# itd Advanced Resource Planning 12.4.0

User and Administrator Manual

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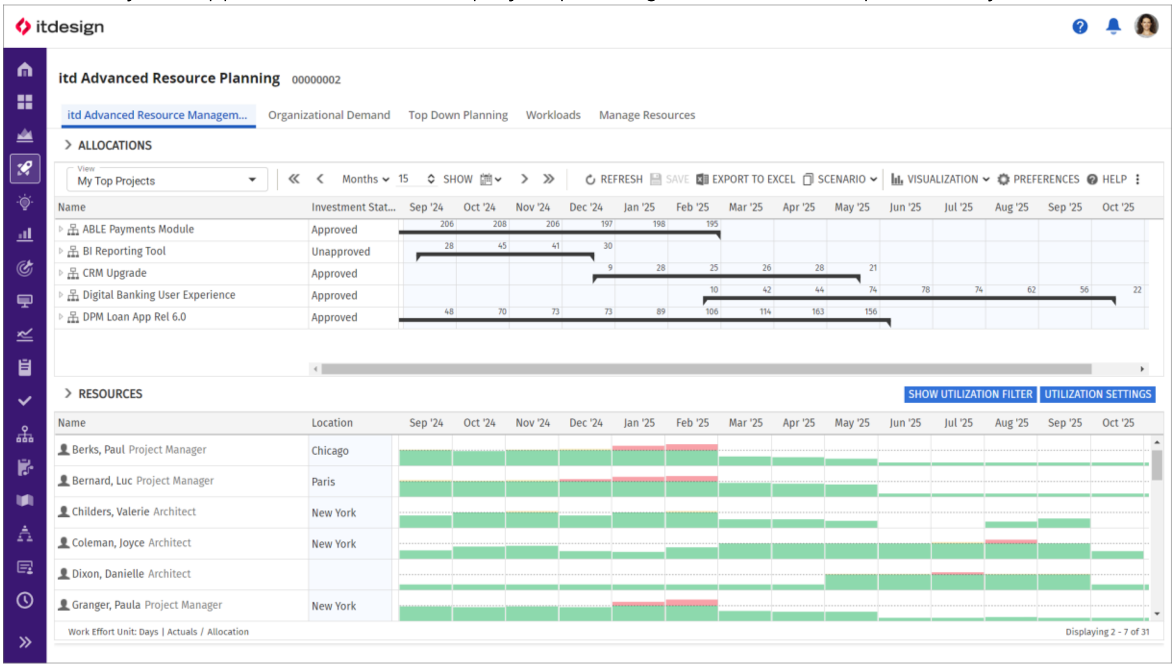
# Contents

# 1 Short Description

itd Advanced Resource Planning is an add-on tightly integrated with Clarity PPM for planning hours and costs on individual investments or across multiple investments and managing resource pools. Additionally, the application offers basic project planning and a number of productivity features.

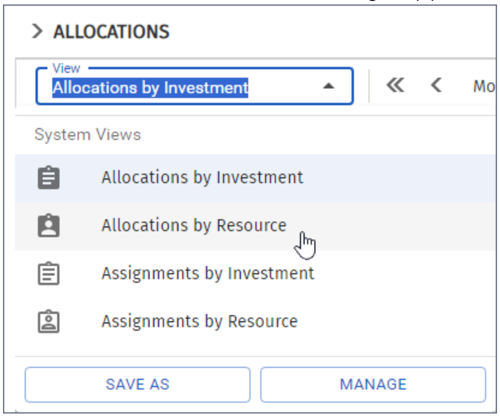



## Main Features

> Plan based on investments or based on resources, roles and teams.
> Plan for a single investment or across multiple investments.
> Plan for custom investment types and investment hierarchies.
> Edit allocations, hard allocations and assignments.
> Enter workloads per resource, role and team for investments and tasks.
> View workload sums per investment, phase, task, resource, role and team.
> View and edit investments and team entries, projects with phases, tasks, milestones and dependencies as well as assignments in the interactive Gantt chart.
> The global overview of resource, role and team utilization and capacity in color-coded numbers or as a graphical histogram highlights over- and underbookings.
> The tree view displays your selection of standard fields and any custom fields per data record.
> Filters for standard and custom fields enable you to quickly and precisely select investments, resources, roles, teams, team entries, tasks and assignments.
> The itd Portfolio Optimizer integration shows you what your portfolio managers see.
> Edit scenario data in the allocations modes.
> Integrate the application with the Roadmaps module to edit roadmap scenarios.
> Integrate the application with the Hierarchies module to edit hierarchies.

# 2 View Modes

itd Advanced Resource Planning supports four modes, listed in the **View** menu under **System Views**.

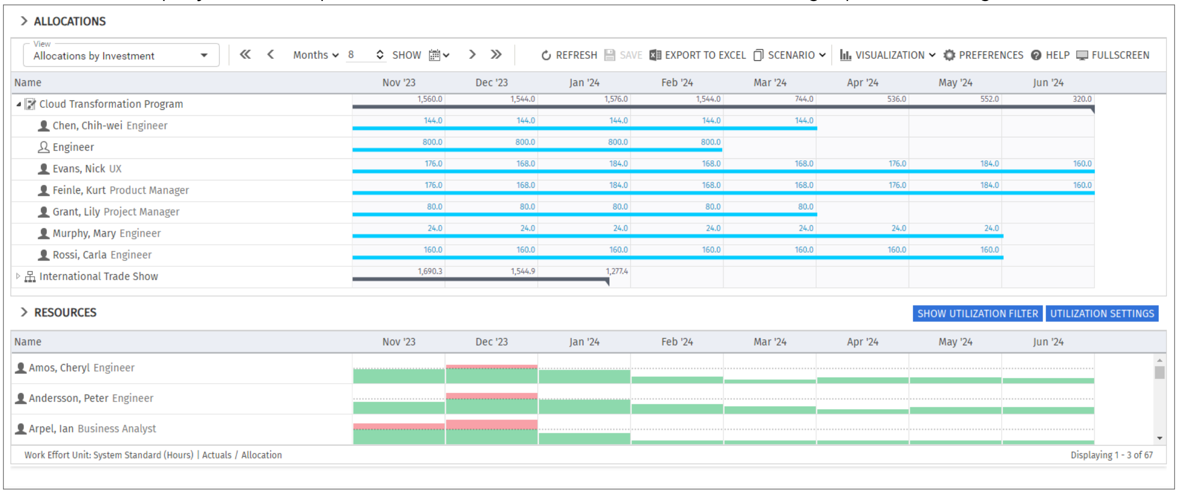



The selected view mode determines whether allocations or assignments are displayed, and whether they are grouped by investments or by resources, roles and teams.

You can customize these views, save them as custom views and share them with other users. The order of views in the menu is also customizable. See chapter “3 Views” on page 22 for details.

## 2.1 Allocations by Investment

The **Allocations by Investment** mode groups team entries of allocated resources, roles and teams and their allocations by associated investments. The utilization and capacity of resources, roles and teams are displayed in a separate view in color-coded numbers or as graphical histograms.




### 2.1.1 Displayed Data

In **Allocations by Investment** mode, the following data will be displayed:

- Investments (custom types included).
- Resources, roles and teams with team entries for displayed investments.
- Associated team entries and allocations or hard allocations.
- List of all resources, roles and teams, optionally with utilization and capacity (separate view).
- You can limit the selection of data records via filter conditions, see "4 Filters" on page 25.

Displaying investment hierarchies is optional. You can toggle it in the **General** tab of the **Preferences**, also see "4.8.2 Selecting Investment Hierarchies in by Investment Modes" on page 30.

See section "5.1 Displayed Data" on page 40 for details.

### 2.1.2 Displayed and Editable Values per Period

In the **Layout** tab of the **Preferences**, you can select up to two team entry values per period:

> **Left (read-only):** Empty (no value), Allocation, Hard Allocation, ETC, Actuals, Actuals + ETC, Requested or Capacity.

> **Right (editable):** Allocation or Hard Allocation; base of utilization and capacity, see "2.1.10 Resource Utilization and Capacity" on page 14.

See section "5.2 Displayed and Editable Values per Period" on page 40 for details.

### 2.1.3 Displaying Trend Arrows

Via the **Visualization** menu, you can toggle displaying trend arrows for left and right value deviations.

See section "5.3 Displaying Trend Arrows" on page 41 for details.

### 2.1.4 Allocation, Hard Allocation and Actuals Sums

Use the **Columns** toolbar button to display **Allocation**, **Hard Allocation** and **Actuals** sums.

See section "5.4 Allocation, Hard Allocation and Actuals Sums" on page 41 for details.

### 2.1.5 Editing Allocations

In the upper right grid, you can see and edit the allocations for the displayed team entries.

See section "5.5 Editing Allocations" on page 41 for details.

### 2.1.6 Editing List Fields

You can edit most fields displayed in the list.

See section "5.6 Editing List Fields" on page 42 for details.

### 2.1.7 Context Menu Actions

These standard actions are available in the context menu via the three dots in the **Name** column:

> **5.7 Investment Actions, page 44**

- **Open properties**
- **Allocate From Estimates:** associated team entries
- **Commit Allocation:** investments and team entries
- **Accept Hard Allocation:** investments and team entries
- **Remove Lock:** projects locked due to changes made in itd Advanced Resource Planning
- **Expand all**
- **Jump to Start Date**
- **Rename**
- **Show Investment Team:** filter resource list by investment

> **5.8 Team Entry Actions, page 45**

- **Open properties**
- **Create Requisition**
- **Allocate From Estimates**
- **Commit Allocation**
- **Accept Hard Allocation**
- **Delete:** team entries without actuals and associated allocations
- **Jump to Start Date**
- **Unstaff to Effective Role:** team entries (resources and teams) without actuals
- **Show candidates (by Role, OBS and Skills):** role team entries

### 2.1.8 Conversations

You can open a conversation for a selected team entry via the **Details** button at the right edge.

See section "5.9 Conversations" on page 47 for details.

### 2.1.9 Interactive Gantt Bars

In **Allocations by Investment** mode, you can toggle the display of interactive Gantt bars separately for investments and team entries via the **Visualization** menu in the toolbar. Here, you can also toggle the display of agreements as dependencies between investments.

You can shift and resize investments and team entries via drag and drop of their Gantt bars as long as no actuals have been recorded for them.

Shifting investments also shifts associated phases, tasks, milestones and assignments.

See section "5.10 Interactive Gantt Bars" on page 48 for details.

### 2.1.10 Resource Utilization and Capacity

The lower view section displays a list of resources, roles and teams for which you have access rights and their global utilization and capacity per period, based on the right, editable value of all of their team entries. The view has a separate filter and column selection. Clicking on utilization segments opens a detail view of associated team entries, which also comes with a separate column selection.

See section "5.11 Resource Utilization and Capacity" on page 50 for details.

### 2.1.11 Allocating Resources, Roles and Teams via Drag-and-Drop

Drag resources, roles or teams on investments or team entries to add or replace team members.

For roles, you can create multiple team entries in the same investment.

See the following sections for details about these features:

> 5.11.10 Allocating a New Resource, Role or Team, page 52
> 5.11.11 Replacing a Resource, Role or Team Allocation, page 52
> 5.11.12 Quick Full Replacement , page 53
> 5.11.13 Creating Multi-Role Allocations, page 53

### 2.1.12 itd Portfolio Optimizer Integration

With the itd Portfolio Optimizer, you can enable displaying of the investment ranking and cut-off line.

See section "5.12 itd Portfolio Optimizer Integration" on page 54 for details.

### 2.1.13 Scenario Comparison

The scenario comparison is available via the **Scenario** menu with the **Scenario – Navigate** right.

See section "5.13 Scenario Comparison" on page 55 for details.

### 2.1.14 Roadmap Scenario Mode

The roadmap scenario mode can be activated on roadmaps in the Modern UX.

It lets you edit roadmap schedules with partial synchronization with the Clarity PPM roadmap view.

See section "5.14 Roadmap Scenario Mode" on page 58 for details.

### 2.1.15 Hierarchy Mode

The hierarchy mode can be activated on hierarchies in the Modern UX.

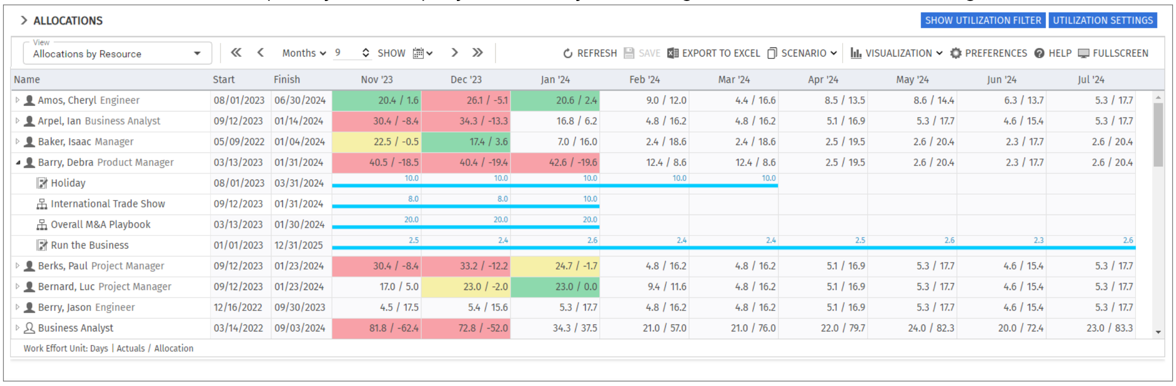
This view lists investments in the hierarchy with their respective hierarchy levels.

See section “5.15 Hierarchy Mode on page 59 for details.

# 2.2 Allocations by Resource

The **Allocations by Resource** mode groups team entries for investments and associated allocations by the allocated resources, roles and teams.

Their utilization and capacity are displayed directly in the right hand side allocation grid view.




| Name | Start | Finish | Nov '23 | Dec '23 | Jan '24 | Feb '24 | Mar '24 | Apr '24 | May '24 | Jun '24 | Jul '24 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Amos, Cheryl Engineer | 08/01/2023 | 06/30/2024 | 20.4 / 1.6 | 26.1 / -5.1 | 20.6 / 2.4 | 9.0 / 12.0 | 4.4 / 16.6 | 8.5 / 13.5 | 8.6 / 14.4 | 6.3 / 13.7 | 5.3 / 17.7 |
| Arpel, Ian Business Analyst | 09/12/2023 | 01/14/2024 | 30.4 / -8.4 | 34.3 / -13.3 | 16.8 / 6.2 | 4.8 / 16.2 | 4.8 / 16.2 | 5.1 / 16.9 | 5.3 / 17.7 | 4.6 / 15.4 | 5.3 / 17.7 |
| Baker, Isaac Manager | 05/09/2022 | 01/04/2024 | 22.5 / -0.5 | 17.4 / 3.6 | 7.0 / 16.0 | 2.4 / 18.6 | 2.4 / 18.6 | 2.5 / 19.5 | 2.6 / 20.4 | 2.3 / 17.7 | 2.6 / 20.4 |
| Barry, Debra Product Manager | 03/13/2023 | 01/31/2024 | 40.5 / -18.5 | 40.4 / -19.4 | 42.6 / -19.6 | 12.4 / 8.6 | 12.4 / 8.6 | 2.5 / 19.5 | 2.6 / 20.4 | 2.3 / 17.7 | 2.6 / 20.4 |
| Holiday | 08/01/2023 | 03/31/2024 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | | | | |
| International Trade Show | 09/12/2023 | 01/31/2024 | 8.0 | 8.0 | 10.0 | | | | | | |
| Overall M&A Playbook | 03/13/2023 | 01/30/2024 | 20.0 | 20.0 | 20.0 | | | | | | |
| Run the Business | 01/01/2023 | 12/31/2025 | 2.5 | 2.4 | 2.6 | 2.4 | 2.4 | 2.5 | 2.6 | 2.3 | 2.6 |
| Berks, Paul Project Manager | 09/12/2023 | 01/23/2024 | 30.4 / -8.4 | 33.2 / -12.2 | 24.7 / -1.7 | 4.8 / 16.2 | 4.8 / 16.2 | 5.1 / 16.9 | 5.3 / 17.7 | 4.6 / 15.4 | 5.3 / 17.7 |
| Bernard, Luc Project Manager | 09/12/2023 | 01/23/2024 | 17.0 / 5.0 | 23.0 / -2.0 | 23.0 / 0.0 | 9.4 / 11.6 | 4.8 / 16.2 | 5.1 / 16.9 | 5.3 / 17.7 | 4.6 / 15.4 | 5.3 / 17.7 |
| Berry, Jason Engineer | 12/16/2022 | 09/30/2023 | 4.5 / 17.5 | 5.4 / 15.6 | 5.3 / 17.7 | 4.8 / 16.2 | 4.8 / 16.2 | 5.1 / 16.9 | 5.3 / 17.7 | 4.6 / 15.4 | 5.3 / 17.7 |
| Business Analyst | 03/14/2022 | 09/03/2024 | 81.8 / -62.4 | 72.8 / -52.0 | 34.3 / 37.5 | 21.0 / 57.0 | 21.0 / 76.0 | 22.0 / 79.7 | 24.0 / 82.3 | 20.0 / 72.4 | 23.0 / 83.3 |

Work Effort Unit: Days | Actuals / Allocation

## 2.2.1 Displayed Data

In **Allocations by Resource** mode, the following data will be displayed:

> Resources, roles and teams.
> Investments (custom types included) with team entries of displayed resources, roles and teams .
> Associated team entries and allocations or hard allocations.
> You can limit the selection of data records via filter conditions, see "4 Filters" on page 25.

See section "6.1 Displayed Data" on page 70 for details.

## 2.2.2 Displayed and Editable Values per Period

In the **Layout** tab of the **Preferences**, you can select up to two team entry values per period:

> **Left (read-only):** Empty (no value), Allocation, Hard Allocation, ETC, Actuals, Actuals + ETC, Requested or Capacity.
> **Right (editable):** Allocation or Hard Allocation; base of utilization and capacity, see "2.2.10 Resource Utilization and Capacity" on page 15.

See section "6.2 Displayed and Editable Values per Period" on page 70 for details.

## 2.2.3 Displaying Trend Arrows

Via the **Visualization** menu, you can toggle displaying trend arrows for left and right value deviations.

See section "6.3 Displaying Trend Arrows" on page 71 for details.

## 2.2.4 Allocation, Hard Allocation and Actuals Sums

Use the **Columns** toolbar button to display **Allocation**, **Hard Allocation** and **Actuals** sums.

See section "6.4 Allocation, Hard Allocation and Actuals Sums" on page 71 for details.

## 2.2.5 Editing Allocations

In the right hand side grid, you can see and edit the allocations for the displayed team entries.

See section "6.5 Editing Allocations" on page 71 for details.

## 2.2.6 Editing List Fields

You can edit most fields displayed in the list.

See section "6.6 Editing List Fields" on page 72 for details.

### 2.2.7 Context Menu Actions

These default actions are available in the context menu via the three dots in the **Name** column:

> **6.7 Resource, Role and Team Actions, page 73**
  - **Open properties**
  - **Expand all**
  - **Jump to Start Date**

> **6.8 Team Entry Actions, page 73**
  - **Open properties**
  - **Create Requisition**
  - **Allocate From Estimates**
  - **Commit Allocation**
  - **Accept Hard Allocation**
  - **Delete:** team entries without actuals and associated allocations
  - **Jump to Start Date**

### 2.2.8 Conversations

You can open a conversation for a selected team entry via the **Details** button at the right edge.

See section "6.9 Conversations" on page 74 for details.

### 2.2.9 Interactive Gantt Bars

In **Allocations by Resource** mode, you can toggle the display of interactive Gantt bars for team entries only via the **Visualization** menu in the toolbar.

You can shift and resize team entries via drag and drop of their Gantt bars as long as no actuals have been recorded for them.

See section "6.10 Interactive Gantt Bars" on page 75 for details.

### 2.2.10 Resource Utilization and Capacity

With **Show Utilization** in the **General** tab of your **Preferences**, the **Allocation** and/or **Hard Allocation** and/or the total or remaining capacity, based on the editable value **Allocation** or **Hard Allocation**, are displayed per period for each resource, role and team in color coded numbers.

See section "6.11 Resource Utilization and Capacity" on page 76 for details.

### 2.2.11 Scenario Comparison

The scenario comparison is available via the **Scenario** menu with the **Scenario – Navigate** right.

See section "6.12 Scenario Comparison" on page 77 for details.

### 2.2.12 Roadmap Scenario Mode

The roadmap scenario mode can be activated on roadmaps in the Modern UX.

It lets you edit roadmap schedules with partial synchronization with the Clarity PPM roadmap view.

See section "0 While the scenario comparison is active, some actions in the context menus aren't available.

Roadmap Scenario Mode" on page 78 for details.

### 2.2.13 Hierarchy Mode

The hierarchy mode is available on hierarchies in the Modern UX.

This view lists investments in the hierarchy with their respective hierarchy levels.

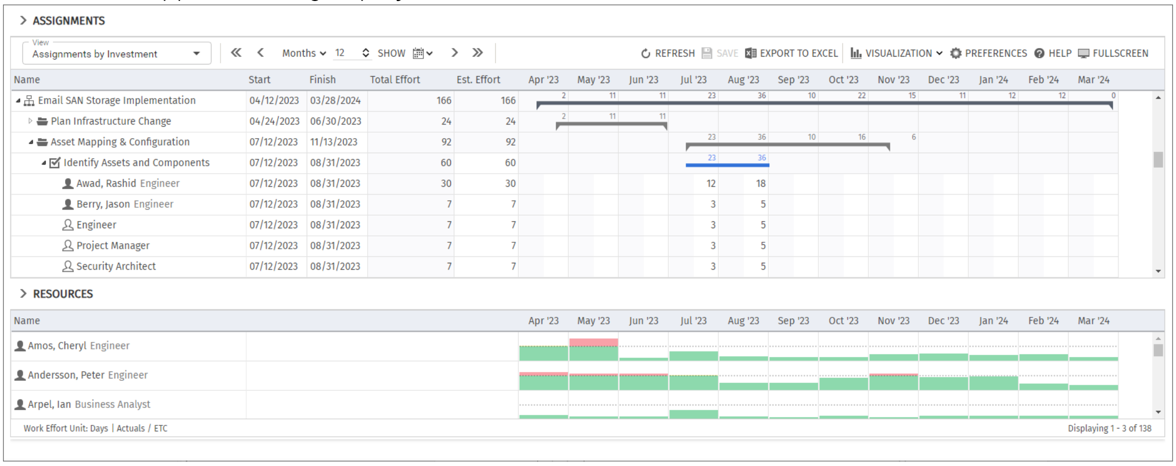
See section "6.14 Hierarchy Mode" on page 80 for details.

# 2.3 Assignments by Investment

The **Assignments by Investment** mode groups resource, role and team assignments by associated investments. Project or custom investment phases, tasks and milestones are also displayed.

The utilization and capacity of resources, roles and teams are displayed in a separate view in color-coded numbers or as graphical histograms.

This mode supports editing of project structures in an interactive Gantt chart.




## 2.3.1 Displayed Data

In **Assignments by Investment** mode, the following data will always be displayed:

- Investments (custom types included).
- Tasks of displayed projects and custom investment types.
- Assignments of resources, roles and teams.
- List of all resources, roles and teams, optionally with utilization and capacity (separate view).
- You can limit the selection of data records via filter conditions, see "4 Filters" on page 25.

You can hide phases, milestones and investment hierarchies in the **General** tab of the **Preferences**, also see "4.8.2 Selecting Investment Hierarchies in by Investment Modes" on page 30.

You can hide assignments via the **Visualization** menu to speed up loading of the view.

See section "7.1 Displayed Data" on page 90 for details.

## 2.3.2 Displayed and Editable Values per Period

In the **Layout** tab of the **Preferences**, you can select up to two assignment values per period.

- **Left (read-only):** Empty (no value), ETC, Actuals, Capacity or a custom time-scaled **Money** value.
- **Right (editable):** ETC or a custom time-scaled **Money** value.

The displayed utilization and capacity are always based on the ETC per period from assignments in this mode, see "2.3.11 Resource Utilization and Capacity" on page 19.

See section "7.2 Displayed and Editable Values per Period" on page 91 for details.

## 2.3.3 Displaying Trend Arrows

Via the **Visualization** menu, you can toggle displaying trend arrows for left and right value deviations.

See section "7.3 Displaying Trend Arrows" on page 91 for details.

## 2.3.4 Estimated Effort, Actuals and Total Effort Sums

Use the **Columns** toolbar button to display sums for the **Estimated Effort**, **Actuals**, **Total Effort** (**Estimated** + **Actuals**) or custom time-scaled **Money** values.

See section "7.5 Estimated Effort, Actuals and Total Effort Sums" on page 92 for details.

### 2.3.5 Editing Assignments

In the upper right hand side grid, you can see and edit assignment **ETC** or **Estimated Effort**.

See section "7.6 Editing Assignments" on page 92 for details.

### 2.3.6 Editing Custom Time Scaled Money Values

Also in the upper right hand side grid, you can see and edit custom time-scaled **Money** values.

See section "7.7 Editing Custom Time-Scaled Money Values" on page 94 for details.

### 2.3.7 Editing List Fields

You can edit most fields displayed in the list.

See section "7.8 Editing List Fields" on page 95 for details.

### 2.3.8 Context Menu Actions

These standard actions are available in the context menu via the three dots in the **Name** column:

> **7.9 Investment Actions, page 98**
  - **Open properties**
  - **Create Task:** for projects
  - **Autoschedule:** projects
  - **Allocate From Estimates**
  - **Remove Lock:** projects locked due to changes made in itd Advanced Resource Planning
  - **Expand all**
  - **Jump to Start Date**
  - **Rename**
  - **Show Investment Team:** filter resource list by investment

> **7.10 Phase, Task and Milestone Actions, page 100**
  - **Open properties**
  - **Create Task:** for phases and tasks without assignments
  - **Indent Task:** phases, tasks and milestones
  - **Outdent Task:** phases, indented tasks and milestones
  - **Delete:** tasks without actuals and milestones
  - **Task Dependencies:** of project tasks and milestones
  - **Expand all**
  - **Jump to Start Date**
  - **Rename**

> **7.11 Assignment Actions, page 101**
  - **Open properties**
  - **Allocate From Estimates**
  - **Delete:** assignments without actuals
  - **Jump to Start Date**
  - **Unassign to Effective Role:** resource and team assignments without actuals
  - **Show candidates (by Role, OBS and Skills):** for role assignments

### 2.3.9 Moving and Copying Tasks, Milestones and Phases

You can change the order and hierarchy of phases, tasks and milestones via drag-and-drop.

Hold the [Ctrl] key while dragging an object to copy it with its full sub-structure instead of moving it.

See section "7.12.4 Moving and Copying " on page 103 for details.

### 2.3.10 Interactive Gantt Bars

In **Assignments by Investment** mode, you can toggle the display of interactive Gantt bars separately for investments, tasks, phases and milestones, and assignments via the **Visualization** menu in the toolbar. Here, you can also toggle the display of agreements as dependencies between investments. When Gantt bars for tasks and milestones are turned on, dependencies between them will also be displayed. Additionally, you can highlight critical paths for projects via the **Visualization** menu.

You can edit non-project investments, task and phases via drag and drop of their Gantt bars as long as no actuals have been recorded for them. You can also move milestones and create dependencies via drag and drop. Double-clicking on a dependency arrow opens a dialog for changing its properties.

See section "7.13 Interactive Gantt Bars" on page 105 for details.

### 2.3.11 Resource Utilization and Capacity

The lower view section displays a list of resources, roles and teams globally visible to you and their global utilization and capacity per period, based on the **ETC** values of all their assignments.

The resource list has a separate filter and column selection. Clicking on utilization segments opens a detail view of the associated team entries, which also comes with a separate column selection.

See section "7.14 Resource Utilization and Capacity" on page 108 for details about this view.

### 2.3.12 Assigning Resources, Roles and Teams via Drag-and-Drop

Drag resources, roles or teams from the utilization view to tasks, non-project investments or assignments to assign them or to replace assigned resources, roles and teams.

For roles, you can create multiple assignments in the same task or non-project investment.

See the following sections for details about these features:

- 7.14.10 Assigning a New Resource, Role or Team, page 110
- 7.14.11 Replacing an Assigned Resource, Role or Team, page 110
- 7.14.12 Quick Full Replacement of Assignments, page 110
- 7.14.13 Copying an Assignment for a New Resource, Role or Team, page 110
- 7.14.14 Copying an Assignment to Another Task or Investment, page 111
- 7.14.15 Creating Multi-Role Assignments, page 111

### 2.3.13 Comparing Assignments with Allocations

In **Assignments by Investment** views in single investment mode, you can graphically compare associated assignments and allocations in the histogram.

There are two modes for comparing the total estimated effort (**Actuals** + **ETC**) of assignments to either the **Allocation** or the **Hard Allocation** of associated team entries.

See "7.15 Comparing Assignments with Allocations" on page 112 for details about this feature.

See "Histogram Comparison (Single Investment Mode Only)" on page 123 for details about the **Preferences** for this feature.

### 2.3.14 Hierarchy Mode

The hierarchy mode is available on hierarchies in the Modern UX.

This view lists investments in the hierarchy with their respective hierarchy levels.

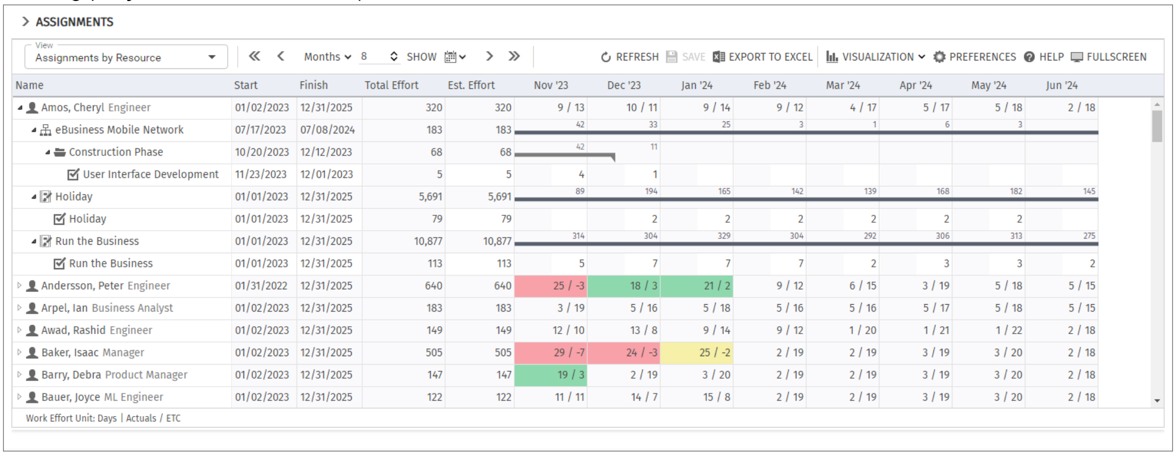
See section "7.16 Hierarchy Mode" on page 113 for details.

# 2.4 Assignments by Resource

The **Assignments by Resource** mode groups investments, tasks and assignments by the assigned resources, roles and teams.

Their utilization and capacity are displayed directly in the right hand side assignment grid view.

Editing project structures isn't possible in this mode.




## 2.4.1 Displayed Data

In **Assignments by Resource** mode, the following data will always be displayed:

> Resources, roles and teams.
> Investments (custom types included) with team entries for displayed resources, roles and teams.
> Associated tasks and assignments.
> Team entries without assignments.
> You can limit the selection of data records via filter conditions, see "4 Filters" on page 25.

Displaying phases and parent investment hierarchies is optional and can be toggled for each in the **General** tab of the **Preferences**. See section "8.1 Displayed Data" on page 124 for details.

## 2.4.2 Displayed and Editable Values per Period

In the **Layout** tab of the **Preferences**, you can select only the left assignment value in this mode.

> **Left (read-only):** Empty (no value), ETC, Actuals, Capacity or a custom time-scaled **Money** value.
> **Right (editable):** In this mode, the right hand side editable value is always ETC.

The displayed utilization and capacity are always based on the ETC per period from assignments in this mode, see "2.4.10 Resource Utilization and Capacity" on page 21.

See section "8.2 Displayed and Editable Values per Period" for details.

## 2.4.3 Displaying Trend Arrows

Via the **Visualization** menu, you can toggle displaying trend arrows for left and right value deviations.

See section "8.3 Displaying Trend Arrows" on page 125 for details.

## 2.4.4 Estimated Effort, Actuals and Total Effort Sums

Use the **Columns** toolbar button to display sums for the **Estimated Effort**, **Actuals**, **Total Effort** (**Estimated** + **Actuals**) or custom time-scaled **Money** values.

See section "8.5 Estimated Effort, Actuals and Total Effort Sums" on page 126 for details.

### 2.4.5 Editing Assignments

In the upper right hand side grid, you can see and edit assignment **ETC** or **Estimated Effort**.

See section "8.6 Editing Assignments" on page 127 for details.

### 2.4.6 Editing Custom Time Scaled Money Values

Also in the upper right hand side grid, you can see and edit custom time-scaled **Money** values.

See section "7.7 Editing Custom Time-Scaled Money Values" on page 94 for details.

### 2.4.7 Editing List Fields

You can edit most fields displayed in the list.

See section "8.8 Editing List Fields" on page 128 for details.

### 2.4.8 Context Menu Actions

These standard actions are available in the context menu via the three dots in the **Name** column:

> **8.9 Resource, Role and Team Actions, page 130**
  - **Open properties**
  - **Add Assignment:** select project tasks
  - **Expand all**
  - **Jump to Start Date**

> **8.10 Investment Actions, page 130**
  - **Open properties**
  - **Remove Lock:** projects locked due to changes made in itd Advanced Resource Planning
  - **Expand all**
  - **Jump to Start Date**

> **8.11 Phase and Task Actions, page 131**
  - **Open properties**
  - **Allocate From Estimates:** task assignments
  - **Delete:** task assignments without actuals
  - **Jump to Start Date**

### 2.4.9 Interactive Gantt Bars

In **Assignments by Resource** mode, you can toggle the display of interactive Gantt bars separately for investments, phases and assignments via the **Visualization** menu in the toolbar.

In this mode, you can only shift and resize assignments via drag and drop of their Gantt bars.

See section "8.12 Interactive Gantt Bars" on page 132 for details.

### 2.4.10 Resource Utilization and Capacity

With **Show Utilization** in the **General** tab of your **Preferences**, the utilization from assignments, filtered or global, depending on your settings, and the remaining capacity based on all assignments are displayed per period for each resource, role and team in color-coded numbers.

See section "8.13 Resource Utilization and Capacity" on 133 page for details.

### 2.4.11 Hierarchy Mode

The hierarchy mode is available on hierarchies in the Modern UX.

This view lists investments in the hierarchy with their respective hierarchy levels.

See section "8.14 Hierarchy Mode" on page 134 for details.

# 3 Views

You can create any number of custom views based on one of the four basic system view modes described in the previous chapter, and share them with other users. Administrators may also save changes to system views and recommend views, setting them as default views for new users.

## 3.1 Saved Custom View Settings

A custom view stores all changes you make to the view, such as allocation or assignment filters, resource filters, the time period, most other settings in the toolbar and your **Preferences**.

