CA Clarity™ PPM

Resource Management User Guide

Release 14.2.00

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Chapter 1: Resource Management

This section contains the following topics:

How to Get Started with Resource Management (see page 7)

How to Get Started with Resource Management

Allocating the appropriate resources to the right project teams is essential for effective resource management. CA Clarity PPM provides a flexible framework in which you can perform and monitor the following resource management activities:

- Create and edit resource profiles with important details such as:
  - employee type
  - primary role
  - skills
  - experience
- Identify one or more resources by searching on specific characteristics, skills, or availability.
- View, edit, and track resource allocations and workloads.
- Compare resource capacity with resource demand.

Introduction to Resource Management

As a resource manager, you manage the assignments of employees, contractors, and nonlabor assets. Resource managers can be temporary project leaders or full-time department heads. Project managers often use Resource Management features, such as creating requisitions and finding resources.

The Resource Planning pages offer the following ways to manage resource and role allocations:

- By investment by week
- By investment start and finish dates
- For a single investment or multiple investments
- In a graphic histogram that contrasts resource availability and allocation
- In a table that shows you allocation information by investment, resource, or role

Changes that you make on the Resource Planning pages update the data on the investment. You can view the changes that you make on the Resource Planning pages on the Team Staff page for the investment.

Best Practice: When you adjust resource allocations, inform the investment manager about the changes. The manager can then adjust task assignments and the schedule for the investment to accommodate the changes to team members you introduced.

The following table lists the Resource Planning pages with portlets.

Resource Planning Page	Description	Portlets
Capacity	This page lists overall resource demand against resource capacity across all investments. The page aggregates information by role and presents information by month. You can view how total demand varies from total capacity for each role.	■ Role Capacity Histogram ■ Role Capacity
Organizational Demand	This page lists and aggregates demand for all investments and resources by OBS. You can view allocation data at different levels within the selected OBS unit.	■ OBS Resource Aggregation ■ OBS Investment Aggregation
Top Down Planning	This page lists investments and the resources and roles that are allocated to each investment.	■ Top Down Planning by Investment
Workloads	This page uses a graphical format to display the combined allocations across all investments for the assigned resource. Use this page to compare the availability with the number of hours that are allocated for a resource to an investment.	■ Resource Workloads
Allocations	This page provides several options to view and edit resource allocations on individual investments.	■ Weekly Detail ■ Allocation Discrepancy
Unfilled Allocations	This page provides a list of roles that are booked to all investments and displays unfilled demand across your organization.	■ Unfilled Requirements
Bookings	This page provides a list of resources with information about their booking status for all investments.	■ Booking Status

These portlets are designed for a resource planning user that has global access to all resources in the system. As a resource manager or administrator with global access to all resources in the system, you can manage the planning aspect of investment work. We do not recommend configuring a user with instance or OBS unit access restrictions. This practice can reduce the performance of these portlets.

Prerequisites for Resource Management

As a resource manager, work with your administrator to complete the following checklist:

- ☐ Verify with your administrator that scheduled jobs are running properly. If any data fails to appear on a page or in a report, contact your administrator.

  Note: The failure of certain jobs can affect the appearance of your data. For example, the Time Slicing job can affect the resource management data or the performance of the application. When the Time Slicing job fails to run, time-sliced data on resource planning pages cannot display properly.

- ☐ To enable financial properties for resources and roles, verify that you have the following access right:
  - *Resource - Navigate*
- ☐ To edit financial attributes for a specific resource or role, verify that you have one of the following access rights:
  - *Resource - Edit*
  - *Resource - Edit Financial*
- ☐ To edit financial attributes for all resources and roles, verify that you have one of the following access rights:
  - *Resource - Edit - All*
  - *Resource - Edit Financial - All*

- To create, view, or edit resource properties, verify with your administrator that you have the following access rights:
  - *Administration - Resources*
  - *Resource - Create*
  - *Resource - Edit*
  - *Resource - Edit - All*
  - *Resource - Edit Access Rights*
  - *Resource - Edit Administration*
  - *Resource - Edit Financial*
  - *Resource - Edit Financial - All*
  - *Resource - Edit General*
  - *Resource - Edit General - All*
  - *Resource - Enter Time*
  - *Resource - Hard Book*
  - *Resource - Hard Book - All*
  - *Resource - Navigate*
  - *Resource - Soft Book*
  - *Resource - Soft Book - All*
  - *Resource - Update Skills*
  - *Resource - Update Skills - All*
  - *Resource - View*
  - *Resource - View - All*
  - *Resource - View Access Rights*
  - *Resource - View Financial*
  - *Resource - View Financial - All*

- ☐ To work with capacity planning scenarios, verify that you have the following access rights:
  - *Scenario - Edit*
  - *Scenario - Edit Access Rights*
  - *Scenario - Manager - Automatic*
  - *Scenario - Navigate*
  - *Scenario - View*

  You can limit resources or investments through a security OBS or through instance-level resource access rights. A more manageable amount of data appears for the resources and investments you manage.

  Capacity planning scenarios allow you to make what-if changes without impacting the plan of record data. Your access rights apply to the portlet that you view. If you select a scenario, the same access rights apply with the addition that you can view scenario data.

- ☐ To manage requisitions, verify with your administrator that you have the following rights:
  - *Project - Attach Requisitions Resources*
  - *Project - Create/Edit Requisitions*
  - *Project - View Requisitions*
  - *Process - Create Definition*
  - *Process - Initiate*

Chapter 2: Resources and Roles

This section contains the following topics:

How to Create Resources and Roles (see page 14)
Calendars, Shifts, and Work Days (see page 21)

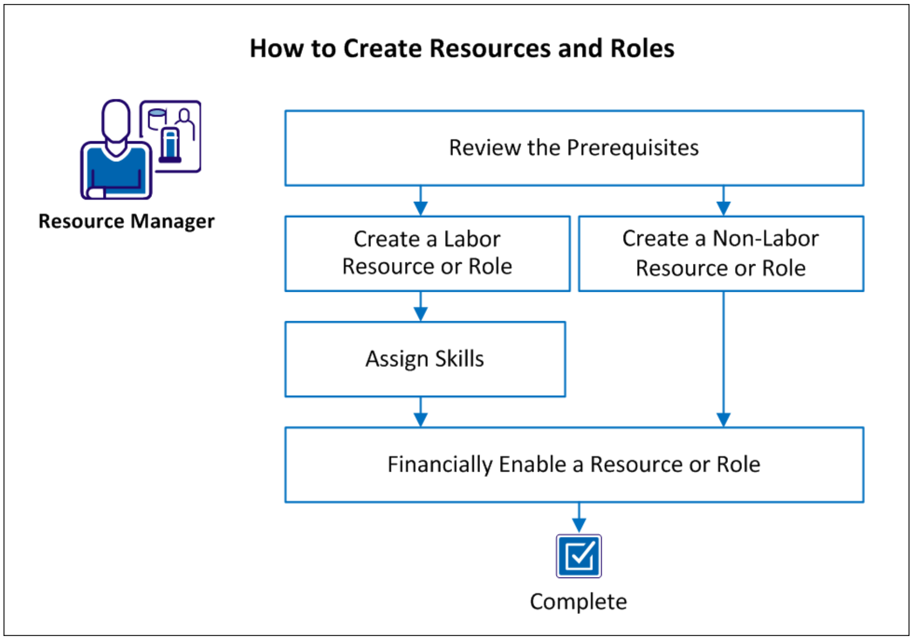
How to Create Resources and Roles

As a resource manager or application administrator, create roles first as placeholders for the resources that your projects require. Then, create the resources that you hire to fill the demand that the role allocations represent. Finally, assign your resources to the right project teams.

For example, create a role for a field technician and then create resources for your staff and contractors. You can create an advanced role for a lead field technician with more skills. Create a nonlabor equipment role whenever a project requires machinery. Then create a resource entry for each available piece of equipment that your company owns or leases.

The application uses the financial properties of the resource to apply the correct rates and costs to their work transactions as they are processed. To post to CA Clarity PPM and appear in financial pages and reports, enable the financial properties for a resource. The financial actuals are visible in the product only for resources that are financially enabled.

The following graphic shows the steps for creating resources and roles.



Follow these steps:

1. Review the Prerequisites (see page 15).
2. Create a Labor Resource or Role (see page 15) or Create a Nonlabor Resource or Role (see page 17).
3. Assign Skills (see page 19) (Labor Only).

4. Financially Enable a Resource or Role (see page 20).

Review the Prerequisites

Verify that your administrator has satisfied the following prerequisites:

- ☐ Configured the skills hierarchy.
- ☐ Assigned the required access rights.

Create a Labor Resource or Role

You can create a labor resource using either the Home or Administration menus. When you create a labor resource from the Home menu, your administrator can activate their user status and assign rights and login credentials.

Follow these steps:

1. As an administrator, you can create new labor resources using the following substeps. If you are not an administrator, skip this step.
   a. Open Administration. From Organization and Access, click Resources.
   b. Complete the required fields including a unique user name and resource ID.
   c. Click Save and Continue to navigate through the tabbed pages for the new resource.
   d. Click Return and confirm that your new resource appears in the list with active status.
2. Open Home, and from Resource Management, click Resources.
3. Click New.
4. In the Resource or Role field, select *Resource*.
5. In the Resource Type field, select *Labor*.
6. Click Next.
7. Complete the Create Resource-Labor page including the following fields:

   Primary Role

   Indicates the primary role for the resource. Roles can change from investment to investment. A primary role lets other CA Clarity PPM resources see at a glance the primary area of expertise of a resource.

