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Chapter 1: Installation and Upgrade

This section contains the following topics:

About this Guide (see page 7)
What's New for the Upgrade Process (see page 7)
About Add-ins and Upgrades (see page 8)
What's New for the Report Server and Reports (see page 10)
Upgrade Tips (see page 13)

About this Guide

This guide provides information about the following:

- Post-upgrade tasks
- CA Clarity PPM v13 features and enhancements and upgrade actions required for them

Look for recent updates to the Change Impact and Upgrade document before upgrading to CA Clarity PPM v13. The most recent edition of this document and all CA Clarity PPM guides are available from the CA Clarity PPM v13 bookshelf posted to the CA Clarity PPM product support area and documentation area on CA Support Online (support.ca.com).

Important! Review this entire guide before upgrading to CA Clarity PPM v13. This guide provides insight on planning the upgrade and helps you determine the upgrade options that best suit your business needs. Use this guide to help plan your CA Clarity PPM v13 training and roll-out efforts.

What's New for the Upgrade Process

New Log File Names

Log file names have changed. Previously, log files had the name format *-niku.log (for example, bg-niku.log). This format has been changed to *-ca.log (for example, bg-ca.log).
Dropped Languages

The following languages are not available for CA Clarity PPM v13:

- Korean
- Simplified Chinese
- Traditional Chinese

During an upgrade, existing users of these languages are reset to use English.

Upgrade Action: None

About Add-ins and Upgrades

Note the following actions to be taken after you have add-ins or connectors upgraded:

- Apply the Upgrade Ready content for those items that you are actively using.
- Best Practice: If you modified stock CA Clarity PPM content, copy the modified content before upgrading, apply the new incoming stock CA Clarity PPM content, and then retrofit the modifications to the new content.
- Read the PMO Accelerator Release Notes for important information about what has changed for PMO Accelerator v3.0.
- Review the System: Clarity Content add-in for upgrade ready content (for example, Role Capacity portlet). Apply the changes to accept the new v13.0 upgraded content.
- Review the Studio views and system content and manually upgrade as needed.

The upgrade preserves all pre-existing Studio view configurations. If an existing view has configurations or if the object for the view is partitioned, the system does not automatically upgrade the view and/or the partition.

Use the Studio Views list page to determine which views were not automatically upgraded.

Some tips on reviewing the views:

- The Last Version column identifies changes to stock views in CA Clarity PPM v13.
- If a view was automatically upgraded as part of the upgrade process, a check mark appears in the view’s Upgraded column. No further action is required.
- If a view was changed in CA Clarity PPM v13 but was not upgraded due to pre-existing configurations, decide if you want to apply the changed view.

Look for views with the following:

Last Version column=13.0 and the Upgraded column= unchecked.
■ Verify your NSQL queries.

During the upgrade, the NSQL validator script automatically checks NSQL queries. Results are written to the admin.log. This log contains:

- Query name
- Query ID
- Content Source
- Query ID from CMN_NSQL_QUERIES of the query that failed validation

There are database schema changes in this release. You must correct invalid NSQL queries for portlets to work. See the chapter in this document named "Data Model Changes."

Upgrade action:

If the query can be changed in Studio:
1. Go to the NSQL tab for each failing query.
2. Click the Preview button.
3. Review the errors.
4. Repair the broken query constructs or fields.
5. Click the Preview button.
6. Confirm the NSQL query is valid.

If the query is in use by active portlets and cannot be edited in Studio:
1. Use the XML Open Gateway (XOG) to export the failing query.
2. Correct the broken query constructs or fields.
3. Use XOG to import the corrected query.
4. Click the Preview button.
5. Confirm the NSQL query is valid.
What's New for the Report Server and Reports

This release of CA Clarity PPM supports CABI 3.2 and BusinessObjects Reporting Server. See the Compatibilities appendix in the Release Notes for a complete list of supported CABI 3.2 configurations.

The following changes were made to reports:

- The following stock reports were removed due to functionality that is no longer offered in CA Clarity PPM:
  - Pre-Billing Report
  - Invoice Register Report
  - Customer Invoice Report

- CA Clarity PPM v13 does not support Actuate. Any stock CA Clarity PPM report definitions for Actuate under Reports and Jobs will be deleted during the upgrade.

- A new Investments Financial universe has been added to this release: CA PPM Investment Financials v13.

- The existing CA PPM Investments Financial universe was modified to provide backward compatibility with custom reports written for previous versions.

- The following change was made to shared reports starting with CA Clarity PPM v12.1:
  - The report can be viewed in PDF format only. A shared report does not use the BusinessObjects report viewer.
Changes to Existing CA PPM Universes

The following changes were made to the existing CA PPM Investment Financials universe to support the v13.0 database schema:

- Added derived tables to the universe to mirror the Group By and Sub-Group By in the Financial Plans for Cost and Budget.

```sql
SELECT l.pk_id cost_plan_id,
    MAX(CASE WHEN l.seq = 0 THEN
        CASE WHEN value = 'charge_code_id' THEN 'LOOKUP_CHARGE_CODES'
        WHEN value = 'role_id' THEN 'SCH_BROWSE_ROLE'
        WHEN value = 'transaction_class_id' THEN 'FIN_TRANSCLASSES'
        WHEN value = 'lov1_id' THEN 'FIN_BROWSE_USER_LOV1'
        WHEN value = 'lov2_id' THEN 'FIN_BROWSE_USER_LOV2'
        ELSE NULL END
    ELSE NULL END) AS plan_by_1_code,
    MAX(CASE WHEN l.seq = 0 THEN ln.name ELSE NULL END) AS plan_by_1_name,
    MAX(CASE WHEN l.seq = 1 THEN
        CASE WHEN value = 'charge_code_id' THEN 'LOOKUP_CHARGE_CODES'
        WHEN value = 'role_id' THEN 'SCH_BROWSE_ROLE'
        WHEN value = 'transaction_class_id' THEN 'FIN_TRANSCLASSES'
        WHEN value = 'lov1_id' THEN 'FIN_BROWSE_USER_LOV1'
        WHEN value = 'lov2_id' THEN 'FIN_BROWSE_USER_LOV2'
        ELSE NULL END
    ELSE NULL END) AS plan_by_2_code,
    MAX(CASE WHEN l.seq = 1 THEN ln.name ELSE NULL END) AS plan_by_2_name
FROM   odf_multi_valued_lookups l
LEFT OUTER JOIN cmn_lookups_v ln ON l.value = ln.lookup_code
    AND ln.lookup_type = 'LOOKUP_FIN_GROUPING_ATTRIBUTES_CAPTIONS'
    AND ln.language_code = @Prompt('param_language','A',,mono,free,,{'en'})
WHERE  l.attribute = 'grouping_attributes'
GROUP BY l.pk_id
```

- Changed the links in the Investment Financials Universe for budget plan details and cost plan details. The previous fields were different from the new v13 fields:

<table>
<thead>
<tr>
<th>v12.x Field</th>
<th>v13.0 Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fin_cost_plan_details.transclass_id</td>
<td>Fin_cost_plan_details.transaction_class_id</td>
</tr>
<tr>
<td>Fin_cost_plan_details.prRole_id</td>
<td>Fin_cost_plan_details.role_id</td>
</tr>
<tr>
<td>Fin_cost_plan_details.prChargeCode_ID</td>
<td>Fin_cost_plan_details.charge_code_id</td>
</tr>
</tbody>
</table>
The Legacy Universe has been updated to remove references to fields that have been changed or are no longer in the Clarity data schema. See the Data Model Changes (see page 41) for a list of changed and deprecated fields.

**Upgrade Considerations**

The following actions should be considered before you upgrade to this release.

**Upgrade actions:**

- If you customized or changed any out-of-the-box reports, make a backup copy of the modified reports. Place the copies in a separate custom folder under the Public Folders/CA Reports/CA Clarity directory. The out-of-the-box reports are overwritten when the new v13.0 reports are installed.

- If you used any Clarity universe objects, create a custom universe and link it to the Clarity universe. The Clarity universe is overwritten when the new v13.0 universes are installed.
Upgrade from v12.1 or v12.1.1

If you previously purchased the GSE Universes from CA Services, these universes are not overwritten by the v13.0 out-of-the-box universes.

There are no new user or security configurations; v13.0 uses the same CABI 3.2 requirements and trusted authentication integration with CA Clarity PPM as v12.1 and v12.1.1.

Upgrade Actions:

Pre-Upgrade:

- If you modified any out-of-the-box reports, move the modified reports to a custom report folder on the BusinessObjects server before installing the v13 reports.

Post-Upgrade

- Manually restart scheduled reports. Scheduled reports configured before the upgrade to 13.0 will not automatically run after the upgrade.
- If LDAP is not configured, synchronize the user lists in BusinessObjects and CA Clarity PPM by running the Create Business Objects Users job. If the job is not run, a CA Clarity PPM user cannot run or open a report unless a BusinessObject account is created explicitly for the user.

The job creates a user in BusinessObjects for every user in CA Clarity PPM. The user created in BusinessObjects is given an encrypted password. If users want to log in to the BusinessObjects server using the assigned password, the user ID and password must be reset under BusinessObjects Administration.

Upgrade Tips

Preupgrade

- You must have the standard base calendar available in your CA Clarity PPM application before you upgrade. If you deleted the shipped calendar called Standard, you must create it before upgrading. Contact Support if your CA Clarity PPM instance is missing the Standard base calendar. (CLRT-63337)
- Before upgrading, process all "In progress" transactions into WIP.

Verify the following:
- imp_transactionimport and ppa_transcontrol are clear.
- WIP adjustments are approved.

Review and fix:
- All "Invalid transactions"
Upgrade Tips

- **Review Time Slices.**
  Verify that the table is slicing out only the data required. If extra data is getting sliced, that effort adds to database size and performance.

- **Complete and put on HOLD all processes.**

- **Remove or delete process history, notifications, jobs or logs, looking for items that do not need to be retained.**

- **Pause all scheduled jobs.**

**Post Upgrade**

- **Ask your functional experts to review your upgraded test system side-by-side with a working preupgrade system.**
  
  **Tip:** Use dual monitors for side-by-side comparison.

- **Review the app-ca.log after the functional experts have used the test environment and look for new errors.**
Chapter 2: Administration

This section contains the following topics:

- **Auto-Suggest Lookups and Multivalued Lookups in Lists** (see page 15)
- **New User Group and Access Rights** (see page 15)
- **Configurable Notifications** (see page 16)
- **XDM Forms** (see page 17)
- **New Accessibility Options** (see page 17)
- **Rooms and Equipment, Events, and Event Calendar Removed** (see page 18)
- **Auto-Numbering Link Removed from the Data Administration Menu** (see page 18)

### Auto-Suggest Lookups and Multivalued Lookups in Lists

Auto-suggest displays possible selection values to a user based on keyboard input. The following lookup changes occurred for this release:

- Auto-suggest is turned on for all lookups by default, but it can be turned off by opening the lookup and clicking the Auto-Suggest tab, then clearing the Auto Suggest Enabled check box.
  