## 3.2 Filters Saved with Previous Versions

From version 11.0.0 you can no longer save and load filter settings for the allocation, assignment and resource filters. These settings are now stored in custom views along with all other settings. When first starting itd Advanced Resource Planning 11.0.0 or a more recent version, if filters have been saved with an older version, they will be migrated to custom views.

You can find these in the **View** menu, under the heading of the system view they are based on, with the previous filter's name. The view will initially be shared with all users the filter was shared with.

For **Investment** views, saved allocations or assignment filters will be combined with the application's default resource filter and vice versa in the associated custom views that are created.

## 3.3 Views and Planning Modes

Individual sets of views are stored for each mode available for itd Advanced Resource Planning.

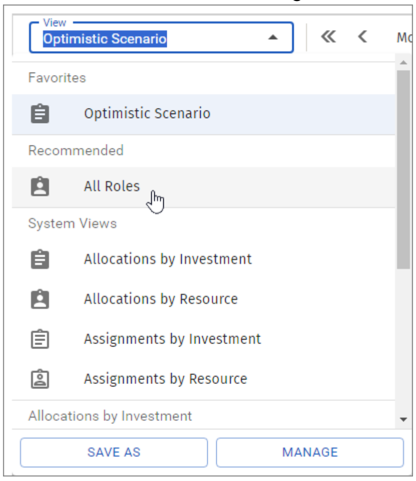
This depends on from where you open the application:

> Global Multiple Investment Mode (global channel)
> Single Investment Mode (investment channel)
> Roadmap Scenario Mode (roadmap channel)
> Hierarchy Mode (hierarchy channel)

See section "9.7 Planning Modes" on page 151 for details about configuring the individual modes.

## 3.4 Selecting a View

You can find the following sections in the **View** menu, in this order.



> Your **Favorites** are always displayed on top of the list in alphabetical order.
> Views **Recommended** by **ARP Admins** are listed next, or on top of the list if you have no favorites. The first recommended view is the default for new users. When you open itd Advanced Resource Planning again, it will load the last view you were using.
> The default **System Views** are listed next, or on top of the list if you have no favorites and there are no recommended views. System views that you've selected as favorites or that have been recommended will appear in the respective list instead.
> Any other custom views created by you or shared with you are listed next, under the heading of the system view they are based on.

The icons indicate the respective view mode, as listed under **System Views**.

## 3.5 Saving a View

If you have made any changes to a view that can be saved, the view’s name in the **View** menu will appear in italics to indicate this, and a **Save View** button will appear next to the **View** menu.

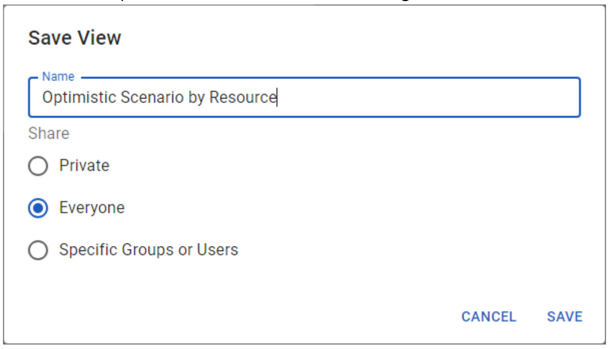
If you don't save the changes you have made to an unsaved view, all view settings will still be retained until you select another view, even if you log out and log on again.

The **Save View** button will only be enabled if you have the rights to change the view:

> Saving changes to a view is only allowed if you have created the view yourself.
> System views may only be changed by **ARP Admins**.

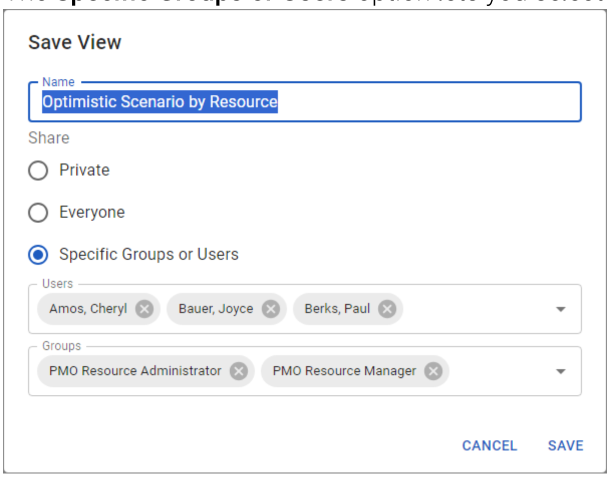
If you don’t have the right to change a view you want to save, open the **View** menu and click on the **Save As** button.

This will open the **Save View** dialog.



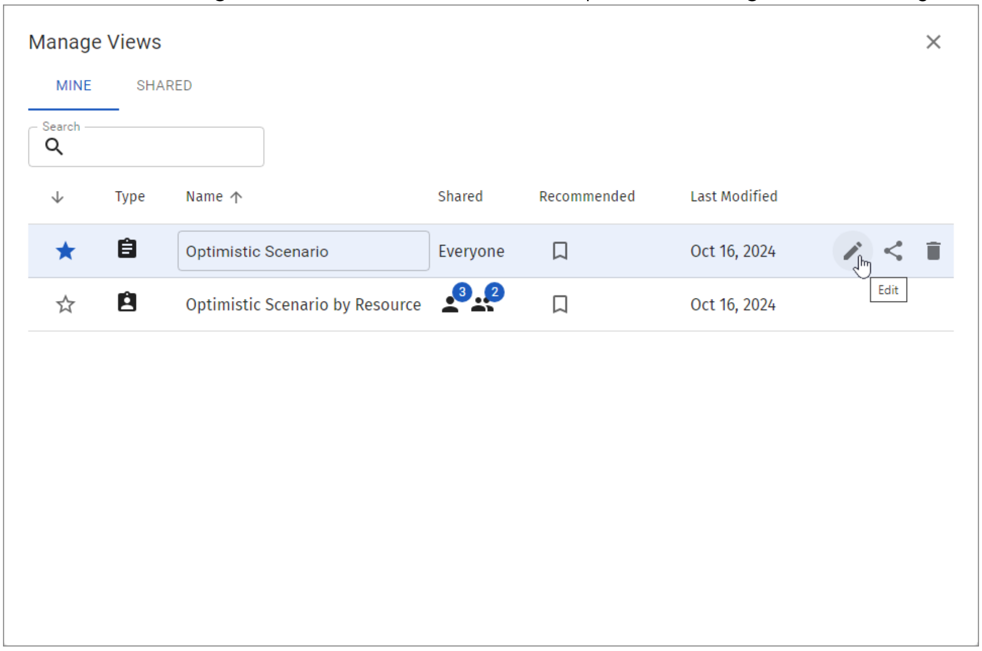

Name the new view here and select the sharing mode.

The **Specific Groups or Users** option lets you select groups and/or users to share the view with.



# 3.6 Managing Views

Click on the **Manage** button in the **View** menu to open the **Manage Views** dialog.




Views you have created are listed under **Mine**.

> Click on the star icon to add a view to the favorites or to remove it from there.
> Click in the **Name** column to rename the view.
> The **Shared** column shows if and with whom you have shared the view, with icons and numbers representing specific groups and/or users. Hover over the icon to display a list.
> **ARP Admins** may **Recommend** views they have created as well as views shared with them and system views, see below, putting them on top of the **View** list.
The topmost recommended view will be the default view for new users. After the first start, the last used view will be selected when opening itd Advanced Resource Planning.
> Click on the pen icon to select the sharing mode and/or groups and users to share the view with.
> Click on the share icon to copy a link to the view into the clipboard.
> To delete the view, click on the wastebasket icon and then confirm by clicking on the checkmark.

Views shared with you and the four system views are listed under **Shared**.

> Click on the star icon to add a view to the favorites or to remove it from there.
> **ARP Admins** may **Recommend** views they have created, see above, as well as views shared with them and system views, putting them on top of the **View** list.
The topmost recommended view will be the default view for new users. After the first start, the last used view will be selected when opening itd Advanced Resource Planning.
> For any views shared with them, **ARP Admins** can change the access settings via the pen icon or delete them via the wastebasket icon.
> The four system views are always public and can't be deleted.

# 4 Filters

This chapter describes the filter settings for itd Advanced Resource Planning.



## 4.1 Displayed Data

Depending on your view mode, the following data will be loaded and displayed without a filter:

- **Allocations by Investment**
  - Any investments to which you have access (custom types included), optionally with investment hierarchies, see "5.1.2 Displaying Investment Hierarchies" on page 40.
  - Resources, roles and teams with team entries for displayed investments.
  - Associated team entries and allocations or hard allocations.
  - In the utilization view, any resources, roles and teams to which you have access.
- **Allocations by Resource**
  - Any resources, roles and teams with team entries for investments to which you have access (custom types included), optionally any resources, roles and teams to which you have access instead, with no investment rights required, see page 165.
  - Investments with team entries of displayed resources, roles and teams.
  - Associated team entries and allocations or hard allocations.
  - Team allocations of resources (allocated percentage of resource capacity).
- **Assignments by Investment**
  - Any investments to which you have access (custom types included).
  - Associated tasks and optionally phases, milestones and investment hierarchies, see "7.1.1 Displaying Phases, Milestones and Investment Hierarchies" on page 90.
  - Optionally assignments under tasks and assigned resources, roles and teams, see "7.1.2 Displaying Assignments" on page 90.
  - In the utilization view, any resources, roles and teams to which you have access.
- **Assignments by Resource**
  - Any resources, roles and teams with team entries for investments to which you have access (custom types included), optionally only resources, roles and teams to which you have access instead, still requiring access rights for associated investments, see page 167.
  - Assignments under resources, roles and teams, investments, tasks, optionally phases and parent investment hierarchies, see "8.1.5 Displaying Phases and Parent Investment Hierarchies" on page 124.
  - Team entries without assignments under associated investments.

## 4.2 Access Rights and Query Limits

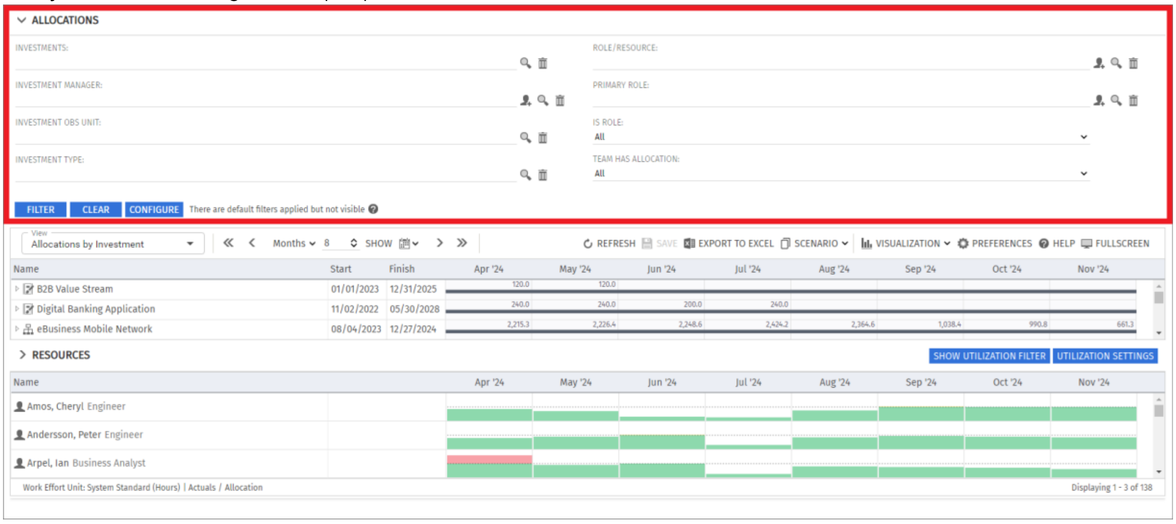
The amount of data that will actually be loaded is limited by your access rights and by the query limits entered for itd Advanced Resource Planning by an administrator via the governors lookup:

- **Access Rights:** data records to which you have no access in Clarity PPM will not be displayed in itd Advanced Resource Planning either, see "9.5 User Access Rights" on page 147.
- **Query Limits:** limits for the number of resources/roles/teams, investments and assignments to load at the same time, entered by an administrator via the governors lookup, see "9.14.1 Query Limits" on page 175. If data records aren't displayed due to query limits, this will be indicated.

## 4.3 Filtering the Main View

The filter area for the main view is always displayed at the top. You can display or hide the filter area by clicking the little arrow button in the upper left corner of the view.

Enter filter conditions and click on **Filter** to filter the view by investment, resource, role, team, team entry, task and assignment properties.




Which filter fields are available in what order is defined per view via the main view's toolbar.

Alternatively, you can also open the selection of available filter fields directly by clicking the **Configure** button on the filter panel.

By default, the filter fields listed in section "4.8 Default Filter Fields for the Main View" on page 29 will be available for the main view.

**ARP Admins** may add other fields available for investments, investment sub-types, resources, roles and teams, team entries, tasks and assignments to the selection of filter fields, see "9.11 Configuring List and Filter Fields" on page 155.

This includes Most Clarity PPM standard fields and most custom fields defined for these objects.

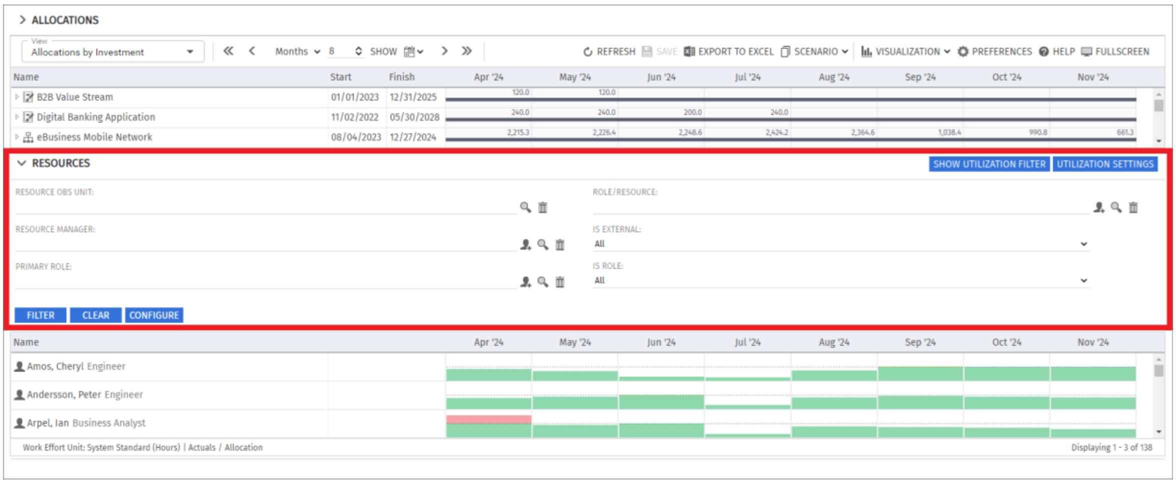
# 4.4 Filtering the Resource List

In the **by Investment** modes, the **Resources** view is displayed below the main view, listing available resources, roles and teams. Click on the little arrow button in the upper left corner of this view to display or hide the associated filter area.

Please note that filters entered for the main view have no effect on the **Resources** view. Likewise, filter conditions entered here have no effect on the main view.

Without filters, the list will display any resources, roles and teams to which you have access.

Enter filter conditions and click on **Filter** to flter the view.




Which filter fields are available in what order is defined per view via the utilization view's toolbar.

Alternatively, you can also open the selection of available filter fields by clicking the **Configure** button on the filter panel.

By default, the filter fields listed in section "4.9 Default Filter Fields for the Utilization View" on page 35 will be available for the resource, role and team list.

**ARP Admins** may add other fields available for resources, roles and teams to the selection of filter fields, see "9.11 Configuring List and Filter Fields" on page 155.

This includes Most Clarity PPM standard fields and most custom fields defined for these objects.

## 4.4.1 Quick Filter by Investment

Via the context menu for an investment, you can also apply a quick filter to the list, such that it only displays team members of that investment.

To do this, hover over the investment's tree view item in the upper view, click on the three dots next to the investment name to open the context menu and select the **Show Investment Team** action.

# 4.5 Filter, Clear and Configure

Use the buttons at the lower left of the filter panel to apply or reset filters and configure filter fields.

> Click on **Filter** to apply and hide the filter settings.
> Click on **Clear** to delete all filter conditions.
> Click on **Configure** to change the selection of available filter fields.

## 4.6 Clarity PPM Lookups

Some filter fields are backed by a Clarity PPM lookup.

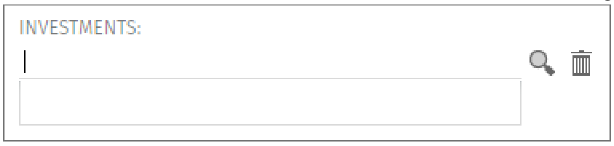
This icon is available for fields that support entering a Clarity PPM user.
Click on this to enter the "Current User" placeholder. It will be replaced by the currently logged-on Clarity PPM user when the filter is applied.

This icon is available for OBS unit filter fields.
Click on the arrow to switch between filtering by selected unit and children (arrow down), selected unit and parents (arrow up) or only the exact unit (arrow right).

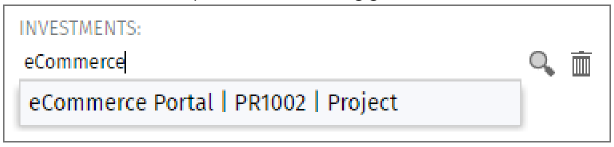
Click on the magnifier icon to access the lookup browse window for a field and select values.

Click on the trashcan icon to empty a field. If you only want to delete some items, click on the field first, select the items to remove and then click on the trashcan icon.

All lookup filters are multi-valued and will display a second empty list box when selected. This is where selected values go. Multiple selected values will always be connected with a logical "or", i.e., all investments or resources, roles and teams matching any selected value will be displayed.




As with all lookups, a list of suggested values will be displayed when typing in the text box.




Select a suggestion by clicking on it or via the arrow keys and [RETURN].

## 4.7 Default Investment Filters

By default, the following kinds of investments will be filtered out in all view modes except for the Roadmap and Hierarchy modes:

> Investments from the past.
> Inactive investments (never displayed in assignment modes, see note below).
> Project templates.

This applies when the associated filter fields are not displayed and is indicated in the filter panel. Hover over the "?" icon to display the active default filters that apply.

***Please note:*** *these default filters don't apply to the Roadmap and Hierarchy modes, which display all included investments by default, even if they are completely in the past, inactive or project templates. Also, in assignment modes, inactive investments are never displayed. As these modes don't support an* ***Inactive Investments*** *filter field, this isn't indicated in the default filter hint.*

# 4.8 Default Filter Fields for the Main View

The following sections list and describe the filter fields available for the main view area by default. Please note that not all filter fields are available in all view modes and some work differently depending on your view mode. See the following sections for details.

## 4.8.1 Default Filter Fields for Investments

The following investment filter fields are available by default.
How exactly these filter fields work depends on your view mode:

> **Allocations by Investment** and **Assignments by Investment:** any investments selected via filters are displayed on the top level.
> **Allocations by Resource:** any investments selected via filters with team entries for displayed resources, roles and teams are displayed under these resources, roles and teams.
> **Assignments by Resource:** any investments selected via filters with team entries or assignments for displayed resources, roles and teams are displayed under these resources, roles and teams.

**Sub-Types:** You can also filter investments by fields of investment sub-types. If you do, only investments of that sub-type which match the filter will be displayed.

**Hierarchies:** If applicable, investment hierachies will also be displayed, see "4.8.2 Selecting Investment Hierarchies in by Investment Modes" on page 30.

> **Investment – Investments:** show only selected investments. Depending on your settings, associated investment hierarchies may also be displayed.
The Roadmap and Hierarchy modes reduce this selection to included investments.
The lookup browse window lets you filter the selection of available investments by name, investment ID, investment type and status ("active?").
Click here to remove selected values or to clear the field, if no value is selected.
> **Investment – Investment Name:** enter a search term which occurs in the investment name. Use the asterisk character "*" as a placeholder for an arbitrary number of characters. Search terms will be treated as if ending with "*". (e.g., "*CRM" will find investment names containing "CRM" , while "CRM", without the asterisk, will find only investment names starting with "CRM").
> **Investment – Investment ID:** enter a search term which occurs in the investment ID. Use the asterisk ("*") as a placeholder for an arbitrary number of characters. Search terms will be treated as if ending with "*".(e.g., "*007" will find any investment whose ID contains "007", while "007", without the asterisk, will find only investments whose IDs begin with "007").
> **Investment – Investment Manager:** show only investments of selected investment managers.
Click on this icon to enter the "Current User" placeholder. It will be replaced by the currently logged-on Clarity PPM user when the filter is applied.
The lookup browse window lets you filter the selection of available investment managers by last name, first name, user name, resource ID, type and status.
Click here to remove selected values or to clear the field, if no value is selected.
> **Investment – Investment OBS Unit:** show only investments with selected OBS units.
Click on the arrow to switch between filtering by selected unit and children (arrow down), selected unit and parents (arrow up) or only the exact unit (arrow right).
The lookup browse window lets you select the desired OBS top level, sub levels and units.
Click here to remove selected values or to clear the field, if no value is selected.

> **Investment – Investment Type:** show only investments of selected types (Application, Asset, Idea, Other Work, Product, Project, Service or custom investment types).

  The lookup browse window lets you filter the selection of investment types.

  Click here to remove selected values or to clear the field, if no value is selected.

> **Investment – Investment Status:** show only investments with a selected status.

  The lookup browse window lets you filter the selection of investment status values.

  Click here to remove selected values or to clear the field, if no value is selected.

> **Investment – Hierarchy:** show only investments of selected hierarchies.

  The lookup browse window lets you filter the hierarchy selection by name and ID.

  Click here to remove selected items or to clear the field, if no value is selected.

> **Investment – Roadmap:** show only investments of selected roadmaps.

  The lookup browse window lets you filter the roadmap selection by name and ID.

  Click here to remove selected items or to clear the field, if no value is selected.

> **Investment – Hide Investments from the Past:** select this to hide investments ending before the start of the previous month.

  Without this filter field, a default filter may apply, see "4.7 Default Investment Filters" on page 28.

> **Investment – Inactive Investments (allocation filter only):** use this to display or hide investments deactivated via **Properties - Settings – General – Active**.

- With the default setting **Hide**, inactive investments won't be displayed.
- Select **Show** to display inactive investments.
- Select **Show if relevant** to display inactive investments only if they have team entries that are partly or completely in the selected time period.

  Without this filter field, a default filter may apply, see "4.7 Default Investment Filters" on page 28.

> **Project – Project Templates:** use this to display or hide project templates, i.e., projects for which **Properties - Settings – General – Template** has been selected.

- With the default setting **Hide Project Templates**, project templates won't be displayed.
- Select **Show All** to display any investments, including project templates.
- Select **Show Only Project Templates** to display no investments but project templates.

  Without this filter field, a default filter may apply, see "4.7 Default Investment Filters" on page 28

### 4.8.2 Selecting Investment Hierarchies in by Investment Modes

In the **Allocations by Investment**, **Assignments by Investment** and **Assignments by Resource** modes, you may choose to **Show investment hierarchy** in the **General** tab of the **Preferences**.

This will always display parent hierarchies of any investments selected via filters.

In the **Allocations by Investment** and **Assignments by Investment** modes, **Show investment hierarchy** will also display the full sub-structures of all displayed investments if you use no other investment filters but **Investments**, **Investment Name** and **Investment ID**.

### 4.8.3 Default Filter Fields for Resources, Roles and Teams

How exactly resource, role and team filters work depends on your view mode:

> **Allocations by Investment:** resources, roles and teams selected via filters that have team entries for displayed investments will be displayed under the investments they belong to.
> Investments without team entries of selected resources, roles and teams will not be displayed.

> **Assignments by Investment:** resources, roles and teams selected via filters that are assigned to displayed investments will be displayed under the investments, phases and tasks they belong to.
> Investments without assignments of selected resources, roles and teams will not be displayed.

> **Assignments by Resource** and **Allocations by Resource:** any resources, roles and teams selected via filters will be displayed.

By default, you can use the following fields to filter resources, roles and teams:

> **Resource – Role/Resource:** show only selected resources, roles and teams.

The lookup browse window lets you filter the selection of available available resources, roles and teams by last name, first name and resource ID.

Click here to remove selected values or to clear the field, if no value is selected.

> **Resource – Is Role:** show only roles or only resources and teams. With the default setting **All**, this filter doesn't apply. Select **Yes** for only roles. Select **No** for only resources and teams.

> **Resource – Is Team:** show only teams or only resources and roles. With the default setting **All**, this filter doesn't apply. Select **Yes** for only teams. Select **No** for only resources and roles.

> **Resource – Resource Name:** filter by resource, role or team name. Use the asterisk ("*") to replace with any number of characters (e.g., "*son" will find "Harrison" and "Jackson"). Search terms will be treated as if ending with "*" (e.g. "Jack" will also find "Jackson").

> **Resource – Resource Manager:** show only resources and teams of selected resource managers. Roles have no resource manager and will therefore not be displayed with this filter.

Click on this icon to enter the "Current User" placeholder. It will be replaced by the currently logged-on Clarity PPM user when the filter is applied.

The lookup browse window lets you filter the selection of available resource managers by last name, first name, full name, resource ID and employment type.

Click here to remove selected values or to clear the field, if no value is selected.

> **Resource – Booking Manager:** show only resources and roles of selected booking managers. Teams have no booking manager and will therefore not be displayed with this filter.

Click on this icon to enter the "Current User" placeholder. It will be replaced by the currently logged-on Clarity PPM user when the filter is applied.

The lookup browse window lets you filter the selection of available booking managers by last name, first name and resource ID.

Click here to remove selected values or to clear the field, if no value is selected.

> **Resource – Resource OBS Unit:** show only resources, roles and teams with selected OBS units.

Click on the arrow to switch between filtering by selected unit and children (arrow down), selected unit and parents (arrow up) or only the exact unit (arrow right).

The lookup browse window lets you select the desired OBS top level, sub levels and units.

Click here to remove selected values or to clear the field, if no value is selected.

> **Resource – Resource Type:** show only resources, roles and teams of selected resource types (Equipment, Expense, Labor or Material).

The lookup browse window lets you select the desired resource types.

Click here to remove selected values or to clear the field, if no value is selected.

> **Resource – Primary Role:** select roles to show only the following resources and roles.
- **Resource Primary Role:** all resources having any of the selected roles as their primary roles.
- **Role:** all selected roles.
- **Role Parent Role:** all roles having any of the selected roles as their parent roles.

Teams have no primary role and will therefore not be displayed with this filter.

> **Resource – Skills:** filter resources, roles and teams by skills.
This uses the new Modern UX skills by default, but also supports the legacy skills hierarchy.
Refer to section "9.12.7 Use Old Skills Hierarchy" on page 162 for information about how administrators can activate the legacy mode.
By default, all resources, roles and teams with at least one selected skill will be displayed.
Alternatively, you can set the filter to require all skills to match via the **Skill Matching** field.

> **Resource – Skill Matching:** here, you determine the mode for the skill filter, **Match at least one skill** or **Match all skills**. Without this filter field, the **Match at least one skill** mode will be used, such that resources, roles and teams with any selected skill will be displayed.

> **Resource – Is External:** filter resources, roles and teams by the **External** property of resources (selected via **Properties – General – Resource Management – External**).
With the default setting **All**, any resources, roles and teams will be displayed.
Select **Yes** to show only external resources. With this setting, roles and teams won't be be displayed. Select **No** to show only roles, internal resources and teams.

> **Resource – In Assignment (assignment filter only):** see following section.

> **Resource – In Task (assignment filter only):** see following section.

### 4.8.4 Selecting Resources, Roles & Teams (Assignments by Investment)

In **Assignments by Investment** mode, resources, roles and teams that are selected via the **Role/ Resource**, **Is Role** and **Is Team** filter fields and have assignments for displayed investments will be displayed under the investments, phases and tasks they belong to.

If you don't filter resources, roles and teams by other fields, other phases, tasks and milestones of displayed investments as well as other resources, roles and teams assigned to any displayed task or NPIO will also be displayed.

Investments without assignments of selected resources, roles and teams won't be displayed.

The **In Task** filter will show only tasks to which resources, roles and teams selected via the **Role/ Resource**, **Is Role** and **Is Team** filters are assigned.

The **In Assignment** filter will show only assignments of resources, roles and teams selected via the **Role/Resource**, **Is Role** and **Is Team** filters.

### 4.8.5 Default Filter Fields for Team Entries

The following team entry filter fields are available by default.

> **Team – Booking Status:** show only team entries with a selected booking status.

The lookup browse window lets you filter the selection by booking status name.

Click here to remove selected values or to clear the field, if no value is selected.

> **Team – Request Status:** show only team entries with a selected request status.

The lookup browse window lets you filter the selection by request status name.

Click here to remove selected values or to clear the field, if no value is selected.

> **Team – Staff OBS Unit:** show only team entries with selected OBS units.

Click on the arrow to switch between filtering by selected unit and children (arrow down), selected unit and parents (arrow up) or only the exact unit (arrow right).

The lookup browse window lets you select the desired OBS top level, sub levels and units.

Click here to remove selected values or to clear the field, if no value is selected.

> **Team – Team Has Allocation (allocation filter only):** show only team entries with allocation and/or hard allocation in the selected time period:

- **All:** don’t filter.
- **Team Has Allocation:** show only team entries that have allocation.
- **Team Has Hard Allocation:** show only team entries that have hard allocation.
- **Team Has Both Allocation AND Hard Allocation:** show only team entries that have both allocation and hard allocation.
- **Team Has Allocation OR Hard Allocation:** show only team entries that have either allocation or hard allocation.

This filter requires **Calculate Sums** to be set to **On** or **Filtered** or, in **Allocations by Resource** only, **Show Utilization** to be selected, see "Calculate Sums" on page 85.

In **Allocations by Resource** mode, an active utilization filter will be applied to this filter with **Calculate Sums** set to **On** or **Off**. Team entries with hidden utilization will then be treated as if they had no allocations, see "4.10 Utilization and Capacity Filters" on page 37.

### 4.8.6 Default Filter Fields for Tasks (Assignment Filter Only)

The following task filter fields are available by default.

> **Task – Task Name:** enter all or part of a task name to filter tasks. The asterisk character "*" may be used as a placeholder.

> **Task – Task Status:** show only tasks with a selected task status.

The lookup browse window lets you filter the selection by task status name.

Click here to remove selected values or to clear the field, if no value is selected.

### 4.8.7 Default Filter Fields for Assignments (Assignment Filter Only)

The following assignment filter fields are available by default.

> **Assignment – Assignment Role:** show only assignments with selected assignment roles.

The lookup browse window lets you filter the selection by assignment role name.

Click here to remove selected values or to clear the field, if no value is selected.

Please note that a resource may be assigned to a task in another than its primary role.

> **Assignment – Assignment Status:** show only assignments with a selected assignment status.

The lookup browse window lets you filter the selection by assignment status name.

Click here to remove selected values or to clear the field, if no value is selected.

> **Assignment – Assignment Has ETC:** show only assignments that have remaining ETC (remaining hours of work to be done) in the selected time period.

> **Assignment – Assignment Has Actuals:** show only assignments for which actuals have been entered in the selected time period.

## 4.9 Default Filter Fields for the Utilization View

For the resource, role and team list displayed in the **by Investment** modes, the same default filter fields are available as for filtering resources, roles and teams in the main view.

> **Resource – Role/Resource:** show only selected resources, roles and teams.

  The lookup browse window lets you filter the selection of available available resources, roles and teams by last name, first name and resource ID.

  Click here to remove selected values or to clear the field, if no value is selected.

> **Resource – Is Role:** show only roles or only resources and teams. With the default setting **All**, this filter doesn't apply. Select **Yes** for only roles. Select **No** for only resources and teams.

> **Resource – Is Team:** show only teams or only resources and roles. With the default setting **All**, this filter doesn't apply. Select **Yes** for only teams. Select **No** for only resources and roles.

> **Resource – Resource Name:** enter a search term occurring in the resource, role or team name. Use the asterisk ("*") to replace with any number of characters (e.g., "*son" will find "Harrison" and "Jackson"). Search terms will be treated as if ending with "*" (e.g. "Jack" will also find "Jackson").

> **Resource – Resource Manager:** show only resources and teams of selected resource managers. Roles have no resource manager and will therefore not be displayed with this filter.

  Click on this icon to enter the "Current User" placeholder. It will be replaced by the currently logged-on Clarity PPM user when the filter is applied.

  The lookup browse window lets you filter the selection of available resource managers by last name, first name, full name, resource ID and employment type.

  Click here to remove selected values or to clear the field, if no value is selected.

> **Resource – Booking Manager:** show only resources and roles of selected booking managers. Teams have no booking manager and will therefore not be displayed with this filter.

  Click on this icon to enter the "Current User" placeholder. It will be replaced by the currently logged-on Clarity PPM user when the filter is applied.

  The lookup browse window lets you filter the selection of available booking managers by last name, first name and resource ID.

  Click here to remove selected values or to clear the field, if no value is selected.

> **Resource – Resource OBS Unit:** show only resources, roles and teams with selected OBS units.

  Click on the arrow to switch between filtering by selected unit and children (arrow down), selected unit and parents (arrow up) or only the exact unit (arrow right).

  The lookup browse window lets you select the desired OBS top level, sub levels and units.

  Click here to remove selected values or to clear the field, if no value is selected.

> **Resource – Resource Type:** show only resources, roles and teams of selected resource types (Equipment, Expense, Labor or Material).

  The lookup browse window lets you select the desired resource types.

  Click here to remove selected values or to clear the field, if no value is selected.

> **Resource – Primary Role:** select roles to show only the following resources and roles.
  - **Resource Primary Role:** all resources having any of the selected roles as their primary roles.
  - **Role:** all selected roles.
  - **Role Parent Role:** all roles having any of the selected roles as their parent roles.

  Teams have no primary role and will therefore not be displayed with this filter.

  Click on this icon to enter the "Current User" placeholder. It will be replaced by the currently logged-on Clarity PPM user's primary role when the filter is applied.

  The lookup browse window lets you filter the selection of available roles by role name.

  Click here to remove selected values or to clear the field, if no value is selected.

> **Resource – Skills:** filter resources, roles and teams by skills.
  This uses the new Modern UX skills by default, but also supports the legacy skills hierarchy. Refer to section "9.12.7 Use Old Skills Hierarchy" on page 162 for information about how administrators can activate the legacy mode.
  By default, all resources, roles and teams with at least one selected skill will be displayed. Alternatively, you can set the filter to require all skills to match via the **Skill Matching** field.

> **Resource – Skill Matching:** here, you determine the mode for the skill filter, **Match at least one skill** or **Match all skills**. Without this filter field, the **Match at least one skill** mode will be used, such that resources, roles and teams with any selected skill will be displayed.

> **Resource – Is External:** filter resources, roles and teams by the **External** resource property (selected via **Properties – General – Resource Management – External**).
  With the default setting **All**, any resources, roles and teams will be displayed.
  Select **Yes** to show only external resources. With this setting, roles and teams won't be be displayed. Select **No** to show only roles, internal resources and teams.

> **Resource – Investment Team:** show only resources, roles and teams with team entries for selected investments.

  The lookup browse window lets you filter the selection of available investments by name, investment ID, investment type and status ("active?").

  Click here to remove selected values or to clear the field, if no value is selected.