   Category

   Defines the category that identifies the area of expertise of the resource.

   Example: Software Development or Product Marketing.

External

Specifies whether the resource works for an outside company.

Default: Cleared

Availability

Defines the number of hours in a business day that the resource is expected to work. The availability number is automatically multiplied by five, which is the number of days in a standard working week**.**

Default: 8

Note: This field is mandatory and must be greater than zero for the Labor type of resource or role. ETC is based on the availability. An expense type of resource or role that is assigned to a task does not have a default ETC.

Input Type Code

Specifies a code that is used for the resource in financial transactions.

Track Mode

Indicates the tracking method used to enter time for this resource.

Values:

- Clarity. Staff members enter time against their assigned tasks using timesheets.
- None. Non-labor resources track actuals through transaction vouchers, or through a desktop scheduler, such as Open Workbench and Microsoft Project.
- Other. Indicates that actuals are imported from a third-party program.

Default: Clarity

Open for Time Entry

Specifies if the resource can use timesheets to track time that is spent on task assignments. When cleared, the resource cannot log time on any project.

Default: Selected

Include in Datamart

Specifies the resource for inclusion in datamart. When cleared, the resource is not added in datamart.

Default: Cleared

Resource Manager

Identifies the name of the person creating the resource.

Default: The resource currently logged in.

Booking Manager

Indicates the default booking manager for this labor resource.

8. Click Save.
9. To define the resource or role availability, click the Calendar tab.
10. (Optional) Click the Properties tab, and click Contact Information. Complete the fields and save your changes.
11. As an administrator, if you did not perform Step 1, activate the new resource and create a password for login.
    a. Open the Administration menu, and from Organization and Access, click Resources.
    b. Enter a filter to find the new resource by ID or by status.
    c. Open the resource and change the status field to Active. You can also select the resource and click Activate.
    d. Set a password and confirm password.
    e. Click Save and Return.

Create a Nonlabor Resource or Role

You can create nonlabor resources and roles including equipment, material, or expense. Create a role as a placeholder in a project to help you plan for tasks and estimate the scope of work.

Follow these steps:

1. Open Home, and from Resource Management, click Resources.
2. Click New.
3. In the Resource or Role field, select *Resource* or *Role*.
4. In the Resource Type field, select *Equipment*, *Material*, or *Expense*.
5. Click Next.
6. Complete the page including the following fields:

Parent Role

Specifies the role one-level higher than this role in a hierarchy.

Example: The Application Developer role is a parent to the Web Developer role.

Primary Role

Indicates the primary role for the resource. Roles can change from investment to investment. A primary role lets other CA Clarity PPM resources see at a glance the primary area of expertise of a resource.

Category

Defines the category that identifies the area of expertise of the resource.

Example: projector, server, truck

External

Specifies whether the resource works for an outside company.

Default: Cleared

Availability

This field represents the number of hours in a business day that the resource is expected to work. The availability number is automatically multiplied by five, which is the number of days in a standard working week. ETC is based on availability calculations. A resource or role of type *expense* that is assigned to a task does not have a default ETC.

Default: 8

Note: This field is mandatory and must be greater than zero only for the Labor type of resource or role. Material and equipment (but not expenses) can also have an availability value.

Resource Manager

Identifies the name of the manager with access rights to perform duties such as setting the allocation for this resource.

Default: The resource currently logged in.

Resource Manager

Identifies the name of the person creating the resource.

Default: The resource currently logged in.

Booking Manager

Indicates the default booking manager for this labor resource.

7. Click Save.
8. To define the resource or role availability, click the Calendar tab.
9. (Optional) Click the Properties menu, and under Main, click Financial. Complete the fields and save your changes.
10. (Optional) For labor and expense resources only, click the Properties menu, and under Main, click Contact Information. Complete the fields and save your changes.

Assign Skills (Labor Only)

You can use skills to describe the talents a labor resource or role possesses for project tasks. Defining the skills of labor resources is helpful to other users who want to assign the most qualified resources to roles on projects.

Follow these steps:

1. Open Home, and from Resource Management, click Resources.
2. Open a resource or role.
3. Click the Skills tab.

   The Resource Skills page appears showing the skills for the selected resource or role.
4. Enter filter criteria for an existing skill or click Show All.
5. To add a skill to the list, click Add.

   The Select Skills page appears showing all of the skills available in the skills hierarchy for all resources and roles.
6. Enter filter criteria for an existing skill or click Show All.
7. Select a skill and click Add.

   Note: To add a skill to the skills hierarchy, contact your administrator.
8. Click Save.
9. For each skill, select values for the Proficiency Level, Interest, and Weighting fields.
   a. Assign proficiency levels for labor resources as a rating that indicates how well the resource performs the skill.
   b. To indicate how important this skill is for the resource or role, assign an interest level. For example, a resource with an interest level of 7 - Medium has a greater interest in performing a skill. A resource with an interest level of 4 - Medium represents less interest.
   c. Use the weighting factor as a tiebreaker if there are multiple skills that have the same proficiency and interest.
10. Click Save.

Financially Enable a Resource or Role

You can financially enable any resource or role that is involved with financial transactions. Enabling the resource or role includes associated financial data in features such as financial planning and forecasting.

Follow these steps:

1. Open Home, and from Resource Management, click Resources.
2. Open the resource or role.
3. Click the Properties tab and select Financial under Main.
4. Complete the Supplemental section including the following fields:

   Financially Active

   Indicates whether the financial attributes for a resource or role are enabled to record financial management activities against an investment.

   Transaction Class

   Specifies a user-defined value that groups transaction types for financial processing of the resource or role.

   Resource Class

   Categorizes financially enabled resources and roles for financial processing.

5. If the resource or role type is *labor*, perform the following steps:
   a. Complete the Financial Department and Financial Location fields.
   b. Mark the resource as financially active.
6. (Optional) For resource entries only:
   a. Complete the Rates and Costs section including the following fields:

      Target % Billable

      Refers to the percentage of the targeted billing rate that is billable. Enter the target percentage billable for this resource, if applicable.

   b. Complete the fields in the Expenses section.
7. Save your changes.

Calendars, Shifts, and Work Days

The standard base calendar determines FTE and other calculations. As a project manager or resource manager, verify the base calendars show the correct work days, shifts, and nonworking days. You can change the workdays and nonworkdays of the week. You can define up to four standard work shifts.

You can designate only one base calendar as the standard. Base calendars serve as templates for other calendars including specific resource calendars and role calendars. The selected base calendar for a resource or role determines FTE when you allocate a resource or role to a project team. Resource calendars also help calculate resource availability, capacity, demand, and allocation.

Follow these steps:

1. To modify a base calendar or define a new one:
   a. Open Administration, and from Project Management, click Base Calendars.
   b. Click a calendar or click New.
2. To modify a resource calendar:
   a. Open Home, and from Resource Management, click Resources.
   b. Select a resource or role.
   c. Click the Calendar tab.

Create a Base Calendar

To manage shifts and work days, define a base calendar. For example, create calendars for different countries, departments, or seasons of the year.

Follow these steps:

1. Open Administration, and from Project Management, click Base Calendars.
2. Click New.
3. Complete the following fields, and then click Add:

   Calendar Name

      Defines the new calendar name.

   Base Calendar

      Specifies the calendar to base this calendar. The base calendar is the parent to the new calendar.

      Example: Standard

Standard

Specifies the calendar as the standard calendar in CA Clarity PPM.

Default: Cleared

4. Click Save and then click Return.
5. To delete one or more calendars, select their check boxes and then click Delete.

   Note: You cannot delete the standard calendar. You also cannot delete a calendar that is defined as the base calendar (parent) for another calendar.

Define Work Shifts in Calendars

The default base calendar shows two 4-hour shifts with one hour for lunch for a total of eight work hours. You can set new shifts.

Follow these steps:

1. Open Administration, and from Project Management, click Base Calendars.
2. Click the name of the calendar.

   The edit calendar exceptions page appears.
3. To modify only one resource calendar:
   a. Open Home, and from Resource Management, click Resources.
   b. Select a resource or role.
   c. Click the Calendar tab.
4. Select the month at the top of the calendar.
5. Select the check box next to the days having the same shift, and click Set Shifts.
6. Enter the start and end times for up to four shifts.
7. Save your changes.

Define Work Days in Calendars

You can designate workdays and non-workdays.

Follow these steps:

1. Open Administration, and from Project Management, click Base Calendars.
2. Click the name of the calendar.

   The edit calendar exceptions page appears.
3. Select the month at the top of the calendar.

4. Indicate which days are standard workdays.
    a. To select dates by days of the week, select the check box next to the day of the week and click Make Workday.
    b. To change dates from workdays to non-workdays, select the check box next to each date. Click Make Non-Workday.
5. (Optional) When you change a specific holiday on the resources calendar to a nonworkday, the shift information or availability is removed. If you change the day back to a workday, a check is made to see if a shift pattern exists for that day in that calendar (or parent). One of the following actions occurs:
    - If a shift pattern does exist for that day, the day is set to use that shift pattern.
    - If a shift pattern for the day does not exist, a check is made for a shift pattern for the corresponding day of the week for that calendar (or parent, as needed).
        - If a shift pattern is found from the search, the day is set to use that shift pattern.
        - If no shift pattern is found for that specific day of the week, then the first day of the week shift pattern that is found is used starting with the first day of the week (Sunday).
    - If no shift pattern exists for any day of the week, then the default shift patterns of 8:00 AM – 12:00 PM and 1:00 PM – 5:00 PM are set for that day.