  Auto-suggest for OBS lookups cannot be turned off.

- Dependent Lookups are not auto-suggest enabled.

- Multivalued lookups can be configured to work within lists and grids.

Lookups were configured as pull-down lookups in v12.1.1 because it provided easier and quicker access in assigning values. Consider configuring these lookups as browse lookups because auto-suggest makes the assignment of the lookup value easier. In addition to ease of use, browse lookups have a performance benefit because the values do not have to be retrieved up-front, which makes pages render faster.

**Upgrade action:** (Optional) Review pages that have query lookups to see if you want to display additional attribute information in the auto-suggest display to help the user.

### New User Group and Access Rights

Greater access control is provided for the Account Settings, Organizer, and Projects pages. You can control who sees the links in the Home menu and navigates to the pages for these features. A user must be granted the explicit right to see each of these features.
In previous releases, the rights to see the pages were granted by default. To allow existing customers who wish to continue to provide these rights to users as a whole, a new out-of-the-box user group named Basic group for user access is available with this release. The new user group provides the new access rights.

**For Upgrading Customers**

All users are assigned to the group, and the new access rights are assigned to preserve existing functionality. You can remove the rights from the group if you wish, or you can add additional rights. The following table lists the new access rights assigned to the group for upgrading customers.

<table>
<thead>
<tr>
<th>New Access Right</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Account Settings - Navigate</td>
<td>Makes the Account Settings link available in the Home menu so that a user can navigate to the Account Settings page.</td>
</tr>
<tr>
<td>Organizer - Access</td>
<td>Makes the Organizer link available in the Home menu so that the user can open the Organizer page and view the Action Items and Notifications portlets.</td>
</tr>
<tr>
<td>Projects - Navigate</td>
<td>Makes the Projects link available in the Home menu so that a user can navigate to the Projects list page and open projects.</td>
</tr>
</tbody>
</table>

**For New Customers**

All users are assigned to the group by default, but no access rights are assigned. This gives a new customer the option of adding the rights that are needed. You can modify the group’s access rights as needed.

**Upgrade action**: None

**Configurable Notifications**

Configurable notifications that allow administrators to add attribute information and any additional text information to a CA Clarity PPM notification are new for this release. The following changes are new:

- Subject and message body of the notifications can be configured by users.
- If you are changing a Studio object notification template, you can add Studio links to the notification that allow you to go directly to the project properties or change request instance.
Tips:

- Look at your most frequently used notifications and modify the notification template with attribute information that will provide better context for your end-users.
- You can rebrand the HTML email template that is sent for email notifications.
- Add attribute context information to the notification subject line so users can quickly assess the notification.
- For a process definition, you can configure a notification template for action items. The notification template can be changed even when the process definition is in an active state. The system picks up the latest notification template changes on the next step that sends out action items.
- Notification templates can be migrated between systems using the XML Open Gateway. This removes the necessity of manually reconfiguring your notifications.
- You must localize any changes made to the standard notification templates provided with CA Clarity PPM.

Upgrade action: None

**XDM Forms**

The creation of XDM forms is not supported in this release. If you are upgrading, you can continue to use existing XDM forms, but you cannot modify existing forms or create new ones. XDM forms are not available for new customers.

Upgrade action: Make any needed changes to XDM forms before you upgrade. You cannot make XDM changes after the upgrade.

**New Accessibility Options**

The following accessibility options for users with visual disabilities have been added:

**Screen Reader Optimized UI**

Determines whether the user interface is optimized so that features are better recognized by a screen reader. Select this check box for any visually impaired user who is using a screen reader.
High Contrast Color Mode

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

See the Administration Guide for more information on these new options.

Upgrade action: None

Rooms and Equipment, Events, and Event Calendar Removed

All existing entries for the following will be deleted and will not be accessible after the upgrade to this release:

- Rooms and Equipment. This functionality allowed you to book rooms and equipment (for example, laptops and projectors) as resources.
- Events. This functionality let you create a meeting or other special occasions and invite multiple resources to attend.
- Event Calendar. This calendar showed milestones such as meetings or appointments to which you were invited.

Upgrade action: None

Auto-Numbering Link Removed from the Data Administration Menu

The Auto-Numbering link is no longer located in the Data Administration menu available from the Administration menu. To manage auto-numbering, use the functionality available in Studio.

See the Studio Developer’s Guide for more information.

Upgrade action: None
Chapter 3: Project Management

This section contains the following topics:

New Gantt Page (see page 19)
Miscellaneous Project Management Changes (see page 20)
New Project Attribute (see page 20)
Project Management XML Open Gateway (XOG) Changes (see page 21)

New Gantt Page

The Work Breakdown Structure (WBS) page has changed. The previous WBS page has been removed and replaced with a new Gantt editor page. There are functional differences between the previous WBS page and the v13 Gantt editor. The new Gantt editor includes drag-and-drop, inline insert, toolbar, and full hierarchy support.