> **Resource – Only Roadmap Team (Allocations by Investment in Roadmap Mode only):** show only resources, roles and teams with team entries for investments in the roadmap.

> **Resource – Only Hierarchy Team (Allocations by Investment in Hierarchy Mode only):** show only resources, roles and teams with team entries for investments in the hierarchy.

> **Resource – Only with Capacity (Allocations by Investment only):** use this to hide resources, roles and teams for which no capacity is displayed when a capacity filter is active.
  See "4.10 Utilization and Capacity Filters" on page 37 for details and an example.

> **Team – Show Team Only (single investment mode only):** show only resources, roles and teams with team entries in the current investment.

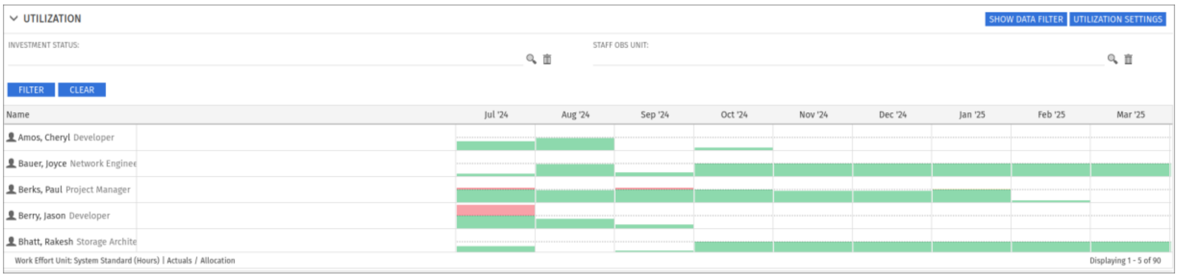
# 4.10 Utilization and Capacity Filters

In both **Allocations** modes, you can filter the utilization and capacity displayed for resources, roles and teams.

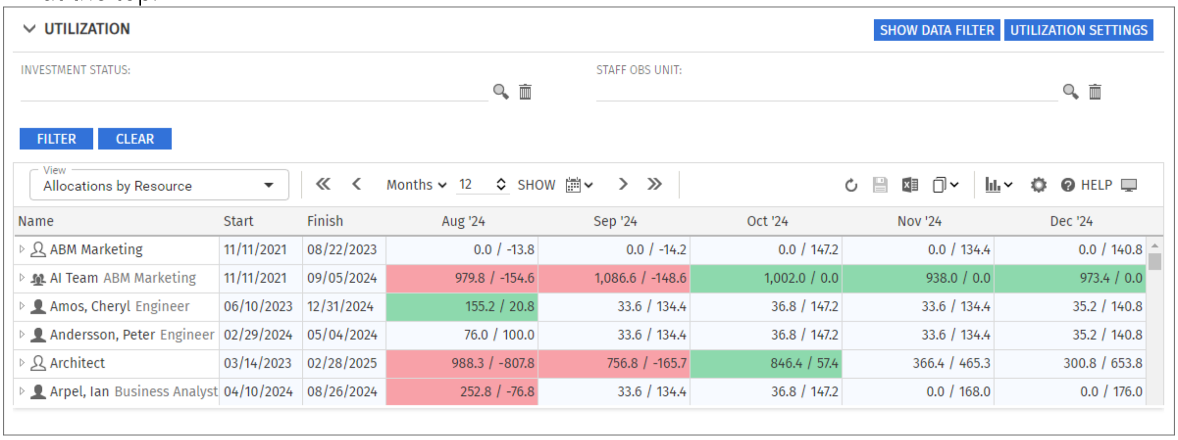
## 4.10.1 Utilization Filter Settings

Via the left button above the resource filter, you can switch between the utilization filter (**Show Utilization Filter**) and the regular resource filter (**Show Data Filter**).

> In **Allocations by Investment** mode, you can find these settings in the filter panel for the utilization view at the bottom.




> In **Allocations by Resource** mode, the settings are located above the filter panel for the main view at the top.




By default, you can filter the utilization displayed for team entries by the following fields.

> **Investment Status** of associated investments.

> **Staff OBS Unit** of team entries.

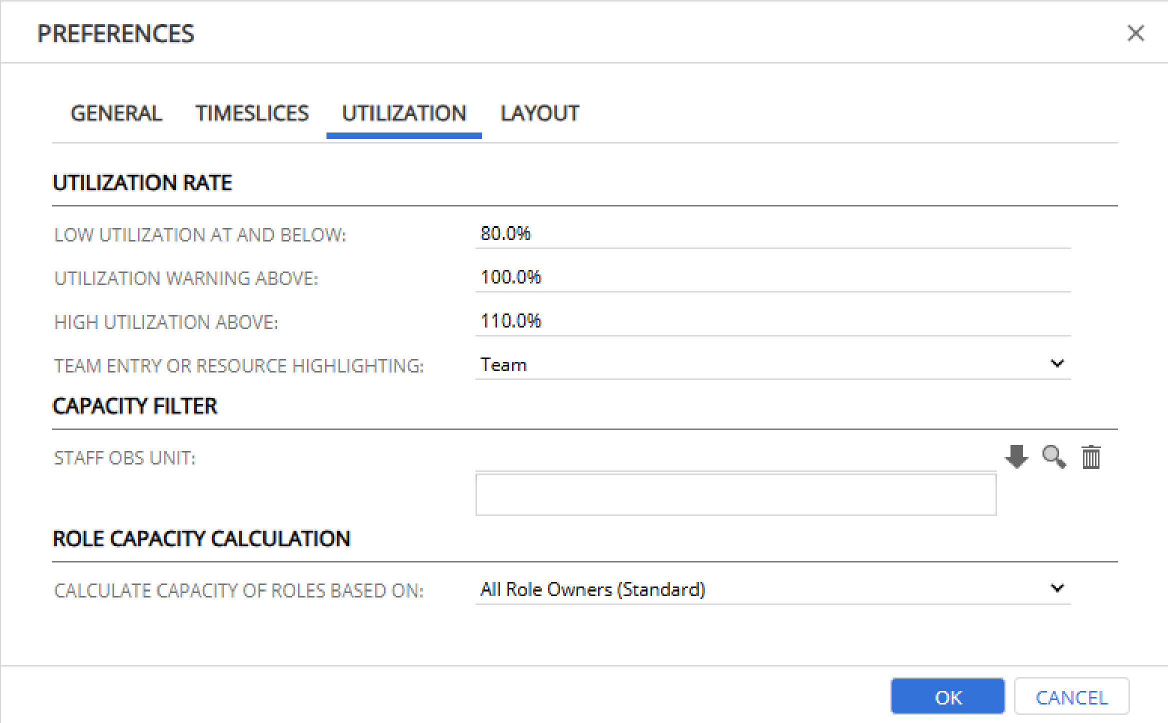
Click on the arrow to switch between filtering by selected unit and children (arrow down), selected unit and parents (arrow up) or only the exact unit (arrow right).
This setting applies to all selected units.

**ARP Admins** may add other **Lookup** and **Boolean** fields available for investments and team entries. This includes most Clarity PPM standard fields and most custom fields defined for these objects. See section "9.11 Configuring List and Filter Fields" on page 155 for details.

### 4.10.2 Capacity Filter Settings

Click on the **Utilization Settings** button above the resource list to open the **Utilization** tab of the **Preferences**. Here you can enter a capacity filter by **Staff OBS Unit**. This setting is independent from the utilization filter by the same field. With this filter, capacity is only displayed for resources and teams with selected **Department OBS** units. This also affects the capacity displayed for roles.

Click on the arrow to switch between filtering by selected unit and children (arrow down), selected unit and parents (arrow up) or only the exact unit (arrow right).
This setting applies to all selected units.




### 4.10.3 Effects of the Utilization and Capacity Filters

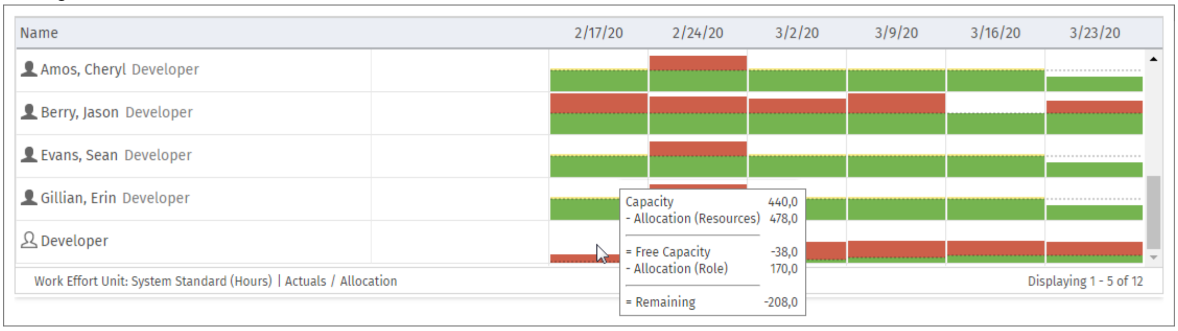
The utilization and capacity displayed for roles include only team entries and resources matching the selected utilization and capacity filters.
The remaining capacity displayed for resources, roles and teams is also based on the filtered utilization as displayed according to the selected utilization filter.
The utilization and capacity filters only affect the utilization, capacity and remaining capacity displayed for resources, roles and teams. Resources, roles and teams not matching the utilization filter as well as associated team entries and allocations will still be displayed.

### 4.10.4 Hiding Roles, Resources and Teams

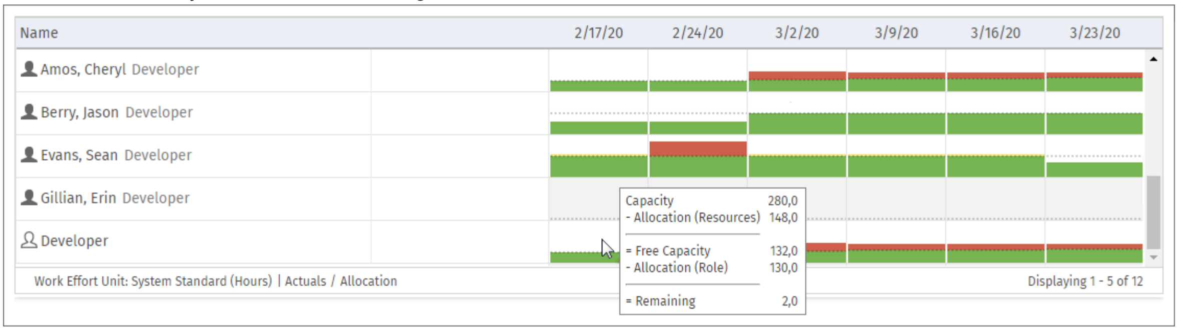
In **Allocations by Investment** mode, with an active capacity filter, you can hide resources, roles and teams for which no capacity is displayed using the **Only with Capacity** resource filter field, see "Only with Capacity" on page 36.
In **Allocations by Resource** mode, the utilization filter will be applied to the **Team Has Allocation** filter for team entries with **Calculate Sums** set to **On** or **Off**. This way, you can hide resources, roles and teams for which no utilization is displayed, see "Team – Team Has Allocation" on page 33.

## 4.10.5 Utilization and Capacity Filter Example

The global view shows 170 hours of allocation and an overallocation of 208 hours:




The filtered view shows the allocation and capacity for the selected department and for approved investments only. The role is no longer overallocated:

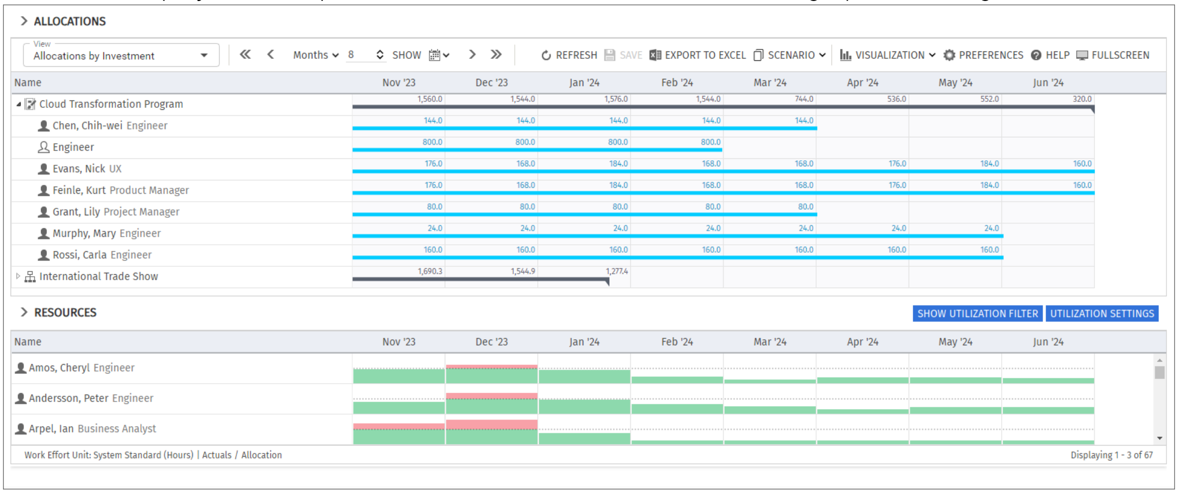



Note that no more capacity or utilization are displayed for **Gillian, Erin** because she doesn't belong to the selected department.

In **Allocations by Investment** mode, with an active capacity filter, you can hide resources, roles and teams for which no capacity is displayed using the **Only with Capacity** resource filter field, see "Only with Capacity" on page 36.

# 5 Allocations by Investment

The **Allocations by Investment** mode groups team entries of allocated resources, roles and teams and their allocations by associated investments. The utilization and capacity of resources, roles and teams are displayed in a separate view in color-coded numbers or as graphical histograms.




## 5.1 Displayed Data

In **Allocations by Investment** mode, the following data will be displayed:

- Investments (custom investment types included).
- Resources, roles and teams with team entries for displayed investments.
- Associated team entries and allocations or hard allocations.
- List of all resources, roles and teams, optionally with utilization and capacity, see "5.11 Resource Utilization" on page 50.
- You can limit the selection of data records via filter conditions, see "4 Filters" on page 25.

### 5.1.1 Team Entry Data

In this mode, displayed resources, roles and teams represent team entries.

### 5.1.2 Displaying Investment Hierarchies

Displaying investment hierarchies is optional and can be toggled in the **General** tab of the **Preferences**, see "4.8.2 Selecting Investment Hierarchies in by Investment Modes" on page 30.

## 5.2 Displayed and Editable Values per Period

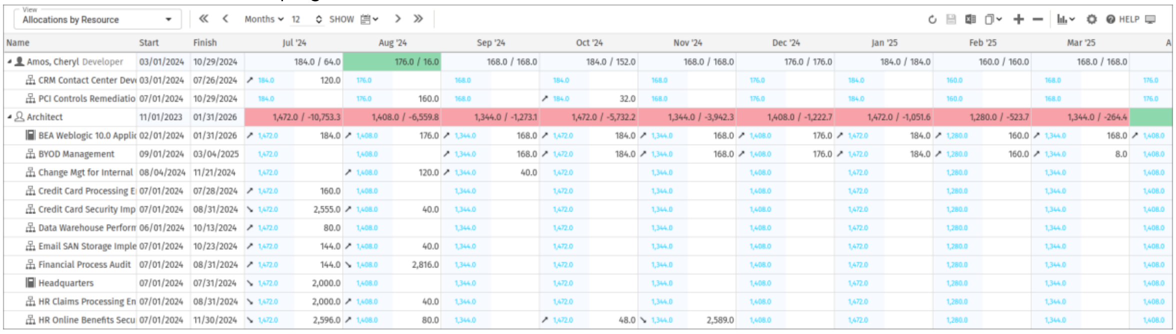
In the **Layout** tab of the **Preferences**, you can select up to two values that will be displayed per period for team entries, see "Cell Configuration" on page 69.

- **Left (read-only):** Empty (no value), Allocation, Hard Allocation, ETC, Actuals, Actuals + ETC, Requested or Capacity.
- **Right (editable):** Allocation or Hard Allocation; base of utilization and capacity, see "5.11 Resource Utilization" on page 50.

The configured values are displayed when hovering over the allocation grid with the associated preferences setting, see "9.12.9 Show Grid Hints for by Investment Views" on page 163.

## 5.3 Displaying Trend Arrows

Via the **Visualization** menu, you can display trend arrows comparing the left and right cell values, see "Visualization > Cell" on page 64.



For instance, this can help you to easily compare actuals with the originally planned values.

Wherever both values are present and different, a little arrow at the left cell edge visualizes a negative or positive deviation of the left cell value from the right cell value.

In the **Layout** tab of the **Preferences**, you can set a threshold percentage for the minimal deviation to visualize via arrows, see "Tolerance of Deviation" on page 69.

## 5.4 Allocation, Hard Allocation and Actuals Sums

Use the **Columns** button in the upper toolbar to display or hide the **Allocation**, **Hard Allocation** and **Actuals** columns in the upper left hand side list, see "5.16.8 Columns" on page 62.

The fields display the respective values for each team entry.

With **Calculate Sums** enabled in the **General** tab of the **Preferences**, aggregated sums will also be calculated and displayed per investment.

Depending on the **Calculate Sums** setting, global sums (**On**) or **Filtered** sums will be displayed, according to your allocation filter, see "Calculate Sums" on page 65.

## 5.5 Editing Allocations

In the right half of the allocations view, you can see and edit team entries for resources, roles and teams, grouped by the associated investments or by the allocated resources, roles and teams.

Without selection of the **Show Gantt Bars for Team Members** option in the **Visualization** menu in the toolbar, you can enter the desired allocation values in the right hand side grid. Extending a team entry by entering values in grid cells outside the duration of the associated investment will also extend the investment such that the duration of the investment includes the team entry.

Changes made in the allocation grid will only be applied when you save them via the toolbar. You can easily identify unsaved changes via the red triangle in a field.

Refresh the view without saving to revert your changes.

Projects will automatically be locked for editing by other users while unsaved changes exist. This is indicated by a padlock icon. Saving or reverting your changes will unlock the project. If your session is interrupted before a project is unlocked, you or any **ARP Admin** can unlock it via the context menu. Please note that this is only possible for projects that were locked due to changes made in itd Advanced Resource Planning or the itd Portfolio Optimizer.

## 5.6 Editing List Fields

In the left hand side hierarchic list, you can edit the **Name**, **Investment Status**, **Start** and **Finish** fields of investments. You can also edit the **Start**, **Finish** and **Staff OBS Unit** fields of team entries here.

Most additional fields may also be made editable by **ARP Admins**, see "5.6.6 Editing Additional Fields" on page 43.

Changes will only be applied when you save them via the toolbar. You can easily identify unsaved changes via the red triangle in a field.

Refresh the view without saving to revert your changes.

Projects will automatically be locked for editing by other users while unsaved changes exist. This is indicated by a padlock icon. Saving or reverting your changes will unlock the project. If your session is interrupted before a project is unlocked, you or any **ARP Admin** can unlock it via the context menu. Please note that this is only possible for projects that were locked due to changes made in itd Advanced Resource Planning or the itd Portfolio Optimizer.

### 5.6.1 Renaming Investments

You can rename investments as follows.

> Click in the associated row in the **Name** column and press [F2] or [Return].
> Enter the desired name.
> Press [Return] to confirm or [Esc] to cancel.

Alternatively, you can rename investments via the context menu.

### 5.6.2 Editing the Investment Status

You can edit the **Investment Status** of investments. Click in the field to select a value.

### 5.6.3 Editing the Start and Finish of Investments

You can change the duration of investments via the the **Start** and **Finish** list fields.

If applicable, this will also change the duration of all associated team entries proportionally (e.g., changing the total duration from 8 to 6 weeks will reduce a team entry spanning 4 weeks to 3 weeks). For each team entry that is changed in the process, associated planned and hard allocations will also be redistributed over the new duration with the same proportions as before the change. Therefore, shortening a team entry will raise the allocation per period while extending will lower it.

### 5.6.4 Editing the Start and Finish of Team Entries

You can change the duration of team entries via the **Start** and **Finish** list fields.

This will redistribute associated planned and hard allocations over the new duration with the same proportions as before the change. Therefore, shortening a team entry will raise the allocation per period while extending will lower it.

Extending a team entry beyond the associated investment's **Start** or **Finish** will also extend the investment, such that it includes that team entry.

Reducing the durations of team entries won't reduce the investment's duration.

Team entries without a **Start** or **Finish** will adopt these values from the associated investment.

### 5.6.5 Editing the Staff OBS Unit of Team Entries

You can edit the **Staff OBS Unit** field of team entries in the list. To do this, click in the field.

Click on the magnifier icon to select an OBS unit or the trashcan icon to clear the field.

### 5.6.6 Editing Additional Fields

You can also edit any additional list fields that have been made editable by **ARP Admins**, see "9.11 Configuring List and Filter Fields" on page 155.

This is supported for most Clarity PPM standard fields as well as all custom fields displayed in the list except for fields of the **Calculated**, **Formula** and **URL** types.

To edit lookup fields, click in the field first. This gives you the following editing options.

> Type to open a list of propositions and select the desired value.
> Click on the magnifier icon to select a value from a filterable list.
> Click on the trashcan icon to empty the field (for lookup fields with only one value) …
> … or remove the selected item (for lookup fields with multiple values).

### 5.6.7 Copying List Fields

You can copy editable field values up or down via drag-and-drop. This feature supports lookup fields and respects restrictions on column values.

Copying field values this way requires the start and target row to be of the same type, i.e., investment or team entry.

For investments, the investment type must also be the same, e.g., project or idea. All custom investment types are considered to be the same type for this feature.

# 5.7 Investment Actions

Right-click on an investment in the **Name** column to open the context menu.

**ARP Admins** can reorder, restrict or remove the standard actions listed here and add custom actions, see "9.10 Defining Actions" on page 153.

## 5.7.1 Open Properties

Here you open the detail view for the selected investment in a new browser tab.

## 5.7.2 Allocate From Estimates

Here you enter the estimated effort of all assignments associated with each team entry of the selected investment as allocation for the respective team entry.

This action will be directly applied without further confirmation.

## 5.7.3 Commit Allocation

Here you enter the allocation of each team entry of the selected investment as hard allocation for the respective team entry.

This action will be directly applied without further confirmation.

## 5.7.4 Accept Hard Allocation

Here you enter the hard allocation of each team entry of the selected investment as allocation for the respective team entry.

This action will be directly applied without further confirmation.

## 5.7.5 Remove Lock

The **Remove Lock** action is available in the context menu of projects locked due to changes made by users in itd Advanced Resource Planning or the itd Portfolio Optimizer.

Every user may select this context menu action to unlock projects that were locked due to their own changes made in itd Advanced Resource Planning or the itd Portfolio Optimizer.

**ARP Admins** may select this context menu action to unlock projects that were locked due to changes made by any user in itd Advanced Resource Planning or the itd Portfolio Optimizer.

Projects that were locked due to changes that weren't made in itd Advanced Resource Planning or the itd Portfolio Optimizer can only be unlocked via the associated button in the project's properties.

## 5.7.6 Expand All

This expands the selected investment and reveals all associated team entries.

## 5.7.7 Jump to Start Date

Shift the timeline such that it starts with the investment's start date.

## 5.7.8 Rename

Here you rename the selected investment. [Return] confirms, [Esc] cancels. The change will only be applied when saving via the toolbar. Refresh without saving to undo.

## 5.7.9 Show Investment Team

This filters the resource list by the selected investment, such that only that investment's team members are displayed.

## 5.8 Team Entry Actions

Right-click on a team entry (resource, role or team) in the **Name** column to open the context menu.
**ARP Admins** can reorder, restrict or remove the standard actions listed here and add custom actions, see "9.10 Defining Actions" on page 153.

### 5.8.1 Open Properties

Here you open the detail view for the selected team entry on top of itd Advanced Resource Planning in the same browser tab.

### 5.8.2 Create Requisition

Here you create a new requisition for the allocation of the selected team entry.
This action will be directly applied without further confirmation.

### 5.8.3 Allocate From Estimates

Here you enter the estimated effort of all assignments associated with the selected team entry as allocation for that team entry.
This action will be directly applied without further confirmation.

### 5.8.4 Commit Allocation

Here you enter the allocation of the selected team entry as hard allocation for that team entry.
This action will be directly applied without further confirmation.

### 5.8.5 Accept Hard Allocation

Here you enter the hard allocation of the selected team entry as allocation for that team entry.
This action will be directly applied without further confirmation.

### 5.8.6 Delete

The **Delete** action is available in the context menu for team entries without actuals.
This action will instantly delete the selected team entry without further confirmation.

### 5.8.7 Jump to Start Date

Shift the timeline such that it starts with the team entry's start date.

### 5.8.8 Unstaff to Effective Role

The **Unstaff to Effective Role** action is available for team entries of resources and teams without actuals. The team entry will be reset to its effective role. If that role already as a team entry in the investment, a new team entry will be created for a copy of the role.

### 5.8.9 Show candidates (by Role, OBS and Skills)

The **Show candidates (by Role, OBS and Skills)** action is available for role team entries in **Allocations by Investment** mode.
This will apply the following filters to the **Resources** list, adding missing filter fields automatically:

> **Primary Role** will be selected role.

> **Resource OBS Unit** will be the **Staff OBS Unit** of the associated team entry, if selected.

> **Skills** will be the skills selected for the associated team entry, if any.

> **Skill Matching** will require to match all skills (alternatively, you can require to match at least one).

Please see next page for additional notes on required configuration for this feature.

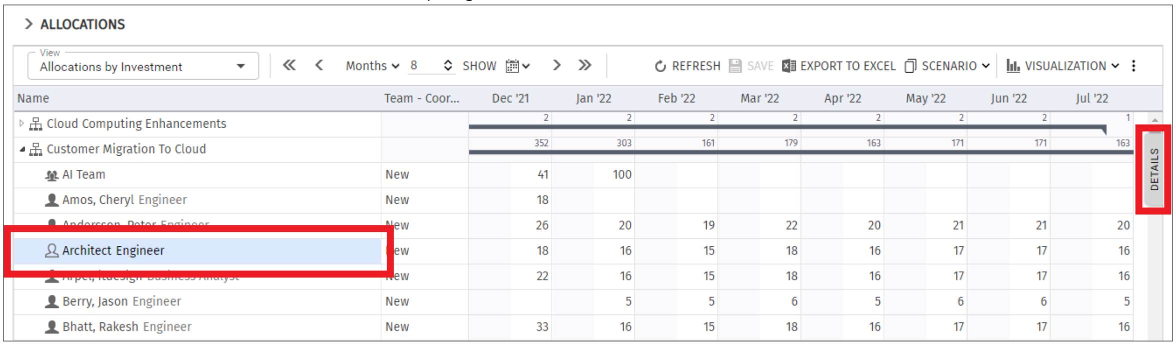
***Please note:*** *The **Skills** filter and matching aren't available by default due to a switch from the **Skills Hierarchy** to the flat MUX skill system in Clarity 16.2.3. However, you can either enable the old **Skills Hierarchy** or add a **Skills** field to role team entries to use MUX skills via these feature toggles:*

- 9.12.7 Use Old Skills Hierarchy, see page 162.
- 9.12.8 Use MUX Skills on Role Team Entries, see page 163.

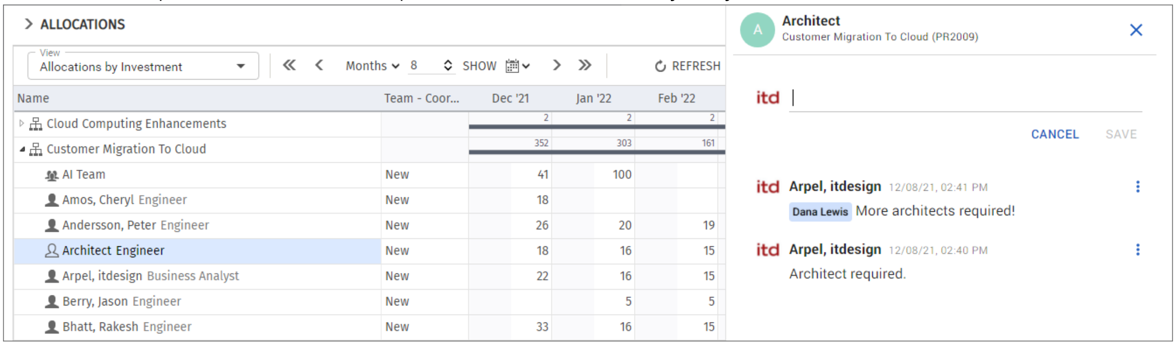
# 5.9 Conversations

The standard MUX conversations for team entries are available in itd Advanced Resources Planning in the **Allocations by Investment** and **Allocations by Resource** views.

Clicking on a team entry in either of the **Allocations by Investment** or **Allocations by Resource** views adds a small **Details** button at the top right side of the view.



This button opens a conversation panel for this team entry only.



## 5.10 Interactive Gantt Bars

In **Allocations by Investment** mode, you can toggle the display of Interactive Gantt bars separately for investments and team entries via the **Visualization** menu in the toolbar.

### 5.10.1 Gantt Bars for Investments

Gantt bars for investments will be displayed when selecting **Show Gantt Bars for Investments** in the **Visualization** menu in the toolbar. You can shift or resize investment Gantt bars via drag-and-drop as long as no **Actuals** are recorded for the associated investments.

- Changes made to investments will also be applied to all associated team entries, even if they aren't displayed. Shifting an investment will shift all associated team entries accordingly. Resizing an investment will resize all associated team entries proportionally (e.g., reducing an investment's duration from 8 to 6 weeks will reduce an associated team entry from 4 weeks to 3 weeks).
  This will also redistribute the allocation values displayed per period for associated team entries, **Allocation** or **Hard Allocation**, over the capacity of the respective resource, role or team during the new duration with the same proportions as before the change.
- Shifting investments with phases, tasks, milestones or assignments will shift all of these by the same period. Please note that this is only visible in the **Assignments** modes, as the **Allocations by Investment** mode only shows investments and associated team entries. Resizing investments has no effect on phases, tasks, milestones or assignments.

### 5.10.2 Gantt Bars for Team Entries

Gantt bars for team entries will be displayed when selecting **Show Gantt Bars for Team Members** in the **Visualization** menu in the toolbar. While this is seleted, you can't edit the **Allocation** or **Hard Allocation** values displayed per period directly.

You can shift and resize team entries via drag and drop of their Gantt bars.

This will also redistribute the allocation values displayed per period for the respective team entry, **Allocation** or **Hard Allocation**, over the capacity of the respective resource, role or team during the new duration with the same proportions as before the change.

Shifting or extending a team entry beyond the associated investment's **Start** or **Finish** will also extend the investment, such that it includes the team entry.

Reducing the durations of team entries won't reduce the investment's duration.

Team entries without a **Start** or **Finish** will adopt these values from the associated investment.

### 5.10.3 Displaying Agreements as Investment Dependencies

Select **Show Agreements** in the **Visualization** menu in the upper toolbar to display agreements as dependencies between investments.

When both investments connected via an agreement are visible in the Gantt chart, the dependency will be displayed as an arrow pointing from predecessor to successor.

Additionally, you can add the **Predecessors** and **Successors** columns to the upper left hand side list via the **Columns** button in the upper toolbar. These columns always display connected investments, even when **Show Agreements** is disabled or no arrow is displayed because both investments aren't simultaneously visible in the Gantt chart.

### 5.10.4 Saving or Reverting Changes

Changes made to Gantt bars won't be saved directly

Your changes will only be applied when you save them via the toolbar. You can easily identify unsaved changes via the red triangle in a field.

Refresh the view without saving to revert your changes.

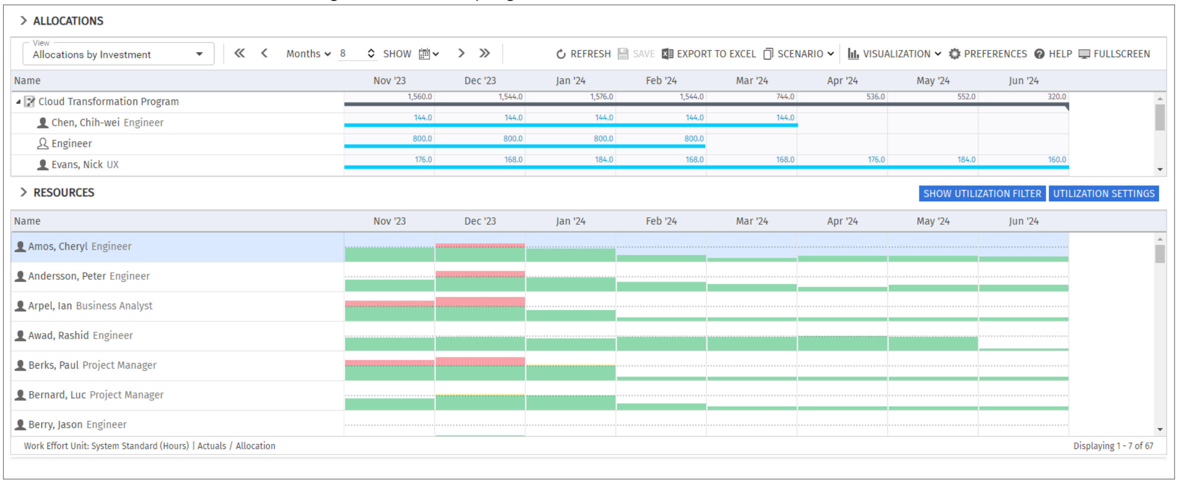
Projects will automatically be locked for editing by other users while unsaved changes exist. This is indicated by a padlock icon. Saving or reverting your changes will unlock the project. If your session is interrupted before a project is unlocked, you or any **ARP Admin** can unlock it via the context menu. Please note that this is only possible for projects that were locked due to changes made in itd Advanced Resource Planning or the itd Portfolio Optimizer.

# 5.11 Resource Utilization and Capacity

Without a resource filter, the lower view section displays a list of all resources, roles and teams for which you have access rights. Roles are listed at the end. Select resource fields to display via the **Columns** button in the lower toolbar, see "5.16.8 Columns" on page 62.

Optionally, the global utilization and capacity of listed resources, roles and teams are also displayed. These values consider all allocations in the displayed period, regardless of your allocation filter.

The utilization and remaining capacity displayed for resources, roles and teams are based on the right or editable allocation value, **Allocation** or **Hard Allocation**, selected in the **Layout** tab of your **Preferences**, see "Cell Configuration" on page 69.




## 5.11.1 Visualization: Histogram or Color-Coded Grid

There are two display modes for the utilization, histogram or color-coded grid. You can edit coloring thresholds for both in the **Utilization** tab of your **Preferences**, see "5.17.3 Utilization" on page 67.

> With **Show Histogram** in the **Visualization** menu in the toolbar, the global utilization and capacity of resources, roles and teams will be displayed per period as a histogram chart. This shows the utilization from the right or editable allocation value, **Allocation** or **Hard Allocation**, as a colored stack matched against a dotted capacity line. Colors indicate optimal utilization or overload.
  - The dotted horizontal line displays the resource, role or team capacity.
  - Workload below the utilization warning threshold is colored green.
  - Further workload is colored yellow if it is between the utilization warning and high utilization thresholds or red if it is above the high utilization threshold.
  - The low utilization threshold has no effect here.

> Without the histogram, when **Show Utilization** is selected in the **General** tab of the **Preferences**, the global utilization and/or capacity of the listed resources, roles and teams will be displayed per period in a grid. You can configure the left and right hand side values of this grid in the **Utilization** tab of your **Preferences**, see "Non-Histogram Mode" on page 68.

