CA Clarity™ PPM

Portfolio Management Scenarios Guide

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Contents

Chapter 1: Introduction

This section contains the following topics:

About this Guide

This guide describes some typical portfolio management scenarios and how CA Clarity PPM helps you resolve them. After you read this chapter, read each scenario that is appropriate for your role. You do not have to read all of the chapters in the presented order.

To help illustrate the scenarios, a fictitious company named Forward Inc. is used throughout this guide.

Legal Notices

Forward Inc. is a fictitious company name which use is strictly for instructional purposes only and is not meant to reference an existing company.

Audience

This guide is intended for the following CA Clarity PPM roles:

- Portfolio Managers
- Portfolio Stakeholders
- System Administrators

Chapter 2: Getting Started with Portfolio Management

This section contains the following topics:

How to Get Started with Portfolio Management

Using portfolio management, you can create and review a collection of investments that interest stakeholders in your business. Once you create a portfolio, the system creates a snapshot of your investment data that is used for management and reporting purposes. You can set up a cadence for updating the data in this snapshot to match your latest investment information. Thereafter, you can create alternate versions or plans using the data. To explore alternatives for your investments, use these plans to create and compare what-if scenarios.

A portfolio is a collection of investments. Depending on your needs, you can create the following types of portfolios that are based on the following:

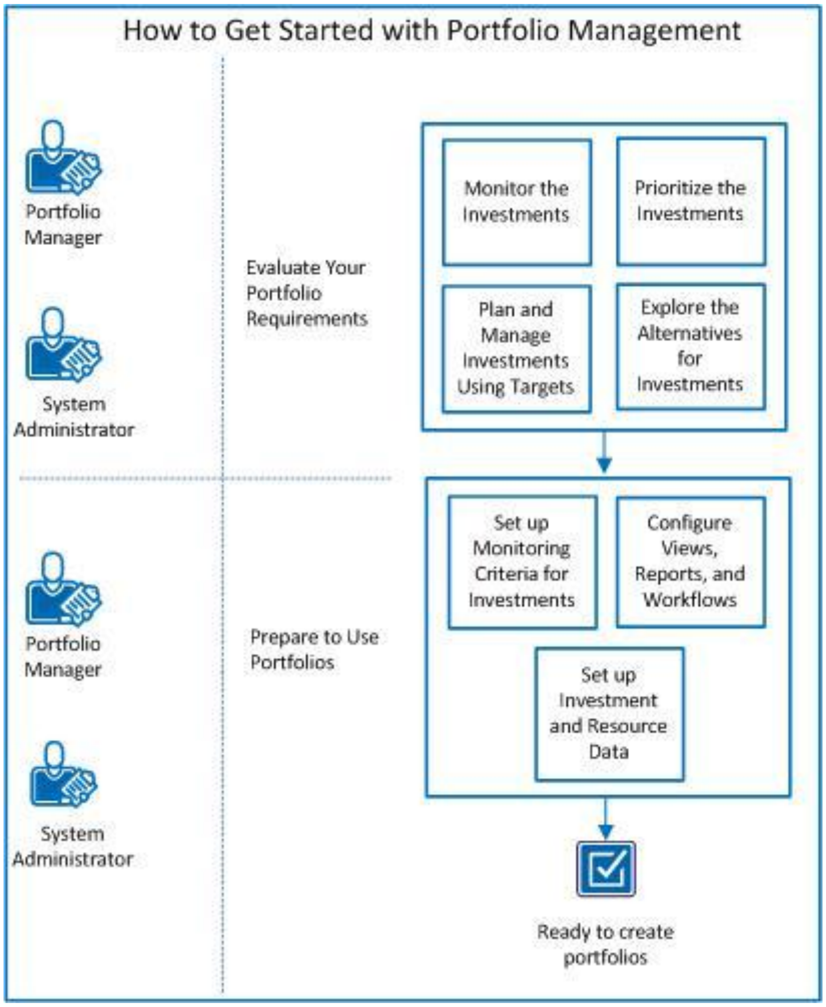
- Investments (for example, PMO projects, IT applications, new product development product lines).
- Specific investments (for example, all active projects).
- Organization (for example, IT plan of record, marketing initiatives, company ideas).
- Interest (for example, green initiatives, merger and acquisition proposals).

Example: IT Portfolio for Current Projects

Max, the PMO Director at Forward, Inc,. wants to create a portfolio of all the projects that the organization currently supports. A target amount of budget and resources exist that Max can use for the projects. With all of the projects in the portfolio, Max uses Portfolio Management to accomplish the following business goals:

- Understand how the costs and resource demand for each project compares to the overall targets.
- Prioritize the projects so that the most important tasks get done first.
- Stage the planning so that resources and costs are kept level throughout the planning periods.

The following diagram describes how a system administrator and a portfolio manager get started with portfolio management.



To get started with portfolio management, perform these steps:

1. Evaluate Your Portfolio Requirements (see page 11):
   - Monitor the Investments (see page 11).
   - Prioritize the Investments (see page 12).
   - Plan and Manage Investments Using Targets (see page 13).
   - Explore the Alternatives for Investments (see page 14).
2. Prepare to Use Portfolios (see page 16):
   - Set up Monitoring Criteria for Investments (see page 16).
   - Configure Views, Reports, and Workflows (see page 17).
   - Set up Investment and Resource Data (see page 18).

Evaluate Your Portfolio Requirements

To understand the business goals that you want to accomplish using portfolio management, evaluate your portfolio requirements. To evaluate your specific portfolio requirements, consider the following generic assessments as guidelines:

- Monitor the investments (see page 11).
- Prioritize the investments (see page 12).
- Plan for and manage investments using targets (see page 13).
- Explore the alternatives for investments (see page 14).

Monitor the Investments

You can monitor investment data that interests you by configuring the portfolio views to display that data. Consider what investment data you want to view and what specific views of the data you are interested in.

For example, a user can set up a portfolio to view the following types of investment data:

- A view that monitors current investments and provides their latest status such as if they are running on time, ahead of the schedule, or late.
- A view that shows investments being considered for the next year planning cycle and the planned costs for these investments.

After determining the requirements for your specific views, you configure the default portfolio views to display your custom data.

You can leverage a number of portfolio views to monitor different aspects of your portfolio investments. However, the configuration of the default views does not provide all of the information you need. The default views do not display the custom data that you care about. For example, the Waterlines view allows you to load-balance your resources against set targets and a time line, in a what-if environment. This default is relevant only if you care about the resource data that requires the resource management setup in the product. Similarly, the Financials view is related to the specific financial management product setup. This view is relevant to users who want to monitor certain financial aspects of their investments. Plan to work with your system administrator to configure the default portfolio views to display the custom data that you need.

Note: The Waterlines, Plans, Investments, and Targets views are the only views that are available as part of the portfolio management. To access the remaining portfolio views, install and apply the PMO Accelerator add-in. For a detailed description of the add-in, add-in install instructions, and descriptions of the portfolio views, refer to the PMO Accelerator documentation.

Prioritize the Investments

An important part of managing a portfolio is understanding the relative priorities of investments by ranking them. The product provides an out-of-the box Waterlines view that allows you to view and rank your investments in a portfolio.

When you first access the Waterlines view, investments are prioritized based on the following criteria:

- Approval status. Investments are sorted first by their approval status. The approved investments are ranked higher than unapproved investments and appear at the top of the list.
- Finish date. Investments are sorted next by their finish dates. Investments with a more recent finish date are ranked higher than investments with a later finish date.

The approved investments with the most recent finish date sort to the top of the list. The unapproved investments with later finish dates sort to the bottom.

You can manually rank investments or set up rule-based ranking, which is based on the following deciding factors:

- Size of your revenue
- Impact of the identified risks on your business

Manually Ranking Investments

To prepare to rank investments manually on the Waterlines view, consider the following factors:

- Size of the organization. If your organization is relatively small and people generally understand their priorities, creating ranking rules for prioritization is not a good investment.
- Number of investments. If the number of investments is relatively small, it is easier to rank them manually.
- Business need. If there are no preset guidelines for ranking investments and it is done on a case-by-case basis, then manual ranking is a better option.

Setting Up Rule-Based Ranking

To prepare to set up ranking rules for investments by which to prioritize them on the Waterlines view, consider the following factors:

- The investment attributes that determine the ranking criteria for your investments (for example, project status, ROI, goal).
- The ranking logic for each key attribute. For example, If attribute "ROI" equals "20 percent" then move the project to top of the list.
- An overall weighted ranking for each investment attribute. For example, to apply relatively higher importance to a specific investment attribute, assign a greater weight to it compared to the other attributes.

Plan and Manage Investments Using Constraints

To define the boundaries and time lines within which you want to plan and manage your investments, set up targets for your portfolio. Targets allow you to analyze your portfolio objectives and goals by managing your investments in the following ways:

- Setting high-level portfolio targets or constraints and planning, tracking, or measuring portfolio performance against these constraints.
- Creating multiple versions of a plan using a subset of the portfolio data. For example, you can create a plan for the current planning year, and another plan for the following year. Each plan can include different targets for costs, benefits, and resources.
- Comparing and adjusting plan targets and implementing necessary changes to actual investments when plans get approved.

The following types of targets are available for any portfolio:

- Financial. Consider the following factors when determining what financial targets you can use to manage your portfolio:
    - Currency. A portfolio can include investments that are planned in more than one currency. Work with your system administrator to set up a multi-currency system. In a multi-currency system, you can select a target currency for your portfolio. The target currency is based on the currencies that you have enabled in your system. Amounts in various currencies are aggregated and rolled up using the single portfolio currency.

  - Costs. Users can plan for aggregated cost types such as total costs, capital costs, and operating costs. These costs are summarized and aggregated from all investments included in a portfolio. You can set targets for each of these cost types (capital and operating costs) and then view the demand for them coming from the investments. If you track actual costs against investments, you can view aggregated actual costs in the portfolio views.
  - Benefits. Users can plan for aggregate benefits. You can set a total benefit target for the portfolio and then view the aggregated, planned benefits coming from the investments. If you track actual benefits against investments using benefit plans, you can view aggregated actual benefits in the portfolio views.
- Resource. Consider the following factors when determining what resource targets you can use to manage your portfolio:
  - Unit. Think about whether you want to plan the capacity for your portfolio resources using hours or FTE (full-time equivalent) units.
  - Granularity. Consider whether you want to plan based on the total resource capacity or by role-specific capacity. The role-specific capacities are based on existing roles. For example, you can view resource targets by Engineers or Quality Assurance roles.