Navigation to the new Gantt editor page has changed:

- The Gantt button on the Task List page has been removed.
- The Gantt editor opens in its own browser window.
- New Studio links have been provided to the Gantt editor. Note the following that occurs during an upgrade:
  - Fields configured to link to the previous WBS page are removed from the configuration for the list or portlet. If the field is a custom-added virtual field, redefine the field and select the new link to the new Gantt editor.
  - Fields configured to link to the previous pop-up graphical Gantt chart are replaced by a link to the new Gantt editor.

See the Project Management User Guide for more information about the new Gantt page.

Preupgrade action: Review your Studio configurations to identify lists and grid portlets that contain links to the WBS page. The upgrade removes these fields from the list or portlet.

Upgrade action:

- If you configured the WBS view in your previous release, reapply your Studio and end-user configurations to the new Gantt page.
- If you previously configured lists or grid portlets with fields that linked to the WBS page, redefine the fields and add a link to the new Gantt editor.
### Miscellaneous Project Management Changes

The following changes have been made in Project Management:

- You now have the option to assign non-project team members directly to tasks.
- When you filter the *Resource Planning: Capacity - Role Capacity* portlet, rows that have no results within the filter criteria are filtered out. This means that empty rows are hidden.
- A project baseline is no longer required to calculate project and task costs.
- You can now view and edit time-varying ETC on task assignments.

**Upgrade action:** If you previously configured the Role Capacity portlet, you must manually apply the portlet to get the new filter options. See the "Installation and Upgrade" chapter for more information.

### New Project Attribute

A new attribute named Assignment Pool has been added to the Project object. The attribute is a required field, so it is added to the Project Create page automatically at the top of the page. You can configure the page and move the new attribute to the position on the page you want.

**Upgrade action:** (Optional) Adjust the default position of the Assignment Pool attribute on the Project Create page.

**Follow these steps:**

1. Open Administration, and from Studio, click Objects. The objects list appears.
2. Enter Project in the Object Name field and click Filter.
3. Click Project in the list that appears. Properties for the Project object appear.
4. Click Views.
5. In the Project Properties row, click *Layout: Create*. The layout for the create page appears.
7. In the Layout section, highlight Assignment Pool in the Selected column list and move it to the position you want using the arrow keys.
8. Save your changes.
Project Management XML Open Gateway (XOG) Changes

Project XOG: Billing-related attributes billToCompanyCode, billingProjectCode, billExpenses and batchCycle have been deprecated from the Project XOG. These values will be ignored during xog-in.

The billingType attribute only supports types Standard('S') and Internal('I').

Types Contract('P') and Retainer ('R') cannot be used in this release.

Upgrade actions: None
### Chapter 4: Financial Management

This section contains the following topics:

- **Multiple Grouping Attributes in Cost Plan** (see page 23)
- **Process Enabled Cost Plans** (see page 23)
- **Improvements Using the Resource Plan** (see page 24)
- **Simple Budget Changes** (see page 24)
- **Entity Plan Defaults** (see page 25)
- **System Currency** (see page 26)
- **External Billing Removed** (see page 26)
- **Self View and Aggregate View Removed** (see page 26)
- **Test Rate Matrix Removed** (see page 26)
- **Changes to Financial Management Links** (see page 27)
- **Financial XML Open Gateway (XOG) Changes** (see page 27)

### Multiple Grouping Attributes in Cost Plan

The Group By and Sub-Group By fields have been replaced by a multivalued lookup field named *Grouping Attributes*. A cost plan now has ten available grouping attributes instead of five. You can plan by all ten attributes instead of two. For more information on grouping attributes, see the *Financial Management Guide*.

The attributes `plan_type_code` and `sub_plan_type` for the object `costplan` have been removed.

**Upgrade actions:**

- Update custom portlets to remove any reference to the deprecated attributes.
- Financial planning views will be refreshed during the upgrade. All customizations will need to be updated after the upgrade is complete.
- `PLAN_DETAIL_1_KEY` and `PLAN_DETAIL_2_KEY` columns have been dropped from table `FIN_COST_PLAN_DETAILS`. Any custom reference to these columns must be handled prior to the upgrade process.

### Process Enabled Cost Plans

Cost plans are processed-enabled in this release. You can create processes on financial plans.

**Upgrade action:** None
Improvements Using the Resource Plan

The following Financial Management improvements have been made using Resource Planning:

- Getting cost or rate from the rate matrix
  You can create or populate a plan from assignments or allocations the way it is done in CA Clarity PPM v12. Changes have been made to rate calculations to get better and more accurate rates.

- Null grouping attributes
  You can create a plan detail with a null grouping attribute using a resource plan. This enhancement removes some restrictions such as requiring a team member to be financially enabled or assigned a role.

- Insta-slice
  This feature is turned off for the Populate from Resource Plan feature. Time slices are created when the time slice job runs.

**Upgrade action:** None

Simple Budget Changes

The following changes were made to the Simple Budget for this release:

- Three new fields were added to the Financial Metrics section of the simple budget:
  - IRR (Internal Rate of Return)
  - MIRR (Modified Internal Rate of Return)
  - Planned Payback Period (in months)

- Four new fields were added to the Financial Metrics Options section:
  - Investment Rate
  - Initial Investment
  - Use System Rate for Total Cost of Capital
  - Use System Reinvestment Rate
The following Simple Budget forecast fields were removed:
- Forecasted Benefit
- Forecasted Benefit Finish
- Forecasted Benefit Start
- Forecasted Breakeven
- Forecasted Cost
- Forecasted Cost Finish
- Forecasted Cost Start
- Forecasted NPV
- Forecasted ROI

The following fields were renamed:
- Forecast equals Budget is now Budget equals Planned Values.
- Calculate NPV is now Calculate Financial Metrics.