  Available values are **[Total] Capacity**, **Remaining [Capacity]** (total capacity less editable value, **Allocation** or **Hard Allocation**), **Allocation** and **Hard Allocation**.

  Cell colors indicate a low (white), optimal (green), high (yellow) or very high (red) utilization of a resource, role or team in a period, based on their total capacity and the right or editable allocation value, **Allocation** or **Hard Allocation**.

### 5.11.2 Filtering the View

The following filters are available for the resource list, utilization and capacity.

- Resource list filter by resources, roles and teams, see "4.4 Filtering the Resource List" on page 27.
- Resource list filter by investment: hover over an investment **Name** and click on the three dots, then select the **Show Investment Team** action from the context menu.
- Utilization and/or capacity filter, see "4.10 Utilization and Capacity Filters" on page 37.
- Cut-off line, see "5.12.2 Show Cut-off Line" on page 54.

### 5.11.3 Displaying Utilization and Capacity Details

Hover over a grid cell or histogram segment to display the associated values. Click on a grid cell or histogram segment to display a list of associated investments. Click on a column header to sort this list. Select team entry fields to display in the list via the **Columns** button in the lower toolbar, see "5.16.8 Columns" on page 62.

### 5.11.4 Opening Resource, Role or Team Properties

Click on the name of a resource, role or team in the list to open their properties in a new browser tab.

### 5.11.5 Selecting a Team Entry's Resource, Role or Team

When you select a team entry in the upper view section, the associated resource list item will be scrolled to and selected in the utilization view. Other than by clicking on resource list items directly, this selection will not trigger the investment highlighting described in the following section.

### 5.11.6 Investment Highlighting

When you click in the row of a resource, role or team in the resource list:

- … all investments with associated team entries will be highlighted in the upper view section.
- … all other investments will be greyed out in the upper view section unless they're expanded.
- … clicking on another resource, role or team will highlight their investments instead.
- … clicking on a highlighted investment will preserve the highlighting.
- … clicking on another investment will remove the highlighting.

***Please note:** This works only for one resource, role or team at a time. Multiple selections aren't supported. Only the resource, role or team you last clicked on will be regarded as selected.*

### 5.11.7 Role Capacities

The total capacity of a role is the total capacity of all resources with that primary role and, if configured, all resources with any of its sub-roles, see "Role Capacity Calculation" on page 68.

The free capacity of a role is its total capacity less the right or editable value, **Allocation** or **Hard Allocation**, from all allocations of its resources and, if configured, its sub-roles and their resources.

The remaining capacity of a role is its free capacity less all allocations of the role itself.

In grid mode, you can configure the utilization view to always show the remaining capacity for roles when you select either non-histogram capacity value, **Capacity** or **Remaining**, in the **Utilization** tab of your **Preferences**, see "9.12.20 Role Capacities in Allocations by Investment Mode" on page 168.

### 5.11.8 Team Utilization

For a resource allocated to a team, that allocation is included as a percentage of the resource's capacity as entered in the team (e.g., if a resource is allocated to a team with 50%, in a week where that resource has a capacity of 40 hours, an allocation of 20 hours will be included for the team).

### 5.11.9 Creating and Replacing Allocations via Drag-and-Drop

You can create team entries and replace allocated resources, roles and teams by dragging resource list items on investments or team entries in the upper view section.

See the following sections for details about the individual processes that are available in this way.

Team entries and allocations will only be created when saving via the toolbar. You can easily identify unsaved team entries via the red triangle.

Refresh the view without saving to revert your changes.

Projects will automatically be locked for editing by other users while unsaved changes exist. This is indicated by a padlock icon. Saving or reverting your changes will unlock the project. If your session is interrupted before a project is unlocked, you or any **ARP Admin** can unlock it via the context menu. Please note that this is only possible for projects that were locked due to changes made in itd Advanced Resource Planning or the itd Portfolio Optimizer.

### 5.11.10 Allocating a New Resource, Role or Team

Drag a resource, role or team from the utilization view on an investment in which they are not yet a team member to create a new team entry. When Gantt bars for team entries aren't displayed, you can enter the **Allocation** or **Hard Allocation** for that team entry in the right hand side grid.

### 5.11.11 Replacing a Resource, Role or Team Allocation

Drag a resource, role or team from the utilization view on an existing team entry without **Actuals** to replace the allocated resource, role or team. You can never replace team entries with **Actuals**.

> Replacing a resource or team with a role always gives their full allocation and all associated assignments to that role, effectively replacing the original resource or team completely in the team entry and its assignments.

> Replacing a resource, role or team with a resource or team that doesn't already have a team entry in the investment opens a menu offering **Replacement Options** by default:
- **Total Capacity** allocates the replacing resource or team up to their total capacity. Distributed allocations are deducted from the original team entry.
  If no hours remain, all associated assignments are automatically transferred to the new team entry for the replacing resource or team. By default, the original team entry is then deleted.
- **Remaining Capacity** allocates the replacing resource or team up to their remaining capacity. Distributed allocations are deducted from the original team entry.
  If no hours remain, all associated assignments are automatically transferred to the new team entry for the replacing resource or team. By default, the original team entry is then deleted.
- **Configurable** opens a dialog showing the investment, replaced resource, role or team and replacing resource or team.
  Additionally, you can enter a replacement percentage, defaulting to 100%, and a replacement period, defaulting to the team entry's full duration.
  These settings effectively replace the original resource, role or team completely in the team entry and all associated assignments.
  Entering a lower percentage or a smaller period will do a partial replace of allocations and assignments, applying the replacement percentage to the replacement period if that period is smaller than the team entry's full duration.
  If no hours remain, the original team entry is then deleted by default, which is always the case when doing a 100% replacement for the full duration of the team entry.
  This mode isn't available with timeslice period **Days**.

- Replacing a role with another role or replacing a resource, role or team with a resource or team that already has a team entry in the investment will automatically select the **Configurable** mode, as the other two modes aren't available in these cases.
  Any allocations or assignments you give to a resource or team that already has a team entry in the investment are added to that team entry.

**ARP Admins** may disable replacement modes via the **Administration** button in the upper toolbar.

If there is only one enabled replacement mode, it will be selected automatically when dragging resource list items on team entries, if available.

The following feature toggles apply to this feature:

- 9.12.21 Disable Replacement Options, page 168.
- 9.12.22 Disable Role Allocation Replacement, page 169.
- 9.12.23 Remaining Capacity: Don't Remove Team Role Entry, page 169.
- 9.12.24 Remaining Capacity: Only Shift Editable Value, page 169.

### 5.11.12 Quick Full Replacement of Assignments

As a shortcut for full replacement of one team member with another one, you can drag the replacement team entry on the team entry to replace. When you do, the replaced team entry is deleted and its allocations and assignments are added to team entry you have replaced it with.

As for all replacement processes, you can only replace team entries without **Actuals** this way.

### 5.11.13 Creating Multi-Role Allocations

You can allocate a role to the same investment multiple times via dra-and-drop, copying the role with an index. For example, "Architect" becomes "Architect (2)".

- Drag the role from the resource list onto the investment.
- If the role already has a team entry in the investment, you will be prompted to create a new one.
- Confirm to create a new team entry for a copy of the selected role.

# 5.12 itd Portfolio Optimizer Integration

When you have licensed both itd Advanced Resource Planning and the itd Portfolio Optimizer, you can now enable the display of both the investment ranking and the cut-off line.

## 5.12.1 Enable Ranking

In the **Visualization** menu, under **Portfolio Management Mode**, select **Enable Ranking** to show the **Ranking** column and automatically sort investments by it.
Editing the ranking isn't possible in itd Advanced Resource Planning.

## 5.12.2 Show Cut-off Line

In the **Visualization** menu, under **Portfolio Management Mode**, select **Show Cut-off Line** to show the cut-off line position.
When the cut-off line is shown, the utilization includes only allocations for investments above it.
Moving the cut-off line isn't possible in itd Advanced Resource Planning.

## 5.12.3 Navigate to Cut-off Line Position

Can't find the cut-off line? Make sure **Show Cut-off Line** is selected in the **Visualization** menu.
If you still can't see it, the left-most button in the right toolbar will take you there instantly:

**Navigate to Cut-off Line Position:** This will scroll the page to the cut-off line's position.
Please note that this only works when both **Enable Ranking** and **Show Cut-off Line** are checked in the **Visualization** menu.

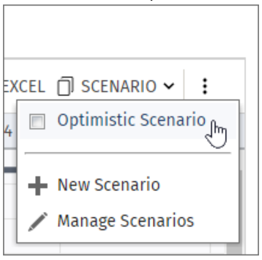
## 5.13 Scenario Comparison

In both **Allocations** modes, the **Scenario** menu is available in the toolbar if you have the **Scenario – Navigate** right and if the menu hasn't been hidden by a Clarity PPM application administator, see "9.12.2 Hide Toolbar Buttons" on page 160.

In the **Scenario** menu, you have access to all scenarios for which you have the **View** right. You can edit data in any scenario for which you have the **Edit** right.

Investment rights are not required, but shifting and resizing investments with hard allocations in this mode requires the **Resource – Hard Book** right for all associated resources.

The Excel export isn't available in scenario mode.




### 5.13.1 Scenario Menu Features

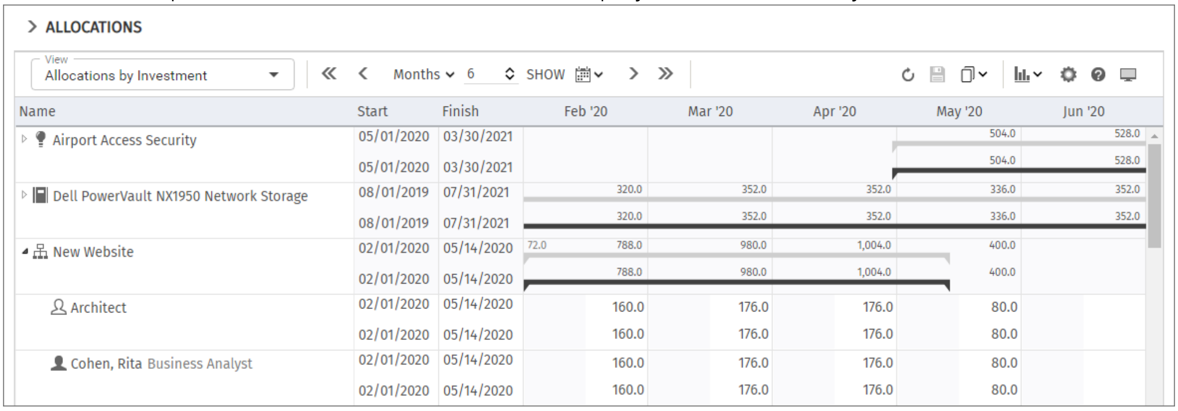
The scenario menu in the toolbar offers the following features.

> Select a scenario to compare with the plan of record.
> Deselect a selected scenario to end the scenario comparison.
> Via the **Scenario** menu, you can also create new scenarios or open the scenario manager.

See section "5.16.6 Scenario" on page 61 for details about these features.

### 5.13.2 Visualization and Editing in Scenario Comparison Mode

While the comparison is active, team entries are displayed in a two row layout:




> The first row displays the plan of record data, which you can not edit in comparison mode.
> The second row displays the associated data in the compared scenario. In comparison mode, you can only edit scenario data: the **Investment Status**, **Start** and **Finish** of an investment, see following section for details, the **Start** and **Finish** of a team entry and, without **Show Gantt Bars for Team Members** in the **Visualization** menu, the associated **Allocation** per period. With **Show Gantt Bars for Team Members** in the **Visualization** menu, you can change the start and duration of team entries via drag-and-drop in the Gantt chart, with the same effect as changing the **Start** and **Finish** fields in the list.
The **Hard Allocation** per period is read-only in scenarios in Clarity PPM and displays the commited plan of record values. You cannot change these values in a scenario.

### 5.13.3 Transferring Investments and Team Entries to a Scenario

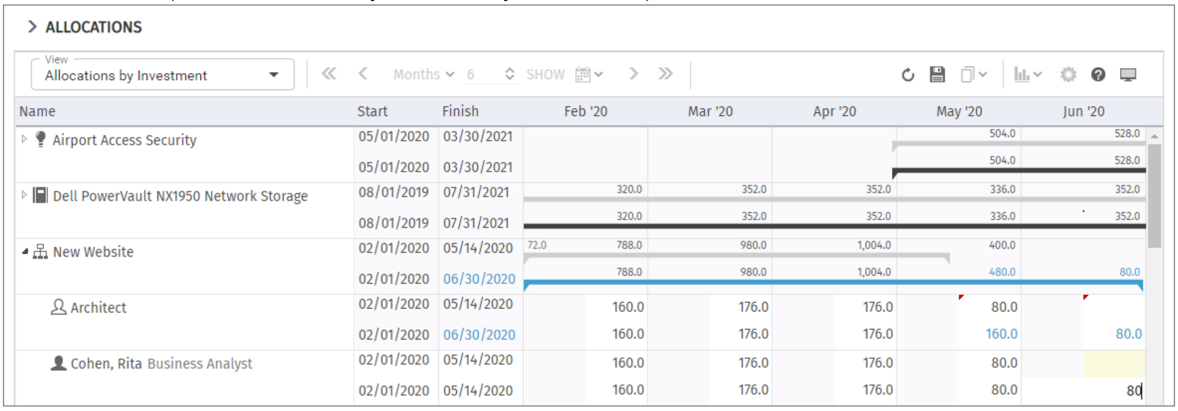
Initially, investments exist only in the plan of record. Change the **Investment Status** in an investment's second row or the **Start**, **Finish** or **Allocation** per period in a team entry's second row to copy the associated investment with all team entries to the scenario.

> You can change the **Investment Status** in **Allocations by Investment** mode only, and you can set it to **Approved** or **Unapproved** only in a scenario, provided these values are available.

> Team entries added to an investment after that investment has been added to a scenario will not be available in the scenario.

> Investments and team entries deleted in the plan of record will also be deleted in all scenarios in which they exist, even if differences have been entered for them in a scenario.

While the comparison is active, you can only edit the copies of team entries created in the scenario.




Changes made to the **Start**, **Finish**, **Investment Status** or **Allocation** per period are highlighted in light blue. Allocations are summed up on the top level (investment or role/resource/team). Where changes exist, as opposed to the plan of record, they will also be highlighted in light blue on this level. Additionally, the Gantt bars for investments and team entries will also be highlighted in light blue when the **Start**, **Finish** or total **Allocation** change as opposed to the plan of record.

Changing the **Start** and **Finish** of an investment via the list or Gantt chart will also affect associated team entries if applicable.

Extending a team entry beyond the **Start** or **Finish** of the associated investment will also extend the investment, such that it includes that team entry. Reducing the durations of team entries won't reduce the investment's duration. Team entries without a **Start** or **Finish** will adopt these values from the associated investment. Changing the duration of a team entry will redistribute its allocation values with the same proportion as before the change.

Any changes you make to scenario data in this mode will only be applied when you save them via the toolbar. You can easily identify unsaved changes via the red triangle in a field.

Refresh the view without saving to revert your changes.

### 5.13.4 Utilization View

The following specifics apply to the utilization view while scenario comparison is active.

> In **Allocations by Investment** mode, while the scenario comparison is active, the resource utilization view includes scenario data where they exist.
  - Team entries of investments that don't exist in the compared scenario and associated allocations will be loaded from the plan of record.
  - Team entries of investments existing in the compared scenario and associated allocations will be loaded from that scenario.

> The utilization and capacity filters are applied here as well. See section "4.10 Utilization and Capacity Filters" on page 37 for details and an example.

> In **Allocations by Investment** mode, while the scenario comparison is active, you can’t add team entries to investments via drag-and-drop of resources, roles and teams from the utilization view.

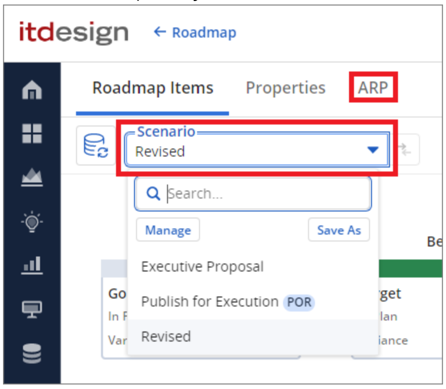
### 5.13.5 Context Menu Actions

While the scenario comparison is active, some actions in the context menus aren't available.

# 5.14 Roadmap Scenario Mode

Please note that the roadmap scenario mode feature is only available after adding an itd Advanced Resource Planning channel to the roadmap blueprint, see "9.7 Planning Modes" on page 151.

With the roadmap scenario mode, roadmaps offer an itd Advanced Resource Planning tab, which shows a capacity scenario for the currently selected roadmap scenario in its **Allocations** modes:




This view compares the current schedule of investments with the schedule of their linked roadmap items. Additionally, you can filter by, display and edit the **In Plan** property of roadmap items, and you can filter the utilization by the **In Plan** field in this mode with the standard utilization filter feature.

> The itd Advanced Resource Planning application in this view is automatically filtered (in addition to any manually entered filters and automatic standard filters such as **Hide investments from the past**) and includes any investments linked to roadmap items in the selected roadmap scenario.

> In the **Allocations** modes, the scenario mode, see previous section) is always active.

> The capacity scenario is initially created when first opening the view for a specific roadmap scenario and is then linked to that roadmap scenario.
Reopening the view for a roadmap scenario for which a capacity scenario already exists will load that capacity scenario.
Capacity scenarios are shared among all users and are updated with changes saved by any user.

> Investments in the capacity scenario are synchronized with their linked roadmap items in the roadmap scenario, such that any changes you save for an investment's **Start** or **In Plan** field in the capacity scenario affect its linked roadmap item in the roadmap scenario and vice versa.
- The investment's **Start** date in the capacity scenario is equal to and synchronized with its linked roadmap item's start date.
The investment's **Finish** date is shifted according to its duration, both of which are not linked to the roadmap item.
Any associated team entries are shifted accordingly in the capacity scenario.
Shifting and resizing roadmap items linked to investments with hard allocations in this mode requires the **Resource – Hard Book** right for all associated resources.
- The **In Plan** value in the capacity scenario is equal to and synchronized with its linked roadmap item's **In Plan** value.
- Any changes made to allocations in the capacity scenario are synchronized back to Clarity PPM and show up under **Capacity**.
Please note that capacity changes made in Clarity PPM won't be synchronized back to the capacity scenario.

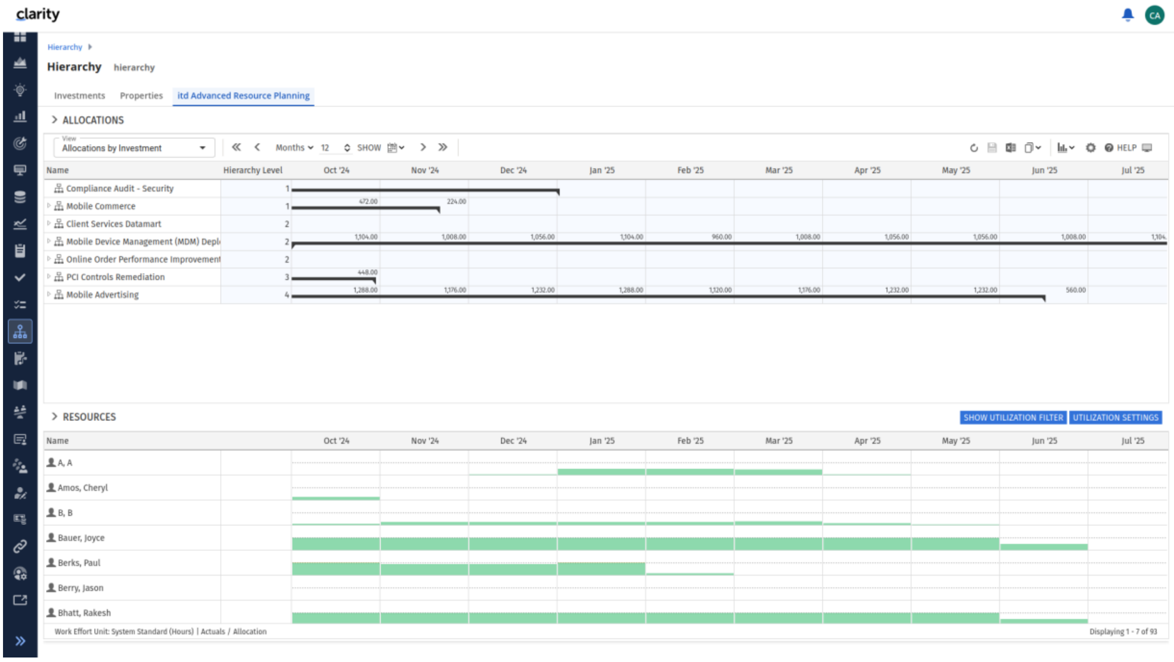
> Any changes saved to the capacity scenario are restored when you or another user reopens the view for the same roadmap scenario, including changes not affecting linked roadmap items.

# 5.15 Hierarchy Mode

You can integrate itd Advanced Resource Planning in the **Hierarchies** module for hierarchies of the **Investment** type.

Please note that the hierarchy mode feature is only available after adding an itd Advanced Resource Planning channel to the hierarchy blueprint, see "9.7 Planning Modes" on page 151.

With the hierarchy mode, hierarchies offer an itd Advanced Resource Planning tab.




In this mode, the view is automatically filtered to show only investments included in the hierarchy.

The selection for the **Investments** filter field is also reduced to include only these investments.

You can display and sort by the **Hierarchy Level** field, which displays an investment's hierarchy level.

With the **Resource – Only Hierarchy Team** filter, the lower list will only display resources, roles and teams allocated to investments in the hierarchy via team entries.

***Please note:*** *This mode is currently in the beta phase and is included as a preview. Further features are planned. We look forward to receiving feedback on this mode.*

# 5.16 Toolbar Features

In **Allocations by Investment** mode, you have access to the following features in the toolbar.

## 5.16.1 View

The **View** menu at the top left displays the active view and allows switching views, saving the current view under a new name and editing your favorites and view sharing settings under **Manage**.

If you have the right to save changes to the current view, the **Save View** button is active. If it isn't, you can still save a copy of the current view.

You can find details of the features available here under "3 Views" on page 22.

## 5.16.2 Display Period

To the right of the **View** menu, you have access to various controls for changing the display period.

The slice period and number of slices are saved with the view and are synchronized with the **Timeslices** tab of the **Preferences**, see "5.17.2 Timeslices" on page 66.

Most options available there are also available in the toolbar, with the exception of fiscal periods as slice periods.

The start date won't be saved. The view automatically starts with the current date.

**Previous Periods:** Here you switch back by the selected display period (e.g., 6 months).

**Previous Period:** Here you switch back by the selected slice period (e.g., 1 month).

**Slice Period and Number of Slices:** Select the slice period (e. g, months) and enter the number of slices in the field or use the buttons to raise or lower the number.
Then click on **Show** to update the view with the new slice settings.

**Jump to a Certain Date:** Here you select the view's start date in a calendar view.

**Next Period:** Here you switch ahead by the selected slice period (e.g., 1 month).

**Next Periods:** Here you switch ahead by the selected display period (e.g., 6 months).

## 5.16.3 Cut-off Line

Can't find the cut-off line? Make sure **Show Cut-off Line** is selected in the **Visualization** menu.

If you still can't see it, the left-most button in the right toolbar will take you there instantly:

**Navigate to Cut-off Line Position:** This will scroll the page to the cut-off line's position.
Please note that this only works when both **Enable Ranking** and **Show Cut-off Line** are checked in the **Visualization** menu.

## 5.16.4 Refresh and Save

Use the **Refresh** and **Save** buttons to discard or save your changes.

**Refresh:** This will reload all data. If there are unsaved changes, you will be asked if you want to save first. Answering no will discard your changes.

**Save:** This will save all unsaved changes you have made in the current view.

### 5.16.5 Export to Excel

You can export all rows and columns of the upper view to Microsoft Excel.

**Export to Excel**: Here you export the upper view to Microsoft Excel.
The data will be exported as displayed, with the same filter settings and with all rows and columns that are currently displayed. For list items with sub-elements, these sub-elements will only be exported if their parent item has been expanded, such that they are currently visible.
The Excel export is limited to a maximum of 15,000 rows and isn't available in scenario mode.

### 5.16.6 Scenario

The scenario mode is available with the **Scenario – Navigate** right if the **Scenario** menu hasn't been hidden by a Clarity PPM application administator, see "9.12.2 Hide Toolbar Buttons" on page 160.

The Excel export isn't available in scenario mode.

See section "5.13 Scenario Comparison" on page 55 for details about the scenario mode.

**Scenario:** Here you activate or deactivate the scenario mode. You can start with an existing scenario or create a new scenario.

**Select or Deselect a Scenario:** In the **Scenario** menu, all scenarios you have access to are available for selection. Select a scenario to start the scenario comparison. Deselect the active scenario to end the scenario comparison.

**New Scenario:** Here you create a new scenario. Enter the name for the new scenario in the toolbar. Click on the check mark to confirm or click on the X to cancel.
If you confirm, the new scenario will be directly selected and the comparison will be started.

**Manage Scenarios:** Here you open the Clarity PPM default scenario manager view.
In this view, you can view, edit, add or delete scenarios. You can also set the **Current** and **Compare** flags, which won't affect itd Advanced Resource Planning.

### 5.16.7 Filter

In **Allocations by Investment** mode, there are two separate filter field selections available for the main and utilization view in the respective toolbars.

**ARP Admins** may add additional fields to either filter field selection. This includes most Clarity PPM standard fields and most custom fields of any object for which default filter fields are available for the respective filter, including investment sub-type fields. For details about the procedure and supported objects and fields, see "9.11 Configuring List and Filter Fields" on page 155.

**Filter - Allocations:** The **Filter** button in the upper toolbar opens the filter field selection for the allocation filter. All filter fields you select here will be available for filtering the main view by investments, resources/roles/teams and team entries.
See section "4.8 Default Filter Fields for the Main View" on page 29 for details about the default filter fields available for this view.

**Filter - Resources:** The **Filter** button in the lower toolbar opens the the filter field selection for resource filter. All filter fields you select here will be available for filtering the resources, roles and teams displayed in the utilization view.
See section "4.9 Default Filter Fields for the Utilization View" on page 35 for details about the default filter fields available for this view.

Select available filter fields for the left and right filter column of the respective view.

> You can add filter fields to either column as well as determine their order via drag-and-drop:
  - Drag filter fields from the **Available Filters** list to either column to add them.
  - Drag filter fields from either column to the **Available Filters** list to remove them.
  - Drag filter fields between columns or within a column to change their position.

> Alternatively, you can use the buttons to the left of a column list in order to…
  - … add fields selected in its left neighbor list (right arrow).
  - … remove fields selected in the list and add these fields to its left neighbor list (left arrow).
  - … change the field order by moving selected fields up or down in the list (up/down arrow).

### 5.16.8 Columns

In **Allocations by Investment** mode, there are three separate selections for the columns displayed in the main view, resource list and capacity popup, respectively.

**ARP Admins** may add additional fields to either column selection and enable editing for them. This includes most Clarity PPM standard fields and most custom fields of any object for which columns are selectable by default in the respective view, including investment sub-type fields.

For details about the procedure and supported objects and fields, see "9.11 Configuring List and Filter Fields" on page 155.

**Main View Columns:** The **Columns** button in the upper toolbar opens the column selection for the list at the top left of the main view.

The following fields are always displayed in the first column:

- **Name (investment, resource/role/team)**
- **Primary role (resource), parent role (role):** a resource's primary role is displayed next to their name. A role's parent role is displayed next to their name, if applicable. You can turn this off via a feature toggle, see "9.12.6 Hide Primary/Parent Role Name" on page 162.

The following fields can be selected for display by default:

- **Actuals, Allocation, Hard Allocation (investment, team entry):** worked, planned and booked hours for investments (first level), or team entries (second level)
- **Default Allocation (team entry):** editable; this applies in periods during the team entry where no allocation segments have been defined.
- **Effective Role (team entry):** resource/role/team investment role
- **ID (investment)**
- **Investment Status (investment):** editable
  In scenario mode, you can change this field for investments in the scenario
- **Investment Type (investment)**
- **Predecessors, Successors (investment):** investments connected via agreements
- **Skills (role team entry):** editable; only with additional configuration, see page 162.
- **Staff OBS Unit (team entry):** editable
- **Start, Finish (investment, team entry):** investment or team entry duration.
  In scenario mode, you can change these fields for investments and team entries in the scenario.

**Resource Columns:** Click on the **Columns** button in the lower toolbar and select **Resource Columns** in the associated menu to open the column selection for the resource list.

The following information is always displayed in the first column of the resource list:

- **Icon (resource/role/team)**
- **Name (resource/role/team)**
- **Primary role (resource), parent role (role):** a resource's primary role is displayed next to their name. A role's parent role is displayed next to their name, if applicable. You can turn this off via a feature toggle, see "9.12.6 Hide Primary/Parent Role Name" on page 162.

The following additional resource list fields can be selected by default:

- **Department (resource/team)**
- **Department OBS, Location (resource/team)**
- **Is External (resource/role/team)**
- **Manager (resource/role/team)**
- **Skills (resource/role/team)**

**Capacity Popup Columns:** Click on the **Columns** button in the lower toolbar and select **Capacity Popup Columns** in the associated menu to open the column selection for the capacity popup, which opens when clicking on a utilization segment in the utilization view.

The following information is always displayed in the capacity popup:

- **Type Icon and Name (investment)** – first column
- **Segment Utilization (allocations)** – last column

The following additional team entry fields can be selected for the capacity popup by default:

- **Start, Finish (team entry)**
- **Staff OBS Unit (team entry)**
- **Default Allocation (team entry)**
- **Effective Role (team entry)**
- **Skills (role team entry):** only with additional configuration, see page 162.

### 5.16.9 Sort

In **Allocations by Investment** mode, you have access to the following sort options.

In addition to the fields listed here, any custom fields without lookups are available.

Use the button next to the sort field selection to determine the sort order, ascending or descending.

If you don't select the respective default field, items will be sorted by that field on the second level in ascending order.

Sort

- **Sort Investments By: Name (Default)** or **Investment Type**.
- **Sort Team Entries By: Name (Default)**, **Effective Role**, **Finish Date** or **Start Date**.

### 5.16.10 Visualization

In **Allocations by Investment** mode, you have access to the following options under **Visualization**.

**Visualization > Cell:** Here you toggle the display of trend arrows for deviations of the left cell value from the right one, see "5.3 Displaying Trend Arrows" on page 41.

**Visualization > Gantt Bars:** Here you toggle the display of Gantt bars for investments and team entries, and of agreements as dependencies between investments, see "5.10 Interactive Gantt Bars" on page 48.

**Visualization > Utilization**

- **Show Histogram:** Here you switch between the two display modes for the utilization and capacity of resources, roles and teams, see "5.11 Resource Utilization" on page 50.

**Visualization > Portfolio Management Mode**

- **Enable Ranking:** Select this to show **Ranking** column and automatically sort investments by it.
- **Show Cut-off Line:** Here you toggle the display of the cut-off line. This will effectively disable the cut-off line when not displayed. All investments in the global ranking will be considered included in the overall portfolio, affecting resource utilization.

See section "5.12 itd Portfolio Optimizer Integration" on page 54 for details.

### 5.16.11 Preferences

**Preferences:** Here you configure other view settings such as display fields and filter fields, see "5.17 Preferences" on page 65. Preferences will be saved separately for each view.

### 5.16.12 Help

**Help:** Here you can find information about itd Advanced Resource Planning and about asking for support. If you do, please always specify your version, which you can find under **Info**.

### 5.16.13 Fullscreen

**Fullscreen:** In full screen mode, the Clarity PPM navigation will be hidden, such that more items can be displayed in itd Advanced Resource Planning.
You can turn the navigation back on using the same button.

### 5.16.14 Administration

**ARP Admins** may access the following global administration settings via the right-most button in the upper toolbar labelled **Administration**.

**Administration**

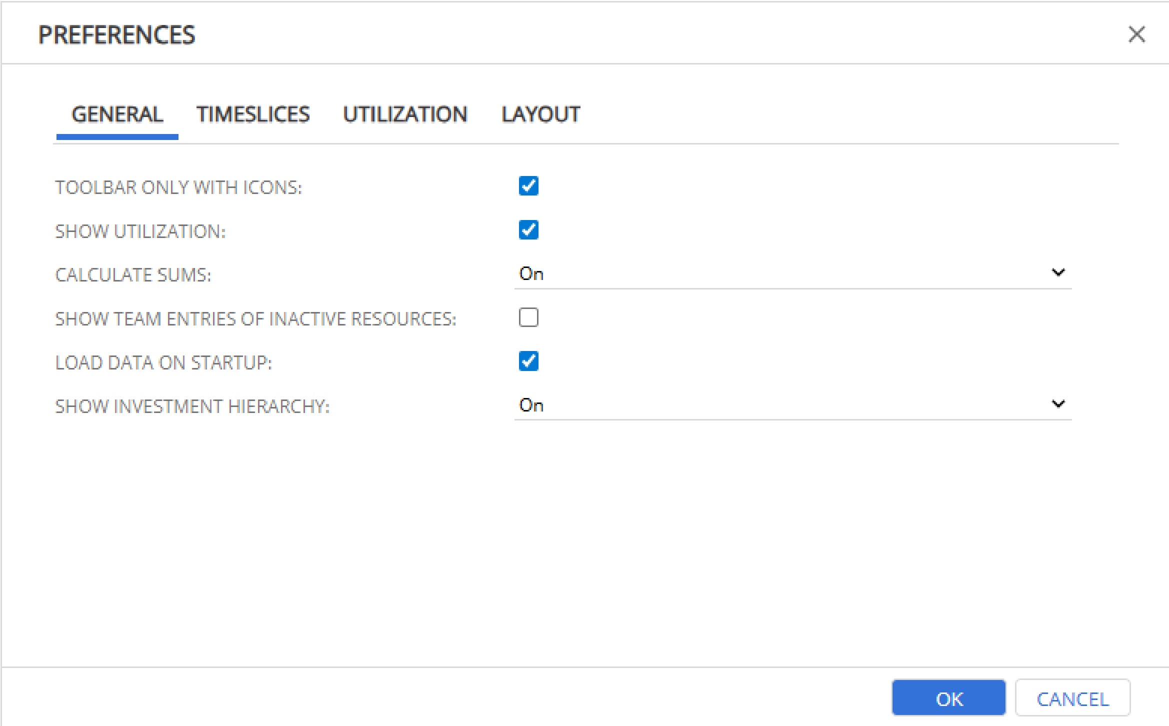
- **Views > Auto-Expand Previously Expanded Investments When Opening the View:** Deselect this to skip restoring the expand state of investments when opening the view, which may result in shorter loading time.
- **Views > Restrict 'Share with Everyone' Functionality:** This lets you restrict sharing views with everyone to selected groups. If you don't select any group, all users may share views with everyone.
- **Staffing > Disable Replacement Options:** This lets you hide unused replacement options for the **Allocations by Investment** mode to make staffing easier for users.
  All other view modes are not affected by this setting.

## 5.17 Preferences

Click on the **Preferences** button in the toolbar to edit view options.

### 5.17.1 General

Settings in the **General** tab control the display and behavior of the current view.