Explore the Alternatives for Investments

You can define specific plans within the portfolio boundaries to determine how you can best accomplish your portfolio goals. With the larger content set defined, planning lets you perform iterative analysis on the portfolio. For example, you can create the following plans for the IT Projects portfolio that spans fiscal years 2013 and 2014.

- IT Projects Plan for FY2013
- IT Projects Plan for FY2014

You can create different plan versions or scenarios by altering specific parameters to explore different planning options going forward. Ultimately, you can choose to approve a Plan of Record.

To plan effectively, consider the following factors:

- Formal versus informal planning process. Understand if the planning process in your organization is formal, informal or a mix of both.
  - In a formal planning process, plan reviews take longer and changes are implemented in a disciplined manner. This planning process is applicable when the recommended changes are extensive or the changes require more review before you can implement them. For example, approving an investment that requires more budget. Typically, in formal planning, there is a well-defined process of proposals and approvals to plans before you can change anything.
  - In an informal planning process, organizations implement changes faster following the reviews. The changes are smaller and support existing goals. For example, slightly pushing out the start date of an investment. Informal planning can be as simple as someone going into the system and marking a change as approved without any formal approval.
  - In a mixed planning process, organizations implement smaller changes following an informal planning process and more extensive changes following a more formal approval process.
- Planning horizon. Determine the time-span for your portfolio that specifies the planning range of data. To allow planning for current and future investments, verify that the portfolio horizon covers the planning horizons.
- Review cadence. Determine the cadence for your plan reviews. Then you can set up the sync schedule for your portfolio to reflect the actual investment data when you need it.
- Required data for portfolio reviews. Determine the type of data that is required for your reviews. Next, set up your portfolio to capture the required data from the investments. For example, to review cost and resource information, you can capture the following key metrics from your portfolio investments:
  - Days Late
  - Cost Variance
  - Effort Variance
  - Risk
  - ROI
  - Earned Value

Prepare to Use Portfolios

After you have determined the business goals that you want to accomplish using portfolio management, prepare the product so you can start creating portfolios. Creating a portfolio allows you to manage and plan for your investments at a higher level.

To prepare to use portfolios, complete the following tasks:

- Set up monitoring criteria for investments (see page 16).
- Configure portfolio views, reports, and workflows (see page 17).
- Set up investment and resource data (see page 18).

Set Up Monitoring Criteria for Investments

The portfolio provides a snapshot of the actual investment data. The portfolio data is updated with the latest data from the actual investments. The update is based on a sync schedule that you define in the portfolio properties. Whenever the *Synchronize Portfolio Investments* job runs based on the sync schedule, the latest data from the actual investments is reflected in the portfolio.

Not all investment data is reflected in a portfolio. As a portfolio manager who decides at higher levels, you care about reviewing only a summary of your investment data, specific to your business needs. For example, to review a portfolio that is focused on all approved IT project statuses, you do not care to track information about unapproved projects.

As you prepare to view the summarized investment data in a portfolio, consider the following factors in the recommended order:

1. Define the monitoring criteria or summary data that you want to track for each investment type. Whenever the sync job runs, the latest data from the actual investments is updated in the portfolio investments. The data that gets updated is based on this predefined monitoring criteria.

   For example, to manage a portfolio of all approved IT projects, define the following monitoring criteria to track the data that you are interested in:

   - Cost
   - Status
   - ROI
   - Risk

2. For each portfolio investment, select the attributes that you want to monitor in a portfolio and register those attributes for the Portfolio Investment object. When the *Synchronize Portfolio Investments* job runs, the portfolio investment data is updated based on the current registered attributes.

   Note: The required Portfolio Investment attributes are displayed by default. Register any other Portfolio Investment attributes (stock or custom) that you want to display.

Configure Views, Reports, and Workflows

After deciding what investment data you want to monitor in a portfolio, verify that you have configured the product to support that data. Configuring the product allows you to view the desired data on portlets and reports.

For example, verify that the following configurations exist:

- To view detailed project cost data by period, you have generated cost plans on projects.
- To surface risks and issues for projects, you have configured the project object to surface risks and issues.
- To record actual time that is spent on each project, you have set up timesheets.

Consider the following factors before you configure the product:

- The type of reports you want to generate and how often you want to distribute them.
- The types of standard processes you want to build into your implementation. For example, you can set up a plan review and approval process to approve and implement extensive changes to your actual investments.

To use Portfolio Management to its full capability, complete the following process:

1. Review exactly what type of information you want to pull from your investments.
2. Verify that the required information is available on your investments.

With the data and processes in place, you can then build views of this data to help manage your investments in a portfolio.

Out of the box, the product comes with many predefined portfolio views. We recommend that you review these views to decide the type of information you want to see in your portfolio views.

Set up Investment and Resource Data

To start using portfolios, research and verify that the required setup data exists in the product. The setup data allows you to view the desired investment information in the portfolio views.

Depending on the data that is relevant to your business, you can set up the following requirements in the product:

Financial Management Setup

- Multi-currency. To manage a portfolio of investments that are associated with different currencies, verify that multi-currency is enabled for the product.

  For more information about multi-currency set up, see the *Installation Guide.*

- Cost types. To break down total cost by capital and operating costs in your portfolio, verify that these cost types are set up for your investments.

  For more information about how to set up cost types, see the *Financial Management User Guide.*

Resource Management Setup

- Roles. To plan resource capacity using role-specific breakdowns, verify that roles are defined for your investments.

  For more information about setting up roles, see the *Resource Management User Guide.*

Project Management Setup

- Investments. To create and manage a portfolio of investments, verify that the investments are set up in the product and resources are assigned to them. For example, to manage a portfolio of IT projects, create the projects and associated assignments.

How to Create a Portfolio of Investments

Creating a portfolio of investments includes the following tasks:

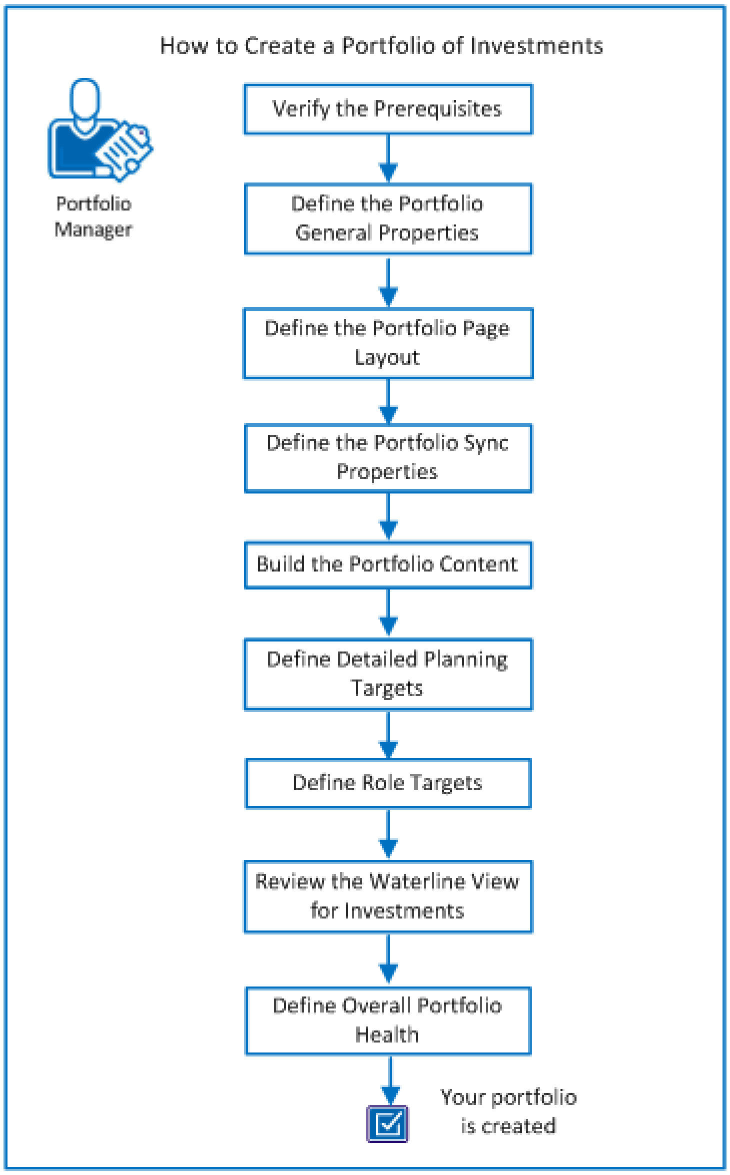
- Managing and planning for the investments using high-level targets for cost, benefits, and resources.
- Distributing financial and resource targets by time periods so that you can understand how investments use up money and resources over the portfolio planning horizon.
- Setting the role targets either by distributing the high-level set target or by populating existing resource capacity from roles in the system.

Example: Creating IT Portfolios for Annual Planning

Vicki is the IT Operations Manager responsible for creating and maintaining the IT investments for the CIO at Forward Inc. Vicki is preparing for annual planning and has to create an IT investments portfolio to reflect existing work and proposed work. Vicki creates the portfolio as follows:

- Defines some basic portfolio properties such as the start date, end date, and cost.
- Builds content by selecting active projects in the Investment OBS for the IT department for the coming fiscal year.
- Includes the ideas that are being considered for the coming fiscal year.

The following diagram describes how the portfolio manager creates a portfolio of investments:



To create a portfolio of investments, perform these steps:

1. Verify the prerequisites (see page 21).
2. Define the portfolio general properties (see page 22).
3. Define the portfolio page layout (see page 25).
4. Define the portfolio sync properties (see page 25).
5. Build the portfolio content (see page 27).
6. Define detailed planning targets (see page 28).
7. Define role targets (see page 31).
8. Review the waterline view for investments (see page 32).
9. Define overall portfolio health (see page 34).

Verify the Prerequisites

Complete the following prerequisites before creating a portfolio of investments:

Review and Verify

Review the *How to Get Started with Portfolio Management* scenario for basic portfolio management concepts.

Verify that you have the following access rights for creating and editing the portfolio content:

- Portfolio - Create
- Portfolio - Navigate

Verify Investments, Ideas, and child portfolios exist

- Verify that active investments and ideas exist in the product that are planned for the time period that the portfolio covers. Make sure that the investments and ideas can be synchronized in a portfolio for planning and analyzing.
- Create any child portfolios that you want to associate to the parent portfolio so you can see the parent-child relationship. No data is pulled in from the child portfolio to the parent portfolio.