See the Financial Management User Guide for more information.

The Simple Budget page will be refreshed during the upgrade if it was not customized.

**Upgrade action:**
- If any of the user-defined process uses deprecated simple budget forecast attributes, the process definition is invalidated. Update the process definition to remove references to the deprecated attributes.
- If any custom portlets use simple budget forecast attributes, update the portlets to remove references to the deprecated attributes.
- If the investment budget view was customized prior to this release, new IRR/MIRR attributes will not display on an investment's budget page out-of-the-box. Reconfigure the investment budget view in Studio to add the new IRR/MIRR attributes.
  
  If the investment budget view was not customized, it is refreshed during the upgrade and the new out-of-the-box attributes are visible.

---

**Entity Plan Defaults**

Entity plan defaults have been updated to support multiple grouping attributes.

Entity plan detail defaults functionality is not available with this release.

**Upgrade action:** None
System Currency

System currency setup is required before you can complete the following actions:

- Access the following pages:
  - Project Financial Properties
  - Project Simple Budget
- Import an entity using the XML Open Gateway

Upgrade action: None

External Billing Removed

All existing External Billing will be deleted and will not be accessible after the upgrade to this release.

Upgrade action: Any open billing cycles should be processed before you upgrade.

Self View and Aggregate View Removed

In previous versions, CA Clarity PPM supported four plan detail views: Self, flat, aggregate, and billing.

CA Clarity PPM v13.0 supports two:

- Flat (Investment Currency View)
- Billing (Billing Currency View)

Note: In plan detail views, the nongrouping fields are hidden in this release. In CA Clarity PPM v12, the Group By and Sub-Group By columns are always visible, even if only one group by attribute is used.

Upgrade action: None

Test Rate Matrix Removed

The Test Rate Matrix feature and the Test Matrix button have been removed and will not be accessible after the upgrade to this release.

Upgrade action: None
**Changes to Financial Management Links**

The following changes have been made to links in Financial Management:

- Administrative Methods - Removed
- Tax Authorities - Removed
- Define Matrix - Renamed to *Cost Plus Codes*

**Upgrade action:** None

**Financial XML Open Gateway (XOG) Changes**

- Cost plan details imported through the XML Open Gateway must have start and end dates that match a valid fiscal period. For CA Clarity PPM v12 matching a fiscal period was not required. The following script segments show the differences between CA Clarity PPM v12 and v13.0.

  v12 cost plan detail:
  ```xml
  <PlanData cost="700.0" end_date="2011-01-31"
             revenue="750.0" start_date="2011-01-16" units="7.0"/>
  ```

  v13.0
  ```xml
  <Cost>
    <segment finish="2008-01-31T00:00:00" start="2008-01-01T00:00:00"
              value="100.0"/>
  </Cost>
  ```

- Fiscal period is now included in the XML script for importing entities.
- Financial planning XML Open Gateway scripts are not backward compatible.
- Company XOG: Attribute batchcycle has been deprecated. The attribute value will be ignored during xog-in.
- Entity XOG: The attributes defaultBatchCycle and defaultRemitToLocation have been removed and cannot be used as part of an entity xog-in.
- Project/Investment XOG: The forecastEqualsBudget and calculatePresentValueInfo attributes have been deprecated from the Investment XOG. These values will be ignored during xog-in.
  
  Use the attributes setBudgetValuesEqualToPlannedValues and calculateFinancialMetrics instead. For details about new simple budget attributes, see the *XML Open Gateway Developer Guide*.
- Investment simple budget forecast attributes have been deprecated and values for these attributes will be ignored during xog-in.

**Upgrade action:** None
Chapter 5: Studio

This section contains the following topics:

UI Themes (see page 29)
Object Actions (see page 30)
Custom Fiscal Time-scaled Values (see page 30)
Correcting the CA Clarity PPM URL for HTML and Xcelsius Portlets (see page 30)
Charts (see page 31)
HTML Portlet Changes (see page 32)
Tab Changes (see page 32)
Export to PowerPoint or Excel with Internet Explorer 9 (see page 33)
New Xcelsius Stock Dashboards (see page 33)

UI Themes

UI themes developed and used in CA Clarity PPM v12.1.1 cannot be used in this release. You must recreate any custom UI themes used for your application.

Changes to UI themes:

■ The UI theme administration was previously located in Clarity System Administration (CSA), and the information was stored in the file system. Starting with this release, the administration is handled in Studio, and UI theme information is stored in the database.

■ You can migrate a UI theme from one system to another using the XML Open Gateway.

■ UI themes use the CSS3 standard.

■ Custom logo images are no longer stored on the file system. Base64 encoding is now used to convert a logo to ASCII string format.

■ CA Clarity PPM On Demand customers can now rebrand a CA Clarity PPM application using Studio.

Upgrade action: If you have a custom UI theme, you must recreate it using the new UI Themes functionality. If you have a UI theme associated with a partition, you must reconfigure the partition setup for this release. To save time and effort, copy one of the default UI themes and modify the CSS information it contains.

See the Studio Developer’s Guide for more information.
Object Actions

Object Actions allow you to configure functionality where and when it is needed. This full functionality was not available in CA Clarity PPM v12.1.1.

See the Studio Developer’s Guide for more information.

