Apache Tomcat 7.0.33 (64-bit)	Windows 2008 R2	MSSQL 2008 R2	Windows 2008 R2	Certified in pure IPv6 and mixed mode.
2	Apache Tomcat 7.0.33 (64-bit)	RHEL 6.2	Oracle Enterprise Edition 11.2.0.2	RHEL 6.2	Certified in pure IPv6 and mixed mode.

Configuration	App Server	OS for App Server	Database	OS for Database	Status
3	IBM Websphere 8.5 (64 bit)	RHEL 6	Oracle Enterprise Edition 11.2.0.2	Windows 2008 R2	Certified in mixed mode.
4	Oracle WebLogic 12.1.1 (64-bit)	AIX 7.1	Oracle Enterprise Edition 11.2.0.2	Windows 2008 R2	Certified in pure IPv6 and mixed mode.

Mail Server on a Microsoft Windows Configuration

Configuration	App Server	OS for App Server	Database	OS for Database	Mail Server	Status
5	Apache Tomcat 7.0.33 (64-bit)	Windows 2008 R2	MSSQL 2008 R2	Windows 2008 R2	hMail Server 10.3.3[1)]	Certified in pure IPv6 and mixed mode.

Business Objects Testing CABI 3.3

Configuration	App Server	OS for App Server	Database	OS for Database	BO	Status
6	Apache Tomcat 7.0.33 (64-bit)	Windows 2008 R2	MSSQL 2008 R2	Windows 2008 R2	CABI 3.3	Certified in mixed mode.
7	Apache Tomcat 7.0.33 (64-bit)	RHEL 6.2	Oracle Enterprise Edition 11.2.0.2	RHEL 6.2	CABI 3.3	Certified in mixed mode.

Mail Server on a Hybrid CA Clarity PPM Configuration with a different OS for APP and DB

Configuration	App Server	OS for App Server	Database	OS for Database	Mail Server	Status
8	Apache Tomcat 7.0.33 (64-bit)	Windows 2008 R2	Oracle Enterprise Edition 11.2.0.2	RH6	hMail Server 10.3.3[1)]	Certified in mixed mode.

Business Objects Testing CABI 3.3 on a Hybrid CA Clarity PPM Configuration with a different OS for APP and DB

Configuration	App Server	OS for App Server	Database	OS for Database	BO	Status
9	Apache Tomcat 7.0.33 (64-bit)	Windows 2008 R2	Oracle Enterprise Edition 11.2.0.2	RH6	CABI 3.3	Certified in mixed mode.

Notes:

[1)] hMail is an open source mail server used for testing purposes. (http://www.hmailserver.com/)

CA Business Intelligence Release 3.3 - (SAP BusinessObjects Enterprise XI 3.1 Service Pack 5) Supported Configurations

The following Business Objects configurations are supported for CA Clarity PPM. Additional information such as the minimum CA Business Intelligence (CABI) Release 3.3 hardware requirements can be found in the CA Business Intelligence documentation. For information about virtualization support, refer to the following SAP document: *Business Objects Support Statement – VMWare ESX Server*.

The application servers listed in the following table indicate the minimum releases tested for CA Business Intelligence Release 3.3 (BOXI Release 3.1 Service Pack 5) in integration with CA Clarity PPM. Subsequent releases (indicated by the last number in the name) are supported, but not necessarily tested in integration with CA Clarity PPM. The same applies to the application server JDKs.

Note: If there are network editions of any application servers listed in the following table, those network editions are not supported. Unless otherwise specified, only 32-bit versions of the application servers (with their underlying JDK) can be used.

Running CA Business Intelligence Release 3.3 has not been tested on a CA Clarity PPM system using a UNIX or Linux operating system and configured with SQL Server. In such cases, CA Technologies recommends running CA Business Intelligence Release 3.3 on a separate Windows server.