Set Up Capital and Operating Cost Types

Define planned capital and operating costs for your investments as follows to display these cost types in a portfolio:

- Create a financial summary for the investment.
- Create a detailed cost plan and include the Cost Type grouping attribute.

Set Up Role Demand

Define project teams with allocation data for your investments to display role demand in a portfolio.

Set Up Attributes

Set up the following attributes for your investments to display them in a portfolio:

- Risk: Set this attribute by defining the contributing factors on the investment risk properties page.
- Business Alignment: Set this attribute under Properties->Business Alignment in the “Alignment Factors” section.
- Approved: Set this attribute by defining the Status attribute on the general Investment properties page.
- Goal: Set this attribute on the general Investment properties page.

Define the Portfolio General Properties

To start the portfolio creation process, define the high-level properties of the portfolio. These properties set the time, monetary, and resource boundaries of the portfolio within which you can plan and manage your investments. You can create multiple versions of a plan within these boundaries for comparison purposes and can implement the best plan.

For example, the following portfolio properties show how to use a data range to plan for your portfolio investments within that range:

- Portfolio Horizon: Starting on 01/01/2013 and ending on 12/31/2014
- Total Cost: 10,000,000 USD
  - Capital Cost: 7,000,000 USD
  - Operating Cost: 3,000,000 USD
- Resources: 20 FTE
- Benefits: 15,000,000 USD

Follow these steps:

1. Open Home, and from Portfolio Management, click Portfolios.
2. Click New.
3. Complete the requested information in the General section. The following fields require explanation:

   Managers

   Identifies the portfolio owner or creator, typically an operations manager, or director. The owner is automatically assigned view and edit rights to the portfolio and its content. You can select more than one owner for a portfolio.

   Stakeholders

   Identifies stakeholders in the business who want to review the portfolio content and provide feedback. The stakeholders are automatically assigned view rights to the portfolio and its content. You can select more than one stakeholder for a portfolio.

   Start Date/Finish Date

   Specifies the planning range of data for the portfolio. The data within the portfolio is clipped to stay within this set horizon. If an investment starts within the portfolio horizon but finishes after the horizon, you can analyze costs for the investment from both the following perspectives:

   - The aggregate cost of the investment irrespective of the portfolio horizon.
   - The cost of the investment relative to the time periods in the portfolio horizon.

   For example, an investment has a total cost of $10 million but you plan to spend only $2 million within the portfolio horizon. In this case, the portfolio surfaces both the total cost and the planning horizon costs of the investment.

   Sync Schedule

   Specifies how often to refresh the portfolio data and associated plans with actual investment data. This field appears after you define the initial portfolio properties. You can set up a sync schedule to refresh the portfolio automatically or you can sync the portfolio data manually.

4. Complete the requested information in the Targets section. The following fields require explanation:

   Total Cost

   Displays the total cost that the portfolio is targeting to spend during the planning horizon. This target is an aggregate of the capital and operating costs so you cannot set it directly.

Capital Cost

Specifies the capital cost that the portfolio is targeting to spend during the planning horizon.

Operating Cost

Specifies the operating cost that the portfolio is targeting to spend during the planning horizon.

Currency

Defines the portfolio currency or the currency in which you want to account for all investment cost and benefit amounts. In a multi-currency setup where portfolio investments use different currencies, all costs and benefits are rolled up in the portfolio currency. If your product is configured for a single currency, you cannot edit this value.

Benefits

Specifies the total benefit that the portfolio is targeting to gain during the planning horizon.

Roles

Defines the effort that the portfolio is targeting to use during the planning horizon.

Capacity Unit Type

Specifies the resource unit in which you want to represent the roles target. Select one of the following units:

- FTE. An average number that is based on the resources that are involved and the time periods. For example, say the planning horizon spans two months. One FTE is planned in the first month and 3 FTE are planned in the second month. In this case, the average target resources for the planning horizon are 2 FTE.
- Hours. A total number that applies to the portfolio planning horizon. For example, say you have a two-month planning horizon and set a target of 1000 hours. In this case, you can use a total of 1000 hours for the whole portfolio.

5. Save your changes.

Define the Portfolio Page Layout

Define the dashboard view or page layout for all your portfolio pages. You can select from the following dashboard views:

- PMO-Portfolio Investment Dashboard. The dashboard view for your portfolio if you have applied the PMO Accelerator add-in. To view a series of tabs with portlets that you can use to plan and monitor the execution of a portfolio, use this dashboard

  Note: For more information about the PMO-Portfolio Investment Dashboard view and the portlets included in the view, refer to the PMO Accelerator documentation.

- Portfolio Default Layout. The default dashboard view for your portfolio if you have not applied the PMO Accelerator add-in.

Follow these steps:

1. Open Home, and from Portfolio Management, click Portfolios.
2. Open the portfolio for which you want to select a page layout.
3. Click the Properties menu and select Settings.
4. Select a dashboard view and save.

Define the Portfolio Sync Properties

The portfolio data represents a snapshot of the actual investment data in real time. You can update the portfolio data with the actual investment data by running a sync job. Syncing is important because portfolio stakeholders want to know how current the data they are reviewing is. To establish how often you want to refresh the portfolio data, define the properties of the sync job.

Based on how often you review the latest portfolio data, run the sync job manually anytime you want or set up a sync schedule. You can set up a sync schedule to refresh the portfolio automatically at a recurring time interval such as weekly.

Example: Setting Up a Portfolio Sync Schedule

Mary, the IT portfolio manager at Forward Inc. presents at the weekly stakeholders meeting every Monday. Mary covers all months in the portfolio planning calendar. To prepare for this meeting, Mary sets up the sync schedule to run every Sunday of every month at 9:00 A.M. The sync job populates the portfolio with the latest data from the actual investments. Mary then reviews the data and prepares the highlights for the meeting the next morning.

Follow these steps:

1. Open Home, and from Portfolio Management, click Portfolios.
2. Open the portfolio for which you want to define sync properties.
3. Click the Manual link next to Sync Schedule.

   The portfolio sync properties appear.
4. To set up a sync schedule for the sync job, select Weekly or Monthly and complete the requested information. The following field requires explanation:

   Recurrence

   Defines the frequency at which you want to sync the portfolio. You can select one of the following options:

   - Manual. You can run the sync job manually anytime by clicking Sync Now.
   - Weekly. The days in the week on which you want to sync the portfolio and for which months. For example, select Wednesday and then select all months. The sync job runs every Wednesday of every week and for all months in the portfolio horizon.
   - Monthly. The days of the month on which you want to sync the portfolio and the respective months in the portfolio horizon. For example, enter numbers 1 through 31 and select all to run the sync job every day, for all months in the portfolio horizon.
5. Save your changes.

   When you return to the portfolio properties, the Manual link next to Sync Schedule has now changed. The link now reflects the new sync schedule that you just set up. To change a schedule, click the link again. You can see the date when the portfolio was last refreshed.

Build the Portfolio Content

Add the investments to your portfolio that you want to monitor, track, and plan for at a high level. As you build the portfolio, you can preview the content. Previewing helps you understand what is included in the portfolio as you are building it.

Note: The following limits apply to the maximum number of attributes and roles that you can include in a portfolio:

- Attributes=700
- Roles=25

Example: Building Your Portfolio Content

Max the IT portfolio manager at Forward Inc., builds the portfolio content by including the following investments:

- All active projects in the Investment OBS for the upcoming calendar year.
- All ideas that the company is considering for the upcoming calendar year.

Max uses the power filter available in the Contents Editor to create the following expression so that only active ideas are included in the portfolio:

```
idea.is_active == 1
```

Max uses the power filter to create the following expression so that only active projects, not designated as templates are included in the portfolio:

```
project.is_active == 1 &&  project.is_template == 0
```

Follow these steps:

1. Open Home, and from Portfolio Management, click Portfolios.
2. Open the portfolio to which you want to add content.
3. Click Contents Editor.
4. Select the investment types (for example, project, application, asset) and click Include.

Note: Limit the number of investments for each investment type by using the Power Filter. Filter on any attribute that is associated with an investment type. For example, for the Project investment type, set the power filter to filter on and include only active projects. To add individual investments to the portfolio without setting the power filter, use the Individual Investments section.

5. To copy the investments and related data to the portfolio, click Sync Now.

   Depending on the size of the portfolio, the sync job can take some time to run.

6. (Optional). Check the progress of the job by completing the following steps:

   a. Open Home and click Reports and Jobs.

   b. From Jobs select Log.

   c. Check to see if the Synchronize Portfolio Investments job type is still processing or if the job has completed.

All investments included or added individually to the portfolio are listed in the Investments tab.

Define Detailed Planning Targets

You can view, edit, and distribute the high-level portfolio targets for cost, resource, and benefit in a time-scaled view. These period-based targets show up on the Waterlines view where you can analyze your portfolio performance.

Set these detailed targets either as part of the initial portfolio creation process or later when you have added content.

Typically, you set targets at a high level while creating the portfolio. Later, as you add content, you can provide more details for these targets using the following methods:

- Spread the total cost and benefit targets uniformly across the periods by populating the Distributed Target field.
- Populate each period and update the Distributed Target field with the total amount. If the breakout costs total is greater than the total portfolio cost, a variance amount appears in red. You can enter amounts for time periods that are outside the portfolio planning horizon. For example, if the end date for the portfolio horizon is 12/31/2014, you can still add values for Jan 2015.
- Edit the targets by period and see the impact on the distributed target and how that compares to the original target.

Note: As you edit the targets, affected cells are flagged with a red, pending edits flag. The flag appears on the top left corner of the cell. To make the edits permanent, save them. The Save button is only active when there are changes to the page.

The planning periods that you see on the time-scaled view are based on the time period setting you configure on the Waterlines view.

Example: Providing Details for the Cost and Benefit Targets

Vicki, the IT Investments portfolio manager at Forward Inc., initially populates the cost and benefit targets in the portfolio properties. On the Targets page, the total and distributed values for cost and benefit are automatically created based on the values on the Properties page. Vicki fine-tunes the distribution by manually tweaking the values in each cell.

Follow these steps:

1. Open Home, and from Portfolio Management, click Portfolios.
2. Open the portfolio for which you want to define detailed targets.
3. Click Targets.
4. Complete the requested information for Cost: Portfolio Cost Totals. The following fields require explanation:

   Target

   Specifies the aggregated planned cost for the portfolio investments including capital and operating costs. You initially define this value in the portfolio properties as an aggregate of the capital and operating costs. You can edit this value when providing details for the targets.