Button operations and links that are infrequently used in some areas in the application have been moved under the Actions pull-down menu. If you don’t see a button or page link that was present in CA Clarity PPM v13, check the Actions pull-down menu to see if the operation exists there.

If you have areas in the application that require you to navigate to other locations to collect information, you can use an object action to navigate and retrieve the information. Object actions allow you to navigate for the information you need without losing the context of your current location.

**Upgrade action:** None

Custom Fiscal Time-scaled Values

Fiscal time-scaled values (TSVs) are available with this release. Instead of operating on the standard yearly calendar, fiscal TSVs are based on the fiscal calendar.

You can configure TSV displays based on a specific date for the Start Date attribute property.

**Upgrade action:** None

Correcting the CA Clarity PPM URL for HTML and Xcelsius Portlets

For this release, the CA Clarity PPM URL has changed. Any URLs in custom HTML or Xcelsius portlets will not work optimally.

**Upgrade action:** Search for and replace the portion of the URL where the syntax has changed.

- To update relative URLs, search for "niku/app?action=“ and replace it with "#action:“.
- To update absolute URLs, search for "app?action=“ and replace it with "nu#action:“.
- To complete the update for Xcelsius portlets, generate new .swf files in Xcelsius and use the .swf files to update the interactive portlets in CA Clarity PPM.
Charts

Charts for this release have the following changes:

■ All charts are HTML5.
■ SVG charts have been removed.
■ Zooming is available.
■ Some charts have animation.
■ The Area chart type is available.

The out-of-the-box chart colors have changed for this release. If you are using the Color Consistency feature, document your current colors so that you can change the color in the new release, if needed. You can recreate your colors in this release using the custom color palette under System Options.

The charting engine for this release is different than previous releases. As a result, the x-axis and y-axis scales and certain chart display areas might not be an exact replica of the old charts. However, the representation of data within the new charts will be correct.

A few of the charts have chart properties available in prior releases that are not available in this release. See upgrade documentation for details.

Upgrade action: (optional) Document your current colors before you upgrade if you are using the Color Consistency feature. You can use the information to update the colors in this release to your previous settings.
HTML Portlet Changes

The HTML portlet configuration page has been improved. The text entry area now has color-coded syntax and indentation.

Tips for HTML portlets:
- Avoid document.write in javascript.
- Do not reload the current page, such as setting window.location.href in javascript. CA Clarity PPM is a single page ajax-style application. Reloading the page is not optimal and can result in loss of application state data.
- Many CSS style names have changed. If you are currently using v12.x CSS style names, those can be incompatible.

Upgrade actions:
- Check CSS style names in custom HTML portlets to verify the style names are current and update where necessary.
- Verify all URL-related logic in javascript is correct for any custom HTML portlets. See Correcting the CA Clarity PPM URL for HTML and Xcelsius Portlets (see page 30).

Tab Changes

Your ability to customize tabs has been enhanced. To customized tabs, you can:
- Change the labels, including the labels of stock tabs provided with CA Clarity PPM.
- Hide tabs by setting "Active=FALSE".
- Rearrange tabs on a portlet page.
- Create dashboard tabs for the Project portlet pages.

Upgrade action: None
Export to PowerPoint or Excel with Internet Explorer 9

The Export to Excel or Export to PowerPoint can receive an error message if you are using IE 9. To stop the error message from appearing and successfully export, you must change a setting in IE 9.

**Upgrade action:** Clear the *Do not save encrypted pages to disk* check box in the IE 9 Security settings in Internet Options.

**Follow these steps:**

1. Open Internet Explorer 9.
2. From the Tools menu, click Internet Options.
   - The Internet Options dialog appears.
3. Click the Advanced tab.
4. In the Settings section, scroll down to the Security settings.
5. Clear the *Do not save encrypted pages to disk* check box.
6. Click OK.

New Xcelsius Stock Dashboards

**Best Practice:** Always make copies of stock Xcelsius dashboards, visualization files and queries before applying customizations. Customize the copied version. CA provides periodic updates to the stock dashboards that overwrites any changes you make to the stock dashboards.

The following table lists the Xcelsius stock dashboards provided with this release.

<table>
<thead>
<tr>
<th>Studio Name</th>
<th>File Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio</td>
<td>xid.prt.portInvDash</td>
<td>Portfolio Investment Analysis - Analyze the impact to your Portfolio by adding and removing investments from the dashboard. Suggested use: Add a new tab with this portlet to the Portfolio Default Page Layout.</td>
</tr>
<tr>
<td>Project Status</td>
<td>xid.prt.prjsts</td>
<td>Project Status - Analyze important metrics at a glance for a specific project. Suggested use: Put on a project dashboard on a Project Page Layout.</td>
</tr>
</tbody>
</table>
### Studio Name | File Name   | Description                                                                                                                                 |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment</td>
<td>xid.prt.prjstsDash</td>
<td>Investment Overview - Using filter criteria, build a list of investments to view and analyze important metrics. Suggested use: Add a new tab with this portlet to the Overview page layout.</td>
</tr>
<tr>
<td>Planning</td>
<td>xid.prt.resPlanDash</td>
<td>Resource Planning using Capacity and Demand by Role - view the capacity and demand by role, and analyze impact on capacity and demand by increasing or decreasing capacity using FTE or Hours. Suggested use: Add a new tab with this portlet to the Resource Planning portlet page layout</td>
</tr>
</tbody>
</table>
Chapter 6: User Interface

This section contains the following topics:

- **New Menu Bar and General Navigation** (see page 35)
- **CAPA Learn Link** (see page 36)
- **Buttons** (see page 36)
- **Inline Editing for Grids and Lists** (see page 36)
- **Display as Pop-up Attribute** (see page 37)
- **Font Settings** (see page 37)

### New Menu Bar and General Navigation

Navigation for CA Clarity PPM contains the following changes:

- **New navigation menu bar**
  
  The CA Clarity PPM main menu has moved from its traditional place as a left navigation pane to a new overhead fly-out menu. This provides more workspace for the application. The menu contains the same selections and selection placements found in CA Clarity PPM v12.1.1.
  