Operating System	Server Version	CABI 3.3 Application Server/JDK	Clarity Database Provider/Data Connector
Microsoft Windows	■ Windows Server 2008 SP2 32-bit and 64-bit Standard or Enterprise Edition[1), 2)] ■ Windows Server 2008 R2 64-bit[1), 2)]	■ Tomcat 6.0 (OEM provided)/JDK 1.6.0_xx	■ MS SQL Server 2008/ODBC SQL Native Client 10, MS SQL Server 2008 JDBC (Sqljdbc.jar 3.0), OLE DB SQL Native Client 10 ■ MS SQL Server/Microsoft JDBC 1.2 for SQL Server 2005, Microsoft ODBC SNAC (native client), Microsoft OLEDB SNAC (native client) ■ Oracle 11g R2/Oracle Net Client 11g R2, Oracle JDBC 11g R2 (Use 32-bit Oracle client installer.)
Linux	■ Red Hat Enterprise Server 5.5 (64-bit)[3)] ■ Red Hat Enterprise Server 6 (64-bit)[4)] ■ SUSE Enterprise Linux 10 Service Pack 2 (64-bit) ■ SUSE Enterprise Linux 11 (64-bit)	■ Tomcat 6.0 (OEM provided)/JDK 1.6.0_xx	■ Oracle 11g R2/Oracle Net Client 11g R2 (11.2), Oracle JDBC 11g R2 (Use 32-bit Oracle client installer.)
Solaris	■ Solaris 10 (64-bit SPARC)[5)]	■ Tomcat 6.0 (OEM provided)/JDK 1.6.0_xx	■ Oracle 11g R2/Oracle Net Client 11g R2 (11.2), Oracle JDBC 11g R2 (Use 32-bit Oracle client installer.)
AIX	■ AIX 6.1[6)] ■ AIX 7.1[7)]	■ Tomcat 6.0 (OEM provided)/JDK 1.6.0_xx	■ Oracle 11g R2/Oracle Net Client 11g R2 (11.2), Oracle JDBC 11g R2 (Use 32-bit Oracle client installer.)
HP-UX	Not supported.		

Notes:

- [1)]Business Objects supports and recommends installation of all Microsoft critical patches for the operating systems listed.
- [2)]If utilizing Query as a WebService (QaaWs), .NET Framework 2.0 is required.
- [3)]Minimum patch requirements for RHEL 6: compat-libstdc++-33-3.2.3-69.el6.i686 (compatibility standard C++ library from GCC 3.3.4); glibc-2.12-1 (RedHat advisory RHBA-2007:0619-3); libXext.i386; libncurses.so.5
- [4)]Minimum patch requirements for Solaris 10: SUNWgzip; SUNWzlib; SUNWscpu; SUNWbash; SUNWbcp, SUNWxcu4 XCU4 Utilities; SUNWxwfnt; SUNWxwplt; SUNWlibC; SUNWeu8os - American English/UTF-8 L10N For OS Environment User Files; SUNWeuluf - UTF-8 L10N For Language Environment User Files; SUNWuiu8 - Iconv modules for UTF-8 Locale; SUNWulcf - UTF-8 Locale Environment Common Files; SUNWmfrun; SUNWxwice.
- [5)]Minimum patch requirements for AIX 6.1: Technology Level 2 SP1; IBM C++ Runtime Environment Components for AIX => xlC.aix61.rte:10.1.0.0.
- [6)]Minimum patch requirements for AIX 7.1: Technology Level 7.1.0.0 / 7100-00-00-0000; IBM C++ Runtime Environment Components for AIX => xlC.aix61.rte:11.1.0.1.

Chapter 5: Accessibility Features

This section contains the following topics:

Product Enhancements (see page 41)
Set Up Accessibility for a User (see page 44)
Keyboard Shortcuts (see page 44)

Product Enhancements

CA Technologies is committed to ensuring all customers can successfully use its products and supporting documentation to accomplish business tasks. Enable the accessibility mode to optimize contrast in the user interface and assist a screen reader for those users who need assistance.

CA Clarity PPM accessibility features are best when used with the Mozilla Firefox 13 browser and the Job Access With Speech (JAWS) screen reader.

CA Clarity PPM inherits accessibility enhancements from Windows-based and Macintosh-based environments in the following areas:

- Display
- Sound
- Keyboard
- Mouse

Note: The information in the following topics applies to Windows-based and Macintosh-based applications. Java applications run on many host operating systems, some of which already have assistive technologies available to them. For these existing assistive technologies to provide access to programs written in JPL, they need a bridge between themselves in their native environments and the Java Accessibility support that is available from within the Java Virtual Machine (Java VM). This bridge has one end in the Java VM and the other on the native operating systems, so it will be slightly different for each platform it bridges to. Oracle is currently developing both the JPL and the Win32 sides of this bridge.

Display

To increase visibility on your computer display, you can adjust the following options:

Font style, color, and size of items

Lets you choose font color, size, and other visual combinations.

Screen resolution

Lets you change the pixel count to enlarge objects on the screen.

Cursor width and blink rate

Lets you make the cursor easier to find or minimize its blinking.

Icon size

Lets you make icons larger for visibility or smaller for increased screen space.

High contrast schemes

Lets you select color combinations that are easier to see.

Sound

Use sound as a visual alternative or to make computer sounds easier to hear or distinguish by adjusting the following options:

Volume

Lets you turn the computer sound up or down.

Text-to-Speech

Lets you hear command options and text read aloud.

Warnings

Lets you display visual warnings.

Notices

Gives you aural or visual cues when accessibility features are enabled or disabled.

Schemes

Lets you associate computer sounds with specific system events.

Captions

Lets you display captions for speech and sounds.

Keyboard

You can make the following keyboard adjustments:

Repeat Rate

Lets you set how quickly a character repeats when a key is pressed.