> **Toolbar Only with Icons:** select this to hide the captions on buttons with icons, reducing the width of the toolbar.

> **Show Utilization:** when the histogram isn't displayed, this setting controls whether the utilization, total and/or remaining capacity of resources, roles and teams are displayed per period in the resource list.

> **Calculate Sums:** select this to display totals of the workload fields (in the allocation modes: **Allocation**, **Hard Allocation** and **Actuals**) for all aggregation levels (in this mode: per investment). You can choose between **On** (display global sums), **Filtered** (apply allocation filter to global sums) and **Off** (don't calculate sums).
>
> This setting affects the loading time, with **Off** being the fastest and **Filtered** the slowest method.
>
> The **Team has Allocation** filter, see page 33, is only available when you set this to **On** or **Filtered**.

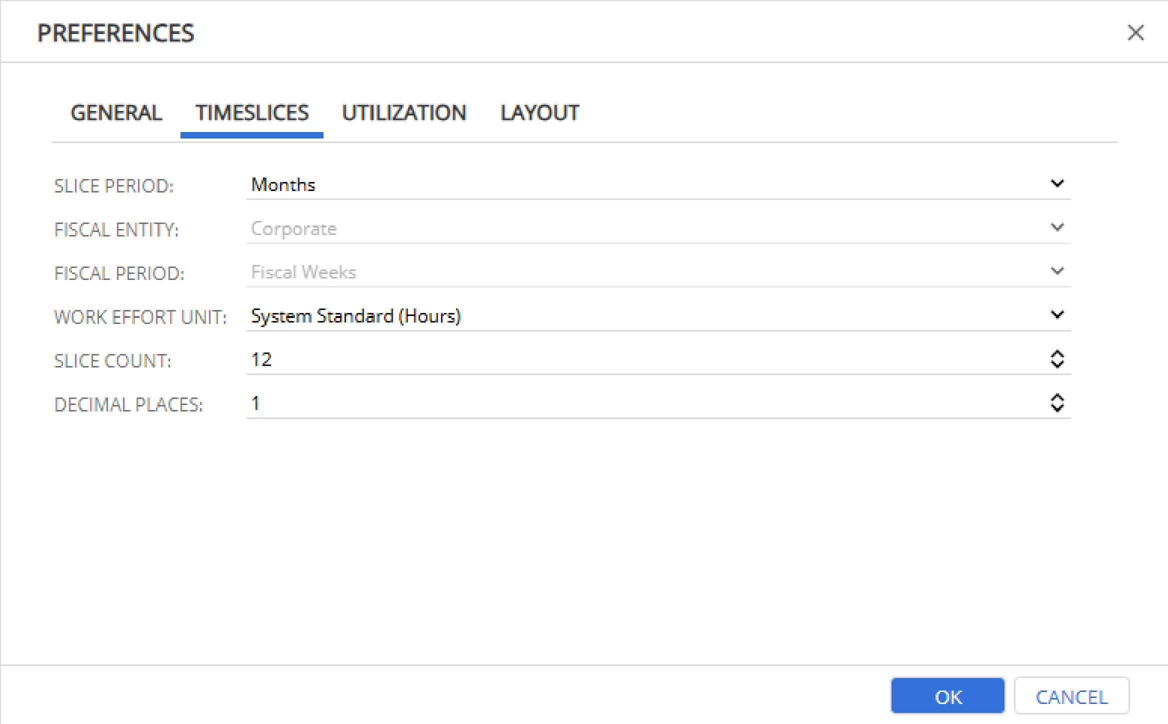
> **Show Team Entries of Inactive Resources:** display or hide team entries of inactive resources.

> **Load Data on Startup:** specify here whether data is loaded directly when opening itd Advanced Resource Planning or only after clicking the filter button.

> **Show Investment Hierarchy:** in **Allocations by Investment** mode, select this to display parent and sub-investments of investments explicitly selected via your allocation filter, see "4.8.2 Selecting Investment Hierarchies in by Investment Modes" on page 30.
>
> Hiding investment hierarchies may speed up loading the view.

### 5.17.2 Timeslices

Settings in the **Timeslices** tab control the time axis scale and display period.

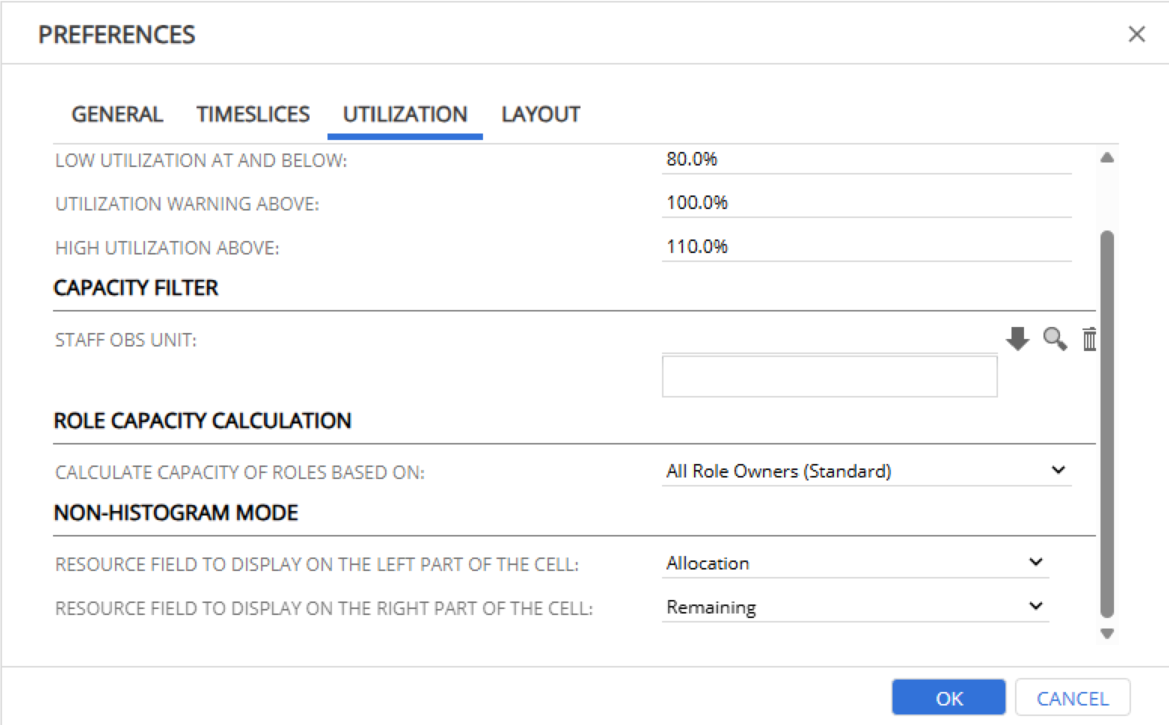



- **Slice Period:** enter the planning period here. Possible settings are **Days**, **Weeks**, **Months**, **Quarters**, **Calendar Years** and, if configured, **Fiscal Period**.
  The selection may be limited by Clarity PPM application administrators via the **itd AE Preferences** lookup, see "9.12.3 Restrict Time Slice Periods in the Preferences and in the Toolbar" on page 161. In this case, only options enabled via the associated lookup value will be available here and in the toolbar of itd Advanced Resource Planning and the itd Portfolio Optimizer.
- **Fiscal Entity** and **Fiscal Period:** with the **Fiscal Period** setting, if multiple fiscal entities or periods have been defined in your Clarity PPM system, select the desired fiscal entity and period here.
- **Work Effort Unit:** specify the unit for efforts here. By default, the **System Standard** will be applied. Alternatively, **Hours**, **Days** or full time equivalents (**FTE**) are available for selection here.
  The selection may be limited by Clarity PPM application administrators via the **itd AE Preferences** lookup, see "9.12.4 Hide Work Effort Units" on page 161. In this case, only options not disabled via the associated lookup value will be available.
- **Slice Count:** enter the amount of slices to be displayed.
- **Decimal Places:** enter the desired number of decimals for entering and displaying allocations.

### 5.17.3 Utilization

Settings in the **Utilization** tab control the display and calculation of the utilization.

In **Allocations by Investment** mode, the utilization will be calculated from allocations.




> The **Utilization Rate** controls the visualization of low or high utilization.

- **Low Utilization at and Below:** upper utilization boundary below which resources, roles and teams will be marked as lowly utilized with a grey background in the respective period.
  Utilization between the thresholds for low utilization and utilization warning (e.g., above 80% to 100% as according to the screenshot) will be marked as optimal with a green background.
  This threshold value has no effect in the histogram.
- **Utilization Warning Above:** lower utilization boundary above which resources, roles and teams will be marked as slightly over-utilized with a yellow background in the respective period. This applies as long as the utilization stays at or below the lower boundary for high utilization.
  In the histogram, workload is colored green up to this threshold value.
- **High Utilization Above:** lower boundary above which resources, roles and teams will be marked as highly over-utilized with a red background in the respective period.
  In the histogram, workload is colored yellow up to this threshold value and red above.

> The **Capacity Filter** by **Staff OBS Unit** is applied to the capacity displayed for resources, roles and teams, such that only resources and teams with selected **Department OBS** units are displayed as available. This also affects the capacity displayed for roles.

Click on the arrow to switch between filtering by selected unit and children (arrow down), selected unit and parents (arrow up) or only the exact unit (arrow right).
This setting applies to all selected units.

Additionally, you can filter the utilization by investment and team entry properties.

See section "4.10 Utilization and Capacity Filters" on page 37 for details and an example.

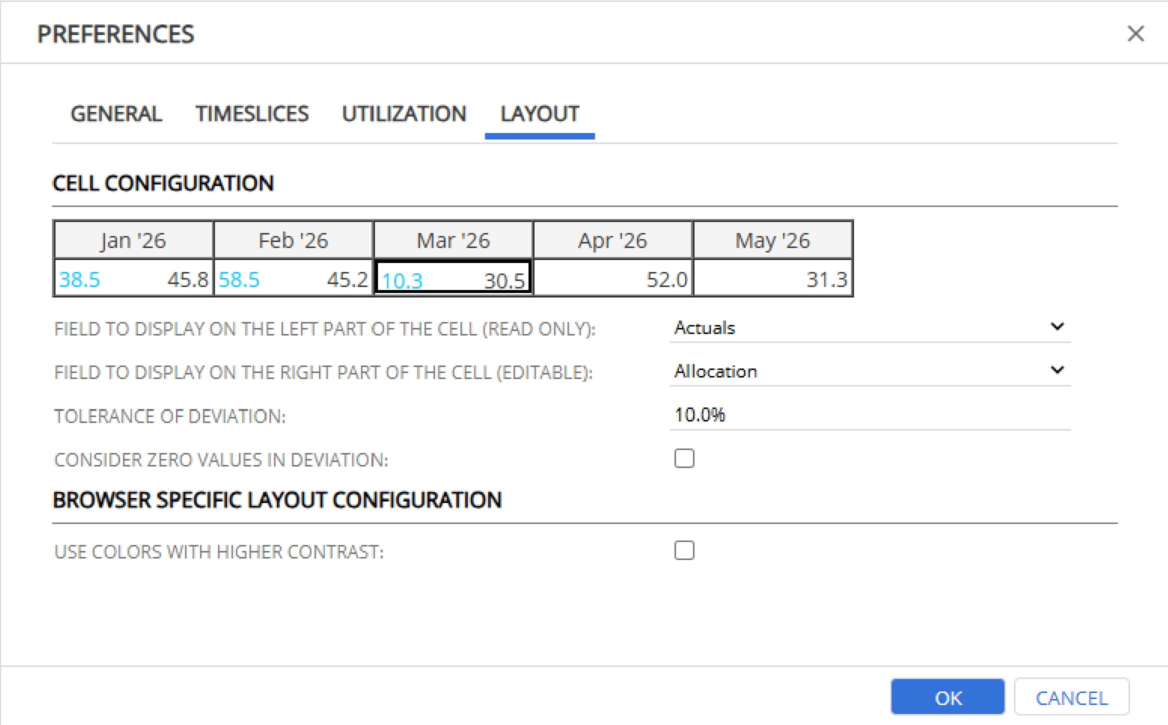
> The **Role Capacity Calculation** option is only available after activation by a CA PPM application administrator in the **itd AE Preferences** lookup, see "9.12.19 Include Sub-Roles in Role Capacity in Allocations Modes" on page 167. It controls the inclusion of sub-roles in role capacities.
  Under **Calculate Capacity of Roles Based On**, select:
  - **All Role Owners (Standard):** with the default setting, the capacity of a role is calculated based only on resources with that primary role.
  - **All Role Owners and Sub-Roles:** select this option to include the sub-role resources.

> Under **Non-Histogram Mode**, you can configure the left and right hand side values in the utilization grid that is displayed when the histogram is turned off.
  **Available values:**
  - **Capacity**
  - **Remaining**
  - **Allocation**
  - **Hard Allocation**

  **Remaining** is the **Capacity** minus the editable value, **Allocation** or **Hard Allocation**.

## 5.17.4 Layout

Settings in the **Layout** tab control the display values and the editable value for allocations in the right hand side allocation grid as well as sorting fields for investments and team entries.




> **Cell Configuration:** here you configure the right hand side allocation grid.

- **Field to Display on the Left Part of the Cell (Read Only):** Empty, Allocation, Hard Allocation, ETC, Actuals, Actuals + ETC, Requested or Capacity
- **Field to Display on the Right Part of the Cell (Editable):** Allocation or Hard Allocation
  The displayed utilization is always based on the editable value.

Use the **Columns** button in the upper toolbar to display or hide the **Allocation**, **Hard Allocation** and **Actuals** columns in the upper left hand side list, see "5.16.8 Columns" on page 62.

To display aggregated totals for investments in the allocation grid and sum columns, set **Calculate Sums** to **On** or to **Filtered** in the **General** tab, see "Calculate Sums" on page 65.

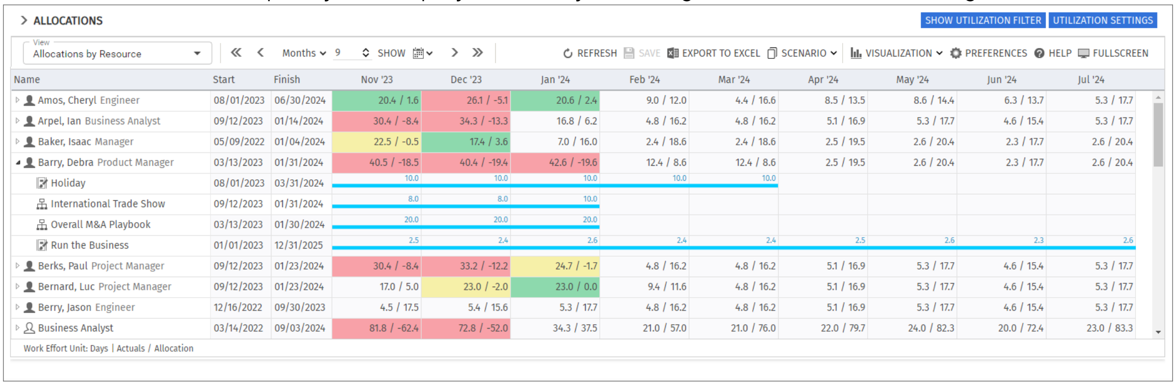
- **Tolerance of Deviation:** Treshold value for displaying trend arrows to indicate a deviation of the left cell value from the right one when activated via **Visualization**.
- **Consider Zero Values in Deviation:** Display an arrow even if one of both values is zero.

> **Browser Specific Layout Configuration:** Here you can select to **Use Colors with Higher Contrast**. This setting will affect all your views in itd Advanced Resource Planning.

# 6 Allocations by Resource

The **Allocations by Resource** mode groups team entries for investments and associated allocations by the allocated resources, roles and teams.

Their utilization and capacity are displayed directly in the right hand side allocation grid view.




## 6.1 Displayed Data

In **Allocations by Resource** mode, the following data will be displayed:

> Resources, roles and teams.
> Investments (custom types included) with team entries of displayed resources, roles and teams.
> Associated team entries and allocations or hard allocations.
> You can limit the selection of data records via filter conditions, see "4 Filters" on page 25.

### 6.1.1 Show Utilization

With the **Show Utilization** option selected in the **General** tab of the **Preferences**, the utilization, total and/or remaining capacity of a resource, role or team will be displayed in the associated row, see "6.11 Resource Utilization and Capacity" on page 76.

### 6.1.2 Team Entry Data

In this mode, displayed investments represent associated team entries.

The **Start** and **Finish** fields displayed for a resource, role or team indicate the earliest start and lastest finish of associated team entries.

## 6.2 Displayed and Editable Values per Period

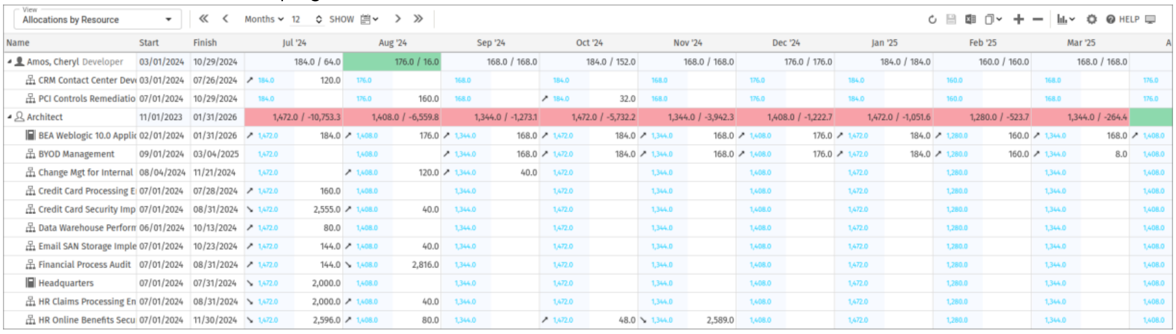
In the **Layout** tab of the **Preferences**, you can select up to two values that will be displayed per period for team entries, see "Cell Configuration" on page 89.

> **Left (read-only):** Empty (no value), Allocation, Hard Allocation, ETC, Actuals, Actuals + ETC, Requested or Capacity.
> **Right (editable):** Allocation or Hard Allocation; base of utilization and capacity, see "6.11 Resource Utilization and Capacity" on page 76.

The configured values are displayed when hovering over the allocation grid with the associated preferences setting, see "9.12.10 Show Grid Hints for by Resource Views" on page 163.

## 6.3 Displaying Trend Arrows

Via the **Visualization** menu, you can display trend arrows comparing the left and right cell values, see "Visualization > Cell" on page 84.




For instance, this can help you to easily compare actuals with the originally planned values.

Wherever both values are present and different, a little arrow at the left cell edge visualizes a negative or positive deviation of the left cell value from the right cell value.

In the **Layout** tab of the **Preferences**, you can set a threshold percentage for the minimal deviation to visualize via arrows, see "Tolerance of Deviation" on page 89.

## 6.4 Allocation, Hard Allocation and Actuals Sums

Use the **Columns** button in the toolbar to display or hide the **Allocation**, **Hard Allocation** and **Actuals** columns in the left hand side list, see "6.15.7 Columns" on page 83.

The fields display the respective values for each team entry.

With **Calculate Sums** in the **General** tab of the **Preferences**, aggregated sums will also be calculated and displayed per resource, role and team. Depending on the **Calculate Sums** setting, global (**On**) or **Filtered** sums will be displayed, according to your allocation filter, see "Calculate Sums" on page 85.

In **Allocations by Resource** mode, **Show Utilization** will also calculate sums. When combined with **Calculate Sums** set to **Filtered**, the sums displayed per resource, role and team will be filtered, see "Show Utilization" on page 85.

## 6.5 Editing Allocations

In the right half of the allocations view, you can see and edit team entries for resources, roles and teams, grouped by the associated investments or by the allocated resources, roles and teams.

Without selection of the **Show Gantt Bars for Team Members** option in the **Visualization** menu in the toolbar, you can enter the desired allocation values in the right hand side grid. Extending a team entry by entering values in grid cells outside the duration of the associated investment will also extend the investment such that the duration of the investment includes the team entry.

Changes made in the allocation grid will only be applied when you save them via the toolbar. You can easily identify unsaved changes via the red triangle in a field.

Refresh the view without saving to revert your changes.

Projects will automatically be locked for editing by other users while unsaved changes exist. This is indicated by a padlock icon. Saving or reverting your changes will unlock the project. If your session is interrupted before a project is unlocked, you or any **ARP Admin** can unlock it via the context menu. Please note that this is only possible for projects that were locked due to changes made in itd Advanced Resource Planning or the itd Portfolio Optimizer.

# 6.6 Editing List Fields

You can edit the **Start**, **Finish** and **Staff OBS Unit** fields of team entries in the list.

Most additional fields may also be made editable by **ARP Admins**, see "6.6.3 Editing Additional Fields" on the bottom of this page.

Changes will only be applied when you save them via the toolbar. You can easily identify unsaved changes via the red triangle in a field.

Refresh the view without saving to revert your changes.

Projects will automatically be locked for editing by other users while unsaved changes exist. This is indicated by a padlock icon. Saving or reverting your changes will unlock the project. If your session is interrupted before a project is unlocked, you or any **ARP Admin** can unlock it via the context menu. Please note that this is only possible for projects that were locked due to changes made in itd Advanced Resource Planning or the itd Portfolio Optimizer.

## 6.6.1 Editing the Start and Finish of Team Entries

You can change the duration of team entries via the **Start** and **Finish** fields displayed in the left hand side hierarchic list, distributing planned and hard allocations over the new duration with the same proportions as before the change. Therefore, shortening a team entry will raise the allocation per period while extending a team entry will lower it.

Extending a team entry beyond the associated investment's **Start** or **Finish** will also extend the investment, such that it includes that team entry.

Reducing the durations of team entries won't reduce the investment's duration.

Team entries without a **Start** or **Finish** will adopt these values from the associated investment.

## 6.6.2 Editing the Staff OBS Unit of Team Entries

You can edit the **Staff OBS Unit** field of team entries in the list. To do this, click in the field.

Click on the magnifier icon to select an OBS unit or the trashcan icon to clear the field.

## 6.6.3 Editing Additional Fields

You can also edit any additional list fields that have been made editable by **ARP Admins**, see "9.11 Configuring List and Filter Fields" on page 155.

This is supported for most Clarity PPM standard fields as well as all custom fields displayed in the list except for fields of the **Calculated**, **Formula** and **URL** types.

To edit lookup fields, click in the field first. This gives you the following editing options.

> Type to open a list of propositions and select the desired value.
> Click on the magnifier icon to select a value from a filterable list.
> Click on the trashcan icon to empty the field (for lookup fields with only one value) ...
> ... or remove the selected item (for lookup fields with multiple values).

## 6.6.4 Copying List Fields

You can copy editable field values up or down via drag-and-drop. This feature supports lookup fields and respects restrictions on column values.

Copying field values this way requires the start and target row to be of the same type, i.e., resource/role/team or team entry.

## 6.7 Resource, Role and Team Actions

Right-click on a resource, role or team in the **Name** column to open the context menu.

**ARP Admins** can reorder, restrict or remove the standard actions listed here and add custom actions, see "9.10 Defining Actions" on page 153.

### 6.7.1 Open Properties

Here you open the detail view for the selected resource, role or team in a new browser tab.

### 6.7.2 Expand All

This expands the selected resource, role or team and reveals all associated team entries.

### 6.7.3 Jump to Start Date

Shift the timeline such that it starts with the start date of the earliest investment for which a team entry is displayed for the selected resource, role or team

## 6.8 Team Entry Actions

Right-click on a team entry (investment) in the **Name** column to open the context menu.

**ARP Admins** can reorder, restrict or remove the standard actions listed here and add custom actions, see "9.10 Defining Actions" on page 153.

### 6.8.1 Open Properties

Here you open the detail view for the selected team entry on top of itd Advanced Resource Planning in the same browser tab.

### 6.8.2 Create Requisition

Here you create a new requisition for the allocation of the selected team entry.

This action will be directly applied without further confirmation.

### 6.8.3 Allocate From Estimates

Here you enter the estimated effort of all assignments associated with the selected team entry as allocation for that team entry.

This action will be directly applied without further confirmation.

### 6.8.4 Commit Allocation

Here you enter the allocation of the selected team entry as hard allocation for that team entry.

This action will be directly applied without further confirmation.

### 6.8.5 Accept Hard Allocation

Here you enter the hard allocation of the selected team entry as allocation for that team entry.

This action will be directly applied without further confirmation.

### 6.8.6 Delete

The **Delete** action is available in the context menu for team entries without actuals. Once you select the **Delete** action, the selected team entry will instantly be deleted without further confirmation.

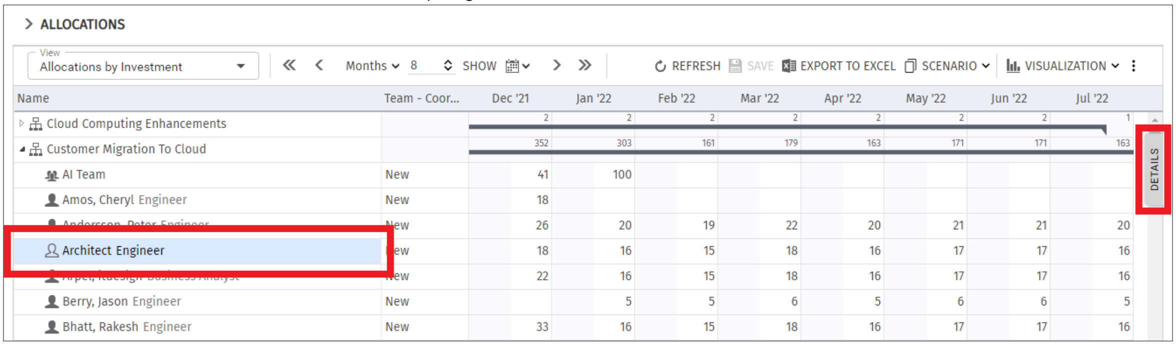
### 6.8.7 Jump to Start Date

Shift the timeline such that it starts with the team entry's start date.

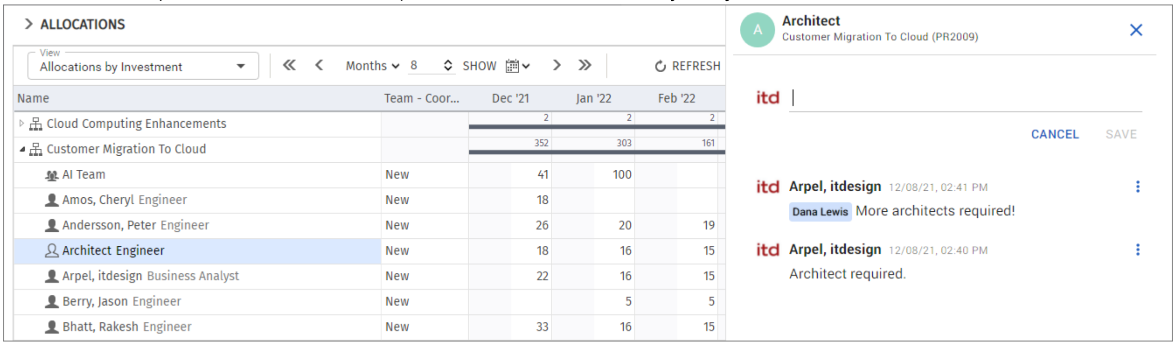
## 6.9 Conversations

The standard MUX conversations for team entries are available in itd Advanced Resources Planning in the **Allocations by Investment** and **Allocations by Resource** views.

Clicking on a team entry in either of the **Allocations by Investment** or **Allocations by Resource** views adds a small **Details** button at the top right side of the view.




This button opens a conversation panel for this team entry only.



# 6.10 Interactive Gantt Bars

In **Allocations by Resource** mode, you can toggle the display of Interactive Gantt bars for team entries only via the **Visualization** menu in the toolbar.

## 6.10.1 Gantt Bars for Team Entries

Gantt bars for team entries will be displayed when selecting **Show Gantt Bars for Team Members** in the **Visualization** menu in the toolbar.

While Gantt bars are displayed for team entries, you can't edit the planned or hard allocation values displayed per period directly.

You can shift and resize team entries via drag and drop of their Gantt bars.

This will redistribute the allocation values displayed per period for the respective team entry, planned or hard, over the capacity of the respective resource, role or team during the new duration with the same proportions as before the change.

Shifting or extending a team entry beyond the associated investment's **Start** or **Finish** will also extend the investment, such that it includes the team entry.

Reducing the durations of team entries won't reduce the investment's duration.

Team entries without a **Start** or **Finish** will adopt these values from the associated investment.

## 6.10.2 Saving or Reverting Changes

Changes made to Gantt bars won't be saved directly

Your changes will only be applied when you save them via the toolbar. You can easily identify unsaved changes via the red triangle in a field.

Refresh the view without saving to revert your changes.

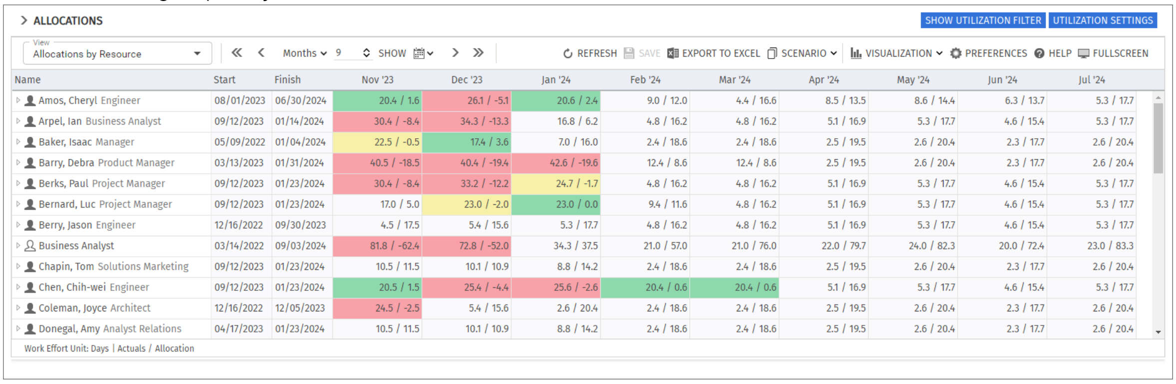
Projects will automatically be locked for editing by other users while unsaved changes exist. This is indicated by a padlock icon. Saving or reverting your changes will unlock the project. If your session is interrupted before a project is unlocked, you or any **ARP Admin** can unlock it via the context menu. Please note that this is only possible for projects that were locked due to changes made in itd Advanced Resource Planning or the itd Portfolio Optimizer.

## 6.11 Resource Utilization and Capacity

With **Show Utilization** in the **General** tab of your **Preferences**, the utilization, total and/or remaining capacity of resources, roles and teams, based on allocations, will be displayed per period in a grid.

Select two values to display in the **Layout** tab of your **Preferences** from among **[Total] Capacity**, **Remaining [Capacity]** (total capacity less editable value, **Allocation** or **Hard Allocation**), **Allocation** and **Hard Allocation**, see "Cell Configuration" on page 89.

The remaining capacity is based on the editable allocation value, **Allocation** or **Hard Allocation**.




| Name | Start | Finish | Nov '23 | Dec '23 | Jan '24 | Feb '24 | Mar '24 | Apr '24 | May '24 | Jun '24 | Jul '24 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Amos, Cheryl Engineer | 08/01/2023 | 06/30/2024 | 20.4 / 1.6 | 26.1 / -5.1 | 20.6 / 2.4 | 9.0 / 12.0 | 4.4 / 16.6 | 8.5 / 13.5 | 8.6 / 14.4 | 6.3 / 13.7 | 5.3 / 17.7 |
| Arpel, Ian Business Analyst | 09/12/2023 | 01/14/2024 | 30.4 / -8.4 | 34.3 / -13.3 | 16.8 / 6.2 | 4.8 / 16.2 | 4.8 / 16.2 | 5.1 / 16.9 | 5.3 / 17.7 | 4.6 / 15.4 | 5.3 / 17.7 |
| Baker, Isaac Manager | 05/09/2022 | 01/04/2024 | 22.5 / -0.5 | 17.4 / 3.6 | 7.0 / 16.0 | 2.4 / 18.6 | 2.4 / 18.6 | 2.5 / 19.5 | 2.6 / 20.4 | 2.3 / 17.7 | 2.6 / 20.4 |
| Barry, Debra Product Manager | 03/13/2023 | 01/31/2024 | 40.5 / -18.5 | 40.4 / -19.4 | 42.6 / -19.6 | 12.4 / 8.6 | 12.4 / 8.6 | 2.5 / 19.5 | 2.6 / 20.4 | 2.3 / 17.7 | 2.6 / 20.4 |
| Berks, Paul Project Manager | 09/12/2023 | 01/23/2024 | 30.4 / -8.4 | 33.2 / -12.2 | 24.7 / -1.7 | 4.8 / 16.2 | 4.8 / 16.2 | 5.1 / 16.9 | 5.3 / 17.7 | 4.6 / 15.4 | 5.3 / 17.7 |
| Bernard, Luc Project Manager | 09/12/2023 | 01/23/2024 | 17.0 / 5.0 | 23.0 / -2.0 | 23.0 / 0.0 | 9.4 / 11.6 | 4.8 / 16.2 | 5.1 / 16.9 | 5.3 / 17.7 | 4.6 / 15.4 | 5.3 / 17.7 |
| Berry, Jason Engineer | 12/16/2022 | 09/30/2023 | 4.5 / 17.5 | 5.4 / 15.6 | 5.3 / 17.7 | 4.8 / 16.2 | 4.8 / 16.2 | 5.1 / 16.9 | 5.3 / 17.7 | 4.6 / 15.4 | 5.3 / 17.7 |
| Business Analyst | 03/14/2022 | 09/03/2024 | 81.8 / -62.4 | 72.8 / -52.0 | 34.3 / 37.5 | 21.0 / 57.0 | 21.0 / 76.0 | 22.0 / 79.7 | 24.0 / 82.3 | 20.0 / 72.4 | 23.0 / 83.3 |
| Chapin, Tom Solutions Marketing | 09/12/2023 | 01/23/2024 | 10.5 / 11.5 | 10.1 / 10.9 | 8.8 / 14.2 | 2.4 / 18.6 | 2.4 / 18.6 | 2.5 / 19.5 | 2.6 / 20.4 | 2.3 / 17.7 | 2.6 / 20.4 |
| Chen, Chih-wei Engineer | 09/12/2023 | 01/23/2024 | 20.5 / 1.5 | 25.4 / -4.4 | 25.6 / -2.6 | 20.4 / 0.6 | 20.4 / 0.6 | 5.1 / 16.9 | 5.3 / 17.7 | 4.6 / 15.4 | 5.3 / 17.7 |
| Coleman, Joyce Architect | 12/16/2022 | 12/05/2023 | 24.5 / -2.5 | 5.4 / 15.6 | 2.6 / 20.4 | 2.4 / 18.6 | 2.4 / 18.6 | 2.5 / 19.5 | 2.6 / 20.4 | 2.3 / 17.7 | 2.6 / 20.4 |
| Donegal, Amy Analyst Relations | 04/17/2023 | 01/23/2024 | 10.5 / 11.5 | 10.1 / 10.9 | 8.8 / 14.2 | 2.4 / 18.6 | 2.4 / 18.6 | 2.5 / 19.5 | 2.6 / 20.4 | 2.3 / 17.7 | 2.6 / 20.4 |

### 6.11.1 Visualization of Low, Optimal, High and Very High Utilization

Cell colors indicate a low (white), optimal (green), high (yellow) or very high (red) utilization of a resource, role or team in a period, based on their total capacity and the right or editable allocation value, **Allocation** or **Hard Allocation**. You can edit the thresholds for each color in the **Utilization** tab of your **Preferences**, see "6.16.3 Utilization" on page 87.

