CA Clarity™ PPM

Portfolio Management User Guide

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Chapter 1: Portfolio Management Overview

This section contains the following topics:

About Portfolio Management

The process of deciding which investments to start, continue, discontinue, or postpone is known as portfolio management. Portfolio Management provides the tools portfolio managers use to scope, plan, limit, and distribute funds. They can use these tools to thoroughly and carefully allocate money and time to high-priority initiatives.

Portfolio managers can create a detailed inventory of their investments and then add these investments to their portfolios.

Within a portfolio, you can view and analyze each investment, apply different scenarios, create reports, and apply processes. The portfolio details include the investment name, length, remaining life, ROI, estimated cost, business objective, number of users, and benefits.

Portfolio Management consists of the following components:

- Properties
- Contents
- Scenarios
- Scorecard
- Analyze

Recommended Stages

The ability to balance an entire portfolio provides you with the tools to end inefficient investments, eliminate redundant efforts, and prioritize investments. Portfolio managers must select only those investments that align most closely with corporate goals.

Organizations can invest in only so much work at any given time. Careful analysis must be conducted to help ensure that resources are optimally channeled to the best combination of investments.

You can manage your portfolio using the following recommended stages:

Stage 1: Inventory

Create a detailed inventory in CA Clarity PPM of your investments according to name, length, remaining life, ROI, estimated costs, business objective, number of users, and benefits.

Stage 2: Evaluate

Study all present and possible investments and provide business cases and estimated costs to your company steering committee. The committee then determines which investments are aligned with the overall company objectives by evaluating their risk with respect to technology, change management, and resources. Those investments that meet the committee investment criteria are implemented.

Stage 3: Categorize and Score

Find the best combination of investments by categorizing and scoring them according to their alignment with your company objectives. First, establish the right metrics and models. Then, take steps to minimize errors and biases in inputs provided to those models. By doing so your company has a greater chance of estimating the value that is added by doing any proposed investment portfolio.

Stage 4: Implement

Implement all of the decisions made to add, continue, or cease investments. Actively manage the portfolio by monitoring and evaluating the investments against your company objectives. By doing so, your company can make timely decisions regarding ongoing investments and potential new investments.

Chapter 2: Investments

This section contains the following topics:

Investment Overview

Investments—projects, programs, applications, assets, products, ideas, services, and other work—make up a portfolio inventory. Collectively, they are the investments under analysis. Only when you have identified, cataloged, and described your complete domain of investments, can you effectively manage investment portfolios.

You can quickly create and maintain your investment inventory with the minimum information required for portfolio management. Each investment you add becomes part of a collective set and is managed with that set separately from the other investment types.

You can also create and manage portfolios, including how to add other investments, including projects, services, and ideas to your portfolio. Using portfolio management, you can distribute up, roll down, rank, and time vary your investments as a collection under analysis.

The following are the components associated with investment management:

- Properties. Use the Properties menu to define the investment, from its name and schedule to baselines that capture snapshots at various stages in the investment lifecycle. In addition, you can define budget information and enable the investment for financial transactions.
- Team. Use the Team menu to build a team for the investment. A team consists of staff which performs the work and participants who assist the staff by providing information, suggestions, and concerns. But the participants do not perform any work directly related to the investment.
- Financial Plans. A financial plan is a tool that helps managers estimate and predict future cost requirements. Financial planning tools allow managers to model in detail where cost or revenues for a specific period occur. The tools also enable them to create the budget most suitable for their business needs.

Finance managers set up defaults that define how financial plans can be created and the financial time periods used. The investment managers create multiple financial cost plans as estimates for a budget. They can submit the most appropriate cost plan for approval as a budget. Finance managers approve the submitted cost plans.

The investment financial planning pages shows bottom up aggregation of the plan and the line item plan details from child investments.

See the *Financial Management User Guide* for more information.

- Chargebacks. Chargebacks are the inter-account transfer of costs to departments that receive investments. Chargebacks debit (or charge) these departments for their shared cost of investments during a specified period. A corresponding credit is issued to departments who provided the investment—giving these departments financial credit for the work they completed.

  Managers set up the defaults that determine how chargebacks are processed. They also set up the debit rules that determine who gets charged and how much.

  See the *Financial Management User Guide* for more information.

  Department managers who are charged for the cost of investments can review and approve these charges using an invoice. Department managers who provide the investment can monitor incurred costs and credits received using recovery statements.

  See the *Basics User Guide* for more information.

- Hierarchies. Use the Hierarchy tab to view and manage parent and child relationships with other investments. With a hierarchy, you can view the financial rollup and effort rollup.

  You can also convert an idea into an investment using Demand Management.

  See the *Demand Management User Guide* for more information.

- Processes. Use Processes to view initiated processes or create them. For example, you can create a process that notifies the managers when the status of an investment changes to "Approved." You can also define a process to do actions, such as changing the progress to "Completed."

  Your CA Clarity PPM administrator can define service type-specific processes—or global processes designed to work on a specific service—from the Administration Tool. Use the *Processes: Initiated* page to create and run processes on services.

  See the *Administration Guide* for more information.

- Audit. Audit trail keeps a historical record of all changes, additions, and deletions that occurs to specified investment fields. Use the Audit menu to view a log of change, addition, or deletion records for any of the fields chosen for auditing.

  The Audit menu appears only if it is set up your CA Clarity PPM administrator and if you have the appropriate access rights. The CA Clarity PPM administrator also determines the fields audited and what information is stored in the audit trail.

  See the *Basics User Guide* for more information.

About Investment Types

You can define and include in the following investment types in your investment portfolio:

- Project. Use to capture data specific to the existing projects or future projects within your organization.

  See the *Project Management User Guide* for more information.

- Program. Use to capture data specific to the existing programs or future programs within your organization. A program is considered as a project.

  See the *Project Management User Guide* for more information.

- Application. Use to capture data specific to the applications running or being implemented within your organization.
- Asset. Used to capture data specific to the assets which incur costs and benefits for your organization.
- Product. Use to capture data specific to the products produced or owned by your organization.
- Idea. Use to capture data specific to the ideas being considered for implementation by your organization.

  See the *Demand Management User Guide* for more information.

- Service. Use to capture data specific to the services provided by your organization.

  See the *IT Service Management User Guide* for more information.

- Other Work. Used to capture data specific to steady-state work performed by CA Clarity PPM resources. Other work can represent overhead tasks such as management and maintenance. Use this investment type to catalog the investments that are incurring costs and benefits and are not projects, assets, applications, ideas, services, or products. Other Work represents work essential for including in your investment portfolio.

OBS Associations

Organizational breakdown structures (OBS) controls access, department hierarchies, and reporting. If at least one OBS exists for investments, you can associate any of these OBS's to your investment.

The OBS's available from the Organizational Breakdown Structures section of the investment's properties main - general page appear only when your administrator associates the named OBS with the investment object, such as the Application object.

The OBS named Department is used to associate an investment with a department. It is listed last if multiple Department OBS's exist.

See the *Basics User Guide* for more information.

Reports

The following are suggested reports for investments:

- Resource Assignments
- Capacity vs Demand By Resource (PMO Accelerator report)
- Capacity vs Demand By Role (PMO Accelerator report)
- Budget/Forecast Analysis
- Project Transactions Inquiry
- Timesheet Detail
- Portfolio Alignment

See the *Basics User Guide* for more information.

Investment Jobs

The Investment Allocations job can influence data or performance in Portfolio Management.

Contact your CA Clarity PPM administrator or see the *Administration Guide* for more information.

Access Investments

You can manage the following investment types from the Portfolio Management menu:

- Application
- Asset
- Idea
- Product
- Project
- Program
- Service
- Other

See the *IT Service Management User Guide* for more information.

To access investments

To access and manage these investments, select the investment type from the Portfolio Management menu. For example, to view a list of your applications, select Applications.

The list page appears. You can manage the investment, such as open an individual investment, create an investment, link directly to the investment details, and delete an investment.

How to Manage Investments

The investment list page displays a list of all the approved and unapproved investments of that type. You have view, edit, or delete access rights to these investments.

From the list page, you can do the following:

- Create investments (see page 17).
- Edit investment properties (see page 20), such as general, schedule, and budget.
- Manage investment hierarchies (see page 31).
- Manage investment teams (see page 37).

You can delete an investment if it has no associated transactions (posted or unposted).

You can filter, sort, and reconfigure this list page. Investments are sorted in ascending order by name. You can also save and use filters, build and use power filters, delete filters, and sort lists.

See the *Basics User Guide* for more information.

Investment Creation

Before you can analyze investments from within a portfolio, first define them in CA Clarity PPM. With sufficient access rights, portfolio managers can create investments—projects, programs, applications, assets, products, services, ideas, and other work. You create investments by importing them from another system of record into CA Clarity PPM or by creating them individually.

When you create an investment, you define the general, financial, and organization breakdown structure (OBS) properties. You can also establish the investment prioritization and scoring metrics for portfolio management, such as the investment planned cost and planned benefit. You can also define the risks, NPV, ROI, and alignment with corporate strategies. These properties help portfolio managers identify which investments are able to be shelved or removed based on spending restrictions during the budgeting process.

Import from Another System

If the system of record for investments is not CA Clarity PPM, you can import investments from the system of record using XML Open Gateway (XOG). Once imported, they can be viewed and managed in CA Clarity PPM and can participate in the portfolio management process.

See the *XML Open Gateway Developer Guide* for more information.

Create Investments

Use the create page to define your investment general, financial, and OBS properties. The fields that display on this page are the same fields that display on the properties main general page once you save the new investment.

The create page is configurable and can contain custom fields. You automatically acquire the implicit right to edit the investments you create. The investments you create are automatically added as unapproved investments to the default portfolio.

Follow these steps:

1. Open Home, and from Portfolio Management, click the type of investment you want to create.

   The list page for that investment type appears.

2. Click New.

   The create page appears.

3. Complete the following fields:

   <Investment> Name

   Defines the name of the investment.

   <Investment> ID

   Defines the investment unique ID across all investments. If auto-numbering is configured, then this field is pre-populated and is read-only.

   Limit: 20 characters

   Status

   Indicates the status of the investment.

   Values: Approved, Rejected, Unapproved

   Default: Unapproved

   Progress

   Indicates the progress of the investment.

   Values:

   - Completed
   - Not Started
   - Started

   Default: Not Started

Description

Defines the investment detailed description.

Limit: 762 characters

Manager

Defines the manager of the investment. By default, the manager is the user who creates the investment.

Start Date

Defines when the investment starts.

Note: If the start date and finish dates are not specified, you cannot calculate the allocation data that displays on the Team page.

Finish Date

Indicates when the investment finishes.

Goal

Defines the goal for the investment that aligns it with the main corporate strategy. Select a goal from the drop-down. Your organization defines the values and your CA Clarity PPM administrator sets them.

This metric is used in portfolio analysis when you use comparable goal criteria across all portfolio investments.

Alignment

Indicates how the investment aligns with the organization business goal. The higher the value, the stronger the alignment. The metric is used in portfolio analysis for comparable business alignment criteria across all portfolio investments.

Enter a numeric value. When saved, one of the following stoplight symbols displays:

- Red stoplight. Score from 0 to 33 are not aligned.
- Yellow stoplight. Score from 34 to 67.
- Green stoplight. Score from 68 to 100 are aligned.

Status Indicator

Displays a graphical representation of the status. For example, if the status is "Approved," you can visually represent the status as a Green stoplight.

Values: Red, Yellow, and Green. When saved, the selection displays as a stoplight symbol.

Stage

Defines the stage in the investment lifecycle. The list of choices is company-specific and depends on the values that your administrator sets.

The metric is used in portfolio analysis when you use comparable stage criteria across all portfolio investments.

Priority

Indicates the relative importance to the organization business goal. The metric is used in portfolio analysis when you use comparable priority criteria across all portfolio investments.

Limit: zero (low) to 36 (high).

Default: 10

Risk

Indicates the numeric score for risk. Lower the value, lower is the risk. The metric is used in portfolio analysis when you use comparable risk criteria across all portfolio investments.

Enter a numeric value. When saved, one of the following stoplight symbols is displayed.

- Green stoplight. Score from 0 to 33 indicates low risk.
- Yellow stoplight. Score from 34 to 67.
- Red stoplight. Score from 68 to 100 indicates high risk.

Required

Indicates if the investment is included in scenario selection criteria. It is used for portfolio scenario constraints to pin required investments. Select the check box to include in scenario selection criteria.

4. In the Organizational Breakdown Structure section, select the OBS you want to associate with the investment for security, organizational, or reporting purposes.

   The OBS named Department is used to associate the investment with a department. It is listed last if multiple OBS's exist.

   See the *Basics User Guide* for more information.

5. Click Save and Return.

   The new investment is created and appears in the list on the investment's list page.

Main Properties

Main properties let you define base information about the investment. To view main properties, open the investment. The main properties page appears by default. You can also access other main properties pages.

You can do the following:

- Edit general information, such as name, manager, goals, status, alignment, and OBS associations.
- Manage scheduling information, such as start and finish dates, and tracking methods.
- Manage budget information, such as planned, budget, and forecasted cost and benefit, and set financial planning and metrics options.
- Enable for financial transactions.

Edit General Information

Use the properties main general page to view or edit general information.

Follow these steps:

1. Open the investment.

   The properties page appears.

2. Complete the following fields:

   <Investment> Name

   Defines the name of the investment.

   <Investment> ID

   Defines the unique identifier for the investment.

   Description

   Defines the investment detailed description.

   Limit: 762 characters

   Active

   Specifies if the investment is active. Activate the investment to allow resources to view investments in portfolios and in any capacity planning portlet.

   Default: Selected

Goal

Defines the goal for the investment that aligns it with the main corporate strategy. Select a goal from the drop-down. Your organization defines the values and your CA Clarity PPM administrator sets them.

This metric is used in portfolio analysis when you use comparable goal criteria across all portfolio investments.

Alignment

Indicates how the investment aligns with the organization business goal. The higher the value, the stronger the alignment. The metric is used in portfolio analysis for comparable business alignment criteria across all portfolio investments.

Enter a numeric value. When saved, one of the following stoplight symbols displays:

- Red stoplight. Score from 0 to 33 are not aligned.
- Yellow stoplight. Score from 34 to 67.
- Green stoplight. Score from 68 to 100 are aligned.

Status

Indicates the status of the investment.

Values: Approved, Rejected, Unapproved

Default: Unapproved

Status Indicator

Displays a graphical representation of the status. For example, if the status is "Approved," you can visually represent the status as a Green stoplight.

Values: Red, Yellow, and Green. When saved, the selection displays as a stoplight symbol.

Stage

Defines the stage in the investment lifecycle. The list of choices is company-specific and depends on the values that your administrator sets.

The metric is used in portfolio analysis when you use comparable stage criteria across all portfolio investments.

Priority

Indicates the relative importance to the organization business goal. The metric is used in portfolio analysis when you use comparable priority criteria across all portfolio investments.

Limit: zero (low) to 36 (high).

Default: 10

Progress

Indicates the progress of the investment.

Values:

- Completed
- Not Started
- Started

Default: Not Started

Required

Indicates if the investment is included in scenario selection criteria. The option is used for portfolio scenario constraints to pin required investments. Select the check box to include in scenario selection criteria.

3. In the OBS section, associate an OBS to the investment.
4. Save your changes.

Manage Scheduling Information

Follow these steps:

1. Open the investment.

   The properties page appears.

2. Open the Properties menu and click Schedule.

   The schedule properties page appears.

3. Complete the following fields:

   Start Date

   Defines when the investment starts.

   Note: If the start date and finish dates are not specified, you cannot calculate the allocation data that displays on the Team page.

   Finish Date

   Indicates when the investment finishes.

   Set Planned Cost Dates

   Indicates if planned cost dates are synchronized with the investment start and finish dates. Select the check box to synchronize.

Time Entry

Indicates if staff members can enter time on their timesheets for this investment. Select the check box to enable the investment for time entry.

Important! Each staff member must also be enabled for time entry.

See the *Basics User Guide* for more information.

Track Mode

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

Values:

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

Default: Clarity

Charge Code

Defines the charge code associated with the investment. Charge codes are to process financial transaction and in financial planning to track posted actuals.

If you enter a different charge code at the task level on timesheets, the task level charge codes override them.

4. Click Save.

Enable Financial Transactions

Financially enable an investment for financial processing. You can identify the financial location, financial department, and other attributes that are used when processing financial transactions.

You can also associate general, labor transaction rates, material transaction rates, equipment transaction rates, and expense transaction rates to the investment.

The following must be set up before you can enable an investment for financial transactions.

- Entity, WIP and investment classes, location, and rate and cost matrices.

  See the *Administration Guide* for more information.

- A department.

  See the *Basics User Guide* for more information.

Follow these steps:

1. Open the investment.
2. Open the Properties menu and click Financial.

   The financial properties appear.
3. Complete the following fields:

   WIP Class

   Defines the work-in-process class used to match the investment with rate and cost matrices. The WIP class can also be used for reporting purposes.

   Investment Class

   Defines the investment class used to match the investment with rate and cost matrices. The investment class can also be used for reporting purposes.

   Department

   Defines the department used during transaction processing of chargebacks to charge or credit departments for costs. The department can also be used to match the investment with rate and cost matrices. If a department is selected on the general properties page, this field is auto-populated. Required for chargebacks.

   Location

   Defines the location used to match the investment with debit and credit rules for transaction processing of chargebacks. If system or entity defaults indicate that the source location is taken from the investment, use location to match the investment with rate and cost matrices.

   See the *Administration Guide* for more information.

4. In the Labor Transaction Rates, Material Transaction Rates, Equipment Transaction Rates, or Expense Transaction Rate sections, enter the following for each transaction type as needed:

   Rate Source

   Defines the rate used during transaction processing to charge for the cost of labor, materials, equipment, or expenses associated with the service.