Reset Base Calendar Shifts

When you reset the shift by resetting a base calendar, the base calendar shift information is picked up for that day. This information is important when you use a shift other than eight hours, and can affect resource availability and allocation.

Follow these steps:

1. Click Base Calendars and click the name of the calendar.

    The edit calendar exceptions page appears.

2. Select the check box next to each date to reset, and then click Reset to Base.

    The shift is reset to the base calendar.

Change Base Calendar Parent/Child Relationships

To delete a parent calendar or change to another parent, use the following procedure to change that relationship.

Follow these steps:

1. Click Base Calendars and click the name of the calendar.

   The edit calendar exceptions page appears.

2. Click Edit Calendar Properties.

   The edit calendar properties page appears.

3. Complete the following field:

   Base Calendar

   Specifies the calendar to base this calendar. The base calendar is the parent to the new calendar.

   Example: Standard

4. Save the changes.

Resource Calendars

You can review the calendar for a resource to determine their availability for various assignments.

Follow these steps:

1. Open a resource.
2. Click the Calendar tab.
3. Change calendar information for a resource. For example, add working days, nonworking days, and shifts to the calendar.

   Note: The *Resource - Edit* access right is required.

Chapter 3: Resource Allocations

This section contains the following topics:

How to Find, Book, and Allocate Resources (see page 25)

How to Find, Book, and Allocate Resources

As a Resource Manager, use the information in this article to identify and manage resource assignments.

More Information:

Find and Book Labor Resources (see page 26)
Resource and Role Allocations (see page 28)
Add Investments to Resource Workloads (see page 29)
Change the Resource Default Allocation (see page 29)
Edit Investment Allocations (see page 31)
Shift a Resource Allocation (see page 31)
Remove Investments from Resource Workloads (see page 32)
Replace a Role with a Named Resource (see page 33)
Replace Resources on Investments (see page 34)
Resource Availability Examples (see page 36)
Deactivate a Resource or Role Profile (see page 40)

Find and Book Labor Resources

You can use the Resource Finder to select available labor resources and book them to the right investments. A secondary use is to capture a snapshot or inventory of your labor resources that share certain attributes. You can use the Resource Finder to identify labor resources by filter criteria such as:

- employment status (employees or contractors)
- OBS
- primary role
- calendar availability
- skills

For example, identify all employees with a specific certified skill in a specific technical role.

Follow these steps:

1. Open Home, and from Resource Management, click Resource Finder.
2. Click Expand Filter.
3. Click Clear or Show All to remove any existing filter criteria.
4. Define your filter criteria including any of the following fields:

   OBS Unit

   Specifies the OBS for the labor resources.

   OBS Unit - Filter Mode

   Specifies a limited search on the exact OBS unit or a wider search that includes OBS unit descendants or ancestors.

   Role

   Searches by role.

   Filter Mode

   Specifies a limited search on the exact role or a wider search that includes role descendants or ancestors.

   Availability

   Specifies the required availability of matching resources by percent, hours, days, or FTE in one or more date ranges.

Availability Threshold

Indicates the minimum required availability. For example, resources with less than 10 percent availability can be over-allocated or over-booked. Resources that match a 90 percent availability threshold are more readily available for a new project or task assignment.

Include Soft-booked Resources

To include available resources that are already soft-booked for one or more investments, select this field. When you clear the check box, the filter excludes soft-booked resources from appearing in the results.

Skills

Identifies the resources that match the assigned skills from the skills hierarchy.

Skills Threshold

Works with the Skills field. Enter the percentage of skills that resources must possess. The Resource Finder excludes resources whose skill-match falls below the percentage specified.

Power Filter

This link opens a page where you can build a custom filter. Create custom searches that are tailored to meet the more specific recruiting requirements.

5. Click Filter.
6. Select one or more resources and click Book.
7. Select an investment and click Book.

Resource and Role Allocations

To view and edit information about the assigned investments for a resource or role, use the Allocations page. This page lists all the projects to which the resource or role has been added. You can make the following changes:

- Add and remove projects to and from the workload for a resource.
- Add and remove investments.
- Edit the amount of time the resource or role has been allocated to a project.
- Change the start and finish dates for the investment allocation.
- Change booking status, and edit allocations by date or percentage.
- Change the percentage of time the resource or role is allocated to the investment. Resources and roles are booked to each project for 100 percent of their time. To reduce the amount of time a resource spends on each project, you can adjust the % Allocations field.
- Shift investment allocation periods.

Roles can be allocated to a project or an investment with hard, soft, and mixed booking status and planned or hard allocations. Any unfilled roles represent all roles and their allocation which is based on the filtering criteria for the booking status.

When you change allocations from resource management pages, you only change investment-level information, specifically, the resource or role allocations to the investment. These dates can differ from the ones to which the resource or role has been assigned to project tasks. The changes that you make from the resource/ role allocation pages appear on the team staff page for the investment.

Best Practice: Do not change the investment allocations for a resource or role from resource management pages. Only the manager of the investment to which the resource or role has been assigned can modify allocations. If you are the manager of the investment, change allocations from the team staff page of the investment. As a resource manager, if you edit allocations for a resource from the resource planning pages, communicate the changes to the manager of the investment. The manager can then adjust task assignments and the schedule for the investment, if necessary.

Note: If a project is locked and in tentative mode, you cannot change allocations for existing team members. To allow you to edit the team while the project is locked, the project manager can change the following default project management setting:

Allow Edit of Allocations when Investment is Locked.

Add Investments to Resource Workloads

You can add investments to the workload for a resource from both of the resource or role allocations pages. By default, the resources are allocated to work on the new project 100 percent of the time during the project. Sometimes, the default allocation overbooks the resource. When overbooked, reallocate the time for the resource or replace the resource with another resource.

Note: Only the resources that are identified as staff members can perform a task for a project and can record their time on tasks. Project participants can use the collaboration tools of a project but are not always identified as staff members.

Follow these steps:

1. With the resource open, click Allocations.
2. Click Add.
3. Select the investment for the resource and click Add.

   The investment is added to the workload for the resource.

Change the Resource Default Allocation

You can create planned and hard allocation curves for the time a resource works on an investment. These curves indicate any deviations from the Default % Allocation field. The Planned Allocation curve represents the default or total allocation amount that the investment manager is requesting. The Hard Allocation curve represents the allocation amount that the resource manager is able to commit.

For example, you have a resource with default allocation set at 100 percent. You booked this resource to work on your project from August 10 through November 10. The resource is also scheduled to work on another project 50 percent of the time through September 1. In addition, the resource plans to be on leave from September 15 - 22. In this case, you create two allocation curves for the resource: one that indicates a deviation to 50 percent from Aug 01 through Sep 1, and another that indicates a deviation to 0 percent from Sep 15 - 22.

When editing the default allocation for a resource, gaps can appear between allocation segments. The gaps are automatically filled by creating new allocation segments.

Follow these steps:

1. With the resource open, click Allocations.
2. Click the Properties icon on the Summary or Detail page for the investment for which you want to edit resource allocation.
   - **Summary**: The allocation information for a resource that is allocated to an investment. View and edit booking status and allocation information for each investment to which the resource or role is allocated.
   - **Detail**: The allocation information for a role that is allocated to an investment. View and edit the allocation information for each investment by week in a histogram format.
3. Change the following field in the General section:

   Default % Allocation

   Defines the percentage of time you want to allocate the resource to a project. You can enter zero (0). Any changes here appear in the Allocation and Allocation % columns on the resource/role allocations page or project team staff page.
4. Create one or more rows for deviations in the Planned Allocation and Hard Allocation sections.

   To apply the previous example, create two rows:
   - First row. To cover the period where the resource actually works at 50 percent (compared to the 100 percent default or planned allocation).
   - Second row. For the period where the resource actually works at 0 percent (compared to the 100 percent default or planned allocation).
5. To create a planned or hard allocation curve, complete the Planned Allocation and Hard Allocation sections.
6. In the % Allocation field, enter the expected percentage of time when the resources work (as tentative or committed) on the investment. You can enter zero (0) as the allocation percentage.
7. Save your changes.

Edit Investment Allocations

You can edit weekly allocations for a resource by investment. The allocations detail page displays resource and role allocations by investment and week in a histogram. Investments appear in rows and allocations appear in columns by week.

Follow these steps:

1. With the resource open, click Allocations, Detail.

   The allocations detail page appears.

2. Click in the field containing the data and edit the data. For example, change the weekly allocations, and click Save.
3. Confirm the changes in the Aggregation section at the bottom of the page.
   - The red bar indicates the months in which the role is overbooked.
   - The yellow bar indicates that no over allocations appear in that period.
4. Save your changes.

Shift a Resource Allocation

To shift or scale all or a portion of the resource allocations in one project, use the Shift Allocation option. This option is useful when you want to extend project allocations beyond the allowable time-scaled view, which extends only for six months by default. You can move resource allocations both back and forward in time.