  Menu names are now Home (the user menu), Administration (administrator’s menu), and Favorites.
  
  Hotkeys for the menu system are: Ctrl+Alt+h (Home), Ctrl+Alt+a (Administration), Ctrl+Alt+f (Favorites).

- **Favorites**
  
  This new menu is similar to browser Favorites. It allows a user to create and store links to specific pages for easy access.

- **History**
  
  The history button preserves a record of recent pages visited. You can open the list of pages from the button and return to any listed.

- **Back Button**
  
  This button returns you to pages visited one at a time in reverse order.

**Upgrade action**: None
**CAPA Learn Link**

The Learn link for CAPA (CA Productivity Accelerator) in the upper right corner of the browser is dynamic. If the CAPA settings are not defined in Clarity System Administration (CSA), the Learn link does not display.

**Upgrade action:** (Required for CAPA) Define the settings for CAPA in Clarity System Administration. For information on how to set up CAPA, see the documentation provided by CAPA when that feature is purchased.

**Buttons**

The buttons that appear on the majority of CA Clarity PPM pages have been standardized. The following table shows the new and old button names.

<table>
<thead>
<tr>
<th>New CA Clarity PPM v13 Buttons</th>
<th>Old CA Clarity PPM v12.1.1 Buttons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Save</td>
<td>Save</td>
</tr>
<tr>
<td>Save and Return</td>
<td>Submit</td>
</tr>
<tr>
<td>Return</td>
<td>Cancel</td>
</tr>
</tbody>
</table>

There are exceptions to the new button change, and *Submit* is sometimes used where it is more appropriate (for example, Reports and Jobs).

**Upgrade action:** None

**Inline Editing for Grids and Lists**

The Actions menu that allowed you to select Edit Mode or Display Mode has been removed. To edit a cell in a list or grid, you click in the cell. If the cell can be edited, it activates so that you can edit. As changes are made, a red flag appears in the cell’s upper left corner to indicate the changes have not yet been saved. You can move from one cell to the next, editing as needed before you save.

You can also toggle between display and edit by pressing the Enter key.

**Upgrade action:** None
Display as Pop-up Attribute

The Display as Pop-up check box option within grids and list for the Link field setting has changed. In CA Clarity PPM v12.1.1, the option displayed a new browser window over the old window when the link was clicked. For CA Clarity PPM v13, a modal navigational pop-up displays over the original browser window.

**Upgrade action:** None

Font Settings

The Font Settings options under Account Settings has been removed. To control the size of the font on a page, use Ctrl+ and Ctrl-.

**Upgrade action:** None
This section contains the following topics:

- **Architecture Changes** (see page 39)
- **Memory Requirements** (see page 40)

### Architecture Changes

The following table shows the architecture changes for this release.

<table>
<thead>
<tr>
<th>Component</th>
<th>Changes to Supported Software Versions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Server Operating System</td>
<td>- CA provides support only for upgrading customers with pre-existing installations on Solaris and HP-UX; dropped 32-bit operating systems</td>
</tr>
<tr>
<td></td>
<td>* ■ Added support for SUSE Enterprise Linux 11</td>
</tr>
<tr>
<td></td>
<td>* ■ Added support for RHEL 6.0</td>
</tr>
<tr>
<td>Server DB</td>
<td>- Added Microsoft SQL Server 2008 R2</td>
</tr>
<tr>
<td></td>
<td>* ■ Dropped support for Microsoft SQL Server 2005</td>
</tr>
<tr>
<td>Server Java Runtime</td>
<td>- Dropped 32-bit support</td>
</tr>
<tr>
<td>Application Server</td>
<td>- Dropped 32-bit support</td>
</tr>
<tr>
<td>Report Server</td>
<td>- Added support for CA Business Intelligence r3.2</td>
</tr>
<tr>
<td></td>
<td>* ■ Dropped support for CA Business Intelligence r3</td>
</tr>
<tr>
<td></td>
<td>* ■ Dropped support for Actuate</td>
</tr>
<tr>
<td>Client browser</td>
<td>- Added Firefox 4.0 through 8.0</td>
</tr>
<tr>
<td></td>
<td>* ■ Added IE 9.0</td>
</tr>
<tr>
<td></td>
<td>* ■ Dropped support for IE7 and IE6</td>
</tr>
<tr>
<td>Client applications</td>
<td>- Support Crystal Reports Designer 2008 SP3 or higher (instead of any service pack)</td>
</tr>
<tr>
<td></td>
<td>* ■ Dropped support for Microsoft Project 2000, 2002 and 2003</td>
</tr>
<tr>
<td>SharePoint Server</td>
<td>- Added SharePoint Server 2010</td>
</tr>
<tr>
<td></td>
<td>* ■ Dropped support for SharePoint Server 2007</td>
</tr>
</tbody>
</table>
Memory Requirements

The move to a 64-bit Java Runtime brings with it the following memory setting recommendations for the CA Clarity PPM application service:

- Heap Space: 2048 megabytes (-Xmx2048m)
- Permanent Generation (Sun JVMs only): 192 megabytes (-XX:MaxPermSize=192m)

The memory settings are checked each time an application service is deployed. If the settings are below the recommended values, they are adjusted automatically. You can override the automatic adjustment by adding the following property to the JVM parameters for a given service: -DforceMemorySettings.