   Cost Source

   Defines the cost of the labor, materials, equipment, or expenses associated with the service.

   Exchange Rate Type

   Defines how rates and costs are converted for systems with multicurrency enabled.

5. Save your changes.

Incidents

From investment properties, you can manage incidents assigned to the investment and also associate incident categories to the investment.

Incident categories group incidents so that you can capture and assess the cost incurred and view resource utilization. You can associate incident categories to your investment. Incident categories set up and maintained by your CA Clarity PPM administrator.

Incidents track the work performed on your investments. You can view incidents assigned to your investments or create new incidents.

Associate the Investment with Incident Categories

To associate the investment with an incident category, your CA Clarity PPM administrator must create them. Your CA Clarity PPM administrator can also associate investments collectively to an incident category.

See the *Administration Guide* for more information.

Follow these steps:

1. Open the investment.
2. Open the Properties menu and click Incident Categories.

   The incident categories page appears.

3. Select the incident categories you want to associate with the investment, and click Add.
4. Click Save.

View and Manage Incidents

You can view a high-level summary of incident information, including the following:

- Total cost currency
- Total cost
- Number of incidents
- Total incident actual effort

You can also create new incidents, reassign selected incidents, or convert them to a task or to a project.

See the *Demand Management User Guide* for more information.

Follow these steps:

1. Open the investment.
2. Open the Properties menu and click Incidents.

   The incident properties page appears.
3. View the list of investment incidents.
4. Do one of the following:
   - Review the incident summary or click the incident short description to view incident details.
   - Create an incident.
   - Select the check box next to each incident and do one of the following:
     - Click Reassign.
     - Click Convert to Task.
     - Click Convert to Project.

View or Define Dependencies

Dependency relationships can exist between one investment and another in your portfolio. Dependencies can occur between the start and completion of conflicting work effort, or from budget overruns. You can add investments with dependency constraints, and indicate whether these investments are dependent on your investment or if your investment is dependent on them.

The dependency information you define influences the constraints you set on portfolio scenarios.

Follow these steps:

1. With your investment open, click the Properties menu and click Dependencies.

   The dependencies properties page appears.

2. Select a mode to view or add the following:

   - Investments that depend on this one. Displays other investments that are dependent on your investment.
   - Investments this one depends on. Displays other investments that your investment is dependent on.

3. Click Add to add more dependencies to your investment.

   The select investments page appears.

4. In the Investment Filter section, select an investment type from the Type drop-down, and click Add.

How to Manage Baselines

Baselines are snapshots of your investment total planned effort and cost estimates at the moment you capture it.

Baseline snapshots are static. The changes you make to your investment after you create a baseline do not automatically appear in the current baseline. However, you can update a baseline to include your newly entered or posted information.

To record the cost on your baseline, verify the following:

- The Rate Matrix Extraction job is run.

  See the *Administration Guide* for more information.

- Investment staff members have rates defined.

  See the *Resource Management User Guide* for more information.

  You can do the following:

  - Create or edit a baseline. (see page 28)
  - View baseline cost and usage (see page 29).
  - Update the baseline at the investment level (see page 29).
  - Delete baseline.

Current Baseline

The most recently created baseline becomes current baseline for the investment by default. If the investment has only one baseline, this baseline is marked as the current baseline. The baseline is displayed in the list with a yellow checkmark in the Current column.

You can change the current baseline by editing the baseline properties.

Create or Edit an Investment Baseline

The first baselining often occurs before resource times are entered. After the initial baseline, you can create baselines at various intervals, such as when different phases are completed, or at the end. The initial baseline lets you compare estimates to actuals once the investment is under way.

Follow these steps:

1. With your investment open, open the Properties menu and click Baseline.

   The baseline properties page appears.

2. Do one of the following:

   - Click New to create a baseline.
   - Click the Revision Name link to edit a baseline.

     The baseline revision properties page appears.

3. Complete the following fields:

   Revision Name

   Defines the name for the baseline, such as Initial Variations, Midterm Variations, or Final Variations.

   Revision ID

   Defines the revision number or name for the baseline version number, such as v1 or r5.

   Description

   Defines the description for the baseline.

   Current Revision

   Indicates if this baseline is the current baseline. You can only select this check box when multiple revisions exist.

4. Click Save and Return.

Cost and Usage Data from Baselines

The following columns on the baseline properties page of an investment indicate the work allocation and cost information at the time of the baseline:

- Usage. Total effort (actuals plus remaining ETC) to date.
- BCWP. Budgeted Cost of Work Performed to date. This value is calculated based on the cost/rate matrices that have been applied to the investment.

You can use baselines to perform an Earned Value Analysis (EVA) on investment performance. An EVA tells you how much effort you have spent to date on the investment.

Important! Assign a cost/rate matrix to your investment for planned cost of work performed (BWCP) and earned value data to be visible.

Update Baselines at the Investment Level

You can update an existing baseline rather than create a new one. For example, you can update an existing baseline to include data from recently posted actuals. Updating a baseline changes its values accordingly and sets it as the current baseline.

If you delete the current revision baseline and there is more than one baseline, then the most recent baseline becomes the current revision.

Follow these steps:

1. With the investment open, open the Properties menu and click Baseline.

   The baseline properties appear.

2. Select the baseline you want to update.
3. Click Update Baseline.

   A confirmation message appears.

4. Click Yes.

Approve Investments

The core decision to fund an investment and not fund another is fundamental to portfolio management. You can approve or reject the investment. Use CA Clarity PPM to track and manage both approved and unapproved investments.

Before you can approve an investment, verify that there are no initiated and running processes that have set the investment status to display-only.

Follow these steps:

1. Open the investment.

   The properties page appears.

2. Select Approved from the Status drop-down from the General section.

Capacity Planning Scenarios

Scenarios allow you to apply a systematic methodology to optimize your investment or portfolio. Apply scenarios to your investment to analyze how staffing changes or shifts in dates affect the outcome of your investment or portfolio. You can evaluate your investments by switching between a scenario and the plan of record. You can also compare two scenarios against each other.

Create Capacity Planning Scenarios

You can create a capacity planning scenario from any investment page that displays the scenario toolbar. The scenario toolbar displays below the page toolbar.

Create a scenario from within a portfolio. You cannot create portfolio scenarios from your scenario.

Apply Capacity Planning Scenarios to Investments

Use the scenario toolbar to select any existing capacity planning scenarios to which you have access rights (including any portfolio scenarios). When you open an investment and select a scenario from a capacity planning scenario-enabled page, the scenario is set as the current scenario.

Hierarchies

You can manage the investments, services, and ideas that comprise your investment from the investment hierarchy.

You can see your investments hierarchical lists—the projects, assets, applications, products, services, and other work from the hierarchy.

Both the financial rollup and the effort rollup are hierarchical representations of the investments, services, and ideas that comprise your investment. You can expand and collapse the items listed and add and remove child investments.

In the hierarchy, the Self line item displays the work values or costs that are specific to your investment. The line items that lie below the Self line item are the child investments, services, and ideas that comprise your investment. They also display the work values or costs specific to those child investments.

About Financial Rollup

The hierarchy displays an aggregation of the child investment, service, or idea costs, planned, actual, and remaining. The values displayed are time-varying and factor in the investment allocation percentages that you have defined.

The planned cost values displayed are rolled up from the child investment, service, or idea after the investment allocation percentages are factored in. The actual cost values displayed are the costs that are incurred from billing and invoices. Like the planned cost, the actual costs are also rolled up from the child investment or service after the investment allocation percentage is factored in. If the investment is unapproved, actual costs do not display on the financial rollup because costs are yet to incur. The value displayed in the Remaining Cost column is the difference between the planned costs and the actual costs.

The Planned ROI and Planned NPV columns display the child investment, service, or idea ROI and NPV. The Planned Benefit column displays the planned revenue (the sum of the planned benefit from the investment, service, or idea detailed budget).

Filter the List of Child Investments

By default, both the financial and effort rollup for an investment display a list of approved and unapproved child investments. You can view only approved or unapproved child investments by choosing the status from the Status field in the filter section of the page.

See the *Basics User Guide* for more information.

How to Build a Hierarchy

You can add and remove child investments, services, and ideas to and from your investment hierarchy based on your company business rules. The child investment and ideas available for you to add to your investment are the ones to which you have view access rights. These investments are associated to the same entity as your investment. Use the financial rollup or effort rollup page to add or remove associations of investments to your investment hierarchy.

As you build your hierarchy, the associated child investment planned costs are rolled up to your parent investment, as planned costs in the financial rollup. Similarly, the associated child investment aggregated work values are rolled up to the parent investment and are displayed on the effort rollup.

Do the following to build an investment hierarchy:

- Add child investments (see page 32).
- Remove child investments (see page 38).
- View the financial rollup (see page 33).
- Define allocations for child investments (see page 33).

Add Child Investments from the Financial Rollup

You can add child investments, services, and ideas to your investment from the investment hierarchy financial rollup or effort rollup.

Verify that you have created investments and ideas in CA Clarity PPM before adding them to your investment hierarchy. Work with the other investment managers to determine and define the investment allocations for each of the child investments you are adding to the hierarchy.

Follow these steps:

1. Open the investment.
2. Open the Hierarchy menu and click Financial Rollup.
3. Click Add Child.
4. Select the investment, service, or idea you want to add, and then click Add.

View the Financial Rollup

You can view the investment financial rollup on the investment hierarchy page. This page displays a hierarchical list of the child investments, services, and ideas that comprise your investment. All of the child investment costs and benefits are rolled up to the parent investment, and are listed on the parent investment line items.

You can track the costs incurred to build, maintain, and support your investment using allocation percentages, planned costs, actual costs, remaining costs, planned benefits, planned ROI, and planned NPV. You can also view other metrics that are applicable to the investment as a whole, and add or remove child investments.

Follow these steps:

1. Open the investment from which you want to view the financial rollup.

   The properties page appears.

2. Open the Hierarchy menu and click Financial Rollup.
3. View the list of investments.

Define Child Investment Allocations

When you first add a child investment or service to your investment, its investment allocation is set at 100 percent by default. View the amount a child investment is allocated to your investment from the allocation amount listed on your investment financial and effort rollup.

Define the percentage amount a child service, investment, or idea is allocated to your investment. You can distribute the amount the child investment is allocated to its parent investments by editing the Allocation field.

Follow these steps:

1. Open the investment.

   The properties page appears.

2. Open the Hierarchy menu and click Financial Rollup.
3. Click Parents.

   The investment hierarchy parents page appears.

4. Click the allocation amount for the child investment or service you want to define.

   The set allocations page appears.

5. In the Allocation field for your investment, enter the amount this child investment is allocated to your investment, the parent investment.
6. Click Save.

View Effort Rollup

Use the investment hierarchy effort rollup to view the effort rollup of the investments, services, and ideas that comprise your investment. The effort rollup displays the aggregation of the child investment labor-related information—such as ETC, EAC, and work variances. The aggregation takes into account the child investment allocation percentages. View these totals in the ETC, EAC, and Actual Work columns.

The investments that display on effort rollup are the same investments that display on the investment hierarchy financial rollup. The effort rollup provides another view of the hierarchical list of child investments.

You establish the hierarchy when you select a parent investment from the child investment properties.

Follow these steps:

1. Open the investment.

   The properties page appears.

2. Open the Hierarchy menu and click Effort Rollup.

   The effort rollup page appears.

3. View the list of investments.

View Total Cost of Ownership

The total cost of ownership (TCO) is the aggregated amount of operating an investment, including other supporting investment. The TCO tracks where costs are being spent, how costs are being shared. You can manage costs to keep on budget proactively.

After adding all child investments to an investment, you can view the aggregated cost and labor totals from the hierarchical bill of investments. You can then determine the investment TCO.

How to Manage Parent Investments

Use the parent investment hierarchy page to view a list of parent investments to which your investment is allocated. You can also view the percentage your investment is allocated to each parent.

Note: Child investment cost totals are automatically aggregated to the parent investment based on the investment allocation percentages.

You can also use this page to add parent investments to the investment.

You can do the following:

- Add or remove parent investments (see page 36).
- Define parent investment allocations (see page 36).

You can add any investment to which you have access rights as a parent investment to your investment.

How to Share Investments Across Investments

You can share investments among other investments, services, and ideas.

For example, do the following to share a database server that supports two software applications:

- Add the two software applications as child investments to the database server investment hierarchy
- Edit the child investment cost allocation percentage and time segments.

The investment allocation percentage dictates the amount that the investment is allocated to the parent investment, service, or idea. All cost information displayed in the investment hierarchy is based on the allocation percentages.

Add and Remove Parent Investments

You can add and remove parent investment associations to and from your investment based on your company business rules. You can select to add one parent investment or you can add multiple investments at one time. You can also remove these parent investment associations.

Follow these steps:

1. Open the investment.

   The properties page appears.

2. Open the Hierarchy menu and click Parents.

   The investment hierarchy parents page appears.

3. Click Add.

   The select investments page appears.

4. Select the check box next to the parent investment you want to add, and then click Add.

Define Parent Investment Allocations

Investments can be allocated to one or more child investments or services. However, the total allocation percentage for a parent investment must equal 100 percent. You can view the parent investments allocation amounts for your investment on the investment hierarchy parents page.

To edit or define the percentage allocation of a parent investment

1. Open the investment.

   The properties page appears.

2. Open the Hierarchy menu and click Parents.

   The investment hierarchy parents page appears.

3. In the Allocation field for the parent investment, define the allocation for your investment and save.

Investment Team

Team members are the core elements of an investment. Both are essential to meeting investment objectives. Team members are necessary to generate ideas and monitor progress. Once the investment is underway, staff can record actuals for time spent on investments. Investment managers can then compare actuals to estimates for planning, tracking, and budgeting purposes.

You can staff your investments by allocating roles and resources. You can add both labor and non- labor resources. You can view the bottom-up aggregated work effort by role. You can switch the view to edit the direct planned work for the investment.

To use the rates from newly added staff member in your investment calculations and in baselines, verify that the Rate Matrix Extraction job is run.

See the *Administration Guide* for more information.

To view the investment team staff page, open the investment and click Team.

How to Staff a Team

Staff members are resources or roles that can be assigned to work on an investment and can record the time they work on the investment on their timesheet. Investments are not associated with tasks and staffing them does not result in long term commitments for that staff.

You can use a role as a placeholder when you do not know the name of the resource you want to staff on your investment, or if the resource you want to staff on your investment is not available. You can staff your investment with multiple instances of a role, but you cannot add multiple instances of a resource.

You can do the following to staff an investment team:

- Add resources or roles (see page 38).
- Book over allocated resources (see page 39).
- Edit staff member details (see page 39).

Add Resources or Roles to the Staff

The investment team staff page displays a list of the resources or roles that have been added to the investment. All resources are automatically allocated at 100 percent of their available working days. You can adjust this value to meet your needs.

When adding resources to your investment staff, you can over-allocate a resource. A confirmation page appears that allows you to either over-allocate the resource, or to accept any remaining availability the resource has.

You can add multiple instances of a role to an investment but not multiple instances of the same named resource. For example, you can assign your investment a programmer (1) and a programmer (2) role representing two different requirements for a resource with a programming role.

Note: To add team members to your investment at the OBS level, from the investment team staff page, click Add/Update by OBS. This option adds all of the resources in the selected OBS unit to your investment.

See the *Project Management User Guide* for more information.

Follow these steps:

1. Open the investment and click Team.

   The investment team staff page appears.

2. Click Add.

   The select resources page appears.

3. Select the resources and or roles you want to add to the investment staff. Use the Search Filter to find resources or roles by name or other criteria.

4. Click Add to add the resources or roles you selected.

Remove Child Investments or Services from the Financial Rollup

Follow these steps:

1. Open the investment from which you want to remove child investments or services.

   The properties page appears.

2. Open the Hierarchy menu.

   The financial rollup page appears by default.

3. Select the child investment you want to remove from the investment, and then click Remove.

4. Click Yes to confirm.

Book Over-allocated Resources

If the available hours for a resource are less than the total number of requested hours, the remaining availability confirmation page appears.

The remaining availability confirmation page indicates that the resource is overbooked after you add them to the investment. The 100 percent Resource Allocation column lists the number of hours used when you book the resource at 100 percent of their availability. By default resources are booked at 100 percent allocation. The Remaining Availability column indicates the actual number of work hours the resource has available to work on the investment.

When this confirmation page appears, select one of the following options:

- Overallocate. This option over-allocates the resource.
- Remaining Only. This option books the resource for the amount listed in the Remaining Availability column.

Edit Staff Member Details

After adding a resource or role to your investment, use the resource staff member properties page to specify the details for that staffing requirement.

Follow these steps:

1. Open the investment and click Team.

   The investment team staff page appears.

2. Click the Properties icon for the resource or role to specify the details for that staffing requirement.

   The resource staff member properties page appears.

3. Complete the following fields:

   Requirement Name

   Displays the staff member name associated with the requirement.

   Start Date

   Defines the team member allocation start date for the investment.

   Default: The investment start date.

   Finish Date

   Defines the team member allocation finish date for the investment.

   Default: The investment finish date.

Default % Allocation

Defines the percentage of time to allocate the resource to the investment (you can enter 0 percent). The change updates the Allocation and Allocation % columns on the investment team staff page.

Booking Status

Indicates the staff member booking status. Staff members can either be soft, hard, or mixed booked.

The booking status is set automatically when team members are booked or their allocation changes. Set the booking status manually as desired.

Values:

- Soft
- Hard
- Mixed. Indicates that both soft and hard allocation exist for the team member.

Note: Contact your CA Clarity PPM administrator or see the *Administration Guide* for more information.

Request Status

Determines the staffing requirement. Select another status from the drop-down.