   Distributed Target

   Displays the planned cost for the portfolio investments as it scales over time (weekly, monthly, quarterly) within the portfolio horizon.

   Variance

   Displays the difference between the distributed and approved target amounts.

   Distributed Target (Total)

   Specifies the planned cost for the portfolio investments as an aggregate of the distributed amounts. To distribute the total amount uniformly across the portfolio planning periods, enter an amount in this field.

5. Complete the requested information for Benefit: Portfolio Benefit Totals. The following fields require explanation:

   Target

   Specifies the aggregated planned benefit for the portfolio investments including capital and operating benefits. You initially set this value in the portfolio properties but you can edit it here too.

   Distributed Target

   Displays the planned benefit for the portfolio investments as it accrues over time within the portfolio horizon.

Variance

Displays the difference between the distributed and approved benefit amounts.

Distributed Target (Total)

Specifies the planned benefit for the portfolio investments as an aggregate of the distributed amounts. To distribute the total amount uniformly across the portfolio planning periods, enter an amount in this field.

6. Complete the requested information for Role: Portfolio Role Totals. The following fields require explanation:

   Target

   Specifies the planned resource capacity in hours or FTE units for the portfolio investments over time (weekly, monthly, quarterly) within the portfolio horizon.

   Distributed Target

   Displays the planned roles for the portfolio investments as it accrues over time within the portfolio horizon.

   Variance

   Displays the difference between the distributed and approved target amounts for the resource target.

   Distributed Target (Total)

   Specifies the planned effort for the portfolio investments as an aggregate of the distributed amounts. To distribute the total amount uniformly across the portfolio planning periods, enter an amount in this field.

7. Save your changes.

Define Role Targets

When you create a portfolio, you typically provide an overall target for effort in hours or FTE units. As you build the portfolio content, you can view, edit, and distribute this high-level target in a time-scaled view. You can define the role constraint in the following ways:

- Define an overall role target in the portfolio properties when you create a portfolio. Spread the overall target uniformly across the periods by populating the Distributed Target (Total) field. You can overwrite the distributed values by entering values directly into the time period cells.
- Populate each period and update the Distributed Target field with the total amount. If the breakout amount total is greater than the total portfolio amount, a variance amount appears in red.
- Edit the targets by period and see the impact on the distributed target and how that compares to the original target.
- Add specific roles that you want to plan and set constraints for. When you initially populate the capacity, filter actual capacity using the attributes that are associated with the resources. For example, rather than populate the capacity for all engineers, filter by engineers that are associated with a specific OBS or resource manager.
- Select the Populate Capacity option for specific roles and view how the existing capacity aligns with the targets for those roles. You can see the actual capacity for these roles across the portfolio planning horizon. By comparing the target with the distributed target column, you can quickly see if you have enough capacity to fill your targets.

Example: Define Role Target

Vicki creates a portfolio for application sustainment for the following year. The resources are estimated to spend 20 percent of their time on sustainment for the following year. To set a role target for the portfolio, Vicki sorts the overall portfolio resource capacity in the following manner:

- Filters the roles information by the OBS Unit and the Booking Manager attributes.
- Adds the desired roles to the portfolio targets.
- Populates specific roles with the resource capacity available in the system. For example, Vicki populates the capacity for the Sr. Developer role within the Back-Office IT team. The role is populated with the available number of hours from the system for the associated resources.
- Aligns populated capacity with resource time estimates for application sustainment by scaling capacity by 20 percent.

With the role planning framework set-up, Vicki proceeds to edit or populate values for each period.

Follow these steps:

1. Open Home, and from Portfolio Management, click Portfolios.
2. Open the portfolio for which you want to define detailed targets.
3. Click Targets.
4. Navigate to the Role: Portfolio Role Totals section and perform one or more of the following tasks as needed:
   - To filter or add roles, click Add Roles.
   - To populate a role with the existing capacity available for the associated resources, select the role and click Populate Capacity.
   - To scale the populated capacity to align with the estimated resource time, select the role and click Scale Capacity.
5. Save your changes.

Review the Waterline View for Investments

After building the portfolio content and defining targets, use the default Waterlines view to see how the planned targets align with the portfolio investments.

By default, the approved investments with the most recent finish dates sort to the top of the list. The unapproved investments with later finish dates sort to the bottom of the list. You can change this default ranking either by dragging and dropping or by setting up rule-based ranking.

The Waterlines view can help you understand the following aspects of your portfolio:

- The list of prioritized work with investment attributes including data about budget, resources, and benefits.
- How the portfolio targets spread over the portfolio horizon.
- The list of approved and unapproved investments.
- The initial alignment of the portfolio with the goals.
- The actual amounts that are spent on investments as compared to the initial targets of capital and operating costs. You can see where and when demands exceed the targets.

As you review data, use the Waterline view as a "*what if*" environment to manipulate the items on the list and view the impact. You can also review the effects of the changes on the portfolio targets. For example, drag a time line to move out an investment start date and see its impact on the budget by time period. You can affect the portfolio in the following ways:

- Suggest a change to the existing portfolio by recommending small, focused changes on specific investments. The following examples show small changes:
    - Alter the start of an investment to later or earlier than planned.
    - Cancel an investment.
    - Put an investment on hold.
    - Initiate a change request that is related to the investment.
- Hypothesize on changes to multiple investments and to the portfolio constraints in a planning or scenario mode.

Follow these steps:

1. Open Home, and from Portfolio Management, click Portfolios.
2. Open the portfolio for which you want to review the Waterline view.
3. Click Waterlines.

   Note: For information about configuring the Waterlines view to see the fields you want, see the scenario named *How to Configure the Waterline View*.

4. To change the default time periods, click the Options icon and select Gantt. Adjust the settings according to your preferences. These settings are specific to your login. You can change the display on the Targets page for your session but they always default back to the settings set on the Waterlines page.

Define Overall Portfolio Health

To provide portfolio performance status to interested stakeholders, define the overall health for your portfolio.

The overall health score for a portfolio is calculated based on how you assess the following portfolio metrics:

- Health factors for cost, schedule, and resource
- Business measures for goal alignment, innovation, success, and risk

For example, if a portfolio is performing well within its targeted constraints of cost, resource, and time, you can rate the health factors as green. Similarly, if the portfolio is aligning well with its business goals for innovation, success, and lower risks, you can rate these measures as green. The calculated overall health of the portfolio also shows as green in this case.

Follow these steps:

1. Open Home, and from Portfolio Management, click Portfolios.
2. Open the portfolio for which you want to define overall health.
3. Click the Properties menu and select Metrics.
4. Select a color or score for the health factors and measures. Use the following guidelines:

- Red (0-34)
- Yellow (34-68)
- Green (68-100)

Chapter 3: Managing Your Portfolios

This section contains the following topics:

How to Rationalize a Portfolio of Investments

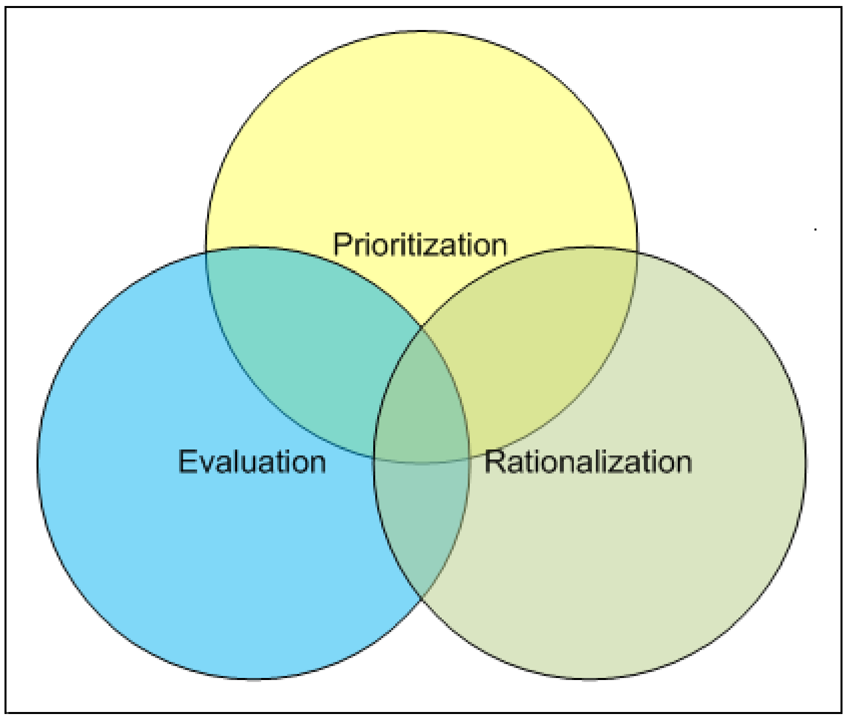
As a portfolio manager, use this article to guide you in prioritizing, evaluating, and rationalizing the investments in a portfolio.

Portfolio planning is an iterative process. The portfolio manager performs the following tasks that are based on review feedback from stakeholders and others in the company:

- Prioritization. Assigns a priority to the investments based on initial default or rule-based criteria.
- Evaluation. Associates the investments with company values such as cost, benefit, or return on investment (ROI).
- Rationalization. Justifies the existence of the investments that are selected by taking into account all of the information from prioritization and evaluation. Not all information that is used during rationalization is from CA Clarity PPM. The experience and advice of stakeholders are important considerations and often outweigh the rankings of investments that you indicate by prioritizing or evaluating.

When creating a portfolio, the portfolio manager initially prioritizes the list of investments using ranking rules that are based on business needs. To evaluate the portfolio, the portfolio manager creates different what-if plans and reviews the waterline views of the plans with the stakeholders. The evaluation of the portfolio uses information from all parts of the business. Based on stakeholder feedback, the portfolio manager reprioritizes the investments and reconfigures the waterline views. When the rounds of prioritization and evaluation are complete, the portfolio manager rationalizes the portfolio with stakeholders. Together they decide which investments to pursue and which ones to defer for the portfolio time horizon.

The following illustration shows how prioritization, evaluation, and rationalization overlap. For example, information that is gathered from either evaluation or rationalization can cause the prioritization of a portfolio to change.



This scenario shows how one company looks at its portfolio of investments and how it decides to thrive in the marketplace.