For example, suppose that an allocation period starts on May 1. The period continues at its default rate of 100 percent through the end of May. The period then extends through June at the reduced allocation of 50 percent. You shift the allocation to start on June 1 and extend through July 2 (for 31 calendar days) at 100 percent. The period goes through August 2 at 50 percent. You can also shift allocations for time spans that contain no segments.

You cannot change the project schedule dates. Use these dates as guidelines on how far you can shift work back or forward. You cannot shift work before the start date, and you cannot shift work past the finish date.

Follow these steps:

1. With the resource open, click Allocations.
2. Select the investment whose allocations you want to shift.
3. Select Shift Allocation from the Actions menu.
4. Change the following fields as applicable. Data shifts according to the information you enter in these fields.

   Start and Finish Dates

   Defines the start and finish dates of the project unless they have been changed. These dates create the period that can shift.

   Shift to Date

   Defines the beginning date for the data being shifted.

   Note: If you leave the field blank, no shifts occur.

   Shift Cut-off Date

   Defines the last date for shifting allocations. Allocations cannot shift beyond the last date.

   Scale Allocation % By

   Defines the percentage change in the allocation that is required for the shift.

   Note: If you leave the field empty, no scaling occurs.

5. Save your changes.

Remove Investments from Resource Workloads

You can remove projects and investments from the workload of a resource at any time. If a project is locked, you cannot remove that project from the workload of the resource.

Note: When you staff a resource as a project participant, go to the team participants page to remove the resource from participant status.

Follow these steps:

1. With the resource open, click Allocations.
2. Select the investment you want to remove, and click Remove.

   The confirmation page appears.

3. Click Yes to remove the investment from the list of investments for the resource.

Replace a Role with a Named Resource

You can replace a role in a project with a specific named resource. Replace a role with a resource when the team is ready to start the project and report approved actuals.

Follow these steps:

1. Click Home, and from Portfolio Management, select Projects.
2. Open a project.
3. Click the Team tab.
4. In a row for the soft-booked role that you want to replace, click Resource Finder.

   The Find Resources page filters on the selected role to display matching resources.

   Note: The Include Soft-booked Resources check box is not selected. When selected, the number of matching resources typically expands; however, the Availability Match scores decline. To evaluate the more accurate hard booking status, do not include soft-booked resources.
5. Examine the Availability Match column and determine the best resource. You can select any resource, even one that is already assigned to the project. Select one or more check boxes and then click Replace.

   The Booking Confirmation page shows the Remaining Availability of each resource. A negative value indicates that the resource is over-allocated. Some portion of the overallocation can be attributed to soft-booked allocations.
6. To book the resource as a replacement for the role, click Yes. Contact the resource manager and discuss the booking status of the resource on other investments. Try to get the booking reduced so that you can confirm this booking and then set it to Hard.
7. (Optional) If the resource is potentially over-allocated, click Overallocate or Remaining Only.

   Note: If already assigned to the project team, the named resource takes on the full allocation of the generic role but not all the assignments. If you replace a role with a resource that is not already on the team, the allocation and assignments transfer to the new resource.
8. To transfer the ETC (assignments) from the generic role to the named resource:
   a. Click the Task tab and select Assignments.
   b. Filter for, and select, all the tasks that are assigned to the generic role.
   c. Reassign them to the named resource.

Replace Resources on Investments

You can generate a list of resources with the same role and availability during the time of the investment. You can also use this procedure for replacing a resource on a project. The following rules apply:

- Replacing a resource does not transfer the actuals, pending actuals, and baseline of the original to the new staff member. Only the remaining ETC is transferred to the new staff member.
- The original staff member must complete any outstanding time entries so that the actual data is posted before the replacement occurs.
- The project role of the original staff member is transferred to the new staff member (unless you are replacing a role with a different role).
- If a project is locked, you cannot replace existing team members resulting in deleting a team member and transferring assignments. The Replace button appears disabled in this case. Additionally, you can be allowed to replace a resource role only (without replacing task assignment) based on the role replacement settings. For more information about this setting, contact your administrator.

Follow these steps:

1. With the resource open, click Allocations.
2. To replace a resource, click the Resource Finder icon next to the investment.
3. To narrow the resource list, enter filter values.
4. To view all resources, click Show All.

5. Examine the following fields:

   Availability

   Identifies the project period and the number of hours the resource you are replacing was allocated to the project. Both the dates and the hours that are allocated are transferred to the new replacement.

   Availability Match

   Displays a weighted average that factors in the work period and the availability of each resource. If you do not add any skill specifications to your search criteria, the Total Match column duplicates the Availability Match number. The Skill Match column remains blank. Searching by skills and availability criteria, displays an average of the two in the Total Match column.

6. The following message can appear at the top of the page:

   ```
   Match scores can be inaccurate if availability dates do not fall into the following range: ddmmyy - ddmmyy
   ```

   The message indicates a discrepancy between the date range in the message and the dates in the Availability field. That is, the Availability Match score can be inaccurate. For example, the dates in the Availability field are 9/1/15 - 2/7/16 and the date range in the message is 9/7/15 - 9/7/15. A one-to-one comparison for any resource does not exist and this condition lowers the overall availability match scores.

7. To replace the previous resource, select one or more resources and click Replace.

8. Confirm the selection by clicking Yes.

   The allocations page appears. As a result of replacing the resource, the investment no longer appears in the list of investments for the resource.

9. If the available hours for a resource are less than the total number of hours, the remaining availability (not the booking) confirmation page appears. If you add resources to the project or investment, the remaining availability confirmation page indicates overbooking of the resource. If you book at 100 percent (default) availability of the resource, the 100 percent Resource Allocation column lists the number of hours utilized. The Remaining Availability column indicates the actual number of work hours available for the resource to work on the project.

   Select one of the following values:

   - *Over-allocate* to over-allocate the resource.
   - *Remaining Only* to book the resource for the amount that is listed in the Remaining Availability column.

Resource Availability Examples

This topic explains the relationships between a resource calendar with shift adjustments, a base calendar, and the Availability field. These related values influence resource availability calculations, planning graphs, and the Missing Time report.

Resource availability is based on the calendar for the resource. If a resource has a calendar with shifts, their availability in resource planning portlets and reports reflects those shifts.

Example: Calendars with Irregular Shifts

As a resource manager, you want to implement the following work shifts:

Normal hours from Jan 1 to Jun 30 and from Sep 1 to Dec 31

- Monday to Thursday: 08:30-14:00 and 15:30-18:30
- Friday: 08:30-14:30

Summer hours from Jul 1 to Aug 31

- Monday to Friday 08:00-14:30

Follow these steps:

1. Click Administration. Under Project Management, click Base Calendars.
2. Create a base calendar for the normal workdays with two shifts and the unique short Friday-only shift.
3. Select Monday, Tuesday, Wednesday, and Thursday and set the two shifts in one calendar.
4. Select Friday and set the shift that begins at 08:30 in the same calendar.
5. Apply this arrangement for the following months: January to June, and September to December.
6. Create a base calendar for the two summer months.
7. For the months of July and August, set the new summer shift that begins at 08:00 on all workdays.

   Note: You can also use one calendar and adjust every workday in July and August.
8. Navigate to the resource profile for each resource and assign a calendar.

   You see the shifts on their calendar. The Resource Availability field varies from one resource to another even though they are assigned to the same calendar.

   - Each resource works 8.5 hours per day for 4 days, and 6 hours on Friday. Their availability is 40 hours per week or 160 hours each month.
   - In the two summer months, each resource works 6.5 hours per day for five days. Their availability is 32.5 hours per week or 130 hours each month.
   - You can have other resources who are assigned to a different calendar. For example, 8 hours per day and 5 days per week. Their availability is 40 hours per week or 160 hours each month.

9. You can adjust an assigned calendar at the resource level. For example, add one or more vacation days on the resource calendar. A resource on vacation for 2 days shows a decrease in availability. The availability of a resource working 8.5 hours per day drops 17 hours for a two-day vacation. However, the availability of a resource working 6.5 hours per day only drops 13 hours for a two-day vacation.

10. Portlets, pages, and reports use the availability time slice for availability amounts. Availability is always derived from the resource calendar. The original value that you enter in the Availability field on the resource profile is not used in availability calculations.

    Note: Instead of hours, you can also use FTEs to measure resource availability. To calculate the FTE availability, the application divides the availability of the resource by the standard calendar.

11. Click the Home menu. Under Resource Management, click Resources.

12. Open a resource.

13. To reflect their current availability, set the Availability field for each individual resource. Availability can be different, even for resources who are assigned to the same base calendar. For example, you assign a resource who is typically available 6 hours per day to a base calendar with five 8-hour shifts. The Availability field shows 5.65. When you change the base calendar to one with 8.5 hour shifts, the Availability field shows 6.38. You can also adjust the shifts on the individual resource calendar. The value that you set last (Availability or Base Calendar with or without adjustments) determines their most current availability.

    Note: The availability values in portlets and reports are also calculated in the same manner.

Example: Resource Availability

This example demonstrates monthly resource availability.

1. Create a base calendar for December with 5-hour shifts per day.

   December has 22 days. The total hours are (5 × 22) = 110.

2. Assign this base calendar to a resource.

   Daily resource availability is 5.

3. Change the Availability field value from 5 to 8.

   The calendar still displays 5-hour shifts.

   Portlets show December availability as (8 × 22) = 176 hours.