Default: New

Resource

Displays the resource associated with the staffing requirement.

Investment Start Date

Displays the investment start date.

Investment Finish Date

Displays the investment start date.

Investment Role

Defines the role for which resources are requested for the investment.

Example: Developer, Business Analyst, Architect

Staff OBS Unit

Defines the Staff OBS Unit.

Default: The investment Staff OBS Unit value, if defined.

Open for Time Entry

Indicates if the resource is open for entering time for work done.

Resource Employment Type

Defines the resource employment type.

Values: Contractor, Employee

Resume Keywords

Defines resume keywords for the resource.

Planned Allocation

Defines the total percentage of time the resource is planned to be allocated to the investment, as requested by the investment manager. The allocation also specifies the start and end dates.

Hard Allocation

Defines the total percentage of hard-booked allocation of the resource to the investment (as entered by the resource manager). The allocation also specifies the start and end dates of the allocation.

No hard allocation value exists until the resource manager hard-books the allocations.

4. Click Save and Return.

Role Capacity

The investment team role capacity page provides an aggregated view of all role demand whether generated by role-based team members or named resources. You can view this information against the capacity of the resources that fill those roles. You can view this information both inside and outside of a scenario.

Resources without a team role are captured on this page in the [No Role] row.

Follow these steps:

1. Open the investment.
2. Open the Team menu and click Role Capacity.

   The investment team role capacity page appears.
3. Review the following information:
   - Role allocation to this investment compared to allocation to other investments and over-allocations. Data aggregates by role through the investments hierarchy and each child investment allocates a specific percentage to the investment.
   - Available role capacity for this investment and child investments.
4. If a role appears over-allocated, click the Staff icon to go to the investment team staff page and see all resources using that role.

Staff Allocations

A staff allocation is the period during which a resource is booked to an investment. Unless you change the booking dates, staff members are automatically booked for the entire duration of the investment. An allocation amount for each resource is calculated as follows:

The total number of working days between the investment start and finish dates (including the start and finish dates) * the number of hours the resource is available to work each day.

TC is based on the number of hours a resource is assigned to the investment.

View and Edit Staff Allocations on Investments

You can use the investment team staff page to edit some of your allocation-related staff information.

Follow these steps:

1. Open the investment.

   The properties page appears.

2. Open the Team menu and click Staff.

   The investment team staff page appears.

3. Edit the following fields as desired:

   Resource

   Defines the resource assigned to the investment.

   Role

   Defines the resource role for the investment.

   Time

   Indicates if the resource can enter time for work completed on the investment.

Booking Status

Indicates the resource booking status for the investment.

Request Status

Defines the request status for the resource.

Values:

- New
- Open
- Proposed
- Approved
- Booked
- Closed

Start and Finish

Defines the start and finish dates the resource is booked to the investment. Change in dates update the value in the Allocation column.

% Allocation

Defines the default amount this resource is allocated to this investment. You can enter 0 (zero) as the allocation percentage. Changes also update the value in the Allocation column.

4. Click Save.

Edit Resource Allocations on Investments

The investment team detail page lists planned and committed allocation for an investment by resource by time period in a column graph format. This view helps you determine if a resource is overbooked or under booked and by how much. You can also ascertain the availability for a resource for an investment.

Data on the detail page appears by resource, allocation, and time period. Scrolling over a time period displays a note providing you with a brief summary of what you see. The time period columns are, by default, set to weekly, and always start with the current week. The allocation color code works as follows:

- Yellow—Resource is allocated at or under availability for that time period.
- Red—Resource is over-allocated (that is, the amount of time booked exceeds availability) for that time period.
- Green—Allocation to other investments, ideas, or services.

You can change many of the time-related values on this page by configuring the default view to display the allocations as a number graph.

See the *Basics User Guide* for more information.

Follow these steps:

1. Open the investment.
2. Open the Team menu and click Detail.

   The team detail page appears.
3. Edit the allocations amounts for the resources directly in the grid.
4. Save your changes.

Change Resource Default Allocation on Investments

Use of the Planned Allocation and Hard Allocation sections on a resource staff member properties indicate any deviations from the Default % Allocation field. You can unbook a hard-booked resource or extend a resource to do additional planning.

The Planned Allocation curve represents the default or total allocation amount requested by the investment manager. The Hard Allocation curve represents the allocation amount committed by the resource manager. The booking status for a resource changes according to the allocation amounts in the planned and hard allocation curves.

For example, suppose the planned or default allocation for a resource is 100 percent. The resource is booked to work on your investment from 8/05 through 11/05. The resource is also scheduled to work on another investment 50 percent of the time through September 1. The resource plans to be on vacation from September 15 through September 22. In this case, you could create two allocation curves: one that indicates a deviation to 50 percent from 8/01/05 through 9/01/05, and another that indicates a deviation to 0percent from 9/15/05 to 9/22/05.

Follow these steps:

1. Open your investment.

   The properties page appears.

2. Open the Team menu and click Staff.

   The team staff page appears.

3. Click the Properties icon next to a resource.

   The resource staff member properties appear.

4. At Default % Allocation, enter the percentage of time you want the resource allocated to this investment (you can enter 0 percent).

   The change you make here is reflected in the Allocation and Allocation **%** columns on the investment team staff page.

5. In the Planned Allocation and Hard Allocation sections, create one row for each deviation from the default allocation.

   To use the short example preceding these steps, create a row to cover the period where the resource works at 50 percent (compared to the 100 percent planned allocation). Create another row for the period where the resource actually works at 0 percent (compared to the 100 percent default or planned allocation).

6. To create a planned or hard allocation period:

   a. Enter or select a Start date for the period.

   b. Enter or select a Finish date for the period.

   c. Enter the percentage of time you expect them to work (as tentative or committed) in the **%** Allocation field. You can enter 0 percent.

7. Click New Row to add another row and repeat Step 4.
8. When you are done, click Save and Return.

How to Reset Staff Allocations on Investments

You can reset your investment staff allocations in the following ways:

- Shift Allocation (see page 46)
- Set Allocation (see page 48)
- Estimate from Allocation (see page 49)
- Commit Planned Allocation (see page 49)
- Accept Hard Allocation (see page 51)

Shift and Scale Resource Allocations on Investments

You can shift or scale all or a portion of the resource allocations in an investment by moving resource allocations back and forward in time. As you move data, segmented allocation dates are kept intact, even when the percent allocated for each segment changes. Shifting a resource allocation is useful when you want to push the investment allocations beyond the allowable time-scaled view, which can only extend for six months.

Use the Shift Allocation option that is available on the investment team staff and team detail pages.

As an example, consider an allocation that starts on May 1, continues at its default rate of 100 percent through the end of May. In June, the allocation is reduced to 50 percent. If you shift the allocation to start on June 1, it will go from June 1 through July 2 (for 31 calendar days) at 100 percent. Then through August 2 the allocation is at 50 percent. You can also shift allocations for time spans that contain no segments.

Follow these steps:

1. Open the investment.
2. Open the Team menu and click Staff.

   The investment team staff page appears.
3. Select the resource whose allocations you want to shift.
4. Open the Actions menu, and from General, click Shift Allocation.

   The shift allocation page for that resource appears.
5. In the Time Span to Shift section, change the start and finish dates that the resource is allocated to work on this investment. Data shifts according to the dates you enter in these fields.
6. In the Time Shift Parameters section, do the following:
   - At Shift to Date, select a new beginning date for the data that has been shifted. If this field is left empty, no shifting occurs.
   - At Shift Cut-Off Date, select the last date to which data can be shifted. You cannot shift allocations beyond this date.
   - At Scale Allocation % By, enter the percentage change in the allocation to make the shift. If this field is left empty, no scaling occurs.
7. Click Save and Return.

   The changes you made are reflected in the Allocation column on the investment team staff page.

Set Allocations for Multiple Team Members on Investments

You can set the allocations of multiple team members at the same time with one action.

Follow these steps:

1. Open the investment.

   The properties page appears.

2. Open the Team menu and click Staff.

   The investment team staff page appears.

3. Select the team members for whom you want to update allocation.

4. Open the Actions menu, and from General, click Set Allocation.

   The set allocation page appears.

5. In the General section of the page, set the following allocations for the selected team members:

   - Start Date. Enter or select the resource start date on the investment. Select the Reset to Match Investment Start Date check box to reset the resource staffing requirements on this investment to match the investment start date.
   - Finish Date. Enter or select the resource end date on the investment. Select the Reset to Match Investment Finish Date check box to reset the resource staffing requirements on this investment to match the investment finish date.
   - Default Allocation %. Enter or select the resource allocation to the investment.

6. To remove all allocation segments for the selected team members, in the Existing Allocation Segments section of the page, select the Clear existing allocation segments check box.

7. To create an allocation segment for the selected team members, complete the following fields in the New Allocation Segments section of the page:

   - Start. Enter or select the resource start date on the investment.
   - Finish. Enter or select the resource end date on the investment.
   - % Allocation. Enter or select the resource allocation to the investment.

8. Click Save and Return.

Update ETC to Align with Team Member Allocation

You can update the ETC to align with team member allocation for assigned resources.

Follow these steps:

1. Open the investment.

   The properties page appears.

2. Open the Team menu and click Staff.

   The investment team staff page appears.

3. Select the team members for whom you want to update allocation.

4. Open the Actions menu, and from General, click Estimate from Allocation.

   A prompt appears asking you to confirm the action.

5. Click Yes to confirm.

Commit Resource Planned Allocation on Investments

When you commit a resource planned allocation, you set the resource hard allocation to be equal to the planned allocation. Commit an allocation after editing the planned allocation segment for a resource if you want to hard-book those segments. When a resource has a hard booking status, that resource is fully committed.

The Commit Planned Allocation option is available by clicking More on the investment team staff and team detail pages.

Committing planned allocation does not reset the default allocation percentage. The planned allocation is copied into the Hard Allocation section of the resource staff member properties page.

The Hard Allocation section displays on the page depending on your project management Allow Mixed Booking setting. The setting is available as a default project management option.

See the *Administration Guide* for more information.

Follow these steps:

1. Open your investment.

   The properties page appears.

2. Open the Team menu and click Staff.

   The investment team staff page appears.

3. Select the check box next to the resource for which you want to commit planned allocation.

4. Open the Actions menu, and from General, click Commit Planned Allocation.

   A prompt appears asking you to confirm the action.

5. Click Yes to confirm.

Accept Resource Hard Allocation on Investments

Use the Accept Hard Allocation option to reset a resource planned allocation to be equal to the hard-booked allocation. If soft-booked planned segments displayed in the Planned Allocation section, they are removed and all segments are reset to equal the hard-booked segment.

The Accept Hard Allocation option displays depending on your Mixed Booking settings.

See the *Administration Guide* for more information.

Follow these steps:

1. Open your investment.

   The properties page appears.

2. Open the Team menu and click Staff.

   The investment team staff page appears.

3. Select the resource for which you want to accept hard allocation.

4. Open the Actions menu, and from General, click Accept Hard Allocation.

   This option sets the planned allocation to equal committed allocation. Accordingly, the % Allocation and Allocation column values can change. The Booking Status value displays as “Hard” as all the allocation is fully committed.

About Staff Member Replacement

You can replace a staff member assignment from the investment team staff page. Use the availability score to find a replacement at the team level. You also can replace a resource with a different resource, or replace a role with an actual resource.

Important! The replacement process can over-allocate the member who is replacing the previous member or members.

Guidelines for Staff Member Replacements

Consider the following before making a staff member replacement:

Replacing a resource with a different resource, does not transfer the actuals, pending actuals, and baseline of the original resource to the new. Only the remaining ETC is transferred to the new resource.

The original resource can complete time entries so that the actual data is posted before the replacement occurs.

The role of the original resource is transferred to the new resource (unless you are replacing a role with a different role).

Removing a resource from your investment does not also delete the resource, nor does it change the resource status to inactive.

If a resource has not posted actuals to an investment and has no submitted actuals pending, you can remove them from your investment.

How Data Transfers When Replacing Staff Members

The following table identifies how data from the replaced staff member transfers to the new staff member:

Data Type	Transfers
Available Start	Yes, if this date has not passed and if new resource is not booked on that date.
Available Finish	Yes
Remaining Allocation	Yes
Percent (%) Allocation	Yes
Investment Role	Yes
Existing Actuals	No
Pending Actuals	No
Baselines	No

Replace Staff Members

You can replace staff members assigned to your investment. A list of resources who share the same role as the resource being replaced, and who are available during the investment time period is generated. You can replace a resource using the team staff or detail page.

An availability score helps you select which resource is best suited, in terms of availability, to replace the existing resource. An availability score for each of the resources to which you have access is generated. The score indicates how close the availability of the possible replacement resources comes to the availability of the resource being replaced. Availability is based on the duration of the assignment and the daily availability of the resource. Higher the score, closer is the match.

Use the find resources page to replace staff members. This page lists all of the resources to which you have access.

The Availability field identifies the assignment period and the number of hours the resource you are replacing was allocated to your investment. Both the dates and the hours allocated are transferred to the new replacement.

The Availability Match column displays a score 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 score. The Skill Match column is left blank. If you search by skills criteria and availability criteria, the Total Match column displays an average of the two scores.

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

"Match scores may be inaccurate if availability dates do not fall into the following range: ddmmyy - ddmmyy,"

The message means that if there is a discrepancy between the date range in the message and the dates in the Availability field. Accordingly, the Availability Match score can be inaccurate. For example, if the dates in the Availability field are 9/1/09 - 2/7/10 and the date range in the message is 9/7/09 - 9/7/10, a one-to-one comparison for any resource cannot be found. This mismatch lowers the overall availability match scores.

Follow these steps:

1. Open your investment.

   The properties page appears.

2. Open the Team and click Staff.

   The investment team staff page appears.

3. Next to the name of the staff member you want to replace, click the Resource Finder icon.

   The find resources page appears.

4. Select the check box next to the resource with whom you want to replace the previous resource, and click Replace.

   The booking confirmation page appears.

5. Confirm the selection by clicking Yes.

   The investment team staff page appears, where you see that the name of the resource you selected replaces the previous staff member.

Change Investment Staff Member Roles

You can change a staff member role on an investment-by-investment basis. This change does not change the role identified for them in their resource profile. You can replace a role assignment from either the investment staff or detail page.

Follow these steps:

1. Open your investment.

   The properties page appears.

2. Open the Team menu and click Staff.

   The investment team staff page appears.

3. Next to the name of the resource for which you want to change the role, click the Properties icon.

   The resource staff member properties page appears.

   In the General section of the page, select the role that you want to assign to the resource for this investment.

4. Click Add.

5. Click Save and Return.

   The investment team staff page appears, where you see that the name of the resource role has changed in the Role field.

Retire Investments

You can retire or decommission your investment once it has been completed and no further work is being done. Retiring an investment with dependencies on other investments (parent or child investment), dynamically adjusts the child investment allocation by the retire investment finish date.

When you set the parent investment finish date, the child investment costs that occur after that date are not rolled up to the parent investment.

Follow these steps:

1. Open the investment.

   The properties page appears.

2. Open the Hierarchy menu and click Parents.
3. Verify if the investment is allocated as a child to another investment.

   If the investment is a child of other investments, work out a transition plan with each of the parent investment managers. If necessary, replace the investments that depend on this investment with other investments.

4. Open the Properties menu and click Schedule.

   The schedule properties page appears.

5. Set the Finish date to the date you want the investment to retire.
6. Click Save.

Mark Investments for Deletion

Investments are deleted once the delete job for that investment type runs.

You can delete an investment if it has no associated transactions (posted or unposted).

See the *Administration Guide* for more information.

To mark an investment for deletion

1. Open Home, and from Portfolio Management, click the investment type.

   The list page for that investment type appears.

2. Select the investment you want to delete.
3. Click Mark for Deletion.
4. Confirm the deletion by clicking Yes.

   The selected investment is deleted and no longer displays in the list.

Chapter 3: Portfolios

This section contains the following topics:

About Portfolio Investments

Portfolio investment decisions are made by comparing investment types of a similar type and role capacity in a portfolio. The types of investments determine the number of portfolios you can create and the type of portfolio you define.

Once you have defined your company IT requirements, create and define the portfolios to include these investments.

How to Work with Portfolios

From the portfolio list page, you can view a list of portfolios, create new portfolios, or delete existing ones. This list page is a gateway to manage portfolio details and to define the various attributes of the portfolio.

You can do the following:

- Create new portfolios (see page 58)
- Edit portfolio properties (see page 63)
- Manage portfolio content (see page 75)
- View portfolio scorecards (see page 115)
- Analyze portfolios graphically (see page 126)

Create New Portfolios

A portfolio can include any or all investments and can be used to analyze a set of investments. After the portfolio is created, you can add investments and roles to the portfolio content.

Portfolio scenarios inherit some of the same settings as the portfolio. These inherited fields are display-only from the scenario properties.

Follow these steps:

1. Open Home, and from Portfolio Management, click Portfolios.

   The list page appears.

2. Click New.

   The create page appears.

3. Complete the following fields:

   Portfolio Name

   Defines the name of the portfolio.

   Portfolio ID

   Defines a unique identifier for the portfolio.

   Description

   Defines the portfolio description.

   Page Layout

   Specifies the page layout you want to use to view portfolio data. The available layouts are company-specific and are dependent on the values set by your CA Clarity PPM administrator. If other layouts are not available, this field is display-only.

   Default: Portfolio Default Layout

   Manager

   Specifies the portfolio manager who is responsible for managing portfolio details.

   Default: The resource who created the portfolio.

   Required: Yes

   Start Date

   Specifies date when portfolio analysis starts. The portfolio start and finish dates set the boundary for an investment cost and role capacity and demand.

   Default: The first day of the current system year.

   Required: Yes

Finish Date

Specifies the date when portfolio analysis ends. Click the Select Date icon to select another date.