Example: Portfolio Planning

Raj Mehta is the new CIO for Forward Inc., a large holding company which owns many manufacturing companies. Raj reports to Lauren, the CEO who has been hired to bring a fresh perspective to the organization. Raj has worked for Forward Inc. for two years and Lauren was hired outside of the company. They have a directive from the Board of Directors to improve the company revenue stream in three years by 10 percent.

Raj and Lauren are preparing the IT budget planning for the upcoming fiscal year. In their first planning meeting, Lauren provides the following list of investments for the IT portfolio:

- Administrative Expense System
- Back-Office Financial System
- Cloud Based Order Intake
- Database Upgrades- Oracle
- Enterprise Time and Attendance
- Federated Security
- GUI Redesign- Supplier Internet System
- HR System Upgrade
- Interface to Material Supplier
- JIT (Just in Time) System Upgrade

The list is in alphabetical order. Lauren does not indicate which projects are more important. She wants Raj to prioritize the investments using the rules that are currently in place.

To complete the portfolio planning process, Lauren and Raj must complete the following tasks:

- Prioritize the portfolio (see page 38).
- Evaluate the portfolio (see page 40).
- Rationalize the portfolio (see page 43).

Prioritize the Portfolio

As part of the initial portfolio creation process, as the portfolio manager, you can set up some basic criteria or ranking rules. The ranking rules dictate the order in which the investments appear on the Waterlines view.

Note: The following example assumes that corporate goals for investments have already been defined in the product.

Example: Initial Portfolio Planning

Raj uses the investments list from Lauren and creates a portfolio in CA Clarity PPM. To collect information and display it in a meaningful way, he completes the following tasks:

- Adds the list of investments in the portfolio in alphabetical order.
- Works with the staff to determine the cost for each investment and enters this information in the portfolio.
- Compiles the number of internal resources for the investments in FTE units and enters this information.

The following table shows the portfolio investments and other details:

Investment	Duration (Months)	Cost	Resources
Administrative Expense System	3	250,000	5
Back-Office Financial System	9	750,000	15
Cloud Based Order Intake	3	100,000	3
Database Upgrades- Oracle	3	200,000	6
Enterprise Time and Attendance	5	450,000	12
Federated Security	2	300,000	5
GUI Redesign- Supplier Internet System	4	50,000	1
HR System Upgrade	6	300,000	12
Interface to Material Supplier	9	700,000	30
JIT (Just in Time) System Upgrade	5	100,000	6

In the meantime, Lauren works with the board to determine the discretionary IT budget. Lauren comes back with the following inputs which Raj incorporates into the portfolio:

- The board potentially agrees to $2,500,000 for funding. Raj enters this information in the portfolio properties.
- Each of the initiatives is aligned with a corporate goal. Raj links the investments with the predefined goals in the investment properties.
- The CFO wants to see estimated capital and expense projection for each investment. Raj enters the expense information for the investments in the financial summaries.
- The CFO wants to see what the expected benefits for each project. Raj enters the benefit information for the investments in the financial summaries.
- Raj syncs the portfolio with the investment information in CA Clarity PPM to capture the latest investment data.

The following table shows the portfolio investments with the latest details:

Investment	Duration (Months)	Goals	Cost	Benefit	Capital Cost	Operating Cost	Resources
Administrative Expense System	3	Improve Office Efficiencies	250,000	20,000	200,000	50,000	5
Back Office Financial System	9	Improve Office Efficiencies	750,000	1,000,000	675,000	75,000	15
Cloud Based Order Intake	3	Increase Sales	100,000	750,000		100,000	3
Database Upgrades-Oracle	3	Better Align Technologies	200,000	100,000		200,000	6
Enterprise Time and Attendance	5	Improve Office Efficiencies	450,000	700,000	400,000	50,000	12
Federated Security	2	Better Align Technologies	300,000	3,000,000	275,000	25,000	5
GUI Redesign-Supplier Internet System	4	Better Align Technologies	50,000	60,000		50,000	1

Investment	Duration (Months)	Goals	Cost	Benefit	Capital Cost	Operating Cost	Resources
HR System Upgrade	6	Reduce Costs	300,000	100,000	275,000	25,000	12
Interface to Material Supplier	9	Reduce Costs	700,000	2,500,000	600,000	100,000	30
JIT (Just in Time) System Upgrade	5	Improve Office Efficiencies	100,000	2,000,000	25,000	75,000	6

Evaluate the Portfolio

The portfolio manager constantly evaluates the portfolio investments to keep them aligned with the portfolio goals and within constraints. You can evaluate your portfolio investments on a periodic basis (for example, monthly or quarterly during the planning meetings). If your business needs change suddenly, you can also evaluate your investments on an ad-hoc basis. For example, if your business goals change due to new market conditions. You can reevaluate your portfolio to ensure the investments align with the new strategic direction. You can cancel investments that have a relatively low business alignment (for example, extended completion dates).

Example: IT Budget Portfolio: Plan 1

Lauren reviews the IT Budget portfolio that Raj prepared and provides the following feedback:

- The board has approved funding for $2,600,000.
- The investments must be sorted by goals, with the Reduce Cost goal being first.

Raj incorporates the feedback into the portfolio by creating a separate plan for the portfolio (Plan1). The plan is a copy of the portfolio that Raj can change to accommodate what Lauren is asking him to do. Raj brings up the plan Waterline view and drags the investments that are associated with the Reduce Cost goal to the top of the list.

The following table shows the Plan 1 version of the IT Budget portfolio:

Investment	Duration (Months)	Goals	Cost	Benefit	Capital Cost	Operating Cost	Resources	Cost Accumulator
HR System Upgrade	6	Reduce Costs	300,000	100,000	275,000	25,000	12	300,000
Interface to Material Supplier	9	Reduce Costs	700,000	2,500,000	600,000	100,000	30	1,000,000
Cloud Based Order Intake	3	Increase Sales	100,00	750,000		100,000	3	1,100,000
Administrative Expense System	3	Improve Office Efficiencies	250,000	20,000	200,000	50,000	5	1,350,000
Back Office Financial System	9	Improve Office Efficiencies	750,000	1,000,000	675,000	75,000	15	2,100,000
Enterprise Time and Attendance	5	Improve Office Efficiencies	450,000	700,000	400,000	50,000	12	2,550,000
JIT (Just in Time) System Upgrade	5	Improve Office Efficiencies	100,000	2,000,000	25,000	75,000	6	2,650,000
Database Upgrades- Oracle	3	Better Align Technologies	200,000	100,000		200,000	6	2,850,000
Federated Security	2	Better Align Technologies	300,000	3,000,000	275,000	25,000	5	3,150,000
GUI Redesign- Supplier Internet System	4	Better Align Technologies	50,000	60,000		50,000	1	3,200,000

Lauren reviews the Plan 1 waterline view with Raj. She comments that the investments must be prioritized by Better Aligned Technologies as a top priority goal. Raj drags the investments with the Better Aligned Technologies goal to the top of the Waterline view. Plan 1 waterline view now looks like the following table:

Investment	Duration (Months)	Goals	Cost	Benefit	Capital Cost	Operating Cost	Resources	Cost Accumulator
Database Upgrades-Oracle	3	Better Align Technologies	200,000	100,000.00		200,000	6	200,000
Federated Security	2	Better Align Technologies	300,000	3,000,000	275,000	25,000	5	500,000
GUI Redesign-Supplier Internet System	4	Better Align Technologies	50,000	60,000		50,000	1	550,000
Administrative Expense System	3	Improve Office Efficiencies	250,000	20,000	200,000	50,000	5	800,000
Back Office Financial System	9	Improve Office Efficiencies	750,000	1,000,000	675,000	75,000	15	1,550,000
Enterprise Time and Attendance	5	Improve Office Efficiencies	450,000	700,000	400,000	50,000	12	2,000,000
JIT (Just in Time) System Upgrade	5	Improve Office Efficiencies	100,000	2,000,000	25,000	75,000	6	2,100,000
Cloud Based Order Intake	3	Increase Sales	100,000	750,000		100,000	3	2,200,000
HR System Upgrade	6	Reduce Costs	300,000	100,000	275,000	25,000	12	2,500,000

Investment	Duration (Months)	Goals	Cost	Benefit	Capital Cost	Operating Cost	Resources	Cost Accumulator
Interface to Material Supplier	9	Reduce Costs	700,000	2,500,000	600,000	100,000	30	3,200,000

Rationalize the Portfolio

To substantiate or justify the existence of the investments in the portfolio plan, rationalize them. For example, you can link the investments to specific high priority corporate goals or business alignment factors to justify their current priority.

Example: Rationalizing Investments Based on Current Priorities

The board of directors reviews the updated portfolio plan and provides feedback. For tax purposes, the company must recognize as little expense as possible. Therefore, the higher capital dollar amount must be considered. To incorporate this feedback, Raj creates Plan 2 from Plan 1 and reworks the waterline view manually. He drags the investments with higher capital costs to the top of the list to rank them higher.

The following table shows the Plan 2 version of the portfolio:

Investment	Duration (Months)	Goals	Cost	Benefit	Capital Cost	Operating Cost	Resources	Cost Accumulator
Back Office Financial	9	Improve Office Efficiencies	750,000	1,000,000	675,000	75,000	15	750,000
Interface to Material Supplier	9	Reduce Costs	700,000	2,500,000	600,000	100,000	30	1,450,000

Investment	Duration (Months)	Goals	Cost	Benefit	Capital Cost	Operating Cost	Resources	Cost Accumulator
Enterprise Time and Attendance	5	Improve Office Efficiencies	450,000	700,000	400,000	50,000	12	1,900,000
HR System Upgrade	6	Reduce Costs	300,000	100,000	275,000	25,000	12	2,200,000
Federated Security	2	Better Align Technologies	300,000	3,000,000	275,000	25,000	5	2,500,000
Administrative Expense System	3	Improve Office Efficiencies	250,000	20,000	200,000	50,000	5	2,750,000
JIT (Just in Time) System Upgrade	5	Improve Office Efficiencies	100,000	2,000,000	25,000	75,000	6	2,850,000
Cloud Based Order Intake	3	Increase Sales	100,000	750,000		100,000	3	2,950,000
Database Upgrades-Oracle 3	3	Better Align Technologies	200,000	100,000		200,000	6	3,150,000

Investment	Duration (Months)	Goals	Cost	Benefit	Capital Cost	Operating Cost	Resources	Cost Accumulator
GUI Redesign-Supplier Internet System	4	Better Align Technologies	50,000	60,000		50,000	1	3,200,000

After investment reviews, the board and the legal department weigh in and make the following recommendations for the plan:

- Due to the company direction and some previous legal dealings, the Federated Security investment is mandatory.
- Because the current Oracle license is near expiration, the Oracle databases must be upgraded.