Utilization histogram charts are not available in this mode.

### 6.11.2 Filtering the View

With **Calculate Sums** set to **Filtered** in the **General** tab of your **Preferences**, the **Allocation** and **Hard Allocation** will only include visible allocations, as selected by your allocation filter.

With **Calculate Sums** set to **On** or **Off**, all allocations in the associated period will be included instead.

The remaining capacity is always global and never affected by the allocation filter.

Separate utilization and capacity filters are available in this mode. See "4.10 Utilization and Capacity Filters" on page 37 for details and an example.

### 6.11.3 Displaying Utilization and Capacity Details

Hover over a grid cell to show the displayed resource fields, utilization mode (**Filtered** or not) and remaining capacity calculation, if applicable.

### 6.11.4 Role Capacities

The total capacity of a role is the total capacity of all resources with that primary role and, if configured, all resources with any of its sub-roles, see "Role Capacity Calculation" on page 88.

The remaining capacity of a role subtracts the right or editable value, **Allocation** or **Hard Allocation**, from all allocations of itself, its resources and, if configured, its sub-roles and their resources.

### 6.11.5 Team Utilization

For a resource allocated to a team, that allocation is included as a percentage of the resource's capacity as entered in the team (e.g., if a resource is allocated to a team with 50%, in a week where that resource has a capacity of 40 hours, an allocation of 20 hours will be included for the team).

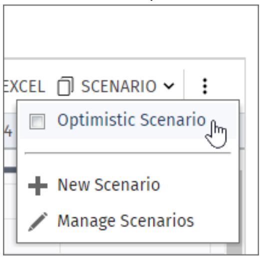
# 6.12 Scenario Comparison

In the **Allocations** modes, the **Scenario** menu is available in the toolbar if you have the **Scenario – Navigate** right and if the menu hasn't been hidden by a Clarity PPM application administator, see "9.12.2 Hide Toolbar Buttons" on page 160.

In the **Scenario** menu, you have access to all scenarios for which you have the **View** right. You can edit data in any scenario for which you have the **Edit** right.

Investment rights are not required, but shifting and resizing investments with hard allocations in this mode requires the **Resource – Hard Book** right for all associated resources.

The Excel export isn't available in scenario mode.




## 6.12.1 Scenario Menu Features

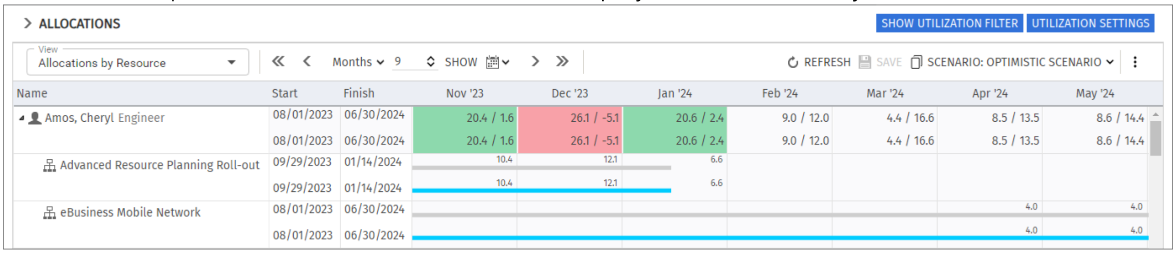
The scenario menu in the toolbar offers the following features.

> Select a scenario to compare with the plan of record.
> Deselect a selected scenario to end the scenario comparison.
> Via the **Scenario** menu, you can also create new scenarios or open the scenario manager.

See section "6.15.5 Scenario" on page 82 for details about these features.

## 6.12.2 Visualization and Editing in Scenario Comparison Mode

While the comparison is active, team entries are displayed in a two row layout:




> The first row displays the plan of record data, which you can not edit in comparison mode.
> The second row displays the associated data in the compared scenario. In comparison mode, you can only edit scenario data: the **Investment Status** of an investment, see following section for details), the **Start** and **Finish** of a team entry and, without **Show Gantt Bars for Team Members** in **Visualization**, the **Allocation** per period. With **Show Gantt Bars for Team Members** in **Visualization**, you can change the start and duration of team entries via drag-and-drop in the Gantt chart, with the same effect as changing the **Start** and **Finish** fields in the list.
The **Hard Allocation** per period is read-only in scenarios in Clarity PPM and displays the commited plan of record values. You cannot change these values in a scenario.

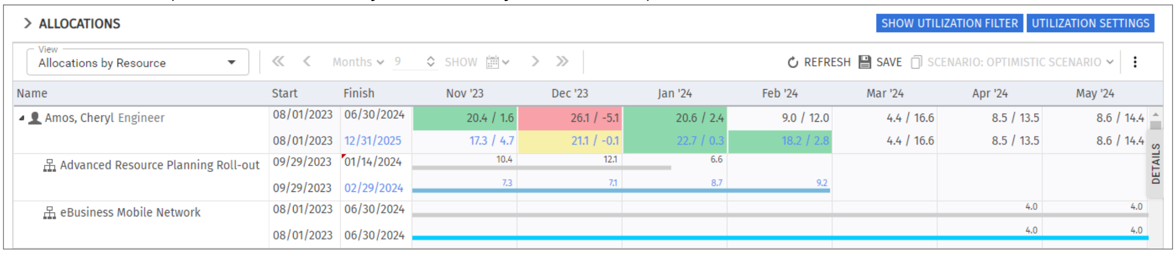
## 6.12.3 Transferring Investments and Team Entries to a Scenario

Initially, investments exist only in the plan of record. Change the **Investment Status** in an investment's second row or the **Start**, **Finish** or **Allocation** per period in a team entry's second row to copy the associated investment with all team entries to the scenario.

***Please note:***

> You can change the **Investment Status** in **Allocations by Investment** mode only, and you can set it to **Approved** or **Unapproved** only in a scenario, provided these values are available.
> Team entries added to an investment after that investment has been added to a scenario will not be available in the scenario.
> Investments and team entries deleted in the plan of record will also be deleted in all scenarios in which they exist, even if differences have been entered for them in a scenario.

While the comparison is active, you can only edit the copies of team entries created in the scenario.




Changes made to an investment's **Investment Status** or to a team entry's **Start**, **Finish** or **Allocation** per period are highlighted in light blue. Allocations are summed up on the top level (investment or resource/role/team). Where changes exist, as opposed to the plan of record, they will also be highlighted in light blue on this level.

Additionally, the Gantt bars for investments and team entries will also be highlighted in light blue when the **Start**, **Finish** or total **Allocation** change as opposed to the plan of record.

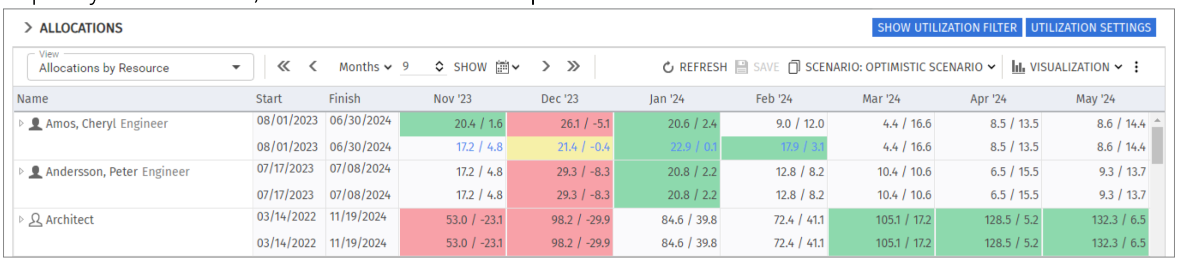
Extending a team entry beyond the **Start** or **Finish** of the associated investment will also extend the investment, such that it includes that team entry. Reducing the durations of team entries won't reduce the investment's duration. Team entries without a **Start** or **Finish** will adopt these values from the associated investment. Changing the duration of a team entry will redistribute its allocation values with the same proportion as before the change.

Any changes you make to scenario data in this mode will only be applied when you save them via the toolbar. You can easily identify unsaved changes via the red triangle in a field.

Refresh the view without saving to revert your changes.

### 6.12.4 Utilization

In **Allocations by Resource** mode, the scenario mode lets you compare the utilization and remaining capacity of resources, roles and teams in the plan of record to their scenario values.




The utilization and capacity filters are applied here as well. See section "4.10 Utilization and Capacity Filters" on page 37 for details and an example.

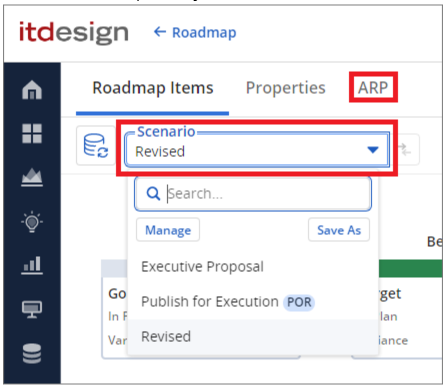
### 6.12.5 Context Menu Actions

While the scenario comparison is active, some actions in the context menus aren't available.

# 6.13 Roadmap Scenario Mode

Please note that the roadmap scenario mode feature is only available after adding an itd Advanced Resource Planning channel to the roadmap blueprint, see "9.7 Planning Modes" on page 151.

With the roadmap scenario mode, roadmaps offer an itd Advanced Resource Planning tab, which shows a capacity scenario for the currently selected roadmap scenario in its **Allocations** modes:




This view compares the current schedule of investments with the schedule of their linked roadmap items. Additionally, you can filter by, display and edit the **In Plan** property of roadmap items, and you can filter the utilization by the **In Plan** field in this mode with the standard utilization filter feature.

> The itd Advanced Resource Planning application in this view is automatically filtered (in addition to any manually entered filters and automatic standard filters such as **Hide investments from the past**) and includes any investments linked to roadmap items in the selected roadmap scenario.

> In the **Allocations** modes, the scenario mode, see previous section) is always active.

> The capacity scenario is initially created when first opening the view for a specific roadmap scenario and is then linked to that roadmap scenario.
  Reopening the view for a roadmap scenario for which a capacity scenario already exists will load that capacity scenario.
  Capacity scenarios are shared among all users and are updated with changes saved by any user.

> Investments in the capacity scenario are synchronized with their linked roadmap items in the roadmap scenario, such that any changes you save for an investment's **Start** or **In Plan** field in the capacity scenario affect its linked roadmap item in the roadmap scenario and vice versa.
  - The investment's **Start** date in the capacity scenario is equal to and synchronized with its linked roadmap item's start date.
    The investment's **Finish** date is shifted according to its duration, both of which are not linked to the roadmap item.
    Any associated team entries are shifted accordingly in the capacity scenario.
    Shifting and resizing roadmap items linked to investments with hard allocations in this mode requires the **Resource – Hard Book** right for all associated resources.
  - The **In Plan** value in the capacity scenario is equal to and synchronized with its linked roadmap item's **In Plan** value.
  - Any changes made to allocations in the capacity scenario are synchronized back to Clarity PPM and show up under **Capacity**.
    Please note that capacity changes made in Clarity PPM won't be synchronized back to the capacity scenario.

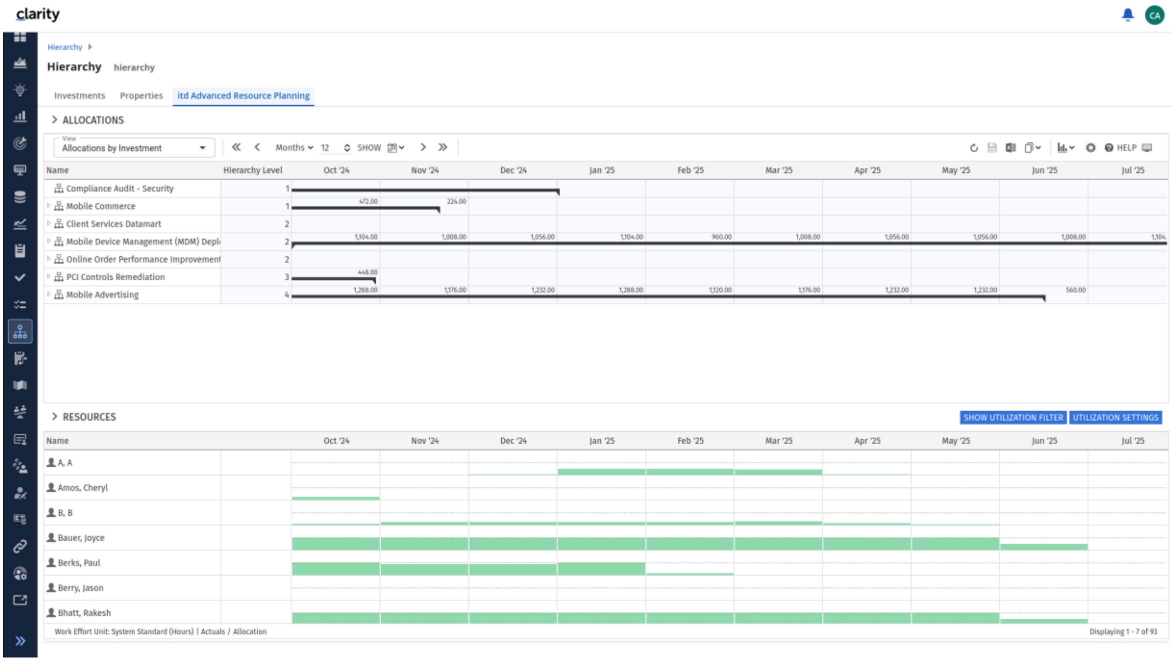
> Any changes saved to the capacity scenario are restored when you or another user reopens the view for the same roadmap scenario, including changes not affecting linked roadmap items.

# 6.14 Hierarchy Mode

You can integrate itd Advanced Resource Planning in the **Hierarchies** module for hierarchies of the **Investment** type.

Please note that the hierarchy mode feature is only available after adding an itd Advanced Resource Planning channel to the hierarchy blueprint, see "9.7 Planning Modes" on page 151.

With the hierarchy mode, hierarchies offer an itd Advanced Resource Planning tab.




In this mode, the view is automatically filtered to show only investments included in the hierarchy. The selection for the **Investments** filter field is also reduced to include only these investments.

You can display and sort by the **Hierarchy Level** field, which displays an investment's hierarchy level.

***Please note:*** *This mode is currently in the beta phase and is included as a preview. Further features are planned. We look forward to receiving feedback on this mode.*

## 6.15 Toolbar Features

In **Allocations by Resource** mode, you have access to the following features in the toolbar.

### 6.15.1 View

The **View** menu at the top left displays the active view and allows switching views, saving the current view under a new name and editing your favorites and view sharing settings under **Manage**.

If you have the right to save changes to the current view, the **Save View** button is active. If it isn't, you can still save a copy of the current view.

You can find details of the features available here under "3 Views" on page 22.

### 6.15.2 Display Period

To the right of the **View** menu, you have access to various controls for changing the display period.

The slice period and number of slices are saved with the view and are synchronized with the **Timeslices** tab of the **Preferences**, see "6.16.2 Timeslices" on page 86.

Most options available there are also available in the toolbar, with the exception of fiscal periods as slice periods.

The start date won't be saved. The view automatically starts with the current date.

**Previous Periods:** Here you switch back by the selected display period (e.g., 6 months).

**Previous Period:** Here you switch back by the selected slice period (e.g., 1 month).

**Slice Period and Number of Slices:** Select the slice period (e. g, months) and enter the number of slices in the field or use the buttons to raise or lower the number.
Then click on **Show** to update the view with the new slice settings.

**Jump to a Certain Date:** Here you select the view's start date in a calendar view.

**Next Period:** Here you switch ahead by the selected slice period (e.g., 1 month).

**Next Periods:** Here you switch ahead by the selected display period (e.g., 6 months).

### 6.15.3 Refresh and Save

Use the **Refresh** and **Save** buttons to discard or save your changes.

**Refresh:** This will reload all data. If there are unsaved changes, you will be asked if you want to save first. Answering no will discard your changes.

**Save:** This will save all unsaved changes you have made in the current view.

### 6.15.4 Export to Excel

You can export all rows and columns of the view to Microsoft Excel.

**Export to Excel**: Here you export the view to Microsoft Excel.
The data will be exported as displayed, with the same filter settings and with all rows and columns that are currently displayed. For list items with sub-elements, these sub-elements will only be exported if their parent item has been expanded, such that they are currently visible.
The Excel export is limited to a maximum of 15,000 rows and isn't available in scenario mode.
Clicking on the button in **Allocations by Resource** mode and confirming the export will open another dialog with an **Include Configured Resource Columns** option.
Select this before clicking on the **Export** button to include all resource columns currently displayed in the view, such as **Actuals**, **Allocation** and **Hard Allocation**.

### 6.15.5 Scenario

The scenario mode is available with the **Scenario – Navigate** right if the **Scenario** menu hasn't been hidden by a Clarity PPM application administator, see "9.12.2 Hide Toolbar Buttons" on page 160.

The Excel export isn't available in scenario mode.

See section "6.12 Scenario Comparison" on page 77 for details about the scenario mode.

**Scenario:** Here you activate or deactivate the scenario mode. You can start with an existing scenario or create a new scenario.

**Select or Deselect a Scenario:** In the **Scenario** menu, all scenarios you have access to are available for selection. Select a scenario to start the scenario comparison. Deselect the active scenario to end the scenario comparison.

**New Scenario:** Here you create a new scenario. Enter the name for the new scenario in the toolbar. Click on the check mark to confirm or click on the X to cancel.
If you confirm, the new scenario will be directly selected and the comparison will be started.

**Manage Scenarios:** Here you open the Clarity PPM default scenario manager view.
In this view, you can view, edit, add or delete scenarios. You can also set the **Current** and **Compare** flags, which won't affect itd Advanced Resource Planning.

### 6.15.6 Filter

In **Allocations by Resource** mode, you can edit the filter field selection via the toolbar.

**ARP Admins** may add additional fields to the filter field selection. This includes most Clarity PPM standard fields and most custom fields of any object for which default filter fields are available, including investment sub-type fields.

For details about the procedure and supported objects and fields, see "9.11 Configuring List and Filter Fields" on page 155.

**Filter:** The **Filter** button in the toolbar opens the filter field selection for the allocation filter.
All filter fields you select here will be available for filtering the main view by investments, resources/roles/teams and team entries.
See section "4.8 Default Filter Fields for the Main View" on page 29 for details about the default filter fields available for this view.

Select available filter fields for the left and right filter column of the respective view.

> You can add filter fields to either column as well as determine their order via drag-and-drop:
- Drag filter fields from the **Available Filters** list to either column to add them.
- Drag filter fields from either column to the **Available Filters** list to remove them.
- Drag filter fields between columns or within a column to change their position.

> Alternatively, you can use the buttons to the left of a column list in order to…
- … add fields selected in its left neighbor list (right arrow).
- … remove fields selected in the list and add these fields to its left neighbor list (left arrow).
- … change the field order by moving selected fields up or down in the list (up/down arrow).

### 6.15.7 Columns

In **Allocations by Resource** mode, you can edit the selection and order of columns displayed in the list of resources, roles and team entries.

**ARP Admins** may add additional fields to the column selection and enable editing for them. This includes most Clarity PPM standard fields and most custom fields of any object for which columns are selectable by default, including investment sub-type fields. For details about the procedure and supported objects and fields, see "9.11 Configuring List and Filter Fields" on page 155.

**Columns:** The **Columns** button in the toolbar opens the column selection.

The following fields are always displayed in the first column:

- **Name (resource/role/team, investment)**
- **Primary role (resource), parent role (role):** a resource's primary role is displayed next to their name. A role's parent role is displayed next to their name, if applicable. You can turn this off via a feature toggle, see "9.12.6 Hide Primary/Parent Role Name" on page 162.

The following fields can be selected for display by default:

- **Actuals, Allocation, Hard Allocation (resource/role/team, team entry):** worked, planned and booked hours per roles, resource and team (first level) / team entry (second level)
- **Default Allocation (team entry):** editable; this applies in periods during the team entry where no allocation segments have been defined.
- **Department OBS, Location (resource/team)**
- **Effective Role (resource):** primary role
- **Effective Role (role):** parent role
- **Effective Role (team entry):** resource/role/team investment role
- **ID (resource/role/team)**
- **Skills (resource/role/team, role team entry):** editable; only available for role team entries with additional configuration, see page 162.
- **Staff OBS Unit (team entry):** editable
- **Start, Finish (team entry):** duration of all team entries displayed for a resource/role/team (first level) or duration of team entries (second level)
  In scenario mode, you can change these fields for team entries in the scenario.

### 6.15.8 Sort

In **Allocations by Resource** mode, you have access to the following sort options.

In addition to the fields listed here, any custom fields without lookups are available.

Use the button next to the sort field selection to determine the sort order, ascending or descending.

If you don't select the respective default field, items will be sorted by that field on the second level in ascending order.

Sort

- **Sort Resources By: Name (Default)** or **Primary Role**.
- **Sort Investments By: Name (Default)** or **Investment Type**.

### 6.15.9 Visualization

In **Allocations by Resource** mode, you have access to the following options under **Visualization**.

**Visualization > Cell:** Here you toggle the display of trend arrows for deviations of the left cell value from the right one, see "6.3 Displaying Trend Arrows" on page 71.

**Visualization > Gantt Bars:** Here you toggle the display of Gantt bars for team entries, see "6.10 Interactive Gantt Bars" on page 75.

### 6.15.10 Preferences

**Preferences:** Here you configure other view settings such as display fields and filter fields, see "6.16 Preferences" on page 85. Preferences will be saved separately for each view.

### 6.15.11 Help

**Help:** Here you can find information about itd Advanced Resource Planning and about asking for support. If you do, please always specify your version, which you can find under **Info**.

### 6.15.12 Fullscreen

**Fullscreen:** In full screen mode, the Clarity PPM navigation will be hidden, such that more items can be displayed in itd Advanced Resource Planning.
You can turn the navigation back on using the same button.

### 6.15.13 Administration

**ARP Admins** may access the following global administration settings via the right-most button in the toolbar labelled **Administration**.

**Administration**

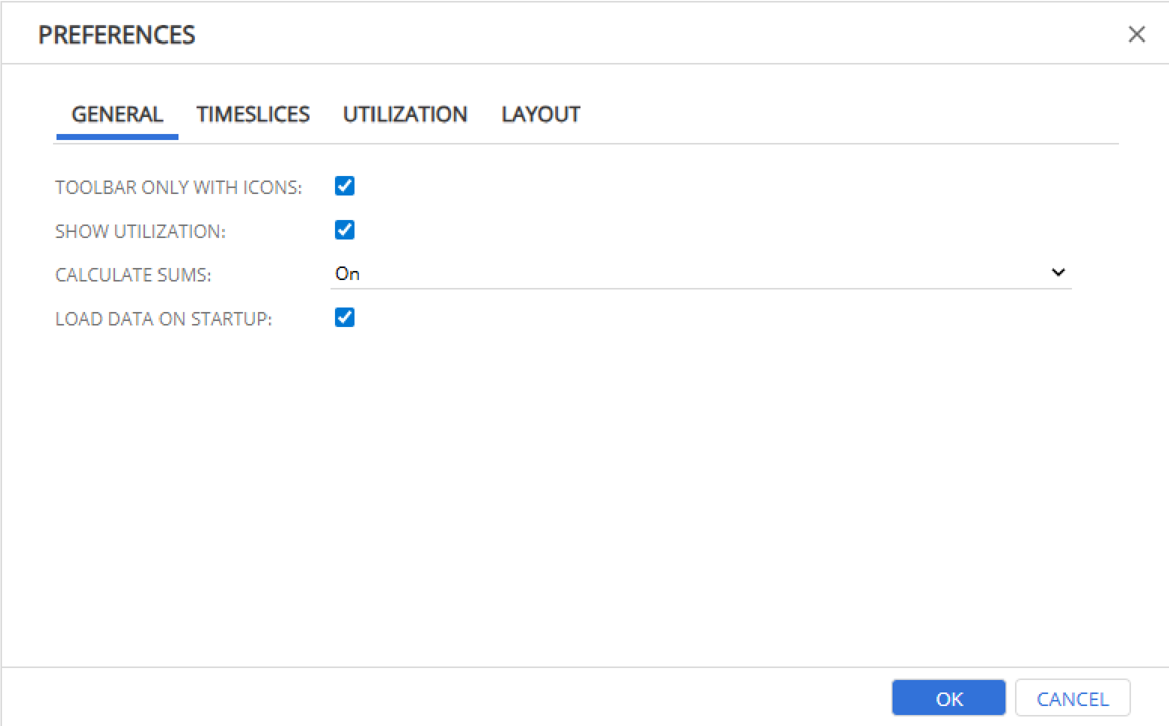
- **Views > Auto-Expand Previously Expanded Investments When Opening the View:** Deselect this to skip restoring the expand state of investments when opening the view, which may result in shorter loading time.
- **Views > Restrict 'Share with Everyone' Functionality:** This lets you restrict sharing views with everyone to selected groups. If you don't select any group, all users may share views with everyone.
- **Staffing > Disable Replacement Options:** This lets you hide unused replacement options for the **Allocations by Investment** mode to make staffing easier for users.
  All other view modes are not affected by this setting.

# 6.16 Preferences

Click on the **Preferences** button in the toolbar to edit view options.

## 6.16.1 General

Settings in the **General** tab control the display and behavior of the current view.




> **Toolbar Only with Icons:** select this to hide the captions on buttons with icons, reducing the width of the toolbar.

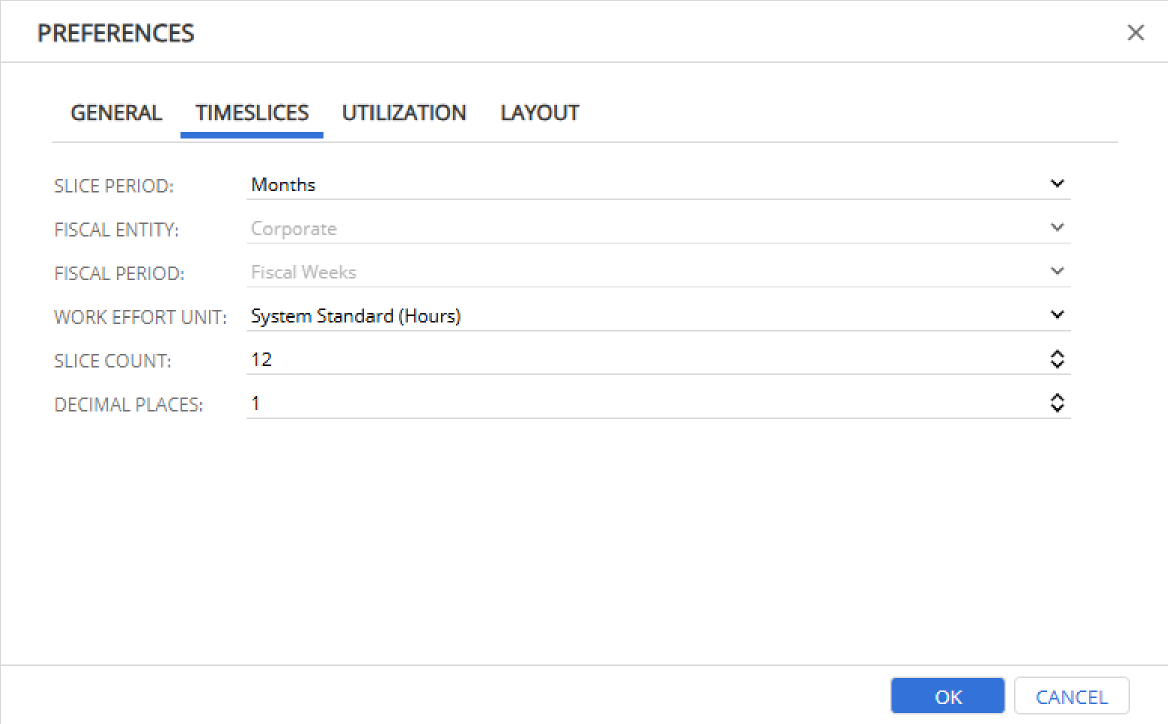
> **Show Utilization:** select this to display the utilization and/or capacity of roles, resources and teams per period, see "Cell Configuration" on page 89.
In **Allocations by Resource** mode only, with **Show Utilization**, global sums will also always be calculated for the **Allocation** and **Hard Allocation** columns, and the **Team has Allocation** filter, see page 33, will be available, even if **Calculate Sums** is set to **Off**.
With **Show Utilization** and **Calculate Sums** set to **On** or **Filtered**, sums are also displayed for the **Actuals** column. With **Filtered**, the allocation filter will also be applied to column sums and the utilization, such that they only include displayed allocations.
With **Calculate Sums** set to **On** or **Off**, the column sums and utilization are global.
The remaining capacity is always global and includes any allocations in the associated period.

> **Calculate Sums:** select this to display totals of the workload fields (in the allocation modes: **Allocation**, **Hard Allocation** and **Actuals**) for all aggregation levels (in this mode: per resource, role and team).
You can choose between **On** (display global sums), **Filtered** (apply allocation filter to global sums) and **Off** (don't calculate sums). This setting affects the loading time, with **Off** being the fastest and **Filtered** the slowest method.
The **Team has Allocation** filter, see page 33, is only available when you set this to **On** or **Filtered**, or, in **Allocations by Resource** mode only, when **Show Utilization** is selected.

> **Load Data on Startup:** specify here whether data is loaded directly when opening itd Advanced Resource Planning or only after clicking the filter button.

### 6.16.2 Timeslices

Settings in the **Timeslices** tab control the time axis scale and display period.

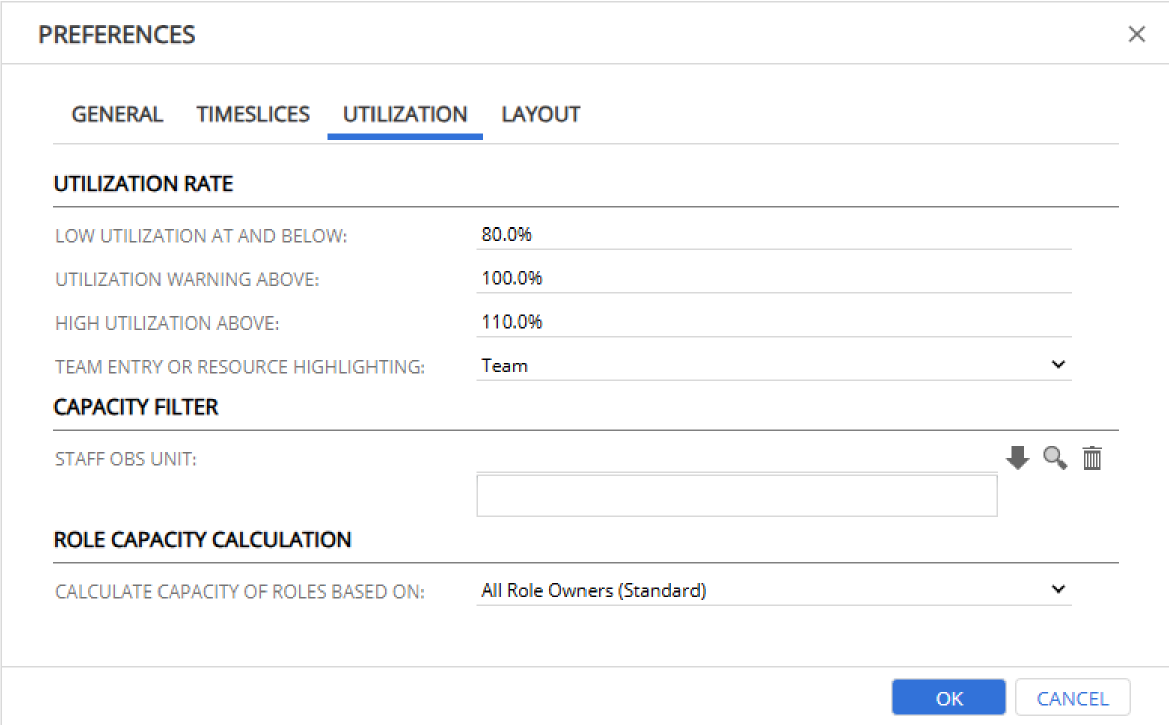



- **Slice Period:** enter the planning period here. Possible settings are **Days**, **Weeks**, **Months**, **Quarters**, **Calendar Years** and, if configured, **Fiscal Period**.
  The selection may be limited by Clarity PPM application administrators via the **itd AE Preferences** lookup, see "9.12.3 Restrict Time Slice Periods in the Preferences and in the Toolbar" on page 161. In this case, only options enabled via the associated lookup value will be available here and in the toolbar of itd Advanced Resource Planning and the itd Portfolio Optimizer.
- **Fiscal Entity** and **Fiscal Period:** with the **Fiscal Period** setting, if multiple fiscal entities or periods have been defined in your Clarity PPM system, select the desired fiscal entity and period here.
- **Work Effort Unit:** specify the unit for efforts here. By default, the **System Standard** will be applied. Alternatively, **Hours**, **Days** or full time equivalents (**FTE**) are available for selection here.
  The selection may be limited by Clarity PPM application administrators via the **itd AE Preferences** lookup, see "9.12.4 Hide Work Effort Units" on page 161. In this case, only options not disabled via the associated lookup value will be available.
- **Slice Count:** enter the amount of slices to be displayed.
- **Decimal Places:** enter the desired number of decimals for entering and displaying allocations.

### 6.16.3 Utilization

Settings in the **Utilization** tab control the display and calculation of the utilization.

In **Allocations by Resource** mode, the utilization is calculated based on allocations.




> The **Utilization Rate** controls the visualization of low or high utilization.

- **Low Utilization at and Below:** upper utilization boundary below which resources, roles and teams will be marked as lowly utilized with a grey background in the respective period.
  Utilization between the thresholds for low utilization and utilization warning (e.g., above 80% to 100% as according to the screenshot) will be marked as optimal with a green background.
  This threshold value has no effect in the histogram.
- **Utilization Warning Above:** lower utilization boundary above which resources, roles and teams will be marked as slightly over-utilized with a yellow background in the respective period. This applies as long as the utilization stays at or below the lower boundary for high utilization.
  In the histogram, workload is colored green up to this threshold value.
- **High Utilization Above:** lower boundary above which resources, roles and teams will be marked as highly over-utilized with a red background in the respective period.
  In the histogram, workload is colored yellow up to this threshold value and red above.
- **Team Entry or Resource Highlighting:** with the default setting **Team**, signal colors are based on the editable value displayed in the right half of team entry cells, **Allocation** or **Hard Allocation**, as proportion of their total capacity.
  With the **Resource** setting, resource cells will be colored based on the second resource value instead. This highlighting only supports **Allocation** and **Hard Allocation** as well. No colors are available when the **Capacity** or **Remaining** values are selected.
  You can select all of the values considered here in the **Layout** tab of your **Preferences**.

> The **Capacity Filter** by **Staff OBS Unit** is applied to the capacity displayed for resources, roles and teams, such that only resources and teams with selected **Department OBS** units are displayed as available. This also affects the capacity displayed for roles.