Default: The last day of current system year.

Currency

Displays the currency code for the portfolio.

Planned Cost

Defines the amount of money available for investments in this portfolio.

Default: 0

Required: Yes

Planned Benefit

Defines the amount of money expected in return from the investments in the portfolio.

Default: 0

Required: Yes

Active

Indicates if the portfolio is active.

Default: Selected

Required: No

Manage Costs Using

Specifies whether to manage the portfolio cost values using total remaining planned cost values. This field is display only after the portfolio is created.

Values:

- Total Planned Cost. Select this option to manage costs using the total planned cost.
- Remaining Planned Cost. Select this option to display comparison data in the Remaining Cost column when comparing scenarios from the portfolio scorecard. The remaining cost as defined by the portfolio dates are used during scenario generation.

Default: Total Planned Cost

Required: Yes

Manage Capacity Using

Specifies whether to manage the portfolio capacity values using total role capacity or remaining role capacity. This field is display only after the portfolio is created.

Values:

- Total Capacity
- Remaining Capacity. Select this option to display comparison data when comparing scenarios from the portfolio scorecard. Role capacity and demand are calculated from the current date to the portfolio finish date during scenario generation.

Default: Total Capacity

Capacity Unit Type

Specifies the unit in which capacity values are calculated and represented. This field is display only after the portfolio is created.

Values: Hours or FTE

Default: Hours

Portfolio Investment Types

Specifies the type of investments included in this portfolio. You can select an investment type, such as Project, or all investment types. Additional investment types created using Lifecycle Management in Studio are also available as investment types.

See the *Studio Developer's Guide* for more information.

This field is display-only after the portfolio is created. If you select an investment type, supported fields are based on the selected investment type.

Default: All

Department

Defines the department for which you are creating the portfolio. When you select a department, all investments that meet the criteria (that is, the selected portfolio type) are automatically made available to the portfolio. You cannot edit this field after creating the portfolio.

Portfolio Type

Defines the type of portfolio you want to create. Select Customer if you want to analyze a portfolio of investments that the department is funding. Select Provider if you want to analyze a portfolio of investments that the department owns. You cannot edit this field after creating the portfolio.

Values: Customer or Provider.

4. Click Save.

   The portfolio is created.

Chapter 4: Portfolio Properties

This section contains the following topics:

Edit Portfolio Properties

Use the properties page to edit general portfolio information. General properties include details such as the portfolio name and ID, description, layout, manager, start and finish dates, and planned cost and benefit.

The fields that display on this page are the same fields that displayed when you created the portfolio.

Follow these steps:

1. With the portfolio open, click Properties.

   The properties page appears.

2. Edit or review the following fields:

   Portfolio Name

   Defines the name of the portfolio.

   Portfolio ID

   Defines a unique identifier for the portfolio.

   Description

   Defines the portfolio description.

   Page Layout

   Specifies the page layout you want to use to view portfolio data. The available layouts are company-specific and are dependent on the values set by your CA Clarity PPM administrator. If other layouts are not available, this field is display-only.

   Default: Portfolio Default Layout

   Manager

   Specifies the portfolio manager who is responsible for managing portfolio details.

   Default: The resource who created the portfolio.

   Required: Yes

Start Date

Specifies date when portfolio analysis starts. The portfolio start and finish dates set the boundary for an investment cost and role capacity and demand.

Default: The first day of the current system year.

Required: Yes

Finish Date

Specifies the date when portfolio analysis ends. Click the Select Date icon to select another date.

Default: The last day of current system year.

Currency

Displays the currency code for the portfolio.

Planned Cost

Defines the amount of money available for investments in this portfolio.

Default: 0

Required: Yes

Planned Benefit

Defines the amount of money expected in return from the investments in the portfolio.

Default: 0

Required: Yes

Active

Indicates if the portfolio is active.

Default: Selected

Required: No

Manage Costs Using

Specifies whether to manage the portfolio cost values using total remaining planned cost values. This field is display only after the portfolio is created.

Values:

- Total Planned Cost. Select this option to manage costs using the total planned cost.
- Remaining Planned Cost. Select this option to display comparison data in the Remaining Cost column when comparing scenarios from the portfolio scorecard. The remaining cost as defined by the portfolio dates are used during scenario generation.

Default: Total Planned Cost

Required: Yes

Capacity Unit Type

Specifies the unit in which capacity values are calculated and represented. This field is display only after the portfolio is created.

Values: Hours or FTE

Default: Hours

Manage Capacity Using

Specifies whether to manage the portfolio capacity values using total role capacity or remaining role capacity. This field is display only after the portfolio is created.

Values:

- Total Capacity
- Remaining Capacity. Select this option to display comparison data when comparing scenarios from the portfolio scorecard. Role capacity and demand are calculated from the current date to the portfolio finish date during scenario generation.

Default: Total Capacity

Portfolio Investment Types

Specifies the type of investments included in this portfolio. You can select an investment type, such as Project, or all investment types. Additional investment types created using Lifecycle Management in Studio are also available as investment types.

See the *Studio Developer's Guide* for more information.

This field is display-only after the portfolio is created. If you select an investment type, supported fields are based on the selected investment type.

Default: All

Department

Defines the department for which you are creating the portfolio. When you select a department, all investments that meet the criteria (that is, the selected portfolio type) are automatically made available to the portfolio. You cannot edit this field after creating the portfolio.

Portfolio Type

Defines the type of portfolio you want to create. Select Customer if you want to analyze a portfolio of investments that the department is funding. Select Provider if you want to analyze a portfolio of investments that the department owns. You cannot edit this field after creating the portfolio.

Values: Customer or Provider.

3. Click Save.

   The changes are saved.

Choose Portlet Viewing Options

The investments that display on the portfolio scorecard and portfolio analyze pages depend on the viewing options you select from the page toolbar. What investments appear also depends on whether they are a part of the portfolio contents and whether certain portfolio attributes were defined. If you do not have access rights to view an investment, it does not appear for analysis.

At a more detailed level, you can filter to restrict what data is presented on a particular portlet. Use the portlet filtering options. These options are visible when the portlet filter section is expanded.

See the *Basics User Guide* for more information.

Chapter 5: Portfolio Groups

This section contains the following topics:

Child Portfolios

Child portfolios allow you to associate one or more portfolios to a parent portfolio. Forming portfolio hierarchies gives you the flexibility to create a multilevel rollup of costs and benefits to a parent portfolio. Child portfolios also allow you to distribute down costs and benefits to child portfolios.

To perform portfolio analysis at the parent portfolio level, manually add the child portfolio investments to the parent portfolio.

How to Group Portfolios

You can group child portfolios within another portfolio to create a parent/child portfolio relationship. You can do the following:

- Designate a portfolio as a child portfolio (see page 68).
- Roll up and distribute costs and benefits across portfolios (see page 69).
- Remove child portfolios from a parent (see page 73).

View a List of Child Portfolios

You can view a list of child portfolios associated to the portfolio currently in view. In addition, you can do the following:

- Remove a child portfolio association.
- Roll up budgeted costs or benefits from child portfolios.
- Distribute budgeted costs or benefits to child portfolios.
- Link to the properties page for a parent portfolio by selecting the name of the portfolio in the list.
- View the portfolio budgeted values to determine whether they can be rolled up from or pushed down to child portfolios.

You can associate one portfolio to another as a child portfolio.

Follow these steps:

1. Open the portfolio

   The properties page appears.

2. Open the Properties menu and click Child Portfolios.

   The child portfolios list page appears.

Add Child/Parent Portfolio Associations

You can associate one portfolio with another as a child portfolio. You can associate a portfolio as a child portfolio with only one parent portfolio at any given time. Any scenarios you have applied to a parent portfolio are also available to the child portfolio.

Follow these steps:

1. Open the portfolio.

   The properties page appears.

2. Open the Properties menu and click Child Portfolios.

   The child portfolios list page appears.

3. Click Add.

   The select portfolios page appears. Portfolios that are not already associated to a portfolio are displayed in the list. If necessary, filter the list to limit the number of portfolios displayed.

4. Select the portfolio you want to add, and click Add.

Roll Up Budgeted Costs from Child Portfolios

Rolling up the budgeted costs from child portfolios changes the total budgeted cost of the parent portfolio to match the sum of their budgeted costs.

Follow these steps:

1. Open the portfolio.

   The properties page appears.

2. Open the Properties menu and click Child Portfolios.

   The child properties list page appears.

3. Click Rollup Costs.

Distribute Budgeted Costs to Child Portfolios

You can distribute the budgeted cost from the parent portfolio to a set of child portfolios. Also, you can enter a percentage of the budgeted cost to be distributed to each child portfolio.

Follow these steps:

1. Open the portfolio.

   The properties page appears.

2. Open the Properties menu and click Child Portfolios.

   The child properties list page appears.

3. Click Distribute Costs.

   The portfolio cost distribution page appears. Each portfolio displayed in the list is as a child of the parent portfolio.

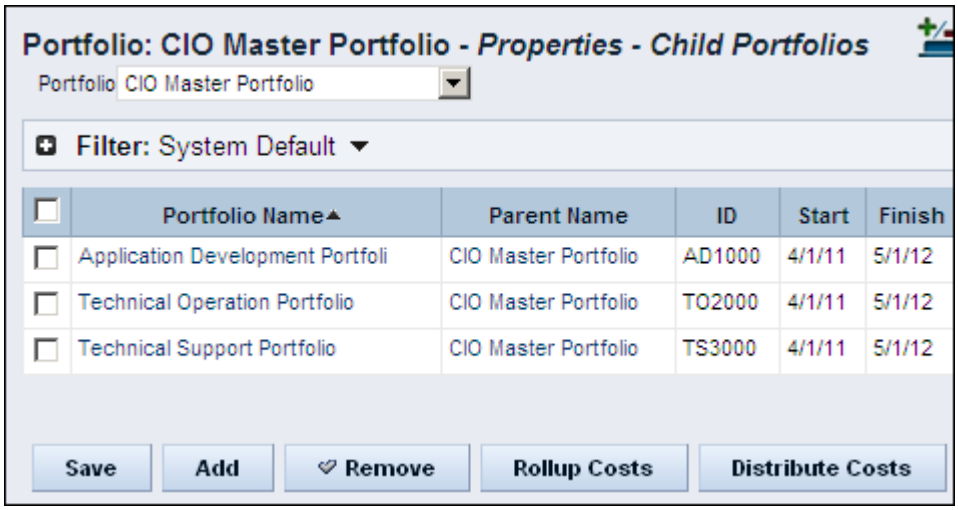
4. For each child portfolio, enter a percentage of the total budgeted cost to be distributed to that portfolio in the portfolio's Budget % field.

   The sum of all rows must equal 100%.

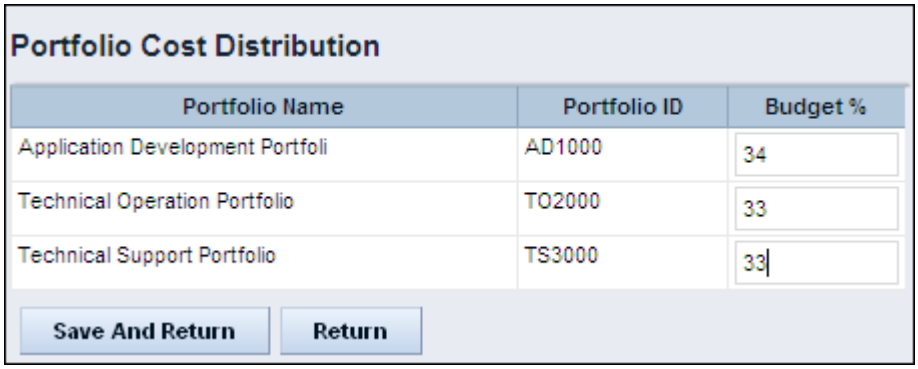
5. Click Save and Return.

By Example: Analysis at the Parent Portfolio Level

Forward Inc, Retail Banking CIO would like to push down the budgeted costs to the line managers' project portfolios. Three IT departments—Technical Operation, Application Development, and Technical Support—report to the Retail Banking business unit CIO. The CIO master portfolio contains the portfolios of each of the direct reports as child portfolios.

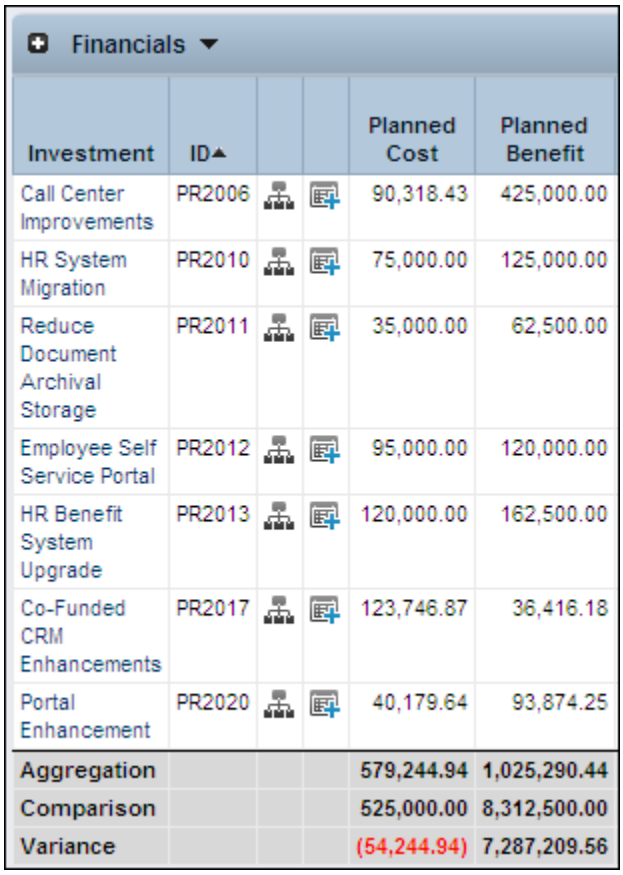


The CIO makes the distribution equally among the three IT departments.



The line managers, after receiving the distribution, take their allocated budget and optimize their individual investments to that budget.

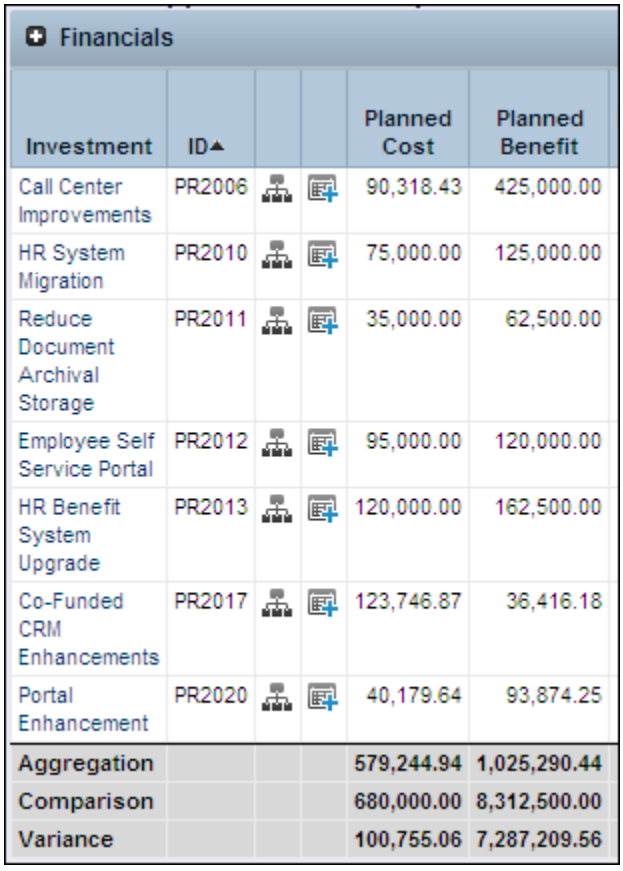
Before the distribution, the Application Development department had a total budgeted cost of $525,000, and was over budget by $54,244.94.



Financials

Investment	ID			Planned Cost	Planned Benefit
Call Center Improvements	PR2006			90,318.43	425,000.00
HR System Migration	PR2010			75,000.00	125,000.00
Reduce Document Archival Storage	PR2011			35,000.00	62,500.00
Employee Self Service Portal	PR2012			95,000.00	120,000.00
HR Benefit System Upgrade	PR2013			120,000.00	162,500.00
Co-Funded CRM Enhancements	PR2017			123,746.87	36,416.18
Portal Enhancement	PR2020			40,179.64	93,874.25
Aggregation				**579,244.94**	**1,025,290.44**
Comparison				**525,000.00**	**8,312,500.00**
Variance				**(54,244.94)**	**7,287,209.56**

After the distribution, the Application Development department is now under the budget by $100,755.06 The line manager can now take on all the projects in the portfolio and still stay under budget.



Financials

Investment	ID			Planned Cost	Planned Benefit
Call Center Improvements	PR2006			90,318.43	425,000.00
HR System Migration	PR2010			75,000.00	125,000.00
Reduce Document Archival Storage	PR2011			35,000.00	62,500.00
Employee Self Service Portal	PR2012			95,000.00	120,000.00
HR Benefit System Upgrade	PR2013			120,000.00	162,500.00
Co-Funded CRM Enhancements	PR2017			123,746.87	36,416.18
Portal Enhancement	PR2020			40,179.64	93,874.25
Aggregation				**579,244.94**	**1,025,290.44**
Comparison				**680,000.00**	**8,312,500.00**
Variance				**100,755.06**	**7,287,209.56**

By managing a set of child portfolios from a master portfolio, Forward Inc CIO can write reports analyzing the entire IT portfolio using metrics such as ROI.

Roll Up Budgeted Benefits from Child Portfolios

Rolling up the budgeted benefits from child portfolios changes the total budgeted benefit of the parent portfolio to match the sum of their budgeted benefits.