4. Change the resource calendar to reflect 4-hour shifts for December for this resource. The availability of the resource is greater than 4 because you previously indicated a value of 8.

5. The Availability field shows 8, the base calendar shows 5, and the resource calendar shows 4. The calculated availability in hours for the resource for December is as follows:

   ```
   (4/5) × 8 × 22 = 140.8
   ```

Example: Resource Allocations

When you book a resource as a staff member for an investment, the application generates an allocation amount for each resource. You can calculate resource allocation using the following equation:

```
Resource allocation amount = (Availability) x (Number of resource workdays in the investment time period)
```

The number of working days for an individual resource during an investment is based on the resource calendar. All days that a resource is available during an investment time period are counted, including the start and finish dates.

For example, the following list shows the weekly availability of some resources during an investment time period:

- Resource A works four hours a day for five days a week
- Resources B works eight hours a day for five days a week
- Resource C works eight hours a day for three days a week

If all the resources are allocated at 100 percent to the investment for three weeks, their allocation is as follows:

- Resource A = 60 hours
- Resource B = 120 hours
- Resource C = 72 hours

If you attempt to over-allocate a resource by staffing the resource to additional investments, you are warned. An over-allocated resource cannot perform work efficiently or complete work by the established end date. For this reason, it is important to be aware of how resources are allocated to investments.

In these examples, John, Bill, and Sue are the direct reports of Mary:

- John is hard-booked for 20 hours next week to project A, and soft-booked 10 hours to project B. The total demand for John next week is 30 hours.
- Bill is hard-booked for 40 hours next week to project A, and is mixed-booked for 20 hours to project B. The total demand for Bill next week is 60 hours.
- Sue is not allocated to any project. The demand for Sue is 0 hours.
- A role is designated and soft-booked for 35 hours next week to project A. In the role properties for that project, Mary's team is designated as the Staff OBS unit. The demand for that role for Mary's team is 35 hours next week.
- The total allocation or demand next week for the resources in Mary's organization is 125 hours: 60 hours hard-booked staff, 30 hours soft-booked staff, and 35 hours soft-booked unfilled roles.

Deactivate a Resource or Role Profile

Deactivate a resource or role profile when the resource or role is no longer needed. You cannot assign deactivated profiles to tasks. But the profiles continue to appear in the resource list unless you filter them out.

Follow these steps:

1. Open the resource or role.
2. Clear the Active check box, and click Save.

Chapter 4: Resource Requisitions

This section contains the following topics:

How to Manage Resource Requisitions (see page 41)

How to Manage Resource Requisitions

The application supports two methods for staffing projects and other investments. One method is direct staffing where a project manager directly assigns team members to investments. In the other method, a project manager requests resources and a resource manager assigns them to investments.

In direct staffing you add a team member directly to a project. This method can also involve a multi-step staffing process, whereby the project manager initially assigns roles and establishes other staffing requirements, then sets the request status to open. A resource manager fills the request either by hard-booking (committing) the resource, or by replacing the requested role with a specific resource.

In addition to the functionality associated with direct staffing, requisitions also provide the following functionality:

- routing and notification
- a review and approval process
- a history of staffing requests and allocations.

Direct staffing works well when project managers tend to control their own resources. They have booking rights to the resources they need, and they can directly staff their projects. Review of project staffing can be accomplished in a couple of ways. A resource manager can look for overbookings or capacity vs. demand imbalances by studying the Resource Planning pages that highlight staffing issues across all resources and projects. Or resource managers can be given hard-booking rights so that even though project managers can plan (soft-book) their staffing, resource managers can retain the right to commit (hard-book) the individual team members.

As a resource manager, use resource requisitioning to respond to requisitions, exchange messages with the project manager, and manage requisition-related processes. CA Clarity PPM resource requisitioning allows you to create simple or detailed requisitions that request resources for multiple time periods.

A requisition is a request to staff a specific project with labor resources. The chief benefit of requisitions is planning. If you bypass a requisition and assign a resource directly to a project, you could jeopardize your own project. This is because you are assigning without knowing about the other projects the resource can be working on. Hence, you can overburden the resource or assign the wrong resource. Requisition recipients tend to be resource managers who are knowledgeable about the workloads and skills of their resources. Thus, when you submit a requisition, the resource managers assign the most appropriate resources to the projects.

You can use resource requisitioning to do the following:

- Create tailored resource requisitions that suit the needs of specific projects
- Perform an on-the-spot search for resources that fit requisition requirements
- Discuss a requisition with its recipients

Requisitions are project-specific, which means that you cannot create a requisition that staffs multiple projects at the same time. Each requisition contains a request for only one staffing requirement and can serve only one project.

For more information, including how to create requisitions, see the *Project Management User Guide*.

Requisition Routing and Notification

When a requisition is created, it is routed to the appropriate booking manager based on the following logic:

- If a default booking manager is defined for the resource or role. If no default booking manager is defined, then staffing requirement OBS is combined with staffing requirement role to determine the booking manager.
- If a booking manager mapping does not exist for a specific role and OBS, then look up the role chain. If not found, look up the OBS chain until found. Role chain refers to roles that have parent roles. For example, an Automation Engineer can have QA Engineer as a parent role.

- If a role cannot be associated with an OBS all the way up the role and OBS chains, the requisition is not routed.
- Both the project manager (requisition creator) and booking manager (resource manager) are notified of status changes in requisitions. If no booking manager is selected, no notification is sent.
- Users with appropriate access rights can view the requisition in their list by filtering on unassigned requisitions.
- The Booking Manager field can be changed at any time to reflect another resource manager. The facility to change allows resource managers to route the requisitions again.
- The Requested By field value on the Requisition Properties page defaults to the requisition creator. If you are not the current Requested By user, change the Requested By field value to equal yourself. Change this value as needed, especially if your company has a routing chain that goes through multiple people.
- Only the users in the *Requested By* and *Booking Manager* fields receive notifications that pertain to open requisitions. Requested and booked resources are not notified. Resource notification happens when the resource is added to the project as a staff participant. The notification can be set to occur automatically when the resource is hard-booked. For more details, contact your administrator.

The following table shows the parties that are notified when the requisition status changes:

Requisition Status Changes	**Requested By**	**Booking Manager**
Created		
From New to Open	Notified	Notified
From Open to New	Notified	
From Open to Propose	Notified	Notified
From Proposed to Booked	Notified	Notified
From Open to Book (if requisition, approval is not required)	Notified	
Booking Manager changes	Notified	New and old Booking Manager are notified.
Requested By changes		
Closed	Notified	Notified
Deleted		

Notes:

- As a user, you can determine your requisition notification format, message layout, and delivery method from the Account Settings: Notifications page.
- As an administrator, you can set up an automated process to identify the different stages in the lifecycle of a requisition. You can also automatically issue notifications at every stage.

Find Resources to Fill Role Requests

On receipt of a role requisition, find and propose at least one resource that fits the role described in the staffing requirement. If you propose multiple resources, allocate the resources appropriately so the requisition amount is divided among the resources. For example, if one resource is required for a week, propose two resources as follows:

- Resource 1 from Monday to Wednesday
- Resource 2 from Thursday to Friday.

Follow these steps:

1. Open Home, and from Resource Management, click Resource Requisitions.
2. Click the name of the resource requisition and then click Resources, or click the Person with List icon next to the requisition.
3. Click Add.

   The information that appears on the Find Resources page is based on the requirements that were specified in the staffing request. You can modify the search criteria to find more eligible resources.
4. Select a resource and click Add to place them on the list of proposed resources.

   If a requisition has a single resource, the resource is selected. The resource is the proposed candidate in the shortlist.
5. Select the desired candidate and click Add.

   The Requisition Resources page appears with the Resources page active.
6. If multiple resources are added to the requisition, expand each resource to edit your calculated allocation amount.
7. Click Propose.

   The Resource Requisitions page appears and refreshes the status of the requisition to *Proposed*.

Manage Resource Requisitions

As a resource manager, you can view, propose, and book requisitions.

Note: You can also receive notifications for each requisition assigned to you. Email notifications and notifications on your home page include a link to the Requisition Properties page. You can also use the Project Requisitions page to view requisitions.

Follow these steps:

1. Open Home, and from Resource Management, click Resource Requisitions.
2. Use the Requisition Filter section at the top of the Resource Requisitions page to locate one or more requisitions using various search criteria. You can search by requisition name, ID, associated project, status, or priority. Enter your search criteria in the Filter portion of the page and click Filter.
3. Click the requisition link to open the requisition and edit it. The page contains the following tabs:

   Properties

   This page provides the details that the requisition requestor enters.

   Resources

   Use this page to find and add resources to your requisitions.

   Discussions

   Use this page to initiate and participate in the requisition discussions.

   Processes

   Use this page to create, run, and track requisition processes.

   Audit Trail

   Use this page to track changes on the requisition object (if requisition fields are enabled for auditing). For details, contact your administrator.
4. Depending on your access rights, you can change any of the fields available on any of the tabs.
5. Click Save and Return to save your changes and return to the Resource Requisitions page.

Fulfill Resource Requisitions

Requests for named resources include a proposed resource making it easier for you to respond. To address requests for named resources, open a requisition and address it individually. Or, select multiple requisitions and propose them back to the project manager.

Follow these steps:

1. Open Home, and from Resource Management, click Resource Requisitions.
2. Click the Person with List icon next to a requisition.
3. Click Propose to propose the resource back to the project manager for the requested time and allocation amount.