  Click on the arrow to switch between filtering by selected unit and children (arrow down), selected unit and parents (arrow up) or only the exact unit (arrow right).
  This setting applies to all selected units.

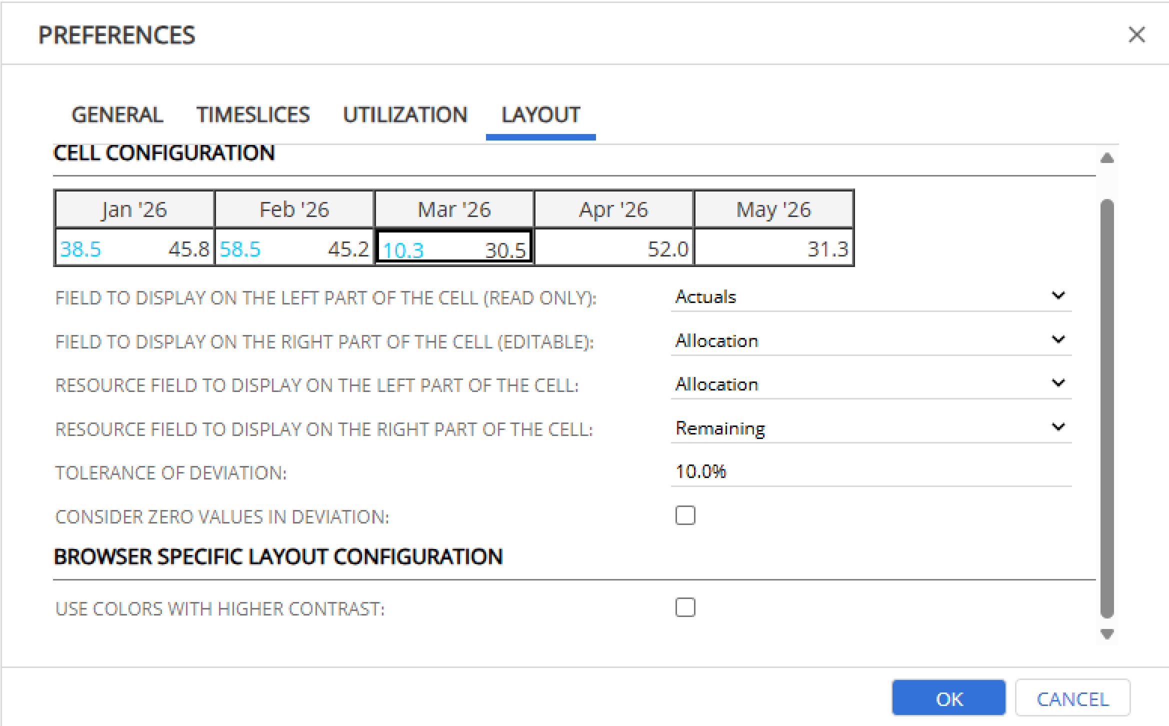
  Additionally, you can filter the utilization by investment and team entry properties.
  See section "4.10 Utilization and Capacity Filters" on page 37 for details and an example.

> The **Role Capacity Calculation** option is only available after activation by a CA PPM application administrator in the **itd AE Preferences** lookup, see "9.12.19 Include Sub-Roles in Role Capacity in Allocations Modes" on page 167. It controls the inclusion of sub-roles in role capacities.
  Under **Calculate Capacity of Roles Based On**, select:

  - **All Role Owners (Standard):** with the default setting, the capacity of a role is calculated based only on resources with that primary role.
  - **All Role Owners and Sub-Roles:** select this option to include the sub-role resources.

### 6.16.4 Layout

Settings in the **Layout** tab control the display values and the editable value for allocations in the right hand side allocation grid, the display values for resouvre utilization and capacity as well as sorting fields for resources and investments.




> **Cell Configuration:** here you configure the right hand side grid.
- **Field to Display on the Left Part of the Cell (Read Only):** Empty, Allocation, Hard Allocation, ETC, Actuals, Actuals + ETC, Requested or Capacity
- **Field to Display on the Right Part of the Cell (Editable):** Allocation or Hard Allocation
  The displayed utilization is always based on the editable value.
- **Resource Field to Display on the Left Part of the Cell:** Capacity, Remaining, Allocation or Hard Allocation
- **Resource Field to Display on the Right Part of the Cell:** Capacity, Remaining, Allocation or Hard Allocation

Use the **Columns** button in the toolbar to display or hide the **Allocation**, **Hard Allocation** and **Actuals** columns in the left hand side list, see "6.15.7 Columns" on page 83.

For aggregated totals of roles, resources and teams in the allocation grid and sum columns, set **Calculate Sums** to **On** or **Filtered** in the **General** tab, see "Calculate Sums" on page 85.

With **Show Utilization**, the allocation grid will display the resource fields selected here for resources, roles and teams instead.

Please also note the details of combining the **Show Utilization** and **Calculate Sums** settings in **Allocations by Resource** mode, see "Show Utilization" on page 85.

- **Tolerance of Deviation:** Treshold value for displaying trend arrows to indicate a deviation of the left cell value from the right one when activated via **Visualization**.
- **Consider Zero Values in Deviation:** Display an arrow even if one of both values is zero.

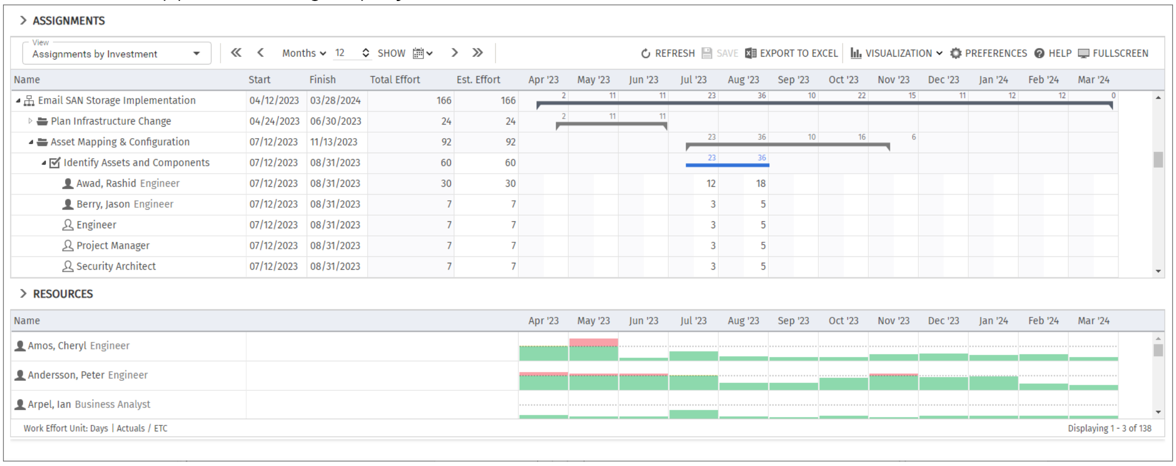
> **Browser Specific Layout Configuration:** Here you can select to **Use Colors with Higher Contrast**. This setting will affect all your views in itd Advanced Resource Planning.

# 7 Assignments by Investment

The **Assignments by Investment** mode groups resource, role and team assignments by associated investments. Project or custom investment phases, tasks and milestones are also displayed.

The utilization and capacity of resources, roles and teams are displayed in a separate view in color-coded numbers or as graphical histograms.

This mode supports editing of project structures in an interactive Gantt chart.




## 7.1 Displayed Data

In **Assignments by Investment** mode, the following data will always be displayed:

- Investments (custom types included).
- Tasks of displayed projects and custom investment types.
- Assignments of resources, roles and teams.
- List of all resources, roles and teams, optionally with utilization and capacity, see "7.14 Resource Utilization and Capacity" on page 108.
- You can limit the selection of data records via filter conditions, see "4 Filters" on page 25.

### 7.1.1 Displaying Phases, Milestones and Investment Hierarchies

Displaying of phases and milestones as well as of investment hierarchies is optional and can be toggled for each in the **General** tab of the **Preferences**. For investment hierarchies, also see "4.8.2 Selecting Investment Hierarchies in by Investment Modes" on page 30.

### 7.1.2 Displaying Assignments

Displaying assignments is also optional and can be toggled in the **Visualization** menu.

Without assignments, the view will load faster and show only investments, phases, tasks and milestones.

In this mode, the following features aren't available:

- Resource, role, team, assignment and team entry filters.
- Assignment data.
- Calculated sums of **Estimated Effort**, **Actuals** und **Total Effort**.
- Editing the **Estimated Effort** of tasks and assignments.
- Resource, role and team list with utilization view.

# 7.2 Displayed and Editable Values per Period

In the **Layout** tab of the **Preferences**, you can select up to two values that will be displayed per period for assignments, see "Cell Configuration" on page 123.

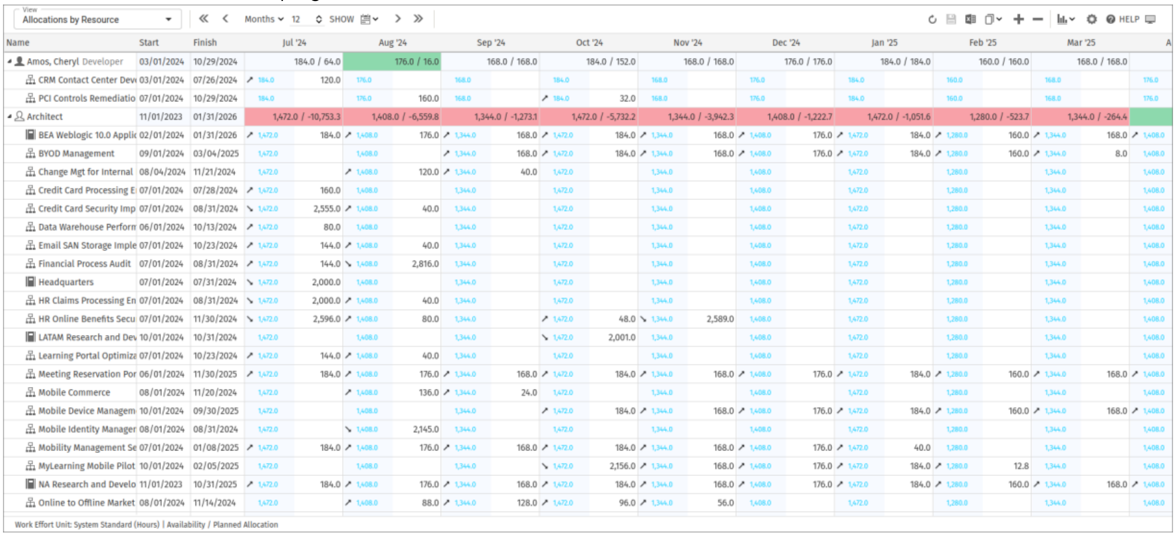
- **Left (read-only):** Empty (no value), ETC, Actuals, Capacity or a custom time-scaled **Money** value. You can edit the latter in the right half of the cell after clicking on its left hand side current value, see "7.7 Editing Custom Time-Scaled Money Values" on page 94.
- **Right (editable):** ETC or a custom time-scaled **Money** value.

The displayed utilization and capacity are always based on the ETC per period from assignments in this mode, see "2.3.11 Resource Utilization and Capacity" on page 19.

The configured values are displayed when hovering over the assignment grid with the associated preferences setting, see "9.12.9 Show Grid Hints for by Investment Views" on page 163.

# 7.3 Displaying Trend Arrows

Via the **Visualization** menu, you can display trend arrows comparing the left and right cell values, see "Visualization > Cell" on page 117.




For instance, this can help you to easily compare actuals with the originally planned values.

Wherever both values are present and different, a little arrow at the left cell edge visualizes a negative or positive deviation of the left cell value from the right cell value.

In the **Layout** tab of the **Preferences**, you can set a threshold percentage for the minimal deviation to visualize via arrows see "Tolerance of Deviation" on page 123.

# 7.4 Displaying Investment Descriptions

Hover over an investment to display its description.

This feature may be deactivated via the **itd AE Preferences Lookup** by Clarity PPM application administrators, see "9.12.29 Hide Description Tooltips" on page 171.

## 7.5 Estimated Effort, Actuals and Total Effort Sums

Use the **Columns** button in the upper toolbar to display or hide sum columns for **Estimated Effort**, **Actuals**, **Total Effort** (**Estimated** + **Actuals**) or custom time-scaled **Money** values in the upper left hand side list, see "7.17.6 Columns" on page 115.

The fields display the respective values for each assignment.

With **Calculate Sums** in the **General** tab of the **Preferences**, aggregated sums will also be displayed per task, phase and investment. Depending your selection, global sums (**On**) or **Filtered** sums (using the assignment filter) will be displayed, see "Calculate Sums" on page 119.

Only assignments of labor roles and resources as well as teams will be included in the sums.

Assignments of material, equipment and expense roles and resources won't be included.

For investments, you can display the sums calculated by Clarity PPM, as displayed in investment lists, instead of letting itd Advanced Resource Planning calculate the sums. To do this, select the **Use Clarity PPM's calculated investment sums** option in the **General** tab of the **Preferences**.

You can edit the **Estimated Effort** for assignments and tasks by entering a value, see "7.8 Editing List Fields" on page 95.

## 7.6 Editing Assignments

With **Show Gantt Bars for Assignments** turned off in the **Visualization** menu in the toolbar, you can edit the **ETC** per period that is displayed in the right half of each cell. Click on the right half of a cell to edit its value. The white background of a cell or its right half indicates that the value can be edited.

The left half of a cell displays **Actuals**, **Capacity** or any custom time-scaled **Money** value, see "Field to Display on the Left Part of the Cell" on page 123.

The configured values are displayed when hovering over the assignment grid with the associated preferences setting, see "9.12.9 Show Grid Hints for by Investment Views" on page 163.

The **Estimated Effort** will automatically be updated with the sum of efforts per period you enter.

With **Calculate Sums** set to **On** or **Filtered**, see "**Calculate Sums**" on page 119, this will also update the associated task, phase (if any) and investment.

Entering workload outside the duration of an assignment will expand it accordingly. If required, parent objects will also be expanded, such that they include the assignment.

Alternatively, enter the total **Estimated Effort** for a task or an assignment in the associated column, see "7.8.4 Editing the Estimated Effort of Tasks and Assignments" on page 96.

With **Update Allocation** in the **General** tab of the **Preferences**, the new assignment values will also be entered as allocation for the same periods.

### 7.6.1 Copying Grid Cells via Drag and Drop

Via drag and drop, you can copy the value of a grid cell to neighboring cells, either horizontally, on the timeline, or vertically, to other resources, roles and teams:

> To do this, click in the cell you wish to copy, hold the mouse button and drag in the desired direction.

> Release the mouse button when you're done to copy the selected assignment value to all grid cells you touched while dragging.

> **Save** your changes via the toolbar or **Refresh** without saving to revert your changes.

### 7.6.2 Display ETC sums outside of visible time range

Via the **Columns** button in the upper toolbar, you can display **ETC** sums for assignments outside the visible time range, i.e., before or after the visible period.

The **ETC before** and **ETC after** columns display the total hours before or after the visible period.

Click on a value in the **ETC before** column to shift the visible period back, such that the first ETC value in that direction is at the end of the new range .

Click on a value in the **ETC after** column to shift the visible period ahead, such that the first ETC value in that direction is at the start of the new range.

### 7.6.3 Display Options

Use the buttons and menus in the toolbar to select the start date and period and to specify how many periods to display at once. Display options for this view are also available in the **Timeslices** tab of the **Preferences**, see "7.18.2 Timeslices" on page 121.

### 7.6.4 Saving or Reverting Changes

Changes made to assignments won't be saved directly

Your changes will only be applied when you save them via the toolbar. You can easily identify unsaved changes via the red triangle in a field.

Refresh the view without saving to revert your changes.

Projects will automatically be locked for editing by other users while unsaved changes exist. This is indicated by a padlock icon. Saving or reverting your changes will unlock the project. If your session is interrupted before a project is unlocked, you or any **ARP Admin** can unlock it via the context menu. Please note that this is only possible for projects that were locked due to changes made in itd Advanced Resource Planning or the itd Portfolio Optimizer.

# 7.7 Editing Custom Time-Scaled Money Values

Via the **Layout** tab of your **Preferences**, you can select custom time-scaled **Money** values as left or right values, see "Cell Configuration" on page 123.

With **Show Gantt Bars for Assignments** turned off in the **Visualization** menu in the toolbar, you can edit the displayed assignment grid values.

You can edit custom time-scaled **Money** values even if they're displayed in the left half of a cell.

To do so, click on the left hand side value to edit. This will replace the regular right hand side value, and you can edit it in the right half of the cell. Confirming via the keyboard or clicking in another field will update the left hand side value, and the regular right hand side value will reappear.

If you have also selected the value as a column, that column will also be updated on all levels.

Changes will only be applied when you save them via the toolbar. You can easily identify unsaved changes via the red triangle in a field.

Refresh the view without saving to revert your changes.

Projects will automatically be locked for editing by other users while unsaved changes exist. This is indicated by a padlock icon. Saving or reverting your changes will unlock the project. If your session is interrupted before a project is unlocked, you or any **ARP Admin** can unlock it via the context menu. Please note that this is only possible for projects that were locked due to changes made in itd Advanced Resource Planning or the itd Portfolio Optimizer.

## 7.7.1 Integrating a Custom Time-Scaled Money Value

Displaying and editing custom time-scaled **Money** values in the field list and grid requires adding the field via the field configuration. All other steps are optional.

**Administration**

> Add the field via the field configuration, see "9.11 Configuring List and Filter Fields" on page 155.
  - Optionally, disable the automatic conversion for the field by selecting **Ignore Conversion**.
  - Also optionally, select the desired resource types, e.g., **Material**, **Equipment** and **Expense**.
  - This step requires membership in the **ARP Admin** group.

> Optionally, via the **itd AE Preferences** lookup, restrict editing the **ETC**, such that **ETC** can't be entered for resource types for which you wish to enter **Money** values only (e.g., **Material**, **Equipment** and **Expense**) see "9.12.27 Editable Resource Types" on page 170.
  - This step requires the global **Administration – Application Setup** right, which Clarity PPM application administrators have by default.

**Configuration Options**

> Add the field as a sum column, see "7.17.6 Columns" on page 115.

> Select it as a grid value, see "Cell Configuration" on page 123.

# 7.8 Editing List Fields

Click table cells in the left hand side hierarchic list to edit the displayed investments, team entries, phases, tasks, milestones and assignments.

Changes will only be applied when you save them via the toolbar. You can easily identify unsaved changes via the red triangle in a field.

Refresh the view without saving to revert your changes.

Projects will automatically be locked for editing by other users while unsaved changes exist. This is indicated by a padlock icon. Saving or reverting your changes will unlock the project. If your session is interrupted before a project is unlocked, you or any **ARP Admin** can unlock it via the context menu. Please note that this is only possible for projects that were locked due to changes made in itd Advanced Resource Planning or the itd Portfolio Optimizer.

## 7.8.1 Renaming Investments, Projects Phases, Tasks and Milestones

You can rename investments, phases, tasks and milestones as follows.

> Click in the associated row in the **Name** column and press [F2] or [Return].

> Enter the desired name.

> Press [Return] to confirm or [Esc] to cancel.

Alternatively, you can rename investments, phases, tasks and milestones via the context menu.

## 7.8.2 Editing the IDs of Phases, Tasks and Milestones

If **Auto-numbering** is disabled for the **ID** field of tasks, you can edit the IDs of phases, tasks and milestones. To do this, click in the respective field and enter the desired ID.

You can't edit the IDs of investments, resources, roles and teams that are also displayed in this view.

## 7.8.3 Editing the Start, Finish and Duration of Objects

Via the list, you can edit the **Start**, **Finish** and **Duration** of non-project investments, phases, tasks and assignments. You can't change the **Start** and **Finish** of projects and custom investment types directly, as they are derived from the total duration of associated phases, tasks and milestones.

You can only cange the **Start** and **Finish** of tasks and assignments while the status is **Not started** and no actuals exist for them. The status check can be turned off, see "9.12.28 Edit Task and Assignment Start and Finish Regardless of Status on page 171.

> Changes of the **Start** and **Finish** will also affect parent and sub-objects as well as the distribution of assignments, see below).
By default, changing the **Start** of a phase or task will keep the Duration by shifting the Finish for the same number of work days according to the base calendar. This feature may be disabled by Clarity PPM application administrators via the itd AE Preferences lookup, see "9.12.30 Keep Task Duration" on page 171. In this case, changing the **Start** won't affect the **Finish**.
In any case, you can change the **Start** without the **Finish** by dragging the left edge of a phase or task bar in the interactive Gantt chart, see "7.13 Interactive Gantt Bars" on page 105.

> Alternatively, you can change the **Duration** of a phase or task. The duration is measured in work days within the actual duration of the phase or task according to the base calendar. The **Finish** date will be adjusted accordingly.
- Changing the duration of a phase will change its tasks proportionally (e.g., shrinking a phase from 8 to 6 weeks will reduce an associated task from 4 to 3 weeks).
- Likewise, changing the duration of a non-project investment or task (directly or indirectly via a phase) will change its assignments proportionally.

- Extending an assignment beyond the **Start** or **Finish** of the associated task or non-project investment will also extend the task or non-project investment, such that it includes the assignment. Likewise, extending a task will extend the associated phase, if required. Extending a phase will extend the associated project, if required.
- Shortening has no effect on associated objects.
- Changing the duration of an assignment will redistribute the remaining effort over the working hours during the new remaining duration (between **Actuals Thru** and **Finish**) with the same proportions as before the change. The effort per period can then no longer be edited until the changes are applied or rejected.
  With the **Update Allocation** in the **General** tab of the **Preferences**, the new assignment values will also be entered as allocation for the same periods.

### 7.8.4 Editing the Estimated Effort of Tasks and Assignments

You can edit the **Estimated Effort** of a task or assignment.

To do this, click into the **Est. Effort** field in the associated row and enter the desired value.

> **Estimated Effort** entered for a task will be distributed proportionally to assigned resources, roles and teams with respect to the previous **Estimated Effort** values. For example, if you change the effort for a task from 40 to 80 hours, with one resource booked for 30 hours and another one for 10 hours, the first one will be set to 60 hours and the second one will be set to 20 hours.
> The effort per assignment and the effort per period can then no longer be edited until the changes are applied or reverted.

> If you change the **Estimated Effort** for an assignment, directly or via the associated task, the new value will be evenly distributed over the working hours during th assignment's new remaining duration (between **Actuals Thru** and **Finish**), overwriting the previous planning. The effort per period can then no longer be edited until the changes are applied or reverted. With **Update Allocation** in the **General** tab of the **Preferences**, the new assignment values will also be entered as allocation for the same periods.

### 7.8.5 Editing a Custom Time-Scaled Money Value for an Assignment

You can edit any custom time-scaled **Money** value displayed as a visible column for an assignment in very much the same fashion as for editing the **Estimated Effort**: click into the field in the associated row and enter the desired value.

> Changing a custom time-scaled **Money** value for an assignment will distribute that value over the working hours during the assignment considering the **Loading Pattern**, overwriting the previous planning.

### 7.8.6 Editing the Loading Pattern of Project Task Assignments

For project task assignments, you can edit the **Loading Pattern**. Click in the field to select a value.

### 7.8.7 Editing the Staff OBS Unit of Team Entries

You can edit the **Staff OBS Unit** Field of team entries in the list. To do this, click in the field.

Click on the magnifier icon to select an OBS unit or the trashcan icon to clear the field.

### 7.8.8 Editing the Investment Status

For investments, you can edit the **Investment Status**. Click in the field to select a value.

### 7.8.9 Editing Additional Fields

You can edit additional list fields made editable by **ARP Admins**, see "9.11 Configuring List and Filter Fields" on page 155.

This is supported for most Clarity PPM standard fields as well as all custom fields displayed in the list except for fields of the **Calculated**, **Formula** and **URL** types.

To edit lookup fields, click in the field first. This gives you the following editing options.

> Type to open a list of propositions and select the desired value.
> Click on the magnifier icon to select a value from a filterable list.
> Click on the trashcan icon to empty the field (for lookup fields with only one value) …
> … or remove the selected item (for lookup fields with multiple values).

### 7.8.10 Copying List Fields

You can copy editable field values up or down via drag-and-drop. This feature supports lookup fields and respects restrictions on column values.

Copying field values this way requires the start and target row to be of the same type, i.e., investment, phase/task, milestone, or assignment.

For investments, the investment type must also be the same, e.g., project or idea. All custom investment types are considered to be the same type for this feature.

## 7.9 Investment Actions

Right-click on an investment in the **Name** column to open the context menu.

**ARP Admins** can reorder, restrict or remove the standard actions listed here and add custom actions, see "9.10 Defining Actions" on page 153.

### 7.9.1 Open Properties

Here you open the detail view for the selected investment in a new browser tab.

### 7.9.2 Create Task

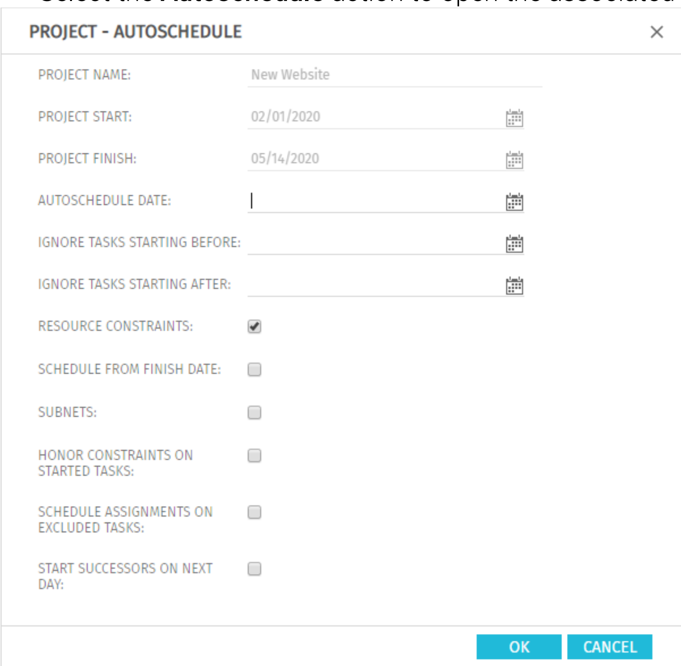
The **Create Task** action is available in the context menu for projects. For details about this feature, see the "7.12.1 Creating Phases, Tasks and Milestones" section on page 102.

### 7.9.3 Autoschedule

The **Autoschedule** action is available in the context menu for projects and applies the Clarity PPM standard process for autoscheduling a project.

Autoschedule a project as follows:

> Hover over the desired project.
> Click on the three dots displayed next to the project's name.
> Select the **Autoschedule** action to open the associated overlay window:




> This offers exactly the same options as the autoscheduler for the **PPM Gantt** view, except for the **Publish after Scheduling** option, which is not available in itd Advanced Resource Planning.
When you confirm by clicking OK, autoscheduling of the project will instantly be initiated.
Please refer to the Clarity PPM documentation for information about the autoscheduler.

### 7.9.4 Allocate From Estimates

For each team entry of the selected investment, this will enter the total estimated effort entered for all associated assignments as allocation.

This action will be directly applied without further confirmation.

### 7.9.5 Remove Lock

The **Remove Lock** action is available in the context menu of projects locked due to changes made by users in itd Advanced Resource Planning or the itd Portfolio Optimizer.

Every user may select this context menu action to unlock projects that were locked due to their own changes made in itd Advanced Resource Planning or the itd Portfolio Optimizer.

**ARP Admins** may select this context menu action to unlock projects that were locked due to changes made by any user in itd Advanced Resource Planning or the itd Portfolio Optimizer.

Projects that were locked due to changes that weren't made in itd Advanced Resource Planning or the itd Portfolio Optimizer can only be unlocked via the associated button in the project's properties.

### 7.9.6 Expand All

This expands the selected investment and reveals its full sub-structure.

### 7.9.7 Jump to Start Date

Shift the timeline such that it starts with the investment's start date.

### 7.9.8 Rename

Here you rename the selected investment. [Return] confirms, [Esc] cancels. The change will only be applied when saving via the toolbar. Refresh without saving to undo.

### 7.9.9 Show Investment Team

This filters the resource list by the selected investment, such that only that investment's team members are displayed.

## 7.10 Phase, Task and Milestone Actions

Right-click on a phase, task or milestone in the **Name** column to open the context menu.

**ARP Admins** can reorder, restrict or remove the default actions listed here and add custom actions, see "9.10 Defining Actions" on page 153.

### 7.10.1 Open Properties

Here you open the detail view for the selected phase, task or milestone in the same browser tab on top of itd Advanced Resource Planning.

### 7.10.2 Create Task

This action is available in the context menu for phases and tasks without assignments. The latter will become phases when a task is created for them.

For details about this feature, see "7.12.1 Creating Phases, Tasks and Milestones" on page 102.

### 7.10.3 Indent or Outdent Task

The **Indent Task** and **Outdent Task** actions are available for phases, tasks and milestones. Here you include them in a preceding task or phase or remove them from one.

See section "7.12.3 Indenting and Outdenting " on page 102 for details about this.

### 7.10.4 Delete

The **Delete** action is available for tasks without actuals and for milestones. You will be asked to confirm before anything is deleted.

You can only delete phases after outdenting or deleting any included tasks and milestones.

### 7.10.5 Task Dependencies

The **Task Dependencies** action is available for tasks and milestones of projects.

This will open a window where you can see and edit dependencies between tasks and milestones.

See section "7.12.5 Creating and Editing Task and Milestone Dependencies" on page 103 for details.

### 7.10.6 Expand All

This expands the selected phase and reveals its full sub-structure.

### 7.10.7 Jump to Start Date

Shift the timeline such that it starts with the phase's or task's start date or with the milestone date.

### 7.10.8 Rename

Here you rename the selected phase, task or milestone. [Return] confirms, [Esc] cancels. The change will only be applied when saving via the toolbar. Refresh without saving to undo.

# 7.11 Assignment Actions

Right-click on an assignment (resource, role or team) in the **Name** column to open the context menu. **ARP Admins** can reorder, restrict or remove the standard actions listed here and add custom actions, see "9.10 Defining Actions" on page 153.

## 7.11.1 Open Properties

Here you open the selected assignment's detail view on top of itd Advanced Resource Planning in the same browser tab.

## 7.11.2 Allocate From Estimates

This will enter the total estimated effort entered for all assignments associated with the selected assignment's team entry as allocation.
This action will be directly applied without further confirmation.

## 7.11.3 Delete

The **Delete** action is available for assignments without actuals. You will be asked to confirm before anything is deleted.

## 7.11.4 Jump to Start Date

Shift the timeline such that it starts with the assignment's start date.

## 7.11.5 Unassign to Effective Role

The **Unassign to Effective Role** action is available for assignments of resources and teams without actuals. The assignment will be reset to its effective role. If that role already as a team entry in the investment, a new team entry will be created for a copy of the role.

## 7.11.6 Show candidates (by Role, OBS and Skills)

The **Show candidates (by Role, OBS and Skills)** action is available for role assignments.
This will apply the following filters to the **Resources** list, adding missing filter fields automatically.

- **Primary Role** will be the selected role.
- **Resource OBS Unit** will be the **Staff OBS Unit** of the associated team entry, if selected.
- **Skills** will be the skills selected for the associated team entry, if any.
- **Skill Matching** will require to match all skills (alternatively, you can require to match at least one).

***Please note:*** *The **Skills** filter and matching aren't available by default due to a switch from the **Skills Hierarchy** to the flat MUX skill system in Clarity 16.2.3. However, you can either enable the old **Skills Hierarchy** or add a **Skills** field to role team entries to use MUX skills via these feature toggles:*

- 9.12.7 Use Old Skills Hierarchy: see page 162.
- 9.12.8 Use MUX Skills on Role Team Entries: see page 163.

# 7.12 Working with Phases, Task and Milestones

The following sections describe creating and editing phases, tasks and milestones for a project or custom investment type.

## 7.12.1 Creating Phases, Tasks and Milestones

Create a task for an investment, phase or task as follows. Creating a task for another task makes the latter a phase. Please note that only tasks without assignments can be turned into phases.

> Hover over the desired investment or phase.
> Click on the three dots displayed next to the name of the investment or phase.
> Select the **Create Task** action to insert a new row for the new task.
> In the menu at the left edge of the new task row, select the desired task type: **Task**, **Key task**, **Milestone** or **Key Milestone**.
> Enter the desired **Name**, **Start**, **Finish** and/or **Duration**.
> If **Auto-numbering** is disabled for the **ID** field of tasks, you can enter the desired ID.
> Click on the **Save** button in the toolbar to confirm. To cancel, click on the **Refresh** button in the toolbar and select **No** when asked whether pending changes should be saved.

## 7.12.2 Working with Phases

Convert a task without assignments into a phase as follows:

> Create associated task, see previous section.
> Indent following phase, task or milestone, see following section.

You can then create other tasks and milestones for the new phase, see previous section.

Add existing phases, tasks and milestones to a phase as follows:

> Indent following phase, task or milestone, see following section.
> Drag phase, task or milestone on the phase, see section "7.12.4 Moving and Copying Phases, Tasks and Milestones" on page 103.

The depth of phases and sub-phases is unlimited.

Outdenting or deleting all associated phases, tasks and milestones will turn a phase back into a task.

## 7.12.3 Indenting and Outdenting Phases, Tasks and Milestones

You can indent a phase, task or milestone under a phase or under another task without assignments, making the latter a phase. Outdent or delete all phases, tasks and milestones belonging to a phase to make that phase a task again. Indent or outdent via the context menu in the left hand side hierarchic list view. To open the context menu, hover over the desired task or milestone and click on the three dots, then select the desired action:

> **Indent Task** following a phase or another task.
> **Outdent Task** moves an indented phase, task or milestone up one level. Outdent all phases, tasks and milestones belonging to a phase to make it a task again.

You can also change the structure level of a phase, task or milestone by adding it to an existing phase or by removing it from a phase via drag-and-drop, see following section "7.12.4 Moving and Copying Phases, Tasks and Milestones" on page 103.

The indenting and outdenting of tasks will be directly applied without confirmation.

### 7.12.4 Moving and Copying Phases, Tasks and Milestones

You can modify the order and hierarchy of phases, tasks and milestones via drag-and-drop. Changes will instantly be applied without confirmation.

Hold the [Ctrl] key while executing the listed steps to copy the selected object instead of moving it. This is only possible for objects whose ID doesn't already exist in the target project or is empty. Phases will be copied with their full sub-structure.

Assignments will also be copied. Please note that this may require creating team entries for assigned resources, roles and teams. In this case, you will need the **Resource – Soft Book** right in addition to the **Project – Edit** right to perform this operation.

> To this end, click on the icon of the object you want to move, hold the mouse button and drag the object to its target position.

> Drag up to insert before or down to insert after the target object.

> Release the mouse button to perform the action.