Follow these steps:

1. Open the portfolio.

   The properties page appears.

2. Open the Properties menu and click Child Portfolios.

   The child portfolios list page appears.

3. Click Rollup Benefit.

Distribute Budgeted Benefits to Child Portfolios

You can distribute the budgeted benefit from the parent portfolio to a set of child portfolios. Use the Budget % field to enter a percentage of the budgeted benefit to distribute to each child portfolio.

Follow these steps:

1. Open the portfolio.

   The properties page appears.

2. Open the Properties menu and click Child Portfolios.

   The child portfolios list page appears.

3. Click Distribute Benefit.

   The portfolio benefit distribution page appears. Each portfolio displayed in the list is a child of the parent portfolio.

4. For each child portfolio Budget % field, enter a percentage of the total budgeted benefit to distribute to that portfolio. The sum of all rows must equal 100 percent.

5. Click Save and Return.

Remove Child Portfolio Associations

At any point during your portfolio analysis, you can disassociate, or remove, a child portfolio from the parent portfolio. This does not delete the child portfolio.

Follow these steps:

1. Open the portfolio.

   The properties page appears.

2. Open the Properties menu and click Child Portfolios.

   The child portfolios list page appears.

3. Select the portfolio you want to remove.

4. Click Remove.

   The portfolio is no longer associated with the parent portfolio.

Chapter 6: Portfolio Content

This section contains the following topics:

How to Manage Portfolio Content

You can do the following to add and remove content from your portfolio:

- Include investments of a particular investment type to your portfolio (see page 76).
- Build a power filter associated with a particular investment type (see page 77).
- Add individual investments to your portfolio (see page 78).

You can view a list of all the investments in your portfolio. Use the portfolio contents page to perform other portfolio tasks such as:

- Include and exclude investments (see page 76).
- Update a list of Investments (see page 77).
- Add and remove Individual investments (see page 78).
- Build power filters to add investments (see page 77).
- Clear power filters (see page 78).
- Add roles to a portfolio (see page 80).

Include and Exclude Portfolio Investments

After you create a portfolio, its contents are empty. Investments, although available in the portfolio, are not automatically added. To add an investment to the portfolio content, the following must be true:

- The investment type must be marked as Included.
- The investment meets the conditions of the built power filter, or you add it individually. Only those investments to which you have access rights are available for you to add to your portfolio.

For department portfolios, only the eligible investments are available for adding. For example, if you include the Project investment type, only those projects that meet the criteria (that is, provider or customer) are available for adding.

Included investments have a yellow checkmark in the Included column. Included investments can be considered as potential portfolio content. You can then start adding individual investments from the included investment types.

Excluded investment types do not have a yellow checkmark in the Included column.

Follow these steps:

1. With the portfolio open, click Contents.

   The portfolio contents appear.
2. In the Include and Filter Investments section of the portfolio contents page, select the investment type you want to include.
3. Click Include.

You can exclude an investment type to leave out investments of that type.

Follow these steps:

1. With the portfolio open, click Contents.

   The portfolio contents appear.
2. In the Include and Filter Investments section of the portfolio contents page, select the investment type you want to exclude.
3. Click Exclude.

Build Power Filters to Add Portfolio Investments

You can build a power filter associated with an investment. For example, build a filter that filters for projects within a given branch of an OBS. You can then reevaluate the expression against any newly added projects. Once you build a power filter for an investment type, you can view the results of the expression before adding them to the portfolio. The investments that match the selected investment type and meet the conditions of the power filter display in the Current Matching Investments section of the view matching investments page.

This page only lists the investments to which you have access rights and that are not also marked for deletion. This page only displays investments of one type at any given time.

To view the matching investments page from the portfolio contents page, select the check box next to the investment type, and click View Matching Investments.

To view a list of investments that have been added to CA Clarity PPM after you last synchronized matching investments, click Synchronize.

Update a List of Investments

Synchronizing an investment type verifies the following:

- Investments that you created and that meet the conditions of the power filter are also added as content in your portfolio.
- Investments that no longer meet the conditions of the power filter are removed from the portfolio.

Periodically rerun the power filter to bring the list of investments up to date. .

Follow these steps:

1. With the portfolio open, click Contents.

   The portfolio contents appear.

2. Select the checkbox next to included investment type, and click Synchronize.

   The synchronize matching investments page appears displaying the complete list of matching investments. Use this page to view the list of investments that now match the power filter before adding them as content to your portfolio

Clear Portfolio Content Power Filters

When you have a power filter built that you no longer need, you can delete the power filter. To modify the expression of the power filter, select the name of the power filter, clear the expression, and build a new one. Clearing power filters from the portfolio contents does not remove those investments that match the power filter from the portfolio.

See the *Basics User Guide* for more information.

To clear a power filter

1. With the portfolio open, click Contents.

   The portfolio contents appear.

2. Select the check box next to the name of the investment type to which the power filter is associated, and click Clear Power Filter.

Add and Remove Individual Portfolio Investments

You can manually add investments of any type individually to your portfolio, regardless of its state. You can individually add investments before or after using power filters or instead of using power filters. Once added, these investments display in the Individual Investments section of the portfolio contents page.

To remove an investment, select the check box next to the name of the investment and then click Remove.

To add an investment to your portfolio

1. With the portfolio open, click Contents.

   The portfolio contents appear.

2. In the Individual Investments section, click Add.

   The select investments page appears listing the investments to which you have view access rights.

3. Select and add the desired investments.

   The selected investments appear listed in the portfolio contents.

Portfolio Roles

You can plan a portfolio with a given budget cost and available roles capacity. Planning allows you to see the budget cost and allocations for specific roles using a list of investments on the Investments portlet on the portfolio scorecard. Portfolio dates are used to determine the capacity for each role.

Example: Creating a Portfolio with a Budget Cost and Available Roles

Bob, a portfolio manager wants to create a portfolio with a budget of $2,000,000 and two key roles. Bob wants to see the budget cost and allocations for specific roles using a list of investments and plan a portfolio with the available budget cost and role capacity.

Bob logs in to CA Clarity PPM and creates a portfolio with the following details:

- Budget cost: 2 million
- Portfolio date: May 2006 to May 2007
- Capacity unit type: FTE

Bob clicks Contents and includes investment types as models. He adds the key roles of developer and consultant for generating scenarios.

On the Scorecard, Bob uses the page-level filter to see:

- All the roles added to the portfolio. In this case, the values are Developer and Consultant.
  - The Role Demand column shows the demand for all resources assigned the roles on the portfolio investments.
  - The Role Actuals column shows the actual posted effort for all the roles.
  - The Remaining Role Allocation column shows the calculation of Role Demand minus Role Actuals.
- The Planned Cost, Actual Cost, and Remaining Cost columns.

The scenario allows Bob to see role allocations and budget cost values to plan his portfolio. The list of investments on the Investments portlet allows the comparison of portfolio budgeted cost and role capacities against the values for the selected portfolio investments. Based on this analysis, Bob creates scenarios and excludes investments which do not fit the portfolio budget and role capacity.

Add Roles to a Portfolio

You can add multiple primary roles and their capacity to your portfolio. The unit type (FTE or Hours) that you select is used to prepopulate role capacities in that unit. The unit type is also used for displaying the role capacity and demand in the portfolio.

Role capacity is interpreted as the sum of capacity for all resources that have the selected role as their primary role. You can override the prepopulated capacity by entering a new value.

If a role added to the portfolio is made inactive (from the resource management pages), the portfolio still displays that role. The role does not include it in any calculations.

When a role is removed from the portfolio, it is also removed from any of the portfolio scenarios which included the role.

To add a role to your portfolio

1. With the portfolio open, click Contents.

   The portfolio contents appear.

2. In the Portfolio Roles section, click Add.

   The select roles page appears listing the roles to which you have view access rights.

3. Select and add the desired roles.

   The selected roles appear listed in the portfolio contents.

How Portfolio Role Capacity is Calculated

For each role added to the portfolio, only resources associated with the role as their primary role are factored into the total capacity for the duration of the portfolio.

Example

Suppose you are evaluating the capacity for the Developer role. If one developer works full-time at 2080 hours and another works half-time at 1040 hours, the aggregated total capacity for the duration of the portfolio (one year in this case) is 3120 hours. The capacity depends on the date range in the portfolio.

Refresh Portfolio Role Capacity

Once you save the roles that you added to your portfolio, the role capacity values do not change. You can refresh these values with the latest capacity for any role at any time. From the portfolio contents page, select the roles and click Refresh Capacity. Only the selected roles are refreshed.

Reset Portfolio Role Capacity

After changing the role capacities in a portfolio, you can change them back to the last saved values. From the portfolio contents page, select the roles you want to reset and click Cancel.

Chapter 7: Portfolio Scenarios

This section contains the following topics:

About Scenarios

A scenario is a collection of hypothetical changes to an investment or to a portfolio. Hypothetical changes allow you to pose what-if questions about the investments you are managing and see the effects on resources, budget, and work breakdown structures.

With portfolio scenarios, you can model different sets of portfolio investments based on corporate planning decisions and evaluate trade-offs before selecting a specific course. The scenarios provide you the flexibility of making what-if evaluations to portfolio investments. They allow you to investigate changes you can make to the investments contained within your portfolio.

With portfolio scenarios, you can build portfolios quickly by finding the best mix of investments using a systematic procedure. Use portfolio scenarios to remove or delay an investment, alter the investment approval status, or modify the investment planned benefits or costs.

You can apply a scenario on top of targeted data and use it to evaluate proposed changes.

Example: Optimizing Available Resources

Create a scenario to determine how an investment (or investments) is optimized when applying additional resources and time, or delaying less critical investments.

Example: Funding Investments

An executive team builds a portfolio to represent all the work in the company or an individual department. The team decides on a set of investments to fund that the organization has capacity to execute.

View the List of Portfolio Scenarios

You can view a list of scenarios created for your portfolio. You can also build new scenarios, delete a scenario, copy a scenario, view which scenario is current, and communicate scenarios. You can also adjust the investments included in the scenario.

The following conditions are true of scenarios that you can view:

- They provide a quick overview of the scenario planned cost, planned benefit, associated portfolio, and scenario owner.
- They are attached to the current portfolio and to scenarios attached to parent portfolios.
- They show at the portfolio-level, how the scenarios differ from the real portfolio data.

Follow these steps:

1. With the portfolio open, click Scenarios

   The portfolio scenarios page appears.

2. Do the following:

- Review existing scenarios or build new ones.
- Delete a scenario
- Copy a scenario
- View which scenario is current
- Communicate scenarios

How to Work with Portfolio Scenarios

You can do the following with portfolio scenarios:

- Set scenario constraints (see page 88)
- Optimize the portfolio scenario (see page 108)
- Generate a portfolio scenario (see page 100)
- Define and modify the scenario investments (see page 108)
- Restrict or provide access to the scenario

Build Portfolio Scenarios

As a portfolio manager, you can build an unlimited number of scenarios for each of your portfolios. Once a portfolio scenario is built, it is can be applied to the current portfolio scorecard. At any time, you can choose whether or not to apply a scenario to the portfolio.

Follow these steps:

1. With the portfolio open, click Scenarios

   The portfolio scenarios page appears.

2. Click New.

   The create page appears.

3. Complete the following fields:

   Scenario Name

   Defines the name for this portfolio scenario.

   Portfolio

   Displays the portfolio to which this scenario is associated.

   Description

   Defines the description for this scenario.

   Currency

   Displays the currency to use when calculating the budget values.

   Planned Cost

   Defines the planned cost amount of the investments in the scenario. This value is reflected on the portfolio scorecard.

   Planned Benefit

   Defines the planned benefit amount of the investments in the scenario. This value is reflected on the portfolio scorecard.

   Manage Costs Using

   Displays the option selected for managing planned costs.

   Values:

   - Total Planned Cost
   - Remaining Planned Cost

Capacity Unit Type

Displays the unit type selected for measuring capacity.

Values:

- Hours
- FTE

Manage Capacity Using

Displays the option selected for managing capacity.

Values:

- Total Capacity—Capacity values represent the total capacity between the start and finish dates of the portfolio.
- Remaining Capacity—Capacity values represent the capacity from today through the portfolio finish date.

4. Click Save.

   A new scenario is created.

Edit Portfolio Scenarios

You can edit the scenario properties, set or modify the scenario constraint parameters, add and alter scenario investments, copy scenarios, and delete scenarios.

When you no longer need a portfolio scenario, you can delete the scenario from the portfolio.

Follow these steps:

1. With the portfolio open, click Scenarios.

   The portfolio scenarios page appears.

2. Click the name of the scenario you want to open.

   The scenario properties appear.

3. Edit the following fields:

   Scenario Name

   Defines the name for this portfolio scenario.

   Portfolio

   Displays the portfolio to which this scenario is associated.

   Description

   Defines the description for this scenario.

Currency

Displays the currency to use when calculating the budget values.

Planned Cost

Defines the planned cost amount of the investments in the scenario. This value is reflected on the portfolio scorecard.

Planned Benefit

Defines the planned benefit amount of the investments in the scenario. This value is reflected on the portfolio scorecard.

Manage Costs Using

Displays the option selected for managing planned costs.

Values:

- Total Planned Cost
- Remaining Planned Cost

Capacity Unit Type

Displays the unit type selected for measuring capacity.

Values:

- Hours
- FTE

Manage Capacity Using

Displays the option selected for managing capacity.

Values:

- Total Capacity—Capacity values represent the total capacity between the start and finish dates of the portfolio.
- Remaining Capacity—Capacity values represent the capacity from today through the portfolio finish date.

4. Click Save.

Scenario Constraints

Once you have created your portfolio scenario, define the rules for which investments must be included or excluded from the scenario. In CA Clarity PPM, This process is known as pinning investments. Each element within a scenario defines a change from the plan of record.

At any point while you are optimizing your portfolio using the scenario-based planning process, you can decide to generate your portfolio scenario. The scenario is generated based on the criteria you entered on the scenario constraints page and the scenario optimizations page. You can later return to these scenario content pages to modify the optimization and constraint parameters.

Use the scenario constraints page to define the constraint parameters for your scenario. Also verify that all approved, started, and required investments are approved and included in the scenario. You can pick specific investments that must be approved and included in the scenario, or excluded from the scenario. Use this page to define as many constraints as you need.

Pin Investments

When you generate a scenario, you can force selected investments to be always included in a scenario. The pinned investments do not need to match the constraints and optimization parameters you set. The scenario investments list is only generated if all of the pinned investments can be completed within the portfolio budgeted cost and role capacity.

Follow these steps:

1. Open the scenario.

   The properties page appears.

2. Click Constraints.

   The scenario constraints page appears.

3. In the Quick Investment Settings section complete the following fields:

   Pin Required Investments

   Specifies if all scenario investments that are marked as Required are included.

   Pin Approved Investments

   Specifies if all scenario investments whose status is set to Approved are included.

   Pin Started Investments

   Specifies if all scenario investments whose progress is set to Started are included.

Respect Investment Dependencies

Specifies whether to consider investment dependencies (if any exist) when including the investment in the scenario.

See the *Project Management User Guide* for more information.

Use Portfolio's Date Range

Specifies if scenario investment budget values are confined to the portfolio start and finish dates.

4. Click Save.

Include and Exclude Scenario Investments

You can define the rules for which investments must be included or excluded from the portfolio scenario. You can and add and alter scenario investments.

Portfolio optimization allows you to look at your list of potential portfolio investments for the current funding cycle and role capacity. Then decide about which investments to fund to drive value to your organization. The goal is to find the best mix of investments that create the greatest possible risk-adjusted value without exceeding the applicable constraint on available resources. Use scenario optimization to help you decide without having to guess which investments to include in your portfolio scenario.

You can have a scenario generation algorithm applied that creates subsets of investments and displays them graphically to allow you to find the optimal portfolio. Algorithms are flexible; they allow you to specify the optimal mix of scenario traits for your company.

About Ranking Investments

You can build a weighted selection criterion for all investments included in the scenario and apply scoring that is strategic to your company. You can define the optimization parameters for a scenario by ranking investments based on specific attributes and weighing them based on importance. When you generate the scenario, the attributes, ranking methods, and pre-established weightings are used to add investments to the scenario. You can add Investments until the portfolio budgeted cost has been reached.

Rank Optimization Parameters

The optimization parameters you enter on the scenario optimizations page are used during scenario generation. The parameters are used to determine which attributes are most and least important when selecting scenario investments.

Unlike scenario constraints, scenario optimizations are not absolute. Attributes with higher weights receive more consideration than attributes with lower weights. Use this page to add optimization parameters and then select which ranking method to use for that attribute.

Scalar and Unbounded Attributes

A scalar attribute is an attribute whose value is a number within a certain range. For example, the Alignment attribute has a range between zero and 100. An unbounded attribute is similar to the scalar attribute, except its value has no boundaries, such as the Budgeted Benefit attribute.

Follow these steps:

1. Open the scenario and click Optimizations.

   The scenario optimizations page appears.

2. For each attribute, select a ranking method.
3. Click Save.

Enumerated Attributes

An enumerated attribute is an attribute whose value is a predefined set of values. For example, set the Goal attribute to cost reduction, infrastructure, improvement, cost avoidance, and business growth or maintenance. For enumerated attributes, you can set the balance for each item in the enumeration by entering weightings on the lookup value weighting page.

Follow these steps:

1. Open the scenario and click Optimizations.

   The scenario optimizations page appears.

2. Next to the enumerated attribute, click the Lookup value weighting link.

   The lookup Value Weighting page appears.