   The Resource Requisitions page appears and refreshes the status of the requisition to Proposed.
4. To address multiple named requests:
   a. Select the list of named resources and click Propose to propose the allocations to the project manager.
   b. Edit the allocation amounts for the requested named resources directly in the grid.
   c. Select the list of named resources and click Propose to propose the allocations to the project manager.

   The Resource Requisitions page appears and refreshes the status of the requisition to Proposed.
5. Confirm the changes in the resource histogram that displays how much the project manager requests on a weekly basis:
   - The yellow part of the histogram represents the amount of hours that the resource is needed on this particular project.
   - The green part represents the time needed on other projects.
   - The red part shows where the resource is over-allocated.
6. If the Requisition Approval Required option for the project is turned off (no project manager approval required):
   - The Book button appears on the page instead of the Propose button. To hard-book the resource onto the project automatically without the project manager approval, click Book.
   - If you do not have the Project – Edit access right, the Propose button appears on the page instead of the Book button. Click Propose to submit the booking for approval, rather than directly booking to the project. Later, when your project manager views the Project Team: Requisitions page, the Book and Reject buttons appear on the page.

Reduce Resource Allocations

After you open a requisition, if you decide that a resource is over-allocated, you can reduce the allocation.

Follow these steps:

1. Open Home, and from Resource Management, click Resource Requisitions.
2. Edit the fields on the page.
3. To avoid over-allocation, reduce the allocation of the resource.
4. Save the new allocation amount.

   The yellow now represents the new booking amount to the project and the green represents the bookings to other projects. No red displays to indicate over-allocation.

You can also use the following steps from an open resource:

1. Click the Properties icon to the left of the resource name.
2. Edit existing allocation segments, and add any new ones.
3. Click Save and Return.

Participate in Requisition Discussions

You can exchange messages about requisitions with other stakeholders. Only requisition recipients with access to the requisition can participate in discussions. A discussion thread begins with the first reply under the original message. Subsequent messages appear in descending order by date and time.

Follow these steps:

1. Open Home, and from Resource Management, click Resource Requisitions.
2. Open a requisition.
3. Click Discussions.

   The Requisition Discussions: Message page appears.
4. Click the message icon or click Expand.
   a. To start a discussion, click New.
   b. To reply to an existing message, click the subject line of the message.
5. Complete the following fields:

   Subject

   Defines the subject of the message.

Message Text

Defines the text of the message.

Attachments

Click the Browse icon to attach a document.

Notify Participants

Specifies if you want the discussion recipients to receive an email notification when a new message arrives for their review.

Default: Selected

Note: Configure your notification and email settings from the Account Settings: Notifications page.

6. Click Save and Return to send the message.

   Your message appears in the Messages section of the Requisition Discussion: Messages page.

7. (Optional) To collapse all open threads, click Discussions.

Types of Requisition Status

The Status field of a requisition is located on the Requisition Properties page. The requisition owner (also named a requestor) is the only person who can change its initial status from *New* to something else (typically *Open*). Other recipients can then change the status.

New

All requisitions begin with this status until the owner submits the requisition or manually changes the status. When you are ready for a booking manager to fill the request, change the status to *Open*.

Open

This status indicates that the requisition is active and requires attention and fulfillment. The requestor who creates the requisition is the one who changes the status to *Open*. The booking manager is notified.

Proposed

The booking manager proposes bookings to fulfill the requisition. The requestor is notified. The requestor reviews the proposed resources. If the requestor rejects the resources that the booking manager has identified, the requisition status changes back to *Open*.

Note: The status Proposed is available if you have the *Project – Attach Requisition Entry Resources* access right. Also, the Requisition Approval Required setting is required to be selected for the project.

Booked

This status indicates that a project manager or resource manager has accepted (booked) the resource on the requisition. The requisition status automatically changes to "Booked" and the requester and booking manager are both notified. "Booked" status is available:

- If you have the *Project – Edit* access right and requisition approval is required.
- If you have the *Project – Attach Requisition Resources* access right and requisition approval is not required.

Closed

This status indicates that no more work is required. Only the requestor can close a requisition. If the booking manager declines an open requisition, the requisition status automatically changes to Closed.

Set a Default Booking Manager for Resources

As a manager in charge of resources, you can define a default booking manager for each resource and role in the system. Hence, requisitions are routed automatically to the appropriate resource manager without any intervention from the project manager.

Defining the booking manager is optional. If defined, the Booking Manager field of a requisition defaults to this resource manager and appears on the resource properties page. If you do not define this field, the project manager can define it at the requisition level or leave it blank. If the field is left blank, the access rights of the available resource manager decide the allocation to this requisition.

For roles, a mapping between roles and an OBS structure can be used to define the default booking manager.

Follow these steps:

1. Open Home, and from Resource Management, click Resources.
2. Click a resource name to open the resource properties.
3. Specify the booking manager for the resource in the General section.
4. Save your changes.

Decline an Open Resource Requisition

You can decline a requisition for several reasons. For example, the selection of resources was constrained or their availability was limited.

Follow these steps:

1. Open Home, and from Resource Management, click Resource Requisitions.
2. Click the link for that requisition.
3. Set the status to *Closed*, and click Save and Return.
4. (Optional) Post a note on the Discussions page explaining your reason for declining the requisition.

Unbook a Requisition

Administrators, project managers, and resource managers work together to unbook resource requisitions.

- As a project manager, sometimes you reduce the scope of a project or a resource is unavailable for a particular period. You can unbook hard-booked resources to use their unbooked time on another project. You can unbook a resource completely or partially from projects. Unbooking a resource removes any hard allocation for the resource in the future. The start date of unbooking is set to the next day by default. You can move the start date to an earlier date.
- As a resource manager, work with the project manager to confirm resource booking and unbooking. Remind project managers that they cannot unbook a role or a soft-booked staffing requirement.
- As an administrator, you configure the application to support your users. Managers can unbook only if you enable the Allow Mixed Booking setting. Mixed bookings support differences between planned and hard allocations. Unbooking a resource resets the hard allocation to match the planned allocation. For example, a manager sets a hard allocation to 10 weeks, and then changes the planned allocation to 8 weeks. The Unbook Resources operation removes two weeks of hard allocation.

Follow these steps:

1. As an Administrator:
   a. Open the Administration menu and under Project Management select Settings.
   b. Select the Allow Mixed Booking check box and click Save.

2. As a Project Manager:
   a. Open Home and from Portfolio Management, click Projects.
   b. Open a project and click the Team tab.
   c. Select the check box for one or more mixed or hard-booked resources.
   d. Click the Actions menu and select Create Requisitions.
   e. Select Unbook Resources as a Requisition Type.
   f. Select a booking manager for each resource. The default booking manager automatically appears.
   g. Click Create to create requisitions with a *New* status or click Create and Open to create an *Open* requisition.

      The requisition is created and displays on the team staff page of the project. If a requisition contains a request to unbook a specific resource, you see a checkmark in the Unbook column.
   h. Save the changes.
3. As a Resource Manager:
   a. Open Home, and from Resource Management, click Resource Requisitions.

      If a requisition contains a request to unbook a specific resource, you see a check mark in the Unbook column.
   b. Select the check box for one or more resources with a check mark in the Unbook column and click Unbook.

      The application removes all hard allocations that are no longer in the plan from today forward. On the Resource Requisitions page, the hard-booked allocation amount changes in the Average Rate column. If a resource is unbooked fully, the value displays as 0.00 percent.
   c. Click the link for that requisition.

      The Requisition Properties page displays the following text:

      `This requisition is for unbooking purposes only.`
   d. A requisition to unbook and replace a resource selects both the Unbook and Replace check boxes on the Requisition Properties page. The Resources menu also appears.
      - Click Resources to set appropriate filtering criteria.
      - Add a new resource to match the availability of the replaced resource.
      - If you have the required access rights, the Replace button appears. Click Replace to replace the unbooked resource with the new resource.
      - If you do not have the required access rights, the project manager can review the proposed replacement and then book that resource.

Resource Requisition Rules

The product applies the following rules when you unbook resource requisitions:

- The planned allocation curve represents the default or total allocation amount that the service manager requests for. The hard allocation curve represents the allocation amount that the resource manager commits. The booking status for a resource changes according to the allocation amounts in the planned and hard allocation curves.
- When you unbook resources, the application reduces the amount of committed or *hard* allocation that exceeds the *planned* allocation. The resulting unbook requisition subtracts from the hard allocation curve.
- When you select the Replace Resources requisition type, the Unbook feature on the requisition is automatically checked. The application generates a requisition with two new properties (unbook = true and replace = true).
- The unbook amount defaults to the hard allocation of the team member minus the total allocation. If the total allocation equals or exceeds the hard allocation, the unbook amount is zero.
- The unbook amount defaults to unbookings from today forward. You can adjust the date and the requisition amount to only partially unbook.
- For a straight unbook (replace option is off) the application does not display a Resource tab. Instead of a propose option, you can unbook or decline. When you unbook, the team member allocation is decremented without project manager approval. When you decline, the team member allocation is not decremented. In both cases, notification is sent to the project manager and the requisition status is set to *booked*.