Raj configures the Plan 2 waterline view to display an extra Mandatory field on the view to flag the mandatory investments. The following table shows the extra Mandatory field for the investments:

Investment	Duration (Months)	Mandatory	Goals	Cost	Benefit	Capital Cost	Operating Cost	Resources	Cost Accumulator
Federated Security	2	X	Better Align Technologies	300,000	3,000,000	275,000	25,000	5	300,000
Database Upgrades-Oracle	3	X	Better Align Technologies	200,000	100,000		200,000	6	500,000

Investment	Duration (Months)	Mandatory	Goals	Cost	Benefit	Capital Cost	Operating Cost	Resources	Cost Accumulator
Back-Office Financial System	9		Improve Office Efficiencies	750,000	1,000,000	675,000	75,000	15	1,250,000
Interface to Material Supplier	9		Reduce Costs	700,000	2,500,000	600,000	100,000	30	1,950,000
Enterprise Time and Attendance	5		Improve Office Efficiencies	450,000	700,000	400,000	50,000	12	2,400,000
HR System Upgrade 6	6		Reduce Costs	300,000	100,000	275,000	25,000	12	2,700,000
Administrative Expense System	3		Improve Office Efficiencies	250,000	20,000	200,000	50,000	5	2,950,000
JIT (Just in Time) System Upgrade	5		Improve Office Efficiencies	100,000	2,000,000	25,000	75,000	6	3,050,000
Cloud Based Order Intake	3		Increase Sales	100,000	750,000		100,000	3	3,150,000

Investment	Duration (Months)	Mandatory	Goals	Cost	Benefit	Capital Cost	Operating Cost	Resources	Cost Accumulator
GUI Redesign-Supplier Internet System 4	4		Better Align Technologies	50,000	60,000		50,000	1	3,200,000

After reviewing the latest investments list in the portfolio plan, Lauren makes the following observations:

- The portfolio lacks initiatives that support increased sales.
- The JIT Upgrade investment promises a large return on the investment. Lauren decides to add this investment to the funding mix.
- Lauren hopes to receive a total funding of $2,600,000.

Raj creates Plan 3 from Plan 2 and incorporates the feedback into the Plan 3 to come up with the final rationalized list of investments. The following table shows the final list of approved and unapproved investments that are based on the latest priorities and budget constraint of $2,600, 000. The waterline for funded investments is drawn at the JIT System Upgrade initiative where the portfolio runs out of funds.

Project	Duration (Months)	Mandatory	Goals	Cost	Benefit	Capital Cost	Operating Cost	Resources	Cost Accumulator
Federated Security	2	X	Better Align Technologies	300,000	3,000,000	275,000	25,000	5	300,000
Database Upgrades-Oracle	3	X	Better Align Technologies	200,000	100,000		200,000	6	500,000

Project	Duration (Months)	Mandatory	Goals	Cost	Benefit	Capital Cost	Operating Cost	Resources	Cost Accumulator
Back Office Financial System	9		Improve Office Efficiencies	750,000	1,000,000	675,000	75,000	15	1,250,000
Interface to Material Supplier	9		Reduce Costs	700,000	2,500,000	600,000	100,000	30	1,950,000
Enterprise Time and Attendance	5		Improve Office Efficiencies	450,000	700,000	400,000	50,000	12	2,400,000
Cloud Based Order Intake	3		Increase Sales	100,000	750,000		100,000	3	2,500,000
JIT (Just in Time) System Upgrade	5		Improve Office Efficiencies	100,000	2,000,000	25,000	75,000	6	2,600,000 (Funding cut off)
HR System Upgrade	6		Reduce Costs	300,000	100,000	275,000	25,000	12	2,900,000

Project	Duration (Months)	Mandatory	Goals	Cost	Benefit	Capital Cost	Operating Cost	Resources	Cost Accumulator
Administrative Expense System	3		Improve Office Efficiencies	250,000	20,000	200,000	50,000	5	3,150,000
GUI Redesign-Supplier Internet System	4		Better Align Technologies	50,000	60,000		50,000	1	3,200,000

How to Explore Alternate Portfolio Plans

A plan is a subset of your portfolio data that allows you to explore the alternatives for your portfolio investments using a "what if" environment.

As a portfolio manager, you want to evaluate portfolios and plans and understand how the portfolios are executing against the plans. With the larger content defined in a portfolio, you can create specific plans within the portfolio horizon. You can use these plans to work with subsets of the portfolio content in a focused manner.

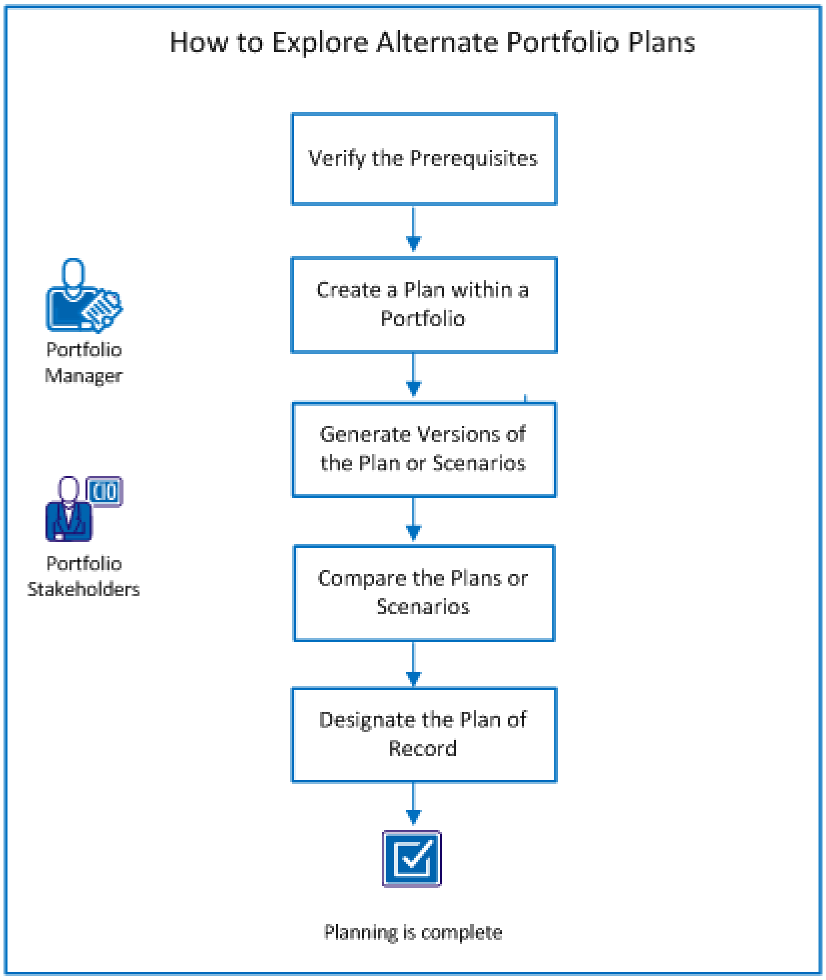
To explore different options, you can create versions of a plan by changing the parameters of the original plan. You can then view comparison reports to compare the different versions or scenarios for the existing work. Ultimately, you can approve a plan as the Plan of Record or the plan that you want to use and implement.

Example: Portfolio Planning Process

The Office of CIO at Forward Inc. regularly reviews their current plans within the overall IT portfolio. As part of typical business cycles, they explore alternate scenarios for how they can use the IT budget and resources to accomplish their portfolio objectives. Depending on the nature and size of the recommended changes, the CIO staff adopts the following approach during the plan reviews:

- For small and focused changes, they consider implementing those changes immediately, provided the changes support existing goals and only small changes to operational plans. For example, pushing out an investment start date by two months, or placing an investment on hold due to current project overruns and resource constraints.
- For more extensive changes that require extra review, they capture these changes in named versions of plans or scenarios. They circulate these scenarios to the stakeholders and collect feedback in a more formal and disciplined review process. For example, an annual planning process can involve two formal review cycles. The first review is with the IT leadership team. The second review is with the Executive Steering Committee made up of senior leaders from major divisions of the company.

The following diagram describes how the portfolio manager and stakeholders explore alternate plans for the portfolio investments:



To explore the alternate portfolio plans, perform these steps:

1. Verify the Prerequisites (see page 52).
2. Create a Plan within a Portfolio (see page 52).
3. Generate Versions of the Plan or Scenarios (see page 53).
4. Compare the Plans or Scenarios (see page 56).
5. Designate the Plan of Record (see page 57).

Verify the Prerequisites

To explore alternate plans for your portfolio, complete these steps:

- Review the *How to Get Started with Portfolio Management* scenario and set up the required data in the product.
- Create the portfolio content for which you want to do alternate planning.
- Verify that the existing portfolios reflect all the approved and proposed work for a given department. Some of the proposed work can exist as unapproved projects and ideas.
- Associate the investments with costs and resources and populate them with the required information.
- Install and apply the PMO Accelerator add-in for viewing the portfolio reports that you can use to compare your portfolio plans. For more information about how to install the add-in, refer to the PMO Accelerator add-in documentation.

Create a Plan within a Portfolio

To work with a subset of your portfolio data and explore the alternatives for your portfolio investments, create one or more named plans. For example, you can create the following plans for the IT Investments portfolio that spans a planning horizon of three fiscal years.

- FY13 One-Year Plan for IT
- FY13 Three-Year Plan for IT

To create a plan, modify the following parameters that you predefined at the portfolio level:

- Start and finish dates. The start and finish dates of the plan as a subset of the portfolio horizon. For example, if the portfolio horizon spans Jan 1, 2014 to December 31, 2015, you can create a one-year plan from Jan 1, 2014 to December 31, 2014.
- Default planning targets. The cost, resource, and benefit targets for the planning period as a subset of the portfolio targets. For example, if you are planning for only one year, you can reduce the targets accordingly.