3. Enter a weighting for the following attributes:

   - Effort
   - Duration
   - Manual

4. Click Save and Return.

Weight Optimization Parameters

On the scenario optimizations page, you can specify the importance of each optimization attribute you add by setting a score for each attribute. Once you save your entries, they are normalized to a percentage value. Scenario generation uses a fitness algorithm to compute the score for each candidate scenario based on the optimization parameters and weightings you enter.

Follow these steps:

1. Open the scenario and click Optimizations.

   The scenario optimizations page appears.

2. For each attribute, enter a score in the Attribute Weighting field.
3. Click Save.

Use the Efficient Frontier

The efficient frontier is the set of all actual portfolios that are optimal for a given set of investments. No other scenario exists with less cost and more benefit or value. The efficient frontier provides you with a starting point by which you can evaluate and decide about your portfolio investments.

You can allow CA Clarity PPM to calculate and suggest a set of optimal portfolio scenarios based on a combination of parameters you set. The calculation is based on a scenario generation algorithm. The algorithm determines how the costs and benefits of individual investments combine to determine the costs and benefits of the portfolio as a whole. Algorithms are adaptive; they can solve practical problems. They are especially suited to scenario optimization because they can efficiently narrow down a large set of solutions quickly.

The efficient frontier requires that you first generate the graph. Without the graph, the candidate scenarios are not built. The graph uses the same algorithm as when a single scenario is generated. However, the budgeted cost amount is incremented over an investment range to produce a set of candidate scenarios. Using the efficient frontier, you can see budgeted benefit trends and determine whether setting a higher or lower investment amount increases your portfolio ROI.

View the Efficient Frontier Graphically

You can get a graphical view of the set of optimal portfolio scenarios recommended based on two optimization parameters. By default, these are budgeted cost and budgeted benefit. Set the scenario constraints and optimization parameters and generate the scenarios beforehand.

You can also view details about each set of actual portfolios including the portfolio cost, benefit, ROI, score, count, and the slope.

Until you regenerate the graph, this graph is not recalculated.

Follow these steps:

1. Open the scenario and click Efficient Frontier.

   The Efficient Frontier page appears.

2. In the Graph Options section, complete the following fields:

   Budget Range

   Defines the budget range for the graph. The range is used to zoom in on a particular portion of the graph. If you do not define a budget range, the graph starts at the budgeted cost amount of zero. If you do not define a resolution, the graph ends at the highest budgeted cost. The investments that fall between the budgeted cost range are displayed on the graph.

   Resolution

   Defines the graph resolution. Depending on what resolution you select, the graph display a few points (Low resolution) to many points (High resolution). The lower the resolution you set, the quicker the efficient frontier graph generates and loads on the page.

3. Click Generate Graph.

Analyze the Efficient Frontier

The efficient frontier considers all of the alternative portfolios that can be constructed from a set of investment proposals. The frontier is made up of the best possible investments in the least-cost portfolios. The goal in optimizing your portfolio using the efficient frontier is finding the portfolio with more benefit for not much more cost.

The efficient frontier is drawn as a chart of points (candidate scenarios) with the current scenario budgeted cost as a vertical line of reference. The y-axis values shown on the graph are based on the optimization attributes you set on the scenario optimizations page. If you define the budgeted benefit as the only optimization attribute, the y-axis value is the budgeted benefit.

When graphed for cost (x-axis) and benefit (y-axis), the efficient frontier forms a curve that starts at the origin, rises steeply, and then flattens. The efficient frontier is always curved, never straight. The points that lie on the curve are the best set of all portfolios that could exist for every theoretical investment level. Every point is higher than the one before it and its slope is always increasing. The tangent line of any point on the curve always has a positive slope. The candidate scenarios that lie below the efficient frontier are not optimal; there are no optimal scenarios for less cost with more benefit. No candidate scenarios lie above the efficient frontier.

Clicking a point on the graph opens the Candidate Scenario Investments page.

View the List of Candidate Scenarios

You can view a list of candidate scenarios generated by the efficient frontier graph.

For each point on the graph, a line item displays in the list. The candidate scenarios are sorted in the list based on their position in the graph from left to right. From this list, you can compare two different candidate scenarios to determine which scenario produces the optimal benefit for the least amount of cost. You can base your selection on score, budgeted cost, budgeted benefit, ROI, slope, or count.

Follow these steps:

1. Open the scenario and click Efficient Frontier.

   The Efficient Frontier page appears.

2. Scroll to the Candidate Scenarios section.

View Candidate Scenario Investments

You can view a list of the investments included in a candidate scenario and the values contributed by each investment to the overall scenario score. The name of the portfolio and candidate scenario appears at the top of the page.

You can view investment information such as the investment name, ID, type, score, budgeted cost, budgeted benefit, and budgeted ROI. If you entered optimization parameters on the scenario optimizations page, these attributes also appear as columns in this list. From this page, you can compare two candidate scenarios, regenerate the scenario, or link to the investment properties page.

Follow these steps:

1. Open the scenario and click Efficient Frontier.

   The Efficient Frontier page appears.

2. In the Candidate Scenarios section, click the View Candidate Scenario icon next to the name of the candidate scenario. You can also click a point on the efficient frontier graph.

   The candidate scenario investments page appears.

3. View the following fields along with any others that were configured as optimization parameters:

   Investment

   Displays the investment name.

   ID

   Displays the investment ID.

   Type

   Displays the investment type.

   Score

   Displays the overall scenario score.

   Cost

   Displays the investment cost.

   Benefit

   Displays the benefit from the investment.

Compare Efficient Frontier Candidate Scenarios

You can compare two candidate scenarios from the list of scenarios in the efficient frontier.

Follow these steps:

1. With the portfolio open, click Scenarios.

   The portfolio scenarios page appears.

2. Open the scenario and click Efficient Frontier.

   The efficient frontier page appears.

3. Scroll to the Candidate Scenarios section.

4. Select a candidate scenario and click Compare.

   The select candidate scenario for comparison page appears.

5. Select a scenario for comparison and click Compare.

   The Compare Candidate Scenarios page appears. The scenario you select first is used as the Base scenario. The scenario you select next is used as the Comparison scenario. A list of investments contained in the base and comparison candidate scenarios is displayed.

6. (Optional). Use the Investments Filter section of the page to filter the list of investments.

7. Review and compare the information in the following fields:

   Contained In

   Displays whether the investment is contained in the base, comparison, or both scenarios.

   Investment

   Displays the investment names contained in the base, comparison, or both scenarios.

   ID

   Displays the investment ID.

   Type

   Displays the investment type.

   Score

   Displays the efficient frontier score for the investment.

   Cost

   Displays the cost associated with the investment.

Benefit

Displays the benefit associated with the investment.

Work with Scenario Investments

You can do the following with scenario investments:

- Remove scenario investments (see page 97)
- View financial summaries of investments (see page 97)
- Hide and unhide scenario investments (see page 97)
- Approve and unapprove scenario investments (see page 96)
- View investments in display mode (see page 97)
- Modify scenario investments (see page 98)
- Modify scenario expressions (see page 99)

The actions you take on the scenario investments affect the data displayed on the portfolio scorecard. Any changes you make on the scenario investments after generating a scenario override the constraint and optimization settings. When you regenerate the scenario, the investments listed on the scenario investments page are removed. New investments are added based on the constraint and optimization settings.

Approve and Unapprove Scenario Investments

Determine which investments you want to approve or unapprove for your scenario. Use the scenario investments page to approve a scenario investment, or to reverse its approval in the scenario. If a portfolio scenario is set to unapproved in the scenario, then all its contributions and its child contributions are discarded from the scenario.

To unapprove an investment, set the Approved flag for that investment to No.

Follow these steps:

1. With the portfolio open, click Scenarios.

   The portfolio scenarios page appears.

2. Click the Scenario Investments icon next to a scenario.

   The scenario investments list page appears.

3. Next to an investment, set the Approved flag to Yes.

4. Click Save.

Hide and Show Scenario Investments

Use the scenario investments page to temporarily omit a scenario investment's calculations from a scenario, or to reverse its omission from the scenario. When you hide an investment, it remains in the portfolio and displays on the portfolio scorecard but its values are not considered when viewing the scenario in the portfolio portlets. The portfolio uses the plan of record data for that investment in the views and portlets. You can hide both approved and unapproved scenario investments.

To hide a scenario investment, on the scenario investments page, set the Hidden flag to Yes for that investment, and then click Save. To show an investment, set the Hidden field for that investment to No.

Like excluding an investment from a scenario, if you hide an investment and then generate the scenario, the investment is no longer marked as Hidden and is available in scenario calculations.

When you hide an investment from a scenario, any constraints you may have set for that investment are ignored.

Example

If an approved investment is unapproved per the generated scenario, and if you hide that investment, per the scenario, its status is reset to its original status of "Approved" and displays as such on the portfolio scorecard.

Remove Investments from Scenarios

To permanently remove a scenario investment, on the scenario investments page, select the investment you want to remove, and then click Remove. The page refreshes and the investment no longer appears in the list.

View Scenario Investment Financial Summaries

To view the financial summary for an investment, on the scenario investments page, click the Financial Summary icon for that investment. From the financial summary page of an investment, click More and select Back to Portfolio to return to the portfolio.

View Scenario Investments in Display Mode

By default, the scenario investments page displays data in edit mode. To view data on this page in display mode, and to see and compare the changes you made to your investments, select Display Mode from the Show in drop-down. This drop-down appears on the page toolbar. When selected, the page refreshes to display any changes you made to your scenario investments. The changed values are displayed below the plan-of-record values and the plan-of-record values are red-lined.

Modify Scenario Investment Details

View investment data to make hypothetical changes to this data. For example, you can shift out an investment start date. You can modify the scenario investment start date, planned cost and benefits, and approval status. You can also completely exclude investments from portfolio calculations.

The actual details display the investment plan of record data. This information is sourced from the investment properties and is read-only.

You can make hypothetical changes to the investment contributions. Any changes you make do not affect the actual data of the investment. Instead, the changes are used to calculate the investment demand within the current scenario. Portfolio managers can use the changes to make investment scheduling decisions that support corporate initiatives.

Follow these steps:

1. With the portfolio open, click Scenarios.

   The portfolio scenarios page appears.

2. Click the Scenario Investments icon next to a scenario.

   The scenario investments list page appears.

3. Click the Edit Scenario Details icon next to the investment you want to modify.

   The investment scenario details appear.

4. In the Scenario Details section, modify the following fields as applicable:

   Start Date

   Defines the hypothetical start date for this investment.

   Currency

   Displays the currency to use when calculating the budget and forecast values.

   Planned Cost

   Defines the hypothetical total self cost for this investment.

   Planned Benefit

   Defines the hypothetical total self benefit for this investment.

   Approved

   Specifies if the investment status is set to "Approved" hypothetically.

   Exclude

   Specifies whether you want to remove and exclude this investment from the portfolio calculations in the scenario.

Priority

Defines the importance ranking for the investment in the scenario.

5. Click Save and Return.

Modify Expression Scenario Details

You can make hypothetical changes to all the scenario investments. You can modify the start date, planned cost and benefits, approval status, and priority for all the investments. You can also exclude these investments from portfolio calculations.

Make hypothetical changes to the budget and cost data of investments. The changes you make do not affect plan of record data. Instead, the modifications are used in calculating contributions within the current scenario. Portfolio managers can use the modifications to make investment scheduling decisions that support corporate initiatives.

Follow these steps:

1. With the portfolio open, click Scenarios.

   The portfolio scenarios page appears.

2. Click the Scenario Investments icon next to a scenario.

   The scenario investments list page appears.

3. Click the Edit Scenario Details icon next to the desired investment.

   The investment scenario details appear.

4. Modify the following fields as needed:

   Start Date

   Defines the hypothetical start date for the investment. Use this field to move the investment forward or backward.

   Planned Cost

   Defines the hypothetical self cost for the investment. Use this field to modify the self planned cost of the investment.

   Planned Benefit

   Defines the hypothetical self benefit for the investment. Use this field to modify the self planned benefit of the investment.

   Approved

   Specifies whether the status of the investment is set to "Approved".

   Exclude

   Specifies whether you want to remove and exclude the investment from the portfolio calculations.

Priority

Defines the hypothetical priority for the investment.

Generate Portfolio Scenarios

Generating portfolio scenarios is one way to include investments in a scenario. This method of including investments removes the need for you to add investments to the scenario. When you generate a scenario, a scenario generation algorithm is used to determine which investments to include in the scenario. The algorithm uses the existing budget cost, specified role capacities, constraint, and optimization parameters you set for the scenario.

Each possible investment is evaluated, ranked by the criteria you identified, and then included in the scenario until the scenario budgeted cost is exceeded. If you have not identified the scenario budgeted cost, the portfolio budgeted cost is used. Those investments that are included in the scenario have their status marked as "Approved". The investments that are not included have their status marked "Unapproved".

Generating a portfolio scenario clears the list of included scenario investments and adds investments to the portfolio based on the set constraints and optimization parameters. You can generate a scenario at any of the following times:

- After defining scenario constraint and optimization parameters.
- Before or after manually adding scenario investments and roles.
- After altering scenario investments.

Follow these steps:

1. With the portfolio open, click Scenarios.

   The portfolio scenarios page appears.

2. Open the scenario you want to generate.

   The scenario properties appear.

3. Click Generate.

   If you have already generated the chart, or if there are investments listed on the scenario investments page, the regenerate scenario confirmation page appears.

4. Click Yes to confirm.

Compare Portfolio Scenarios

Compare two scenarios either side by side or top to bottom, including all the investments and their various metrics in a list or graphical format. You can compare two different portlets of the same type representing two scenarios. Comparing scenarios allows you to plan your portfolios more efficiently by looking at different options and determining which one is the best.

For list portlets, you can compare two scenarios in a single portlet using red-lining to compare the values in the two scenarios.

Follow these steps:

1. With the portfolio open, click Scorecard.

   The portfolio scorecard appears.

2. Select a scenario from the Scenario drop-down.
3. Select another scenario from the Compare To drop down.
4. Click Filter on the page toolbar.

   The page refreshes. If the page is in maximized view, only the Investments portlet appears by default.

5. (Optional). Select a different portlet to view from the drop-down.

Compare Scenario Example

You, as the portfolio manager, log in to CA Clarity PPM and open a portfolio. Your goal is to find out how best you can achieve the development release goals and the customer commitment for certain features. Create the following portfolio scenarios:

Scenario 1 has a budget of $1,000,000. After selecting all investments related to the next release and customer enhancement requests, you notice that you need about $2,000,000 to complete all investments. You create a second scenario.

Scenario 2 pins only those investments that are related to core code development. This scenario does not include investments related to hosting new code for sales and marketing departments. You also pin the investments related to key customers. When you generate the scenario, you notice that within the budget cost you can accommodate some more investments related to development or customer. You are still not sure and would like to compare both scenarios.

You want to help ensure that you plan for investments that are not risky and align well with the company goals for the current year. To achieve this goal, you compare the two scenarios side- by-side on the portfolio scorecard.

You notice on the Investments portlet that two of the customer investments are at higher risk than the development investments. You believe that the investments are at risk because the requirements are not clear enough. You feel that these investments must not be rushed and need more research before development of the customer-related investments begin. You are able to push the customer-related investments out to the last three months of your portfolio and pull in more core code development investments.

Expected Behavior When Comparing Scenarios

When performing a side-by-side comparison of two scenarios, the following lists the expected behavior on pages and portlets:

The chart portlets show two charts (that is, two portlet instances) representing two different scenarios side-by-side. If you do not select a Compare Scenario, then only one portlet is displayed.

Data in lists show a row for each investment with stacked values for some attributes, representing variances in the two scenarios. Red-lining appears to allow you to distinguish the attribute values for the two scenarios. Other than time scaled values, all attributes with a (Compare To) suffix, display red-lining for scenario comparison. If you do not select a Compare Scenario, then stacked rows and red-lining do not appear.

Personalizations only apply to each instance of a portlet on the page. For example, if you personalize one pie chart in a side-by-side layout of two pie charts, then you only personalized the one chart.

The Compare To scenario (right) list is dynamically built based on the value you select in the Scenario (left) list.

Only specific values are eligible for editing while in a scenario. This rule applies to the left scenario only. You can never edit the right scenario when comparing two scenarios.

Filtering only applies to the left scenario data (for example, you can show only approved investments or hard booked team members).

The values on a page default to the plan of record when you do not have a scenario selected.

In lists, the left scenario data displays on the bottom line whenever the two selections have differing values. If data is the same, only one value appears. The right scenario data displays on the top line and is red-lined whenever the two selections have differing values. If data is the same, only one value appears.

When you navigate between portfolio scenario-enabled pages, the selected portfolio scenarios persist. The portfolio scenario selections apply application-wide and appear on all portfolio scenario-enabled pages. A portfolio scenario-enabled page is one from where you can create or select a portfolio scenario using the Portfolio toolbar.

A special value [-- None --] allows you to display only the left scenario data without comparing it against any other scenario or the plan of record. This value is only available in the right scenario list.

The Investments portlet on the portfolio scorecard compares the two scenarios using stacked rows and red-lining. The scenario data that you selected from the Scenario drop-down appears on the bottom row. The scenario you select from the Compare To drop down appears on the top row. A red line appears in the top row wherever it differs from the bottom row.

The Balance portlet on the portfolio scorecard compares the data in the two scenarios by displaying two different bubble charts. The Base bubble chart on the top represents the scenario you selected from the Scenario drop-down. The Comparison bubble chart on the bottom represents the scenario you selected from the Compare To drop down.

The scorecard compares the data in the two scenarios using a primary bar and a secondary bar. The primary bar at the bottom represents the base scenario and the secondary bar at the top represents the comparison scenario.

The Financials portlet on the portfolio scorecard compares the data in the two scenarios using stacked rows and red-lining. The behavior is similar to the Investments portlet.