  Note: If you have booking rights, you can zero out the team member's hard allocation without submitting a requisition.
- For a replacement unbook, the Resource tab appears. The requested amount is equal to the total allocation of the team members that you are unbooking. The team member being unbooked does not appear in the resource list. The unbooking is an attribute of the requisition. You can fill the requisition exactly as you would fill any standard requisition with options for proposed, preferred, accept, and reject. In addition to the booking, the application also performs the unbooking.

Modify and Resubmit Proposals

When you receive a notification that the project manager has rejected the resources on a requisition, you can modify and resubmit it.

Follow these steps:

1. Open Home, and from Resource Management, click Resource Requisitions.
2. Click the requisition link.
3. Click Discussions to see the reason behind the rejection.
4. Select and propose the resource that best matches the request. Delete the other resources.

   The Resource Requisitions page appears and refreshes the status of the requisition to *Proposed*.

Manage an Automated Requisition Process

In the out-of-the-box system for requisitions, notification generation depends on manually changing the status of the requisition. If the status of *new* requisitions is not changed to *open*, the recipients are not aware and cannot fulfill the new requisition.

You can avoid notification uncertainty by configuring an automated notification process that identifies different stages in a requisition lifecycle. An automated process can issue a notification whenever a new stage is reached.

Note: When you create a process in a requisition, it is available only for that requisition. When an administrator creates a global requisition process in the Administration Tool, the process is available for use by all requisitions. Global access rights are required to create a global process.

Follow these steps:

1. Open Home, and from Resource Management, click Resource Requisitions.
2. Select a requisition and click the Processes tab.

   The processes page for the requisition appears. The Processes tab shows two menu choices: *Available* and *Initiated*.

3. To view running process instances, click *Initiated* (the default). Process instances that are scheduled to run or running appear. You can track their progress.

4. To view the local processes that apply only to this requisition and any global processes for any requisition, click *Available.*

   a. To define a new process, click New.

   b. Save your changes.

      The new process appears in the list of available requisition processes.

5. To start a process manually, select the check box and then click Start.

6. To set the object for the requisition process, click Add Linked Object.

Audit Requisitions

The Requisition Audit Trail page allows you to see when certain issue fields were changed, and who made the changes. In this way, you can track changes by resource and date. Your administrator determines the requisition fields that are available to you on the page.

Follow these steps:

1. Open Home, and from Resource Management, click Resource Requisitions.

2. Click a requisition and click Audit.

3. Filter the list.

   The audit fields for the requisition appear.

Chapter 5: Resource Capacity Planning

This section contains the following topics:

How to Manage Resource Capacity (see page 55)

How to Manage Resource Capacity

Organizations often build their Resource OBS hierarchy based on real-world reporting relationships and org charts. Each node on the Resource OBS represents a department manager. For example, a senior manager has a team of three direct report managers who work 40 hours each week. The capacity of the direct report managers for any given week is 120 hours. The senior manager also has 15 indirect employees who report to the three direct report managers. The total capacity of the organizational unit includes the units for each of the managers. The total capacity is the sum of the capacities of the direct reports (120) plus the indirect reports (600).

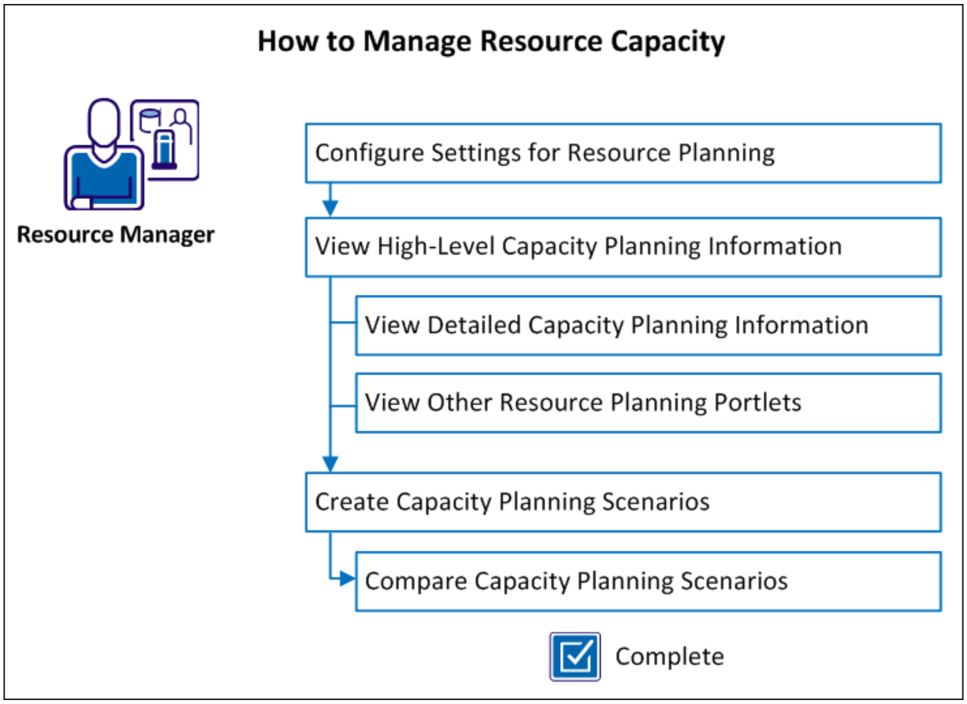
As a resource manager, you share a reporting structure that is similar to the one for the senior manager. You also share the following goals:

- View a complete picture of the capacity, demand, remaining bandwidth, and the actual hours.
- Filter on a specific Resource OBS.
- Understand the total investment demand for resources in your organizational unit and descendant units.
- Examine allocated staff and unfilled roles.
- Make informed decisions about team workload (allocation demand), capacity, booking status, and trends for posting actual work.

In this example, the senior manager navigates to the Capacity Planning Overview page. The manager sets the Resource OBS filter to the top-level Resource OBS (the level with the direct reports). The manager also sets the OBS filter mode to include the unit and descendants. The Capacity Planning Overview portlet provides a complete view of the capacity, demand, remaining bandwidth, and the actual hours. The capacity planning overview appears in an expandable hierarchy with a time-varying chart of capacity and demand metrics. The senior manager scans the high-level capacity planning data that is grouped by Resource OBS. To view more details, the portlet allows expansion of the following sub-portlets:

- Staff Allocation: Resources who are assigned to projects.
- Unfilled Roles: Staffing requirements not yet filled.
- Investment Demand: Staffing allocation on a by-investment basis.

The following graphic describes how a resource manager manages capacity.



Follow these steps:

1. Configure Settings for Resource Planning (see page 57)
2. View High-Level Capacity Planning Information (see page 58)
    a. View Detailed Capacity Planning Information (see page 60)
    b. View Other Resource Planning Portlets (see page 61)
3. Create Capacity Planning Scenarios (see page 62)
    a. Compare Capacity Planning Scenarios (see page 64)

Configure Settings for Resource Planning

Before managing resource capacity, work with your administrator to configure the following items.

Follow these steps:

1. Assign access rights to the users who manage capacity planning:
   - Resource - View - All
   - Page - View
   - Portlet - View

   Note: To assign the access rights using a group, assign the user to one of the following groups: Resource Manager or Resource Planner.
2. Assign access rights to individual investment types:
   - Application - View - All
   - Asset - View - All
   - Other Work - View - All
   - Products - View - All
   - Program - View - All
   - Project - View - All
3. Define one or more Resource OBS levels.
4. Associate resources or roles with the appropriate OBS units on their Resource Properties pages.
5. Assign a primary role to all resources.
6. Apply the following best practice when staffing roles to teams.
   a. Open the Team Detail page and click the Properties icon.
   b. Indicate which Resource OBS unit should be used to fill a role in the Staff OBS field.

      This setting appears in the Investment Demand metrics for the selected Staff OBS unit.
7. To display the filtered information in portlets, run the Datamart Extraction job. Verify that this job finishes successfully.

View High-Level Capacity Planning Information

Use the Capacity Planning Overview page to see a high-level summary of resource capacity, unfilled roles, and resource demand filtered by the selected OBS level. Set additional filtering criteria for the Capacity Planning Overview to display information about the appropriate resources and investments.

Follow these steps:

1. Open Home and under Resource Management select Capacity Overview.
2. Select an OBS unit in the Resource OBS field.
3. Select other filter criteria to narrow the information about resources and investments that you want to view. Use the filters to exclude the investments, roles, or resources that have no relevance to your capacity analysis. Save your filter criteria.
4. Select an option for the OBS - Filter Mode field:
    a. To view the resource allocation for an individual OBS unit, select Unit only.
    b. To include any parent or child units in a hierarchy, select Unit and Ancestors or Unit and Descendants.
5. Click Filter.

6. To display capacity and demand metrics, click Options and then select Configure. Adjust the columns. When you add the following columns, totals appear for each OBS unit:

   - **Capacity**: Includes Resources who are assigned to the Resource OBS Unit on their Resource Properties record
   - **Allocation**: Demand allocation as defined on the Team Detail - Properties page in the Staff OBS Unit field.

     For the allocation (hard booked staff, soft booked staff, and unfilled roles) calculation, the staff OBS at the team level is considered first. If the staff OBS matches with the filtering OBS, the named resource is included in the allocation calculation, if it doesn’t match, the resource is ignored in the calculation If the staff OBS is blank, then it checks whether the filtering OBS matches with the OBS at the resource properties level. If it matches, the resource is considered; otherwise it is ignored during the calculation.