Example: First Round of Planning

The office of CIO at Forward Inc., is conducting an annual IT portfolio planning meeting with the staff. The portfolio manager who is also the portfolio planner attends the meeting to capture and reflect planning options that the team is considering. In the current planning session, the team is considering projects that they want to fund as part of the PMO portfolio. To prepare for this meeting, the portfolio manager creates the 2014 IT PMO Plan to reflect the following work:

- Projects that are currently started.
- Projects that have not yet started but that are approved.
- Projects that are unapproved but that have a proposed start during the planning horizon.
- Ideas that are not approved but have a proposed start during the planning horizon.

Follow these steps:

1. Open Home, and from Portfolio Management, click Portfolios.
2. Open the portfolio for which you want to create a plan.
3. Click Plans and then click New.
4. Complete the requested information.

Generate Versions of the Plan or Scenarios

Modify your plans and save them as alternate versions or scenarios. You can view comparison reports for your portfolio plan versions and can arrive at the best possible decisions about your portfolio investments.

You can generate alternate versions of a plan by potentially changing the portfolio targets, content, and specific investment attributes (for example, dates, status, resources). For example, copy a plan and create another version by reducing the cost by a specific percentage.

Example: Generating Plan Versions

At a planning meeting with the CIO staff, the IT portfolio manager at Forward Inc. selects the 2014 IT PMO Plan. The portfolio manager presents the Waterline view for the plan to show the following details to the staff:

- All projects and their current ranking.
- The project demands as they compare to the targeted constraints for costs, resources, and benefits.
- The capital costs, engineering resources, business analyst resources, and project management resources as they are compare to the targeted constraints for costs and resources.

The staff reviews the priority list and makes the following observations:

- Out of the $20 million targeted cost budget, they have $15 million worth of projects currently above the waterline or funded.
- Out of the $30 million benefits they are targeting, their funded projects only represent $20 million worth of benefits. The funded projects appear above the waterline in the view.
- Out of the 70 resources available for project work, they have already committed 60 to the funded projects.

The CIO speaks about how employees must use resources more efficiently and must work towards accomplishing the following business objectives:

- A company initiative to reduce costs by 10 percent by outsourcing 20 percent of the staff. IT is committed to this target.
- The need for IT to be more strategic. The Sales team wants to invest in a new SaaS (software as a service) sales solution. The solution costs $6 million and there is only $5 million left in the IT budget. The new solution promises an extra $10 million in benefits that can help meet the benefit target.
- The Finance team has just delivered a mandatory project that costs $ 500, 000. The project does not produce any benefits but meets a regulatory requirement for the company to stay in business.

The portfolio manager creates another version of the plan by copying the 2014 IT PMO Plan and renaming it to "Option One: 10 Percent Cut plus CIO Commitments". In the new plan version, the portfolio manager makes the following adjustments:

- Reduces the target cost by 10 percent in the distributed target.
- Changes the mix of planned IT resources so that 20 percent are outsourced.
- Changes the staffing of roles from local roles to outsourced roles to reflect the desire to outsource.
- Moves the mandatory finance project above the waterline, consuming $ 500,000.
- Approves or moves the SaaS project above the waterline, consuming $6 million.

The portfolio manager reviews the new version of the plan with the CIO and staff.

Together they observe that the department is still $1.5 million over their cost target but is meeting their benefit target. Also, they are still missing their local and outsourced targets. They make the following changes to the plan:

- Move the low priority, Web-Based Benefits System project below the waterline, freeing up $1 million in costs and four resources. Now they are only $ 500,000 over the budget.
- Outsource 20 percent of their work and close the gap between their local and outsourced targets.
- Assign the task of creating new resource plans and cost plans with the new resourcing targets to the PMO director.

The portfolio manager saves the changes to the plan and notifies the staff. The CIO likes the new plan but expresses that they are doing business in the reactive mode. If the IT group can focus more on the strategic opportunities in the company, they could add much more value to the bottom line. They can make a bigger impact by generating more funds. For example, there are two small projects on the list, a Contact Management initiative and a Sales Compensation Transformation proposal. The projects are relatively low in cost ($1.3 million), but they promise a $13 million return on the investment.

Based on the CIO inputs, the portfolio manager creates another version of the plan called “Option 2: Increase Budget and Strategic Work with Significant Impact”. In this version, the portfolio manager makes the following adjustments and shows the new plan to the CIO:

- Increases the high-level target for cost as defined in the portfolio properties by $2 million.
- Raises the high-level target for benefit as defined in the portfolio properties by $13 million.
- Moves the Web-Based Benefits System project that the team previously decided to suspend below the waterline freeing up $1 million.
- Moves the mandatory finance project above the waterline, approving it and consuming $500, 000.
- Moves the SaaS project above the waterline, approving it and consuming $6 million.
- Adds the two strategic projects that the CIO mentioned above the waterline, consuming $1.3 million in costs and adding $13 million in benefits.

Follow these steps:

1. Open Home, and from Portfolio Management, click Portfolios.
2. Open the portfolio for which you want to create a plan version.
3. Click Plans.
4. Select the plan for which you want to create a version and click Copy.
5. To create a different version of the plan, rename the plan.
6. Edit the plan properties that are based on the new requirements.

Compare the Plans or Scenarios

Once you change plans, analyze and evaluate those changes to understand the implications of the changes as if the plans are real.

To compare different versions of a plan by the following factors, use portfolio reports:

- Portfolio constraints
- Investment counts
- Financial metrics (for example, NPV, ROI)

Note: To access and view the portfolio reports that you can use to compare your portfolio plans, install and apply the PMO Accelerator add-in. For more information about how to install the add-in, refer to the PMO Accelerator add-in documentation.

Example: Comparing Portfolio Planning Scenarios

The CIO at Forward Inc. reviews the new version of the plan now called "Option 2: Increase Budget and Strategic Work with Significant Impact”: He makes the observation that all the mandatory work is above the waterline with the scope for doing more strategic work.

The CIO expresses the desire for some more data to make a case for extra funding.

The portfolio manager selects the following portfolio plans and runs comparison reports:

- 2014 IT PMO Plan
- Option 1: Ten percent Cut plus CIO Commitments
- Option 2: Increase Budget and Strategic Work with Significant Impact

Using the reports, the staff can compare the following aspects of the portfolio plans or scenarios:

- The difference in overall planned cost, planned benefits, and other financial metrics by plan.
- The difference in overall planned cost, planned benefits, and other financial metrics by investment.
- The difference in investment rankings or waterline views by plan.

Follow these steps:

1. Open Home, and from Portfolio Management, click Portfolios.
2. Open the portfolio for which you want to compare plans.
3. Click Plans.
4. Select the plans that you want to compare and click Compare.
5. Select a comparison report for the portfolio plans.

Designate the Plan of Record

The plan of record (POR) is the portfolio plan that you intend to use for the portfolio to implement future investment changes.

As you explore different options for a portfolio, you can refer to previous versions of the plans or scenarios you have considered. Once you decide to pursue a given plan, adopt that plan and all its changes as the POR.

Example: Selecting the POR

Through the planning and review process, the portfolio planning staff at Forward Inc. quickly sees that the Option 2 plan is preferable. Compared to Option 1 plan, Option 2 plan offers the following advantages:

- Higher ROI
- Greater benefit per resource

The staff gathers other important data using other portfolio plans to make their case for pursuing Option 2 as a better choice.

The CIO reviews the options with the Executive Steering Committee and recommends Option 2 as the path going forward. Once the executives see the data, they agree that Option 2 makes the most sense. The CIO communicates the change of plans to the portfolio manager. The portfolio manager designates the Option 2 plan as the POR for the portfolio.

Follow these steps:

1. Open Home, and from Portfolio Management, click Portfolios.
2. Open the portfolio for which you want to designate a plan of record.
3. Click Plans.
4. Select the desired plan and click Set Plan of Record.

Chapter 4: Configuring Your Portfolios

This section contains the following topics:

How to Configure the Waterlines View

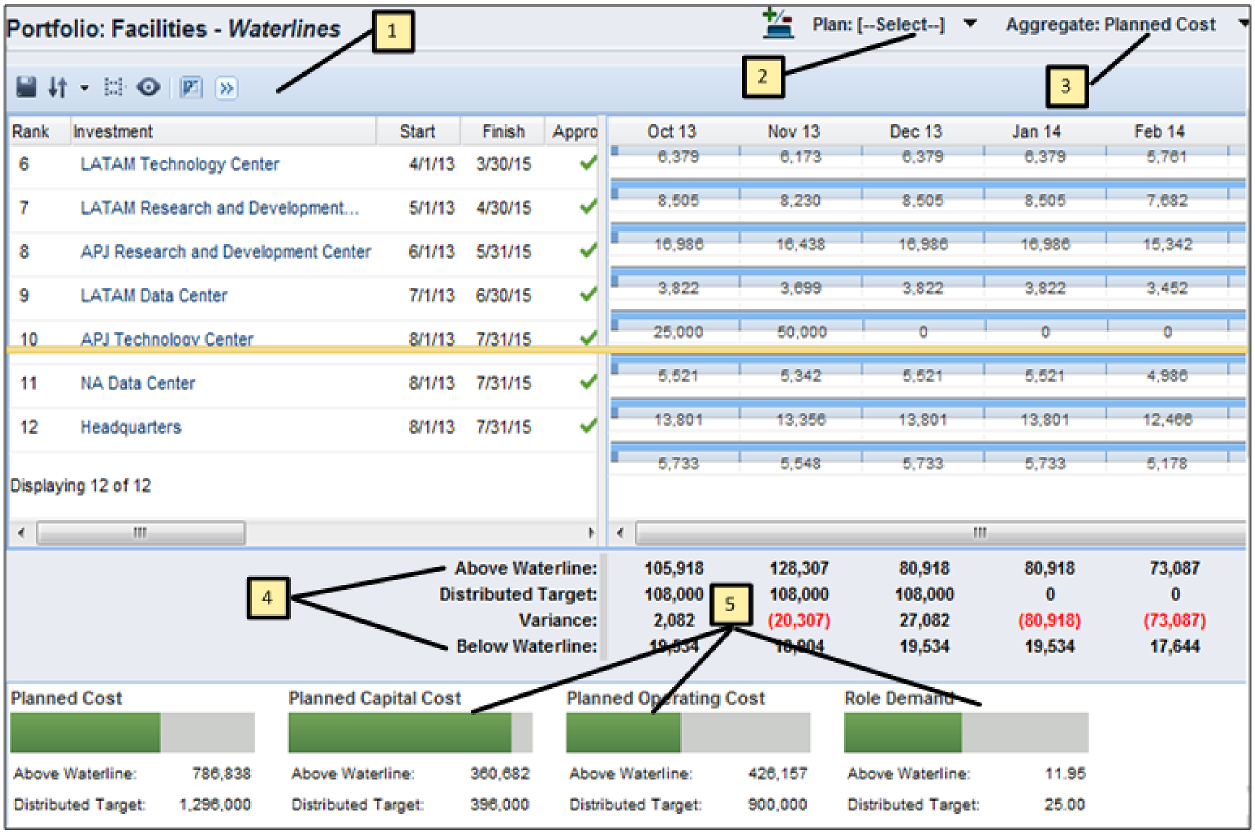
Use the waterline view to prioritize and rationalize the investments in your portfolio. The waterline signifies an analysis point for your list of portfolio investments. For example, the waterline might appear where the target for the primary constraint of total budget is met. By default, approved investments with the most recent finish date sort to the top of the list on the view. The unapproved investments with later finish dates sort to the bottom.