Each environment has unique resource requirements, so the default settings might not be correct in every case. Refer to the Administration Guide for more information on this topic.

Upgrade Action: None. The memory settings are adjusted automatically if they are below the recommended values.
Chapter 8: Data Model Changes

Database Table Changes

The following tables had deprecated fields that were updated, added, or removed. If you have custom queries or reports that use the fields, they need to be updated.

<table>
<thead>
<tr>
<th>Table</th>
<th>Column</th>
</tr>
</thead>
<tbody>
<tr>
<td>APMaster</td>
<td>Added</td>
</tr>
<tr>
<td></td>
<td>- CREATED_DATE</td>
</tr>
<tr>
<td></td>
<td>- CREATED_BY</td>
</tr>
<tr>
<td></td>
<td>- LAST_UPDATED_DATE</td>
</tr>
<tr>
<td></td>
<td>- LAST_UPDATED_BY</td>
</tr>
<tr>
<td>CBK_GL_ALOCATION_DETAIL</td>
<td>- OVERHEAD_ENTITY_ID</td>
</tr>
<tr>
<td>CLNTCLASS</td>
<td>Added</td>
</tr>
<tr>
<td></td>
<td>- CREATED_DATE</td>
</tr>
<tr>
<td></td>
<td>- CREATED_BY</td>
</tr>
<tr>
<td></td>
<td>- LAST_UPDATED_DATE</td>
</tr>
<tr>
<td></td>
<td>- LAST_UPDATED_BY</td>
</tr>
<tr>
<td>Table</td>
<td>Column</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------------</td>
</tr>
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<td>INPUT_TYPE_CODE_ID</td>
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</tr>
<tr>
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<td>PLAN_DETAIL_2_KEY</td>
</tr>
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</tr>
<tr>
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<tr>
<td></td>
<td>AGG_COST</td>
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<tr>
<td></td>
<td>AGG_REVENUE</td>
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<tr>
<td></td>
<td>AGG_UNITS_ACTUAL</td>
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<tr>
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<td>AGG_COST_ACTUAL</td>
</tr>
<tr>
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<td>AGG_TOTAL_REVENUE</td>
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</tr>
<tr>
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<td>Table</td>
<td>Column</td>
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<td>------------------------</td>
<td>-------------------------</td>
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<td>FIN_FINANCIALS</td>
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<td>- TOTAL_COST_OF_CAPITAL</td>
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<td></td>
<td>- IS_SYS_VAL_FOR_RR</td>
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<td>- REINVESTMENT RATE</td>
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<td>- BUDGET_PAYBACK_PERIOD</td>
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<td>- FORECAST_IRR</td>
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<tr>
<td></td>
<td>- FORECAST_MIRR</td>
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<td>- PLANNED_PAYBACK_PERIOD</td>
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<td>INV_INVESTMENTS</td>
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<tr>
<td></td>
<td>- ASSGN_POOL</td>
</tr>
<tr>
<td>INV_Projects</td>
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<tr>
<td></td>
<td>- Prbasestart</td>
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<td>- Prbasefinish</td>
</tr>
<tr>
<td></td>
<td>- prbasetime</td>
</tr>
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<td>PAC_MNT_RESOURCES</td>
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<tr>
<td></td>
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</tr>
</tbody>
</table>
### Database Table Changes

<table>
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<th>Column</th>
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</thead>
<tbody>
<tr>
<td>PMA_AGGR_VALUES</td>
<td><strong>Added</strong></td>
</tr>
<tr>
<td></td>
<td>■ INITIAL_INVESTMENT</td>
</tr>
<tr>
<td></td>
<td>■ PLANNED_IRR</td>
</tr>
<tr>
<td></td>
<td>■ PLANNED_MIRR</td>
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<td>■ Prbasepattern</td>
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<td>■ Prbasemax</td>
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</table>
Database Table Changes

Chapter 8: Data Model Changes

<table>
<thead>
<tr>
<th>Table</th>
<th>Column</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRTask</td>
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</tr>
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<td></td>
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</table>

<table>
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<tr>
<th>WIPCLASS</th>
<th>Added</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CREATED_DATE</td>
</tr>
<tr>
<td></td>
<td>CREATED_BY</td>
</tr>
<tr>
<td></td>
<td>LAST_UPDATED_DATE</td>
</tr>
<tr>
<td></td>
<td>LAST_UPDATED_BY</td>
</tr>
</tbody>
</table>

**Upgrade action:**

- Identify custom queries or reports that use any of the fields that were removed. The references must be updated to use the correct database fields.

- All baseline information is stored in:
  - PRJ_Baselines (primary revisions)
  - PRJ_Baseline_Details (baseline detail records for each revision)

  For example:

  You can get the current baseline revision by joining the baseline_id from the investment to the PRJ_Baselines table.

  You can get baseline details by joining PRJ_Baseline_details.baseline_id to PRJ_Baselines.id, selecting object type (for example, TASK) and the object ID (for example, PRTask.prid).