Configure Portfolio Planning Portlets

When planning a portfolio using the data on scorecard or analyze pages, you can configure the list to do the following:

- Include an additional attribute as a secondary comparison value for a list column.
- Display secondary values (even if they are null).
- Use redlining to compare list column values with their secondary values.

See the *Basics User Guide* for more information.

Communicate Portfolio Scenarios

Once you have analyzed your portfolio and optimized it using scenario-based planning, communicate the changes you recommend to the portfolio. Changes to the scenario investments are not automatically applied to investments.

The Communicate Scenario process is an out-of-the-box scenario process that facilitates the notification process by communicating directly to investment managers and owners. They receive an action item of the changes they must make to their investments.

By default, this process is not active. The process must be validated and activated before you can start it. Your CA Clarity PPM administrator can also customize the process with additional business rules and approvals.

Contact your CA Clarity PPM administrator or see the *Administration Guide* for more information.

Start the Communicate Scenario Process

The scenario communication confirmation page displays a complete list of investments in a scenario (one investment per row). Each item includes the investment type, the manager name, and a description of the change described by the scenario.

When you communicate the scenario, an error can occur in the following cases:

- Your CA Clarity PPM administrator has granted you access to more than one scenario process.
- The process is not active.

You can only have access to one scenario process at any given time.

Follow these steps:

1. With the portfolio open, click Scenarios.

   The portfolio scenarios page appears.

2. Select a scenario and click Communicate Scenario.

   For each selected investment, an action item is sent to the investment manager. The action item identifies the investment and instructs the owner to change the investment to correspond to the changes defined in the scenario.

Use Scenarios to Evaluate Portfolios

Once you build your portfolio scenario, it is automatically selected in the portfolio so that you can see how changes affect the portfolio. You can view the effects of the scenario from the portfolio scorecard or the portfolio analyze pages. The values you defined in the scenario are used to evaluate the investments contained within the portfolio. For example, if a scenario imposes a budgeted cost override of $1M, this figure is used as the basis for evaluating investments.

You can evaluate your portfolio by choosing a scenario from the Scenario drop-down. The Scenario drop-down displays on the page toolbar on the portfolio scorecard or portfolio analyze pages.

Once you select the scenario to evaluate your portfolio, this scenario becomes the current scenario.

Copy Portfolio Scenarios

You can create scenario copies that are exact copies of an existing portfolio scenario. The new scenario title is the same as the original scenario, except it has Copy of appended to the name. Also, the owner of the copied scenario is the name of the user currently logged in to CA Clarity PPM.

Follow these steps:

1. With the portfolio open, click Scenarios.

   The portfolio scenarios page appears.

2. Select the scenario you want to copy, and click Copy.

   A copy of the selected scenario is added to the list.

3. Click the scenario name.

   The scenario properties appear.

4. Complete the following fields:

   Scenario Name

   Defines the scenario name.

   Description

   Defines the description for this scenario.

   Owner

   Specified the person who has primary responsibility for the scenario.

   Default: The portfolio owner.

   Planned Cost

   Defines the planned cost amount of the investments in the scenario. This value is reflected on the portfolio scorecard.

   Planned Benefit

   Defines the planned benefit amount of the investments in the scenario. This value is reflected on the portfolio scorecard.

5. Click Save.

Modify the Scenario's Properties

Follow these steps:

1. With the portfolio open, click Scenarios.

   The portfolio scenarios page appears.

2. Open the scenario you want to edit.

   The scenario properties appear.

3. Update the following fields:

   Scenario Name

   Defines the name for this portfolio scenario.

   Description

   Defines the description for this scenario.

   Owner

   Specified the person who has primary responsibility for the scenario.

   Default: The portfolio owner.

   Planned Cost

   Defines the planned cost amount of the investments in the scenario. This value is reflected on the portfolio scorecard.

   Planned Benefit

   Defines the planned benefit amount of the investments in the scenario. This value is reflected on the portfolio scorecard.

4. Click Save.

Resource Capacity Planning with Portfolio Scenarios

The portfolio scenarios you create to see what-if changes to resource capacity can be accessed from investment and resource planning pages. You can use the scenarios to determine the resource implications of the decisions you make to your portfolio investments.

To access your portfolio scenario from an investment or from resource planning pages, select the scenario from the Scenario drop-down on the Scenario toolbar.

Add Optimization Attributes

Use the scenario optimizations page to add the attribute selection criteria and then define the ranking method. To optimize your scenario, add attribute fields and define how you want them to rank and be weighed. You can add and define as many optimization parameters as you need.

To access this page, open the portfolio scenario and go to Optimizations.

Add Investments to Portfolio Scenarios

The pool of investments from which you can add to your portfolio scenarios are those to which you have access rights and that are in the portfolio. You can also set optimization and constraint parameters, generate the scenario, and then alter those investments. You can add and define as many investments as you need.

Follow these steps:

1. With the portfolio open, click Scenarios.

   The portfolio scenarios page appears.

2. Click the Scenario Investments icon next to a scenario.

   The scenario investments list page appears.

3. Click Add.

   The select investments page appears.

4. Select investments and click Add.

5. Click Save.

Add Investments to Portfolio Scenarios Using Power Filters

The process of adding investments to portfolio scenarios using a power filter involves the following steps:

- Build an expression for a particular investment type
- Apply the filter.

Building an expression allows you to add investments that meet the conditions you specify.

Follow these steps:

1. With the portfolio open, click Scenarios.

   The portfolio scenarios page appears.

2. Click the Scenario Investments icon next to a scenario.

   The scenario investments list page appears.

3. Click Add with Power Filter button.

See the *Basics User Guide* for more information.

Update Portfolio Scenario Investments Included by a Power Filter

Use Synchronize to update the investments added to the scenario using a power filter expression. Only the investments that meet the conditions specified in the power filter and are not already included in the scenario are available for adding. You can remove the investments that no longer match the conditions of the power filter.

Follow these steps:

1. With the portfolio open, click Scenarios.

   The portfolio scenarios page appears.

2. Click the Scenario Investments icon next to a scenario.

   The scenario investments list page appears.

3. Select the check box next to the expression you want to synchronize.
4. Click Synchronize.

   The synchronize matching Investments page appears.

5. Click Synchronize.

Add Investments to Portfolio Scenarios Manually

You can add an investment to an existing scenario. You can also create a scenario from the Investments, Gantt, and Financials portlet on the portfolio scorecard. Click the Grid with Plus (Add to Scenario) icon next to an investment to create a scenario that includes the investment.

Follow these steps:

1. With the portfolio open, click Scenarios.

   The portfolio scenarios page appears.

2. Open the scenario and click Investments.

   The scenario investments page appears.

3. Click Add.

   The select investments page appears.

4. Select and add the investments you want to include in the scenario.

Exclude Investments from Scenarios

Excluding an investment from a scenario means temporarily ignoring the investment contributions to the portfolio when calculating the values for that scenario. When you exclude an investment from a scenario, the investment is temporarily removed from the portfolio. The portfolio does not appear in the portlets (while you are still in the scenario).

You can exclude both approved and unapproved investments completely from scenario calculations. When the scenario is generated, these excluded investments do not display in the portfolio scorecard, even when you filter for approved or unapproved investments. However, the scenario investments you exclude completely from the scenario do display on the scenario investments page. If an investment is excluded from a scenario, then all contributions of that investment and its child investments are excluded from all calculations.

Follow these steps:

1. With the portfolio open, click Scenarios.

   The portfolio scenarios page appears.

2. Click the Scenario Investments icon for the scenario you want to edit.

   The scenario investments page appears.

3. Click the Edit Scenario Details icon for an investment.

   The scenario details for the investment appear.

4. In the Scenario Details section, select the Exclude check box.

5. Click Save and Continue.

Manage Portfolio Scenario Roles

You add roles to a portfolio scenario to adjust (what-if) the capacity for those roles. For example, say that your company has five product managers. In this case, you can create one scenario where you add the role of product manager and set the capacity to be 10 FTE. 10 FTE means that you plan to hire five additional product managers. You can create yet another scenario where you set the role capacity to 3 FTE. You have two extra product managers and can lay them off.

Roles in a scenario allow you to see how your demand can be filled when role capacity is increased or decreased. When you generate a scenario, the values for role capacity are used to generate the best set of investments given the role demand and capacity.

You can only add roles to a scenario that is associated with the portfolio contents. Role capacities in a scenario default to the values entered in the portfolio contents and to the units (FTE or Hours) picked for the portfolio.

Add Roles to Portfolio Scenarios

When you select and add roles to the scenario, the role capacities which you entered on the portfolio contents page are prepopulated on the scenario. You can override the default values by entering new values and saving them. The values are in hours or FTEs depending on what selected for the portfolio.

If you did not add roles to the contents of your portfolio, no roles are available to be added to the portfolio scenario. Likewise, if you remove a role from the portfolio, that role is removed from the portfolio scenario.

Follow these steps:

1. With the portfolio open, click Scenarios.

   The portfolio scenarios page appears.

2. Open the scenario and click Roles.

   The scenario roles page appears.

3. Click Add.

   The select roles page appears.

4. Select and add the desired roles.

   The scenario roles page appears listing the newly added roles and their default capacities.

5. To overwrite the default role capacities, enter new capacity values for your roles.

6. Click Save.

Refresh Role Capacity

Refresh (repopulate) the role capacity values to match the capacity values on the portfolio contents by selecting the individual roles and clicking Refresh Capacity. Only the selected roles are refreshed with the capacity data from the portfolio.

Chapter 8: Portfolio Scorecard

This section contains the following topics:

Portfolio Analysis Using the Scorecard

Once you have added your organization investments and added content to your portfolio, you can examine your portfolio and evaluate its performance. The analysis occurs within the confines of the portfolio start and finish date.

Use the portfolio scorecard to view the list of investments included in your portfolio. Also analyze the effects of a scenario applied to that portfolio. The scorecard supports the decisions you make about the investments that can be added to or removed from the portfolio. This page displays data regarding the portfolio in portlets that contain charts.

By default, this page contains the Investments, Balance, Gantt, and Financials portlets in minimized views. In maximized view, this page displays only the Investments portlet with a drop-down from which you can select the other portlets. Use the portlets on this page to publish performance and status information to your customers.

To view this page, with the portfolio open, click Scorecard.

Information on the Scorecard

In addition to viewing the list of investments included in your portfolio, you can use the portfolio scorecard to perform other portfolio tasks.

The tasks you can perform on this page depend on the portlet you have in view. As you add and configure other portlets, the tasks you can perform vary depending on the types of fields and data you select to display.

You can do the following from the portlets on this page:

- Perform portfolio analysis at the parent portfolio level. Once you have manually added the child portfolio investments to this portfolio, you can use the scorecard to perform portfolio analysis
- Apply a scenario to the portfolio. If you have previously created a scenario, it is automatically applied to the portfolio. You can see which scenario is being applied from the Scenario drop-down on the page toolbar. Use this toolbar option to apply another scenario or select None to apply no scenarios.
- Add investments to a scenario. Clicking the *Grid with Plus (Add to Scenario)* icon for an investment allows you to add the investment to a new scenario. You can then test different solutions to improve the portfolio performance.
- Modify the investment in the scenario. When something has changed for the investment per a scenario, the *Grid with Checkmark (Edit in Scenario)* icon displays to the right of the investment. Clicking this icon allows you to view the investment details and to modify its planned cost and benefits, approval status, and exclusion status.
- View investment changes per an applied scenario. The red-lining shows the investment actual values before the scenario was applied. The rollover occurs for planned cost and benefits, planned cost start date, approval status, and exclusion status.
- Link directly to the investment general properties. Clicking the name of the investment from the Investment column opens the investment and allows you to view and update its general properties.
- View the investment planned cost. This cost is the cost covered by the portfolio. When an investment has a planned cost starting part way through the year and ending sometime the following year, the investment costs are not entirely covered in the portfolio.
- View the portfolio total budget and cost values. The rows at the bottom of the portlet show the following values:
  - The Aggregation row shows the total investment costs that fall into the portfolio date range.
  - The Comparison row shows the planned cost for the portfolio when no scenario is applied. When a scenario is applied, this row shows the scenario planned cost.

- The Variance row shows the variance from the planned costs. This variance is the difference between the aggregation and comparison rows. A negative variance indicates an overrun from the planned costs.

- View the investment stage. The number of blocks that fit in the white bar represents the number of stages in the lifecycle. The colored block represents the current stage. The block colors show the investment status. Status settings are On Track (green), Marginal (yellow), or Critical (red).
- Filter the list of investments. Allows you to apply a filter to view investments meeting the criteria of the filter. You can also use saved power filters defined with an evaluated expression.
- Sort the list of investments. Allows you to click the investment column header to sort the list of investments.

Portfolio Balance

The portfolio balance is illustrated in a bubble chart in the portfolio scorecard Balance portlet. This chart shows how the portfolio investments are balanced between corporate alignment and the onset of benefits. From this portlet, you can view the investment details and modify the investment properties.

By default, each bubble on the chart represents the approved investments. View unapproved or all portfolio investments by choosing a status from the Status drop-down on the page toolbar of the portfolio.

The portfolio investments are scored on three factors: business alignment, cost, and risk. For example, if the portfolio budget is defined for this year only, the costs are restricted to this year. Changing the investment planned cost changes its bubble size.

The values for business alignment are shown on the y-axis and are shown with a background zone color on the chart. The values for the finish dates are shown on the x-axis. The bubbles are sized according to the planned cost of the investment, and the bubble color represents the investment risk status.

The chart legend indicates the color translations. High-risk investments have a red bubble color, and low-risk investments have a green bubble color. Investments lie on the chart somewhere between good (68-100) and poor (0-34) according to their alignment with business goals. An investment with a low y-coordinate (distance from the origin) lies somewhere within the red zone on the chart. Move up the chart vertically based on their business alignment score.

Rolling your cursor over a bubble in the chart displays the details of the investment below the chart. You can see the investment name, start date, alignment score, and planned cost. You can configure this mouseover label by configuring the chart.

Clicking a bubble opens the investment general properties. You can update the investment general details—budget, risk, and alignment—from the portfolio. If you click an investment while a scenario is selected, then the properties page cannot be edited.

Follow these steps:

1. With the portfolio open, click Scorecard.

   The portfolio scorecard appears.

2. Do one of the following:

- If this page is minimized to display all portlets, this portlet follows the Investments portlet. Use the scroll bar, if necessary, to view this portlet.
- If the page is maximized to display only one portlet at a time, select Balance from the portlet drop-down.

Investments Portlet

The Investments portlet on the portfolio scorecard displays all included investments having the status as selected from the toolbar.
You have access rights to these investments and they match the view and filter settings you select from the toolbar. For example, if you chose to view unapproved investments, the list displays only the investments with a status other than "Approved".

Use this portlet to do the following:

- View the list of portfolio investments.
- Link to the investment properties page by clicking the investment name.
- Add an investment to a scenario by clicking the Grid with Plus (Add to Scenario) icon that displays next to the investment.
- View the investment ID, goal, alignment, risk, stage, planned cost, and start date, that is included in the portfolio.

- View remaining cost and remaining role allocation for an investment by comparing the values in the following cost and role columns:
  - Actual Cost and Remaining Cost
  - Role Demand, Remaining Role Allocation, and Role Actuals

  Visibility into remaining cost and remaining role allocation is important when planning a portfolio. You can determine how much of the budget remains and how much additional capacity is required. Planning a portfolio becomes easier when you can compare your portfolio budget and role capacity with the correct budget values and the correct role demand.
- Configure the Investments portlet to display financial metrics such as Planned IRR, Planned MIRR, Planned Payback Period, and so on. The investment boundaries and not the portfolio boundaries drive the values for these metrics.

  See the *Financial Management User Guide* for more information.

Follow these steps:

1. With the portfolio open, click Scorecard.

   If this page is minimized to display all portlets, the Investments portlet is the first section on the page.
2. If the page is maximized to display only one portlet at a time, select Investments from the portlet drop-down.

The portfolio values are displayed in the rows at the bottom of the portlet:

- The Aggregation row shows the total for the investments contained in the portfolio
- The Comparison row shows the portfolio data.
- The Variance row shows the difference between the aggregation and the comparison values. A negative variance value indicates the portfolio is over budget. What you select on the portfolio properties page affects the values in the comparison as follows:
  - If you select Total Planned Cost and Total Capacity, then the Planned Cost is compared with portfolio cost.
  - If you select Remaining Cost and Remaining Capacity, then the Remaining Cost is compared with portfolio cost.

Role Filtering and Investments Data

The following explains how data in the Role Demand, Remaining Role Allocation, and Role Actuals columns vary on the Investments portlet. The values vary based on what you have selected from the Portfolio Roles filter:

When you filter on a particular role, then all columns show the numbers related to that role:

- Role Demand shows the aggregated total allocation value of all the resources and roles whose investment role matches the filtered role for each investment.
- Remaining Role Allocation shows the aggregated total remaining allocation value of all the resources and roles. The investment role matches the filtered role for each investment calculated by subtracting Role Actuals from Role Demand.
- Role Actuals show the aggregated total actuals of all the resources and roles whose investment role matches the filtered role for each investment.

When *No Role Assigned* is selected in the filter:

- Role Demand shows aggregated total allocation value of all the resources and roles irrespective of their investment role for each investment.
- Remaining Role Allocation shows the aggregated total remaining allocation value of all the resources and roles irrespective of their investment role for each investment.
- Role Actuals shows the aggregated total actuals of all the resources and roles irrespective of their investment role for each investment.
- The Comparison and Variance aggregation rows under all these three columns are left blank.

No Role Assigned is a special entry that represents demand for resources that do not have a role assigned to them. The values for this entry are included in the aggregated total even when no role option is selected. You can always select No Role Assigned when filtering on a specific role.