You can define rules to set up your own custom criteria to rank investments initially. As you review the list of investments during portfolio planning meetings with stakeholders, you can evaluate how the list of prioritized work compares to the set portfolio constraints of cost, benefit and resources over the time. Based on feedback from your stakeholders, you can manually fine-tune the prioritization to rationalize your current investments and override the predefined ranking rules.

For example, you can determine a planned cost target for a portfolio plan, the set up the waterline configuration to snap to the primary constraint *Planned Cost*. The waterline displays in your list of investments at the point where the planned cost target is met. Everything above the waterline is within the planned cost of the portfolio, and everything below the waterline exceeds the planned cost.

While the primary constraint determines where the waterline appears in the list, ranking rules determine which investments appear above or below the waterline. You can manually override what is above the waterline by dragging the waterline itself or by dragging investments to a new place in the list. As you rearrange the waterline or investments in the list, the resulting variance between the target constraints and your portfolio totals displays.

The following illustration shows the Waterlines view and the tools that let you display the desired portfolio information:



1. **Toolbar**. Lets you define investment ranking rules, display constraint gauges at the bottom of the view, and display time-scaled aggregates for investments in the Gantt chart.
2. **Plan drop-down**. Lets you select any existing plans for the portfolio. The Waterlines view changes to match the data in the plan.
3. **Aggregation constraint drop-down**. Lets you select the portfolio constraint that you want to view in the aggregation rows.
4. **Aggregation rows**. Display time-scaled aggregates of the above waterline, below waterline, and variance values for a selected portfolio constraint.

5. **Constraint Gauges**. Display variance information about the totals above and below the waterline. Any column constraints that you display in the list also display as constraint gauges.

To configure the waterline view, perform these steps:

1. Review the prerequisites (see page 61).
2. Configure the constraint columns for the waterline view (see page 61).
3. Define and apply the ranking rules (see page 62).
4. Balance Portfolio Cost and Resource Constraints (see page 64).
5. Verify your waterline view selections (see page 65).

Review the Prerequisites

Before you attempt the procedures in this scenario, verify that the following tasks are complete:

- Review *How to Get Started with Portfolio Management*.
- Select the portfolio investments and synchronize the portfolio with CA Clarity PPM information.
- Create any portfolio plans you want to vary from the portfolio.
- Create the targets for the portfolio and plans.

Configure the Constraint Columns for the Waterline View

To display the information you want to show on the waterline view, begin by configuring the columns. For example, to use planned cost as the primary constraint that the waterline tracks, configure the waterline view to show the Planned Cost column. The columns that you add to the waterline view depend on your business needs and how you manage your investments.

Follow these steps:

1. Open Home and from Portfolio Management, click Portfolios.
2. Open the portfolio and click Waterlines.
3. Click the Plan drop-down menu and select the portfolio or a portfolio plan.
4. Click the Options icon and click Configure.

   The List Column Layout appears.

5. In the Available Columns list, select the columns for the waterline view and move them to the Selected columns list using the arrows.

   Note: If you have added role totals to your targets, you can select the role to display as a column on the waterline view. For example, if you select DBA as a role on your portfolio Targets tab, a selection named *Role: DBA* becomes available as a column selection.

6. Click Save.

7. (Optional) If you want a wider column for a column selection, complete the following steps:

   a. Open the List Column Section menu and click Fields.

   b. Click the Properties icon for the column label.

   c. Increase the number in the Column Width fields and click Save and Return.

   d. Click Save and Return.

   Note: You can also drag the column edge on the waterline view to increase or decrease the width.

8. Review your columns on the waterline view and change them as necessary.

   Note: Drag the Gantt portion of the view to the right if your new columns are not visible. You can also expand or collapse the Gantt chart using the icon that is located at the top of the list.

Define and Apply the Ranking Rules

The ranking rules determine where investments appear in the waterline view list. You create a ranking by assigning weights to investment attributes that apply to your investments. For example, you can weight approved investments to rank higher than unapproved investments. When the ranking calculations are made for all investments, approved investments appear higher in the list ranking. The more ranking rules you include, the more complex the calculations and the more variable the results. Consider carefully the rules you set for the initial ranking.

The weighting that you assign to attributes is relative. Select the investment attributes to weight and assign a weight that is based on your business needs. The initial ranking provides a starting place for an evaluation of the portfolio or plan. To rationalize your portfolio, manually move investments in the list and see the results of your changes.

The following points outline how to set up ranking rules:

- Select the primary portfolio constraint for the waterline. For example, select Planned Cost as the primary constraint. In this case, the waterline appears in the list where the planned cost amount for the portfolio is exceeded. Similarly, select Planned Benefit as the primary portfolio constraint. In this case, the waterline appears at the point the planned benefit is realized.

- Select the investment attributes available at the portfolio level and assign weights to the attributes. You can select from all available attributes for all investment types that are included in the portfolio.
- To indicate more importance, assign an attribute greater weight. To indicate less importance, assign less weight. For example, to indicate that the % Complete attribute for an investment carries more importance, assign it a greater weight than other attributes.
- If you select an attribute that is a lookup, you can assign weights to the individual values of the lookup.

Note: When you create a plan for a portfolio, the plan inherits the ranking rules of the portfolio. When you copy a plan, the copied plan inherits the ranking rules of the original plan.

Follow these steps:

1. Open Home and from Portfolio Management, click Portfolios.
2. Open the portfolio and click Waterlines.
3. Click the Plan drop-down menu and select the portfolio or a portfolio plan.
4. Click Ranking Rules, then click Define Ranking Rules.

   The *Prioritization Criteria* page appears.
5. In the Primary Constraint field, select the investment attribute that the waterline uses as a primary constraint.

   For example, if you want to use planned cost as a primary constraint, select Planned Cost. The waterline displays when the planned cost target is exceeded in your list of investments.
6. Click Add.
7. Select the check box for each attribute for which you want to apply ranking rules and click Add.

   The attributes appear on the *Prioritization Criteria* page.
8. For each attribute, complete the following steps:
   a. Select the ranking method.
   b. To indicate the weighting, enter a number value in the Attribute Weighting field.

      Note: If you select an attribute that is a lookup, click Lookup Value Weighting on the attribute row to indicate a weighting for each individual lookup value.
9. When you have completed the ranking rules for the selected attributes, click Save and Return.

10. Click Ranking Rules, then click Run Ranking Rules.

    The calculations for the ranking rules complete, and the list on the waterline view is reordered. The waterline displays in the list at the point where the portfolio exceeds the primary constraint.

11. If the investment list is long, click Find Waterline on the toolbar to scroll to the waterline in the list.

Balance Portfolio Cost and Resource Constraints

To view the details of how your portfolio is doing for the planning horizon, display waterline aggregates for a specific portfolio constraint for a specific time period. For example, to view how the Planned Cost constraint is affecting the portfolio investments, select the constraint and view the following aggregation values:

- Above waterline
- Below waterline
- Distributed target
- Variance between distributed target and above waterline
- Negative variance values in red color

You can change the time scale to view a breakdown of the aggregation values by different time slices such as monthly or quarterly.

The aggregation details let you narrow down your issues so you can balance out the capacity for a given demand. For example, you can change the investment dates around to try to balance a negative variance in your planned cost in a given quarter.

The following conditions determine the behavior of the aggregation rows:

- The display settings of the Waterlines view. If you apply a filter to the view or you hide the Gantt chart, the aggregation rows do not appear.
- The changes that you make to the investment data in the Waterlines view. The aggregation rows synchronize with the changes you make to the view. For example, if you re-prioritize the investments list or you change the investment dates, the aggregation rows are recalculated to reflect these changes.
- The login status of the user. The portfolio constraint that you select to aggregate applies to only one login session. If you log out, the aggregates are not saved. To display the values again, reselect a portfolio constraint to aggregate.

Follow these steps:

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

2. Open the portfolio and click Waterlines.
3. Click the Aggregate constraint drop-down menu and select a portfolio constraint for which you want to view aggregated waterline values.

   The aggregation rows appear below the investments list and the Gantt chart.
4. To display the time-scaled aggregate numbers for each investment for a constraint, click Show Values on the toolbar.

   The aggregated numbers appear on top of the Gantt bars.

Verify Your Waterline View Selections

Verify that the waterline results are what you expect. Any column constraints that you display in the list also display as constraint gauges at the bottom of the list. The gauges provide variance information about the totals above and below the waterline.

In case the constraint gauges are not visible, click Show Totals on the toolbar.

Note: Investments added to the portfolio after the last ranking appear at the top of the list on the waterline view. The investments are assigned NR (not ranked) in the Rank column. The investments with this rank are not included in the waterline view totals. Run the ranking rules again to include newly added investments.

To determine the deficits or surpluses for a portfolio constraint in a time-scaled display, review the aggregation row values. To help balance the portfolio, make the necessary adjustments for the constraint.

Save or Discard Your Pending Edits

The changes that you make to your Waterlines view are saved as pending edits that you can then either save permanently or discard. All the pending edits are saved in a temporary area until you can commit to them or can decide to lose them. The Discard Changes button is enabled whenever there are pending edits on the view.

If you move away from the Waterlines view or you log out of the application, your pending edits are saved. When you log back in, you can accept or discard the edits.

The pending edits appear with a red flag that disappears when you save them or you discard the changes. For example, the following changes get saved as pending edits on the Waterlines view:

- You drag and drop investments to a new location to improve or lower their ranking.
- You change the investment attributes such as start and finish dates either by changing the Gantt bars or by editing the grid cells.