Tones

Lets you hear tones when pressing certain keys.

Sticky Keys

Lets those who type with one hand or finger choose alternative keyboard layouts.

Mouse

You can use the following options to make your mouse faster and easier to use:

Click Speed

Lets you choose how fast to click the mouse button to make a selection.

Click Lock

Lets you highlight or drag without holding down the mouse button.

Reverse Action

Lets you reverse the functions controlled by the left and right mouse keys.

Blink Rate

Lets you choose how fast the cursor blinks or if it blinks at all.

Pointer Options

Let you do the following:

- Hide the pointer while typing
- Show the location of the pointer
- Set the speed that the pointer moves on the screen
- Choose the pointer's size and color for increased visibility
- Move the pointer to a default location in a dialog box

Set Up Accessibility for a User

Use these steps to set up accessibility for a user.

Follow these steps:

1. Open Administration, and from Organization and Access, click Resources.
2. Click the name of the resource.

   The properties page appears.
3. Select the appropriate Accessibility check boxes:

   Screen Reader Optimized UI

   Determines whether the user interface is optimized so that a screen reader can better recognize the features. Select this check box for any visually impaired user who is using a screen reader.

   Default: Cleared

   High Contrast Color Mode

   Determines whether a specific UI theme to assist color-deficient users is used. If selected, the user sees the High Contrast UI theme.

   Default: Cleared
4. Save your changes.
5. (Optional) If you selected the Screen Reader Optimized UI, verify that the screen reader software is running on the user's computer.
6. If the user is logged in to CA Clarity PPM, instruct the user to log out and log back in.

Keyboard Shortcuts

Keyboard Shortcuts for Basic Features

The following table shows the keyboard shortcuts for basic features available on all CA Clarity PPM pages.

Feature	Key Combination
Home Menu	Ctrl+Alt+h
Administration Menu	Ctrl+Alt+a
Favorites Menu	Ctrl+Alt+f

Feature	Key Combination
Back	Ctrl+Alt+b or Alt+Left Arrow
Home Page	Ctrl+Alt+Home
Refresh	Ctrl+Alt+F5
Search	Ctrl+Alt+s
History	Ctrl+Alt+v
Help	F1

Keyboard Shortcuts for CA Clarity PPM Actions

The following table shows keyboard shortcuts for actions on CA Clarity PPM pages.

Action	Key Combination	Alternate Accessibility Key Combination
Activate a field editor (for example, a date picker)	Enter	Alt+Enter
Close a popup	Esc	Shift+Esc
Open a tab menu	Enter	Alt+Enter
Move left, right, up, or down in a menu	Left Arrow Right Arrow Up Arrow Down Arrow	Alt+Up Arrow Alt+Down Arrow Alt+Up Arrow Alt+Down Arrow
Select a highlighted menu item	Enter	Alt+Enter
Open a link in a list page	Ctrl+Enter	
Select or clear a check box **Note**: Focus must be on the checkbox.	Space Bar	
Expand a hierarchical list **Note**: Focus must be on the + in the hierarchical list.	Space Bar	

Keyboard Shortcuts for Lists

The following table shows the keyboard shortcuts for lists.

Action	Mode	Keyboard Combination
Switch between edit and display mode in a list	Display, Edit	Enter
Move from cell to cell through a list (grid)	Display	Left Arrow Right Arrow Up Arrow Down Arrow
Move to different areas within a list: portlet icons, column headers, body of list, buttons	Display	Tab (Forward) Shift+Tab (Back)
Switch to display mode	Edit	Esc or Enter
Move left or right within a cell	Edit	Left Arrow Right Arrow
Move from editable cell to editable cell	Edit	Tab (Forward) Shift+Tab (Back)
Move to the end of a row **Note**: If the action is on a TSV row, repeat the keyboard combination to leave the TSV section.	Edit	Ctrl+Right Arrow
Move to the beginning of a row	Edit	Ctrl+Left Arrow
Page up or down	Display, Edit	Ctrl+Alt+Up Arrow Ctrl+Alt+Down Arrow
Move to the top or bottom of a list **Note**: If the action is in a TSV cell, repeat the keyboard combination to leave the TSV section.	Display, Edit	Ctrl+Up Arrow Ctrl+Down Arrow
Open a drop-down list or a date selector	Edit	Enter
Move through selection items in a drop-down	Edit	Up Arrow Down Arrow
Select a highlighted value in a drop-down or a date selector	Edit	Enter
Highlight a date in a date selector	Edit	Down Arrow
Add a new line in a long text area	Edit	Ctrl+Enter

Appendix A: Third-Party Acknowledgements

The license information for third-party utilities and software that CA Clarity PPM uses is available in the \Bookshelf Files\TPSA folder of the CA Technologies Bookshelf.

You can open the license information on the CA Technologies Bookshelf. Click the View TXT link next to Third-Party Acknowledgments.