Planned Cost Calculations

The following describes what the planned cost values indicate for department and generic portfolios:

- For a generic portfolio, the planned cost value represents the total cost for that investment.
- For a provider department portfolio, the planned cost value represents the total cost for that investment.
- For a customer department portfolio, the planned cost value represents the actual funding amount for that investment. This amount is the full budget amount multiplied by the applicable allocation percentage (that this department bears) expressed in the chargeback rule for that investment. Only the allocation rate in effect on the first date of the portfolio planning horizon is applied. Any time-based variation in chargeback allocation during the portfolio planning horizon is ignored.

Example

Forward Inc created and approved the Fast Track Xchange project. The internal customers, Global Securities and Cash Management divisions have agreed to pay for all costs associated with this project. The following chargeback rules were set up for the project from 1/ 1/ 07 to 12/31/ 08 as follows:

- Year 2007: Global Securities=50percent and Cash Management= 50percent
- Year 2008: Global Securities= 60percent and Cash Management= 40percent

The budget properties for the year 2007 for the project is set up as follows:

- Planned Cost: $300,000
- Planned Cost Start Date: 1/1/2007
- Planned Cost End Date: 12/31/2007

The budget properties for the year 2008 for the project is set up as follows:

- Planned Cost: $400,000
- Planned Cost Start Date: 1/1/2008
- Planned Cost End Date: 12/31/2008

The portfolio manager creates the following customer department portfolios:

- Cash Management 2007 for the period 1/1/2007 to 12/31/2007
- Cash Management 2008 for the period 1/1/2008 to 12/31/2008

Both portfolios belong to the Forward Inc/Cash Management department and include the Fast Track Xchange investment. The portfolio manager navigates to the portfolio scorecard. The planned cost value for the same investment appears as follows in the two portfolios:

- The Cash Management 2007 portfolio displays the planned cost value for the investment Fast Track Xchange as $150,000 (50 percent of 300,000)
- The Cash Management 2008 portfolio displays the planned cost value for the investment Fast Track Xchange as $160,000 (40 percent of 400,000)

Investments with Hierarchy

If a chargeback rule is set up for an investment to charge a particular department, then that investment is included in that department customer portfolio.

If both the parent and the child investments have been set to charge a department, charges get aggregated to the top-level parent. Charges get aggregated based on the investment allocation. If only the child investment is included in the portfolio, only the cost associated with it is displayed.

Consider the following example: The budget for investments P1, P2, and A1 is $100,000 each for the year 2007. As P1 and A1 are charged to department D1, both these investments are available in the customer department portfolio for D1. A1 is a child of P1 and P2 and is allocated at 50percent to each parent.

- Scenario 1. If you include only investment P1 in a portfolio, the portfolio scorecard displays the investment P1 with a planned cost value of $150,000 ($100,000 for P1 + (50 percent of $100,000 for A1))
- Scenario 2. If you include P1 and A1 in the portfolio, the portfolio scorecard displays the investment P1 with a planned cost value of $100,000. Investment A1 displays with a planned cost value of $100,000.
- Scenarios 3. If you include only A1 in the portfolio, the portfolio scorecard displays the investment A1 with a planned cost value of $100,000.

Follow these steps:

1. With the portfolio open, click Scorecard.

   The portfolio scorecard appears.

2. Do one of the following:
   - If this page is minimized to display all portlets, this portlet is the first portlet.
   - If the page is maximized to display only one portlet at a time, select Investments from the portlet drop-down.

Portfolio Gantt Information

The Gantt portlet shows investment data, such as the investment stage, status, duration, and completion date. The portlet also shows whether the investment has started (money has been spent), in a list view.

Use this portlet to do the following:

- View the list of portfolio investments.
- Link to the investment properties page by clicking the investment name.
- View the investment ID, progress, stage, status, and Gantt bar.
- Create a portfolio scenario that includes the investment.

The Gantt bars are color-coded to show which step in the process the investments are in. The investment can have a status indicator set to "Green" (on track), "Yellow" (marginal), or "Red" (critical). To view the investment name, planned cost start date, planned cost finish date, and status indicator value, roll the cursor over the investment Gantt bar.

Follow these steps:

1. With the portfolio open, click Scorecard.

   The portfolio scorecard appears.

2. Do one of the following:

- If this page is minimized to display all portlets, this portlet follows the Balance portlet. Use the scroll bar, if necessary, to view this portlet.
- If the page is maximized to display only one portlet at a time, select Gantt from the portlet drop-down.

Portfolio Financials

The Financial portlet shows the financial properties of the investments contained in this portfolio. Use the Financial portlet to do the following:

- View the list of portfolio investments.
- Link to the investment properties page by clicking the investment name.
- Create a portfolio scenario that includes the investment.
- View the investment name, ID, planned cost, planned benefit, planned ROI, net present value (NPV), and planned breakeven date.

You can also see actual cost and remaining cost for an investment. When planning a portfolio, these values help you decide how much more money you must spend on a particular investment.

Follow these steps:

1. With the portfolio open, click Scorecard.

   The portfolio scorecard appears.

2. Do one of the following:

- If this page is minimized to display all portlets, this portlet follows the Gantt portlet. Use the scroll bar, if necessary, to view this portlet.
- If the page is maximized to display only one portlet at a time, select Financials from the portlet drop-down.

Chapter 9: Portfolio Analyze

This section contains the following topics:

About Graphical Analysis

The analyze page presents a graphical analysis of the investments included in your portfolio. Like a scorecard, you can use this page to examine your portfolio and to evaluate its performance.

When you select a portfolio, the scorecard page determines what you initially view on the Analyze page. For example, if you compare a scenario with a plan of record, then two sets of each portlet (Base and Comparison) display in Analyze. One set displays the scenario data and the other displays the plan of record data.

The following portlets are available:

- Life-cycle Funnel
- Benefits by Goal
- Portfolio Planned ROI/Alignment Zones
- Planned Costs
- Planned Cost/Benefit
- Planned Costs
- Risk/Reward Quadrants

You can view either base or comparison information for each of these portlets.

Life-Cycle Funnel

The Life-cycle Funnel portlet displays the number of portfolio investments in a given process stage. As investments move from one process stage to another—either manually or through an applied process—this funnel reports their progress by displaying the data for the process.

Each section of the funnel corresponds to a stage in the applied process. Each section is labeled with the name of the stage and the number of investments in that stage. If a portfolio investment has not been identified with a stage, it is included in the funnel in an unlabeled section with other such investments.

By default, this funnel shows investments in all process stages. Investments marked for deletion are not included in this portlet.

To view the funnel for another process

Select a process from the Process drop-down on the page toolbar. Roll your cursor over a section of the funnel to display the stage identifier. You can configure this mouseover label by configuring the graph.

Benefits by Goal Portlet

Rolling your cursor over a segment displays the name of the corporate goal and the relative cost of investments mapped to that corporate goal. You can configure this mouseover label by configuring the chart.

This chart does not display detailed investments, and the investments marked for deletion are not included in this portlet.

Planned Cost/Benefit Portlet

The Planned Cost/Benefit portlet displays a scatter chart that displays the portfolio investments as points on the chart. Their placement of each point on the chart is the intersection of their budgeted benefit (y-axis) and budgeted cost (x-axis). Investments that lie higher on the y-axis have a higher benefit. The investments that lie to the right on the x-axis have a higher budgeted cost.

Clicking a point on the chart opens the investment general properties. On the properties page, you can update the investment details such as budget and risk from the portfolio. The Planned Costs portlet displays different cost for the investment from the one displayed on the properties page of the investment. The cost shown on the portlet is limited to the portfolio start and end dates. If the portfolio covers the full period for the investment, then the cost shown on the portlet and the properties page match.

You cannot edit the properties page when you click an investment with the scenario selected.

Roll your cursor over a point to display the investment details such as investment name, budgeted cost, and budgeted benefit, below the chart. You can configure this mouseover label by configuring the chart.

Planned Costs Portlet

The Planned Costs portlet displays a column chart showing costs across time covered by the portfolio start and end dates. The height of each column represents the aggregate budgeted costs for all of the portfolio investments during that month.

The blue line represents the portfolio budgeted costs over the same period. You can use the visual to compare the investment budgeted costs to the portfolio budgeted costs. In the legend, Original Cost represents the actual cost of the investment and Cost represents the cost of the investment in the scenario.

Rolling your cursor over a column displays the aggregate budgeted cost of investments for that month. You can configure this mouseover label by configuring the chart. In addition, investments marked for deletion are not included in this portlet.

Portfolio Planned ROI/Alignment Zones Portlet

The chart zone illustrates using background color. Each color denotes different tolerance zones based on stoplight values, including green (>= 20 percent), yellow (< 20 percent), and red (< 5 percent). Investments positioned in the green tolerance zone are highly aligned, have a good ROI, or a combination of both. Investments in the yellow tolerance zone have average alignment and ROI; investments in the red tolerance zone have poor alignment and ROI.

Roll your cursor over a point in the chart to display the investment details, name, budgeted ROI, and alignment, below the chart. You can configure this mouseover label by configuring the chart. The Planned ROI/Alignment Zones portlet displays a scatter chart showing alignment with corporate goals (y-axis) and budgeted ROI (x-axis) for each of the portfolio investments. Each point on the chart represents a portfolio investment.

Investments marked for deletion are not included in this portlet.

Risk/Reward Quadrants Portlet

The Risk/Reward Quadrants portlet displays a bubble chart with a bubble for each of the portfolio investments. The placement of each bubble on the chart is the intersection of their risk of investment in the portfolio (y-axis) and portfolio planned NPV (x-axis). Investments that lie higher on the y-axis are riskiest, while investments that lie further to the right on the x-axis have the highest planned NPV. The bubble size or radius represents the planned cost of the investment in the portfolio, and the bubble color represents the investment category.

The x-axis intersects with the y-axis at $1,000,000 (portfolio planned NPV). The y-axis intersects with the x-axis at 50 percent (risk).

Clicking a bubble on the chart opens the investment general properties. You can update the investment details, budget and risk, from the portfolio.

If you click an investment with the scenario selected, then you cannot edit the properties page.

Rolling your cursor over a bubble displays the investment details, name, planned NPV, risk, planned cost, below the chart. You can configure this mouseover label by configuring the chart.

Those investments marked for deletion are not included in this portlet.

Chapter 10: Access Rights

Portfolio Access Rights

The following access rights are available to resources, groups, and OBS units to create, view, and edit a portfolio:

Portfolio - Navigate

Allows users to access the Portfolio Management menu.

Type: Global

Portfolio - Create

Allows users to create portfolios.

Includes: *Portfolio - Navigate* to access Portfolio Management menu.

Type: Global

Portfolio - Create Scenarios

Allows user to create scenarios for a specific portfolio.

Requires:

- *Portfolio - Navigate* to access the Portfolio Management menu
- *Portfolio - View* to view a specific portfolio.

Type: Instance

Portfolio - Edit

Allows users to view, edit, and delete specific portfolio. This right also lets users change the portfolio layout and attach, modify, or delete a scenario. With this right, users can view investments, scenarios, and portlets in the portfolio to which they have access.

Requires: *Portfolio - Navigate* to access the Portfolio Management menu.

Type: Instance

Portfolio - Edit - All

Allows users to view, edit, and delete all portfolios. Users can see only the investments, scenarios, and portlets to which they have access.

Requires: *Portfolio - Navigate* to access the Portfolio Management menu.

Type: Global

Portfolio - Edit Access Rights

Allows users to view, edit, and delete the access rights for portfolios to which they have access.

Requires: *Portfolio - Navigate* to access the Portfolio Management menu.

Type: Instance

Portfolio - Edit Access Rights - All

Allows users to view, edit, and delete the access rights for any portfolio to which they have access.

Required: *Portfolio - Navigate* to access the Portfolio Management menu.

Type: Global

Portfolio - Manager - Auto (Automatic)

Automatically assigned when users create an investment or are assigned as the manager of an investment. This right allows users to view, edit, and delete the portfolios they create. This right also lets users view, edit, and delete the access rights for the portfolio. The *Portfolio - Navigate* right is required.

This access right is equivalent to the *Portfolio - Edit* access right, and includes the *Portfolio - Read*, *Portfolio - Edit*, *Portfolio - Delete*, and *Portfolio - Navigate* access rights.

If you reassign the portfolio manager, this access right transfers to the new manager, and the previous manager's access rights to this portfolio is revoked.

Type: Instance

Portfolio - View

Allows you to view a specific portfolio.

Required: Portfolio - Navigate to access the Portfolio Management menu.

Type: Instance

Portfolio - View - All

Allows users to view all portfolios. Users can view only investments, scenarios, and portlets in the portfolio to which they have access.

Requires: *Portfolio - Navigate* to access the Portfolio Management menu.

Type: Global

Portfolio - View Scenarios

Allows users to view all scenarios for a specific portfolio.

Requires:

- *Portfolio - Navigate* to access the Portfolio Management menu.
- *Portfolio - View* to view a specific portfolio.

Type: Instance

Appendix A: Portlets

This section contains the following topics:

Portfolio Portlet

The Portfolio portlet is an interactive portlet that contains an Xcelsius visualization with multiple components. This portlet displays on the dashboard page for portfolios.

The portlet shows a list of available and selected investments from the portfolio based on the filtering criteria you enter. You select the investments you want to factor into the analysis.

Prerequisites to view information in this portlet:

- Before data can display in this portlet, run the Update Business Objects Report Tables, Cost Matrix Extraction, and Time Slicing jobs.
- Before you can use this portlet, select Portfolio Default Layout as the page layout for this portfolio.

Do the following to set up the data for this portlet:

- Create projects.
- Activate, approve, and financially enable the projects.

  See the *Project Management User Guide* for more information.
- Create cost plans for the projects.

  See the *Financial Management User Guide* for more information.
- Create issues and risks for the projects.

  See the *Project Management User Guide* for more information.
- Post cost for the projects.
- Create at least one baseline in the project.
- Create a portfolio (see page 58).
- Add the projects as individual investments to the content page in the portfolio (see page 78).

To view information from this portlet

1. Open the portfolio and navigate to the Portfolio portlet.

   A list of investments that are available from the selected portfolio appear.
2. Select the investments you want to factor into the analysis, and click Update. Clear the Filter check box to view information based on the selected investments.

   The visualization displays.

To select or remove investments, select the Filter check box to display the list box of selected and available investments.

The following information is available:

Portfolio

Displays the name of the portfolio.

Manager

Displays the name of the resource responsible for managing the project.

Start

Displays the date of starting the project.

Finish

Displays the date of completing the project.

Currency

Displays the currency.

Benefit

Displays the amount of money expected in return from the investments in the portfolio. The value for this field is from the Planned Benefit field on the portfolio properties page.

Budget

Displays the planned cost defined for the portfolio. The value for this field is from the Planned Cost field on the portfolio properties page.

Approved Investments Budget

Displays the approved investment budget for all investments in the portfolio.

Cost Variance

Displays a stoplight that shows a view of the performance for a portfolio.

Values:

- Green. Approved investments planned costs are less than the portfolio planned costs.
- Red. Approved investment planned costs are greater than the portfolio planned costs.

Budget / Forecast by Goal

Displays a column chart representing goals for all investments for that portfolio in the Y-axis, and budget and forecast amounts from the cost plan in the X-axis.

Balance

Displays a bubble graph that shows how the score of each investment balances between corporate alignment and the finish date. Investments use three factors when scoring; business alignment, cost, and risk. For example, if you defined a budget for a portfolio for this year only, its costs restrict to this year. In addition, changing the planned cost of an investment changes its bubble size.

The following information is displayed:

Schedule Finish Date

Displays the scheduled finish date.

Alignment Score

Investments appear on the graph somewhere between good and poor according to their alignment with business goals. An investment with a low y-coordinate (distance from the origin) lies somewhere within the red zone on the graph and move up the graph vertically based on their business alignment score. Bubble colors display the risk color.

Values:

- Green (65 and 100). Investment is well aligned
- Yellow (35 and 64). Investment is average aligned
- Red (0 and 34). Investment is poorly aligned
- White. Alignment data undefined

Planned Cost

Displays the total planned cost for the investment.

Investment Financial Grid

Displays all investments that you have access rights to and the ones that match the filter settings that you selected.

The following columns are displayed:

Investment

Displays the name of the investment. Click the investment name to open the project properties page.

Goal

Displays the goal for the investment that aligns it with the main corporate strategy. This metric is used in portfolio analysis when you use comparable goal criteria across all portfolio investments.

Values: Cost Avoidance, Cost Reduction, Grow the Business, Infrastructure Improvement, and Maintain the Business

Alignment

Displays how well the investment aligns to the organization's business goal. The higher the value, the stronger the alignment. This metric is used in portfolio analysis when you use comparable business alignment criteria across all portfolio investments.

Values:

- Green (65 and 100). Investment is well aligned
- Yellow (35 and 64). Investment is average aligned
- Red (0 and 34). Investment is poorly aligned
- White. Alignment data undefined

Risk

Displays the project risk status in the form of a stoplight. The stoplight colors are based on your selections on the main risk page. If you have detailed risks defined, the colors are derived from the risks page.

Values:

- Green = Low Risk
- Yellow = Medium Risk
- Red = High Risk

Stage

Displays the lifecycle stage at which the investment stands. This metric is used in portfolio analysis when you use comparable stage criteria across all portfolio investments.

Start

Displays the date of starting the project.

Planned Cost

Displays the total planned cost for the investment.

Actual Cost

Displays the sum of all actuals posted for the investment.

Remaining Cost

Displays the amount remaining on the project, based on the following formula:
`Remaining Cost = Planned Costs - Actual Costs`

Role Allocation Demand

Displays the total effort required to complete the tasks for the investment.

Role Actuals

Displays the aggregated total actuals of all the resources and roles irrespective of their investment role for each investment.

Remaining Role Allocation

Displays the aggregated total remaining allocation value for all resources and roles.