     Hard-booked Staff: Represents named resources with Hard booking status; does not include metrics for roles.

     Soft-booked Staff: Represents named resources with Soft or Mixed booking status; does not include metrics for roles. Mixed status is reported as soft-booked staff because it means there is a change in the way the resource is planned to be allocated.

     Unfilled Roles: Represents roles which are allocated to investments irrespective of booking status. If the booking status filter is used, the results are narrowed down further according to the filter.

   - **Capacity - Allocation**: Calculated for each OBS Unit.
   - **Actuals**: Represents posted work effort; not cost.

7. Click Save.

View Detailed Capacity Planning Information

The Capacity Planning Overview portlet also provides detailed information about individual resources, unfilled roles, and demand for resources by investments. For example, select a Resource OBS and select *Unit and descendants* as the filter mode. You see the OBS unit and its descendants in the Capacity Planning Overview page. To see the staffing allocation details for a specific descendant OBS unit, click the Resources icon for that OBS unit. The Staff Allocation portlet opens and it is pre-filtered to show you only resources who are assigned to the OBS unit.

Follow these steps:

1. Open Home and under Resource Management select Capacity Overview.
2. Select an OBS unit in the Resource OBS field.
3. Select other filter criteria to narrow the information about resources and investments that you want to view. Use the filters to exclude the investments, roles, or resources that have no relevance to your capacity analysis. Save your filter criteria.
4. Click Filter.
5. Click one of the following three icons to adjust the Capacity Planning Overview portlet:

   Resources icon

   The **Staff Allocation** list shows named resources where the Team Member Staff OBS matches the filter OBS. If the Staff OBS setting is blank, the Resource OBS Properties for the selected OBS unit are used for the filtering criteria. The allocation data per resource is the aggregated allocation of the resource across all the investments against which this resource is allocated after any investment filtering criteria is applied.

   Roles icon

   The **Unfilled Roles** list shows the unfilled roles where the Team Member Staff OBS matches to the filtering OBS. If the Staff OBS setting is blank, the Role OBS Properties for the selected OBS unit will be used for the filtering criteria.

   Investment icon

   The **Investment Demand** list shows the investments which have named resources and/or roles as Team Staff Members Where the Staff OBS setting matches the filtering OBS. If the Staff OBS setting is blank, the Resource's OBS Properties for the selected OBS unit will be used for the filtering criteria. The allocation data per investment is the aggregated allocation of all the matching named resources and roles of the investment for the selected OBS.

   Note: The filter criteria that are set for the Capacity Planning Overview page are passed down to the drill-down portlet to pre-filter the results. The drill-down portlets provide default values for their filter criteria based on the OBS Unit and Hierarchy Level from which you click to drill down.

View Other Resource Planning Portlets

To view more detailed resource, investment, allocation, and booking information, use one or more of the resource management portlets.

Follow these steps:

1. Open Home and under Resource Management select Resource Planning.
2. Click one of the tabs on the Resource Planning page. From left to right, the tabs offer high-level organizational capacity and demand metrics down to detailed booking data.

   The Resource Planning tabs and portlets are shown in the following table:

Tab:	Portlet:
Capacity	Role Capacity Histogram Role Capacity
Organizational Demand	OBS Resource Aggregation OBS Investment Aggregation
Top Down Planning	Top Down Planning by Investment
Workloads	Resource Workloads
Allocations	Weekly Detail Allocation Discrepancy
Unfilled Allocations	Unfilled Requirements
Bookings	Booking Status

See the *CA Clarity PPM Portlet Reference Guide* for additional information about each of these portlets.

Capacity Planning Scenarios

To make informed decisions about resource demands and staffing, use capacity planning scenarios. Create a scenario and make temporary changes that assist you in decisions about which investments fit into your overall plans. You can modify team allocations, change investment start dates, and can switch investments between approved and unapproved status.

Applying planning scenarios is often known as performing *what-if* analysis. These scenarios answer questions such as, "What if we add 20 resources?" Based on your criteria, the capacity planning scenario changes the demand data that appears. By shifting investment start dates or changing team allocations, you can examine possible changes before making any edits to your plan of record data.

As a resource manager or project manager, use capacity planning scenarios to address the following sample situations:

- You have 20 direct reports and must frequently review the resource deployment status. You want to identify resources that are under-allocated or over-allocated for possible reallocation to new projects. To decrease the allocation on one investment and increase allocation on another investment, use a scenario.
- You share resources with other departments and must have visibility into the demand on those resources. You receive requests for new projects that require staff. You want to see what effect approving new investments has on demand and capacity across resource OBS units.
- You want to see the effect on resource allocation and assignments when project dates are moved out or dates are brought in sooner.

Note: As a best practice, use a capacity planning scenario for analysis before making actual changes.

Create Capacity Planning Scenarios

You can create capacity planning scenarios from any page that displays the Scenario toolbar. You can create, edit, delete, copy, or set a scenario as the current scenario or the current compare scenario. Share scenarios with other resources or keep them private. By default, scenarios are private.

Follow these steps:

1. Open an investment. For example, open a project, service, or idea.
2. Click the Scenario toolbar that is indicated by the down arrow.
   a. Click New.
   b. Click More and select Edit.

      The yellow toolbar indicates that you are in scenario mode and are acting on data that is part of a scenario. Some data is read-only when you are working in scenario mode. Investment start date and team allocation are examples of data that you can modify in scenario mode. The changes that you make to these data elements have a direct effect on investment demand.
3. Complete the fields on the properties page and click Save. Creating a new scenario or selecting an existing scenario will put the product into “scenario mode”. The toolbar turns yellow to signify that you are viewing and interacting with data that has a scenario applied.

4. Click Investments and then click Add. You can add and then make changes to the investments, resources, or team information in the scenario. Later, you can compare these settings with the plan of record for a parent investment.

    a. (Optional) Click the Edit Scenario Details icon to modify the values for an investment in a scenario.

    b. (Optional) Click Financial Summary icon to modify the financial data for a scenario.

5. Click Save.

6. Click Access to share the scenario with other users.

    - Select Full Access View for a list of all resource and their rights to view or edit the scenario.

    - Select Resource for resources with explicit rights to this scenario. You can also add resources and grant or remove their access to the scenario.

    - Select Group for groups with explicit rights to the scenario. You can also add groups and grant or remove their access to the scenario.

    Note: Owners of capacity planning scenarios have implicit rights to edit their scenarios. Scenario owners can also grant instance access rights to their capacity planning scenarios. You can copy a scenario and edit the new copy. You can edit a limited number of field values for scenario properties.

7. Click Save and Return.

    Your new scenario appears in the Scenario toolbar.

8. (Optional) You can also create a scenario by copying an existing one. To copy a scenario:

    a. From any page that displays the scenario toolbar, click More and select Manage Scenarios.

    b. Select the check box next to the scenario, click More, and select Copy.

       A private copy of the scenario is added to the list as *Copy of <Scenario Name>*.

    c. Enter a unique name for the copied scenario, and click Save.

Compare Capacity Planning Scenarios

You can compare a scenario with the plan of record or with another scenario. Develop, refine, and adjust scenarios over time to examine changing business needs. The scenario toolbar also provides easy access to the capacity planning pages.

Follow these steps:

1. Set the active scenario and comparison scenario from any page that displays the scenario toolbar.
   a. Select a scenario in the drop-down for Scenario.
   b. Set the Compare To field to another scenario, no scenario, or the plan of record.
2. (Optional) To set these viewing options from the Manage Scenarios page:
   a. From any page that displays the scenario toolbar, click More and select Manage Scenarios.
   b. Select the check box next to the scenario, click More, and select Set Current or Set Compare.
3. Evaluate the anticipated changes in your scenarios. Scenario mode remains active as you navigate across resource planning and capacity planning portlets.

   Note: In scenario comparison mode, the Compare To data appears in red. Compare To data appears on any page that supports the *red-lining* of data.
4. To see the scenario details as standalone entries without the red-lining:
   a. Select a scenario from the left Scenario drop-down.
   b. Select None from the Compare To scenario drop-down.
5. On pages and portlets that support scenarios, you can configure the page to show red-line comparisons of secondary values. You can include an additional attribute as a secondary comparison value. Scenario mode uses the secondary value to display the Compare To data. Select the attributes that have the words (Compare To) in their name. These attributes display scenario data.

   Null secondary values reveal data that was not present when the scenario was created. The data appears as a blank value with a red dashed line through the field. This convention is helpful for identifying changes that were made after the scenario was first created.

   Note: These configurations apply only when you are comparing a scenario with another scenario or with the plan of record. They do not apply when you select the plan of record or none.
6. To examine capacity, click More and select Go to Capacity Planning.

7. To add investments to a scenario, click More and select Investments.
8. To remove child investments from a scenario, click More and select Edit.
    a. Click the Investments tab.
    b. Select the check box for an investment and then click Remove.

       The parent investment reverts to displaying the plan of record values.
9. To reset a child investment without removing it, click More and select Edit.
    a. Click the Investments tab.
    b. Select an investment and then click Reset.

       The reset operation deletes any changes that were made in the scenario for that investment and refreshes it with data from the plan of record. The investment remains in the list of scenario investments.
10. To ignore changes temporarily for an investment in a scenario and let the plan of record values appear, hide that investment from the scenario. Use the Hidden flag for the investment.