### 7.12.5 Creating and Editing Task and Milestone Dependencies

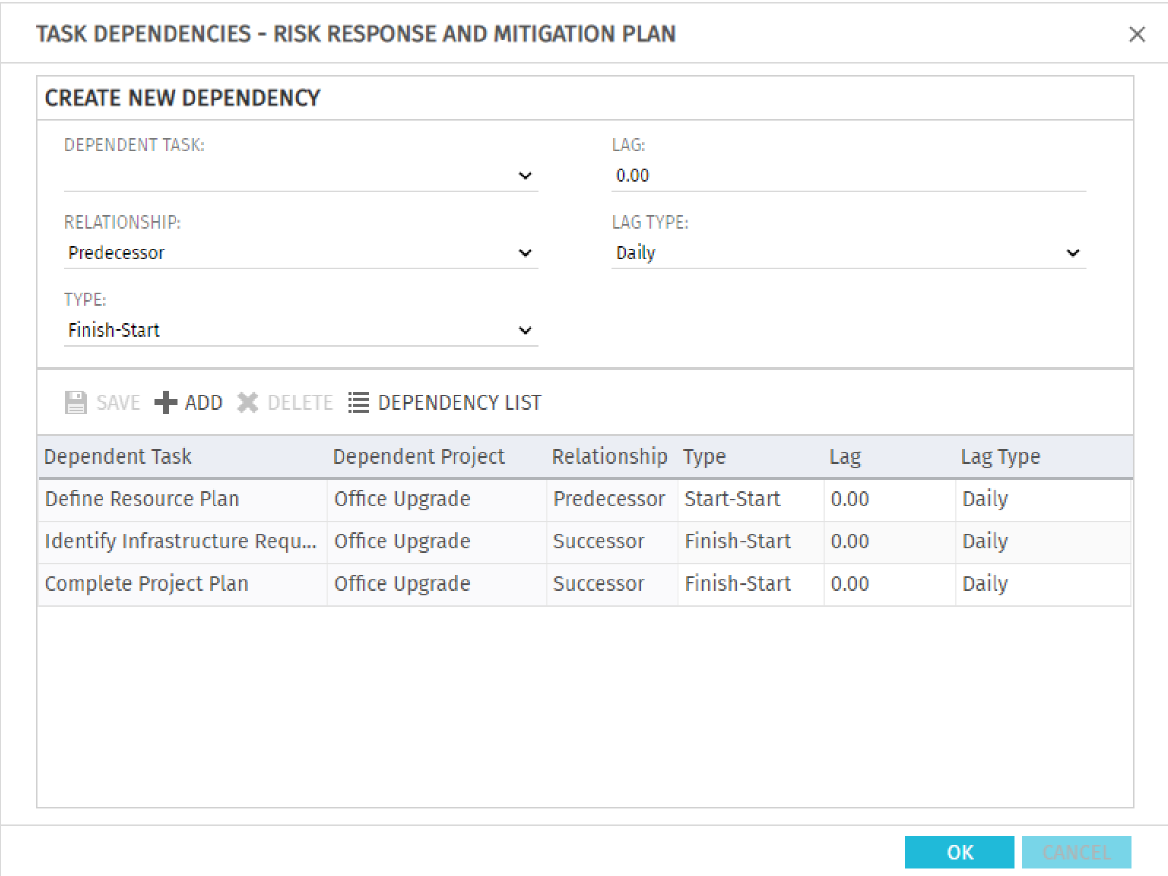
Task and Milestone Dependencies are only supported in projects.

Satisfied dependencies between tasks and milestones will be displayed in the Gantt chart as blue arrows. Violated dependencies will be displayed as red arrows. You can open a list view of a task's or milestone's dependencies, in which you can also create new dependencies, as follows.

> Double-click on a dependency in the Gantt chart OR

> Hover over a task or milestone in the left hand side hierarchic list, click on the three dots and select the **Task Dependencies** action from the associated context menu.

Either of these actions will open the **Task Dependencies** view for the selected task or milestone:



- To create a new dependency, enter parameters in the upper half of the view under **Create New Dependency**. Enter a daily or percentual **Lag** to require a delay between the predecessor and its successor. If you enter a percentual lag, specify the duration of the required delay as a percentage of the predecessor's duration. Click on **Add** in the toolbar in the middle to create the dependency.
  With the **Move successors on dependency creation** option selected in the **General** tab of the **Preferences**, new dependencies that are initially violated will automatically be satisfied by moving the selected successor and any of its own successors ahead. Please note that existing violated dependencies between the successor and its own successors won't be satisfied in this process.
  Also, if the selected successor or any of its successors has actuals or the **Exclude from Autoscheduling** property, that task or milestone and its successors won't be moved.
- Select fields in the list in the lower half of the view to edit them.
- Select a dependency in the list in the lower half of the view and click **Delete** to delete it.
- Select a dependency in the list in the lower half of the view and click **Open** to open its detail view.

## 7.13 Interactive Gantt Bars

In **Assignments by Investment** mode, you can toggle the display of interactive Gantt bars separately for investments, tasks, phases and milestones as well as assignments via the **Visualization** menu in the toolbar. When Gantt bars for tasks and milestones are turned on, their dependencies will also be displayed. Additionally, you can highlight critical paths for projects via the **Visualization** menu.

### 7.13.1 Gantt Bars for Investments

Gantt bars for investments will be displayed when selecting **Show Gantt Bars for Investments** in the **Visualization** menu in the toolbar.

Via drag and drop, you can shift and resize Gantt bars for non-project investments, but not for projects and custom investment types.

Changes made to non-project investments will also be applied to all associated assignments, even if they aren't displayed. Shifting a non-project investment will shift all associated assignments accordingly. Resizing a non-project investment will resize all associated assignments proportionally (e.g., reducing an investment's duration from 8 to 6 weeks will reduce an associated assignment from 4 weeks to 3 weeks).

This will also redistribute the ETC values displayed per period for all affected assignments over the capacity of the respective resource, role or team during the assignment's new duration, with the same proportions as before the change.

The **Start** and **Finish** of projects and custom investment types depend on the associated phase, task and milestone dates and may not be modified directly.

### 7.13.2 Gantt Bars for Tasks and Phases

Gantt bars for tasks and phases, as well as diamond shapes for milestones and dependencies between tasks and milestones will be displayed when selecting **Show Gantt Bars for Tasks and Phases** in the **Visualization** menu in the toolbar.

In **Assignments by Investment** mode, you can shift and resize Gantt bars for tasks and phases via drag and drop. You can also shift milestones via drag-and-drop.

You can only cange the **Start** and **Finish** of tasks while the status is **Not started** and no actuals exist for them. The status check can be turned off, see "9.12.28 Edit Task and Assignment Start and Finish Regardless of Status on page 171.

Shifting or resizing a phase will shift or resize associated tasks and milestones accordingly. (e.g., reducing an phase's duration from 8 to 6 weeks will reduce an associated task from 4 weeks to 3 weeks). In the same way, shifting or resizing a task directly or indirectly via a phase will affect associated assignments proportionally.

This will also redistribute the ETC values displayed per period for all affected assignments over the capacity of the respective resource, role or team during the assignment's new duration, with the same proportions as before the change.

Shifting or extending a task or milestone beyond the **Start** or **Finish** of the associated phase will also extend the phase, such that it includes the task or milestone. Likewise, extending a phase will extend the associated project, if required.

Shortening a task or phase has no effects on their parent objects.

### 7.13.3 Gantt Bars for Assignments

Gantt bars for assignments will be displayed when selecting **Show Gantt Bars for Assignments** in the **Visualization** menu in the toolbar.

While Gantt bars are displayed for assignments, you can't edit the ETC values per period directly.

You can shift and resize assignments via drag and drop of their Gantt bars.

You can only cange the **Start** and **Finish** of assignments while the status is **Not started** and no actuals exist for them. The status check can be turned off, see "9.12.28 Edit Task and Assignment Start and Finish Regardless of Status on page 171.

Changing an assignment this way will redistribute the ETC displayed per period for the respective assignment over the capacity of the assigned resource, role or team during the new remaining duration (between **Actuals Thru** and **Finish**) with the same proportions as before the change.

Shifting or extending an assignment beyond the **Start** or **Finish** of the associated task or non-project investment will also extend the task or investment, such that it includes the assignment. When a task is extended this way, the change will also be applied to the associated phase and project, if required to include the new task duration.

Reducing the durations of assignments won't reduce the duration of the associated task, phase or investment.

### 7.13.4 Displaying Agreements as Investment Dependencies

Select **Show Agreements** in the **Visualization** menu in the upper toolbar to display agreements as dependencies between investments.

When both investments connected via an agreement are visible in the Gantt chart, the dependency will be displayed as an arrow pointing from predecessor to successor.

Additionally, you can add the **Predecessors** and **Successors** columns to the upper left hand side list via the **Columns** button in the upper toolbar. These columns always display connected investments, even when **Show Agreements** is disabled or no arrow is displayed because both investments aren't simultaneously visible in the Gantt chart.

### 7.13.5 Creating and Editing Task Dependencies

You can create dependencies between tasks and milestones by clicking on the desired predecessor and, holding the mouse button, dragging the dependency onto the desired successor.

When you create a dependency like this, depending on your **Preferences** and the properties of the selected successor and any own successors it may have, those may be moved automatically in order to satisfy the new dependency, see "7.12.5 Creating and Editing Task and Milestone Dependencies" on page 103.

Double-click on an existing dependency's arrow to open that dependency for editing.

### 7.13.6 Dependencies on Tasks and Milestones Not Currently Displayed

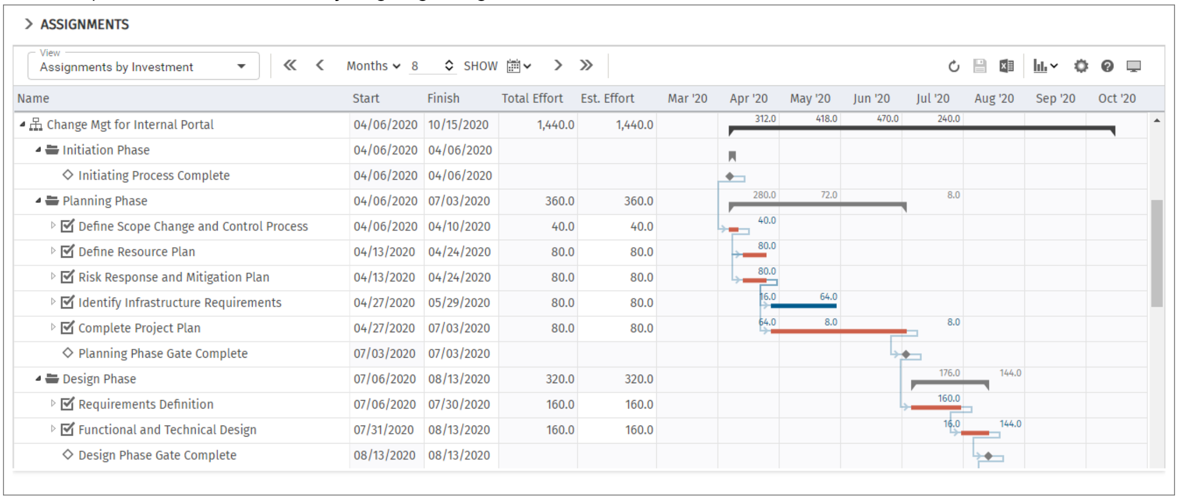
A special icon indicates dependencies from tasks and milestones that aren't currently displayed.

This icon next to a task or milestone indicates it has at least one dependency connecting it with another task or milestone not currently displayed. The icon will be red when such a dependency is violated. Click on the icon to display the associated projects and tasks or milestones.

### 7.13.7 Displaying Critical Paths for Projects

In the **Visualization** menu, you can toggle display of critical paths for projects.

Critical paths are indicated by highlighting the associated tasks in red:




### 7.13.8 Saving or Reverting Changes

New dependencies between tasks and milestones of projects will be directly created without confirmation.

Changes made to Gantt bars won't be saved directly

Your changes will only be applied when you save them via the toolbar. You can easily identify unsaved changes via the red triangle in a field.

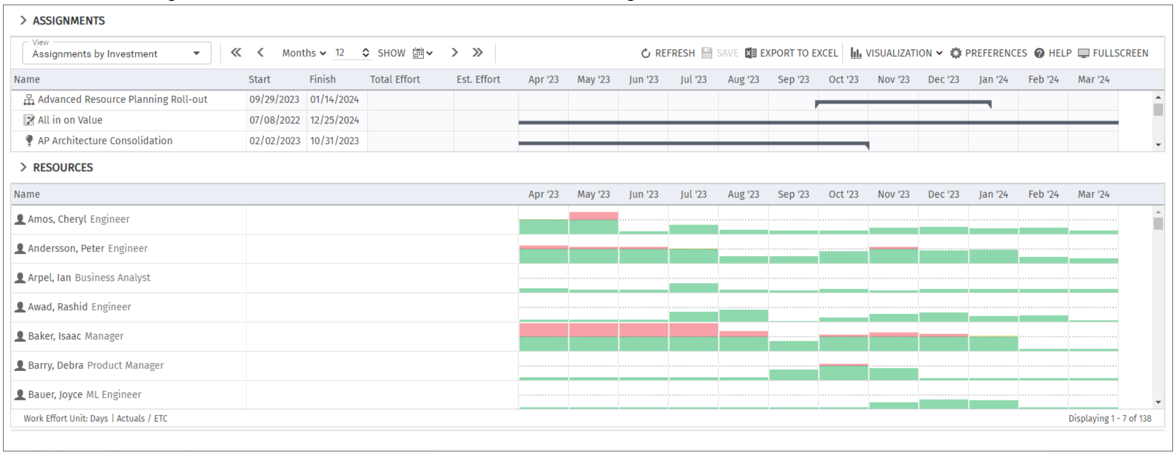
Refresh the view without saving to revert your changes.

Projects will automatically be locked for editing by other users while unsaved changes exist. This is indicated by a padlock icon. Saving or reverting your changes will unlock the project. If your session is interrupted before a project is unlocked, you or any **ARP Admin** can unlock it via the context menu. Please note that this is only possible for projects that were locked due to changes made in itd Advanced Resource Planning or the itd Portfolio Optimizer.

## 7.14 Resource Utilization and Capacity

Without a resource filter, the lower view section displays a list of all resources, roles and teams for which you have access rights. Roles are listed at the end. Select resource fields to display via the **Columns** button in the lower toolbar, see "7.17.6 Columns" on page 115.

Optionally, the global utilization and capacity of listed resources, roles and teams are also displayed. These values consider all assignments in the displayed period, regardless of your assignment filter. The utilization and remaining capacity displayed for resources, roles and teams are based on the total remaining estimated effort from all of these assignments.




### 7.14.1 Visualization: Histogram or Color-Coded Grid

There are two display modes for the utilization, histogram or color-coded grid. You can edit coloring thresholds for both in the **Utilization** tab of your **Preferences**, see "7.18.3 Utilization" on page 122.

> With **Show Histogram** in the **Visualization** menu in the toolbar, the global utilization and capacity of resource, roles and teams will be displayed per period as a histogram chart. This shows the utilization from assignments as a colored stack matched against a dotted capacity line. Colors indicate optimal utilization or overload.

- The dotted horizontal line displays the resource, role or team capacity.
- Workload below the utilization warning threshold is colored green.
- Further workload is colored yellow if it is between the utilization warning and high utilization thresholds or red if it is above the high utilization threshold.
- The low utilization threshold has no effect here.

Please note that in single investment mode, the histogram can also be set up to compare the **Total Effort** and the **Allocation** or **Hard Allocation**. For details about using this feature, see section "7.15 Comparing Assignments with Allocations on page 112.

> Without the histogram, when **Show Utilization** is selected in the **General** tab of the **Preferences**, the global utilization and remaining capacity of the listed resources, roles and teams will be displayed per period in a grid.

Cell colors indicate a low (white), optimal (green), high (yellow) or very high (red) utilization of a resource, role or team in a period, based on their associated total capacity and the total remaining estimated effort from assignments in that period.

### 7.14.2 Filtering the View

The following filters are available for the resource list.

- Resource list filter by resources, roles and teams, see "4.4 Filtering the Resource List" on page 27.
- Resource list filter by investment: hover over an investment **Name** and click on the three dots, then select the **Show Investment Team** action from the context menu.

### 7.14.3 Displaying Utilization and Capacity Details

Hover over a grid cell or histogram segment to display the associated values. Click on a grid cell or histogram segment to display a list of associated investments. Click on a column header to sort this list. Select team entry fields to display in the list via the **Columns** button in the lower toolbar, see "7.17.6 Columns" on page 115.

### 7.14.4 Opening Resource, Role or Team Properties

Click on the name of a resource, role or team in the list to open their properties in a new browser tab.

### 7.14.5 Selecting an Assignment's Resource, Role or Team

When you select an assignment in the left hand side hierarchic list in the upper view section, the assigned resource, role or team will be scrolled to and selected in the utilization view.

Other than by clicking in resource list rows directly, this selection will not trigger the investment highlighting described in the following section.

### 7.14.6 Investment Highlighting

When you click in the row of a resource, role or team in the resource list:

- … all investments with associated team entries will be highlighted in the upper view section.
- … all other investments will be greyed out in the upper view section unless they’re expanded.
- … clicking on another resource, role or team will highlight their investments instead.
- … clicking on a highlighted investment will preserve the highlighting.
- … clicking on another investment will remove the highlighting.

***Please note:*** *This works only for one resource, role or team at a time. Multiple selections aren't supported. Only the resource, role or team you last clicked on will be regarded as selected.*

### 7.14.7 Displaying Actuals

Optionally, the workload and remaining capacity for the current period include **Actuals** already entered for that period, see "9.12.25 Consider Actuals for Remaining Capacity" on page 170.

When displayed In the grid view, actuals aren't included in the utilization but deducted from the remaining capacity. When displayed in the histogram, they are included in the utilization.

### 7.14.8 Role Capacities

The total capacity of a role is the total capacity of all resources with that primary role.

The free capacity of a role is its total capacity less the **ETC** from all assignments of these resources.

The remaining capacity of a role is its free capacity less the **ETC** from its own assignments.

### 7.14.9 Creating and Replacing Assignments via Drag-and-Drop

You can create team entries and assignments as well as replace assigned resources, roles and teams in existing assignments by dragging resource list items on tasks, non-project investments or assignments in the upper view section.

See the following sections for details about the individual processes that are available in this way.

Team entries and assignments will only be created when saving via the toolbar. You can easily identify unsaved assignments via the red triangle in a field.

Refresh the view without saving to revert your changes.

Projects will automatically be locked for editing by other users while unsaved changes exist. This is indicated by a padlock icon. Saving or reverting your changes will unlock the project. If your session is interrupted before a project is unlocked, you or any **ARP Admin** can unlock it via the context menu. Please note that this is only possible for projects that were locked due to changes made in itd Advanced Resource Planning or the itd Portfolio Optimizer.

### 7.14.10 Assigning a New Resource, Role or Team

Drag a resource, role or team from the resource list onto a task or non-project investment to create a new assignment.

For projects, the **Assignment Pool** settings are applied when creating new assignments:

> With the **Team only** setting, you can add only project members as resources, roles and teams.

> With the **Resource Pool** setting, you can add any available resources, roles and teams.

### 7.14.11 Replacing an Assigned Resource, Role or Team

To replace the resource, role or team in an existing assignment, drag the replacement resource, role or team from the resource list onto that assignment.

For projects, the **Assignment Pool** settings are applied when creating new assignments:

> With the **Team only** setting, you can add only project members as resources, roles and teams.

> With the **Resource Pool** setting, you can add any available resources, roles and teams.

You can deactivate the replacement of roles in assignments, see "9.12.32 Disable Role Replacement for Assignments" on page 172.

### 7.14.12 Quick Full Replacement of Assignments

To add the **ETC** value of an assignment to another existing assignment under the same task or non-project investment, drag the replacement assignment on the assignment to replace.

The replaced assignment is then deleted and its **ETC** value is added to the assignment you have replaced it with.

### 7.14.13 Copying an Assignment for a New Resource, Role or Team

To duplicate an assignment in the same task or non-project investment for another resource, role or team, hold the [Ctrl] key while dragging the new resource, role or team onto the target assignment.

For projects, the **Assignment Pool** settings are applied when creating new assignments:

> With the **Team only** setting, you can add only project members as resources, roles and teams.

> With the **Resource Pool** setting, you can add any available resources, roles and teams.

### 7.14.14 Copying an Assignment to Another Task or Investment

You can copy any assignment by dragging the resource, role or team representing it in the upper view section onto any other project task or non project investment object.

This has the advantage that some information will be copied from the original assignment and associated team entry:

- **Assignment:** Assignment Role, Loading Pattern
- **Team Entry:** Staff OBS Unit, Investment Role, Teamname

Team entry fields will only be copied if a new team entry is created.

When you copy a resource assignment to an investment in which the selected resource already has a team entry, the existing team entry will be used.

When you copy a role assignment from one investment to another one in which the selected role already has a team entry, you will be asked whether to create a new team entry for the role or whether to use the existing team entry, see the following section. This is only possible for roles; resources may not have more than one team entry in any investment.

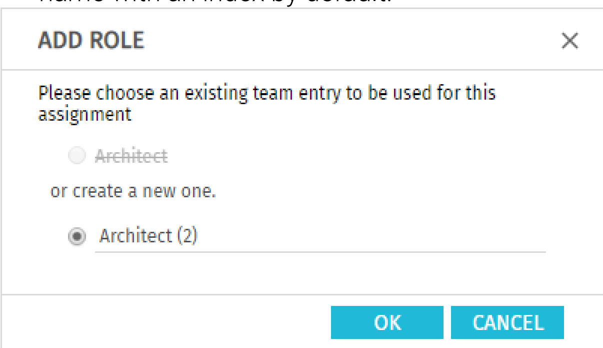
For projects, the **Assignment Pool** settings are applied when creating new assignments:

- With the **Team only** setting, you can add only project members as resources, roles and teams.
- With the **Resource Pool** setting, you can add any available resources, roles and teams.

### 7.14.15 Creating Multi-Role Assignments

In **Assignments by Investment** mode, you can assign roles to tasks and non-project investments multiple time by creating an indexed copy of the role, e.g., "Architect" becomes "Architect (2)".

- Drag the role from the resource list onto a task or non-project investment.
- If the role already has an assignment in the task or investment, you will be prompted to create a new team entry for a copy of the role with a name or your choice, which will be the role's original name with an index by default.




You can deactivate this dialog, such that a multiple role allocation will automatically create a new team entry for a copy of the role, see "9.12.31 Automatically Create New Team Entries for Roles" on page 171.

- Team entries created this way will be retained even if all associated assignments are deleted.
- Dragging a role onto an investment where it already has a team entry will prompt you to select an existing team entry for the new assignment or to create a new team entry for the role.
- You may only select existing team entries if they don't have assignments for the target task or non-project investment yet.

# 7.15 Comparing Assignments with Allocations

In **Assignments by Investment** views in single investment mode, you can graphically compare associated assignments and allocations in the histogram.

There are two modes for comparing the total estimated effort (**Actuals** + **ETC**) of assignments to either the **Allocation** or the **Hard Allocation** of associated team entries.

***Please note:*** *As opposed to the default mode of the histogram, which shows the global utilization of all displayed resources, roles and teams, when comparing assignments with the planned or hard allocation, only values entered for the current investment will be displayed.*

> Select the value to compare in the **Layout** tab of the **Preferences**, see "Histogram Comparison (Single Investment Mode Only)" on page 123.

> Hover over the histogram to display units and figures.

> Use the **Team – Team only** filter to hide resources, roles and teams that have no team entries in the current investment

> Use the context menu for the investment or for any assignment to **Allocate from Estimates**. This will enter the total estimated effort entered for all associated assignments as allocation:
  - For each team entry of the investment, or
  - for the team entry of the selected assignment only.

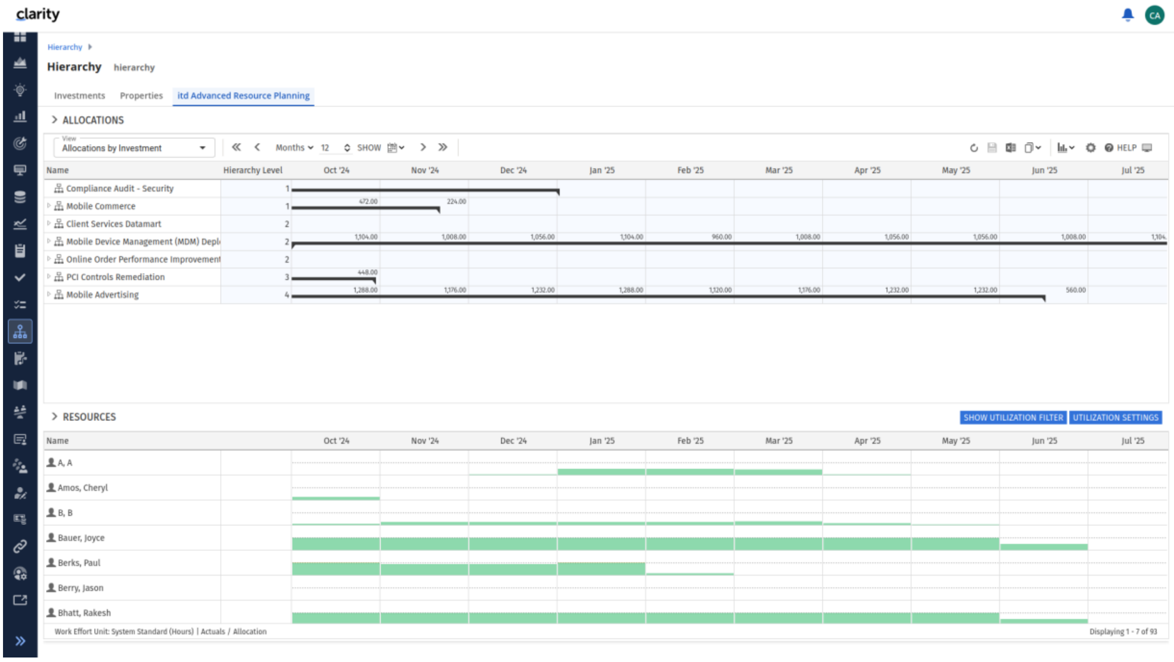
  This action will be instantly applied without further confirmation.

# 7.16 Hierarchy Mode

You can integrate itd Advanced Resource Planning in the **Hierarchies** module for hierarchies of the **Investment** type.

Please note that the hierarchy mode feature is only available after adding an itd Advanced Resource Planning channel to the hierarchy blueprint, see "9.7 Planning Modes" on page 151.

With the hierarchy mode, hierarchies offer an itd Advanced Resource Planning tab.




In this mode, the view is automatically filtered to show only investments included in the hierarchy. The selection for the **Investments** filter field is also reduced to include only these investments.

You can display and sort by the **Hierarchy Level** field, which displays an investment's hierarchy level.

***Please note:*** *This mode is currently in the beta phase and is included as a preview. Further features are planned. We look forward to receiving feedback on this mode.*

## 7.17 Toolbar Features

In **Assignments by Investment** mode, you have access to the following features in the toolbars.

### 7.17.1 View

The **View** menu at the top left displays the active view and allows switching views, saving the current view under a new name and editing your favorites and view sharing settings under **Manage**.

If you have the right to save changes to the current view, the **Save View** button is active. If it isn't, you can still save a copy of the current view.

You can find details of the features available here under "3 Views" on page 22.

### 7.17.2 Display Period

To the right of the **View** menu, you have access to various controls for changing the display period.

The slice period and number of slices are saved with the view and are synchronized with the **Timeslices** tab of the **Preferences**, see "7.18.2 Timeslices" on page 121.

Most options available there are also available in the toolbar, with the exception of fiscal periods as slice periods.

The start date won't be saved. The view automatically starts with the current date.

**Previous Periods:** Here you switch back by the selected display period (e.g., 6 months).

**Previous Period:** Here you switch back by the selected slice period (e.g., 1 month).

**Slice Period and Number of Slices:** Select the slice period (e. g, months) and enter the number of slices in the field or use the buttons to raise or lower the number.
Then click on **Show** to update the view with the new slice settings.

**Jump to a Certain Date:** Here you select the view's start date in a calendar view.

**Next Period:** Here you switch ahead by the selected slice period (e.g., 1 month).

**Next Periods:** Here you switch ahead by the selected display period (e.g., 6 months).

### 7.17.3 Refresh and Save

Use the **Refresh** and **Save** buttons to discard or save your changes.

**Refresh:** This will reload all data. If there are unsaved changes, you will be asked if you want to save first. Answering no will discard your changes.

**Save:** This will save all unsaved changes you have made in the current view.

### 7.17.4 Export to Excel

You can export all rows and columns of the upper view to Microsoft Excel.

**Export to Excel:** Here you export the upper view to Microsoft Excel.
The data will be exported as displayed, with the same filter settings and with all rows and columns that are currently displayed. For list entries with sub-elements, these sub-elements will only be exported if their parent item has been expanded, such that they are currently visible.
The Excel export is limited to a maximum of 15,000 rows.

### 7.17.5 Filter

In **Assignments by Investment** mode, there are two separate filter field selections available for the main and utilization view in the respective toolbars.

**ARP Admins** may add additional fields to either filter field selection. This includes most Clarity PPM standard fields and most custom fields of any object for which default filter fields are available for the respective filter, including investment sub-type fields. For details about the procedure and supported objects and fields, see "9.11 Configuring List and Filter Fields" on page 155.

**Filter - Assignments:** The **Filter** button in the upper toolbar opens the filter field selection for the assignment filter. All filter fields you select here will be available for filtering the main view by investments, resources/roles/teams, team entries, tasks and assignments.
See section "4.8 Default Filter Fields for the Main View" on page 29 for details about the default filter fields available for this view.

**Filter - Resources:** The **Filter** button in the lower toolbar opens the the filter field selection for resource filter. All filter fields you select here will be available for filtering the resources, roles and teams displayed in the utilization view.
See section "4.9 Default Filter Fields for the Utilization View" on page 35 for details about the default filter fields available for this view.

Select available filter fields for the left and right filter column of the respective view.

> You can add filter fields to either column as well as determine their order via drag-and-drop:
- Drag filter fields from the **Available Filters** list to either column to add them.
- Drag filter fields from either column to the **Available Filters** list to remove them.
- Drag filter fields between columns or within a column to change their position.

> Alternatively, you can use the buttons to the left of a column list in order to…
- … add fields selected in its left neighbor list (right arrow).
- … remove fields selected in the list and add these fields to its left neighbor list (left arrow).
- … change the field order by moving selected fields up or down in the list (up/down arrow).

### 7.17.6 Columns

In **Assignments by Investment** mode, there are three separate selections for the columns displayed in the main view, resource list and capacity popup, respectively.

**ARP Admins** may add additional fields to either column selection and enable editing for them. This includes most Clarity PPM standard fields and most custom fields of any object for which columns are selectable by default in the respective view, including investment sub-type fields.

For details about the procedure and supported objects and fields, see "9.11 Configuring List and Filter Fields" on page 155.

**Main View Columns:** The **Columns** button in the upper toolbar opens the column selection for the list at the top left of the main view.
The following fields are always displayed in the first column:
- **Name (investment, phase, task, milestone, resource/role/team)**
- **Primary role (resource), parent role (role):** a resource's primary role is displayed next to their name. A role's parent role is displayed next to their name, if applicable. You can turn this off via a feature toggle, see "9.12.6 Hide Primary/Parent Role Name" on page 162.

The following fields can be selected for display by default:
- **Actuals, Est. Effort, Total Effort (investment, phase, task, assignment):** worked, remaining and total hours; the **Total Effort** field displays the sum of **Est. Effort** and **Actuals**.

- **Duration (phase, task, assignment):** duration in work days according to the base calendar; editable
- **Effective Role (assignment):** resource/role/team assignment role
- **ID (investment, phase, task, milestone, resource/role/team)**
- **Investment Status (investment):** editable
- **Investment Type (investment)**
- **Loading Pattern (assignment):** editable
- **Predecessors, Successors (investment):** investments connected via agreements
- **Staff OBS Unit (team entry):** editable
- **Start, Finish (investment, phase, task, milestone, assignment):** editable for phases, tasks, milestones and assignments
- **Display ETC Sums outside of Visible Time Range:** see page 93.

**Resource Columns:** Click on the **Columns** button in the lower toolbar and select **Resource Columns** in the associated menu to open the column selection for the resource list.

The following information is always displayed in the first column of the resource list:

- **Icon (resource/role/team)**
- **Name (resource/role/team)**
- **Primary role (resource), parent role (role):** a resource's primary role is displayed next to their name. A role's parent role is displayed next to their name, if applicable. You can turn this off via a feature toggle, see "9.12.6 Hide Primary/Parent Role Name" on page 162.

The following additional resource list fields can be selected by default:

- **Department (resource/team)**
- **Department OBS, Location (resource/team)**
- **Is External (resource/role/team)**
- **Manager (resource/role/team)**
- **Skills (resource/role/team)**

**Capacity Popup Columns:** Click on the **Columns** button in the lower toolbar and select **Capacity Popup Columns** in the associated menu to open the column selection for the capacity popup, which opens when clicking on a utilization segment in the utilization view.

The following information is always displayed in the capacity popup:

- **Type Icon and Name (investment)** – first column
- **Segment Utilization (assignments)** – last column

The following additional team entry fields can be selected for the capacity popup by default:

- **Start, Finish (team entry)**
- **Staff OBS Unit (team entry)**
- **Default Allocation (team entry)**
- **Effective Role (team entry)**
- **Skills (role team entry):** only with additional configuration, see page 162.

### 7.17.7 Sort

In **Assignments by Investment** mode, you have access to the following sort options.

In addition to the fields listed here, any custom fields without lookups are available.

Use the button next to the sort field selection to determine the sort order, ascending or descending.

If you don't select the respective default field, items will be sorted by that field on the second level in ascending order.

Sort

- **Sort Investments By: Name (Default)** or **Investment Type**.
- **Sort Tasks By: WBS Sort (Default)**, **Finish Date**, **Name** or **Start Date**.
  Moving, indenting and outdenting tasks is only possible with **WBS Sort**.
- **Sort Assignments By: Name (Default)**, **Effective Role**, **Finish Date** or **Start Date**.

### 7.17.8 Visualization

In **Assignments by Investment** mode, you have access to the following options under **Visualization**.

**Visualization > Assignment**

**Show Assignments:** Here you toggle displaying of assignments.
Without assignments, the view will load faster and show only investments, phases, tasks and milestones. See section "7.1.2 Displaying Assignments" on page 90 for details.

**Show Critical Path:** Here you toggle displaying of critical paths for projects in the Gantt chart.
See section "7.13.7 Displaying Critical Paths for Projects" on page 107 for details.

**Visualization > Cell:** Here you toggle the display of trend arrows for deviations of the left cell value from the right one, see "7.3 Displaying Trend Arrows" on page 91.

**Visualization > Gantt Bars:** Here you toggle the display of Gantt bars for investments, tasks and phases, and assignments, and of agreements as dependencies between investments, see "7.13 Interactive Gantt Bars" on page 105.

**Visualization > Utilization**

**Show Histogram:** Here you switch between the two display modes for resource utilization and capacity, see "7.14 Resource Utilization and Capacity" on page 108.

### 7.17.9 Preferences

**Preferences:** Here you configure other view settings such as display fields and filter fields, see "7.18 Preferences" on page 119. Preferences will be saved separately for each view.

### 7.17.10 Help

**Help:** Here you can find information about itd Advanced Resource Planning and about asking for support. If you do, please always specify your version, which you can find under **Info**.

### 7.17.11 Fullscreen

**Fullscreen:** In full screen mode, the Clarity PPM navigation will be hidden, such that more items can be displayed in itd Advanced Resource Planning.
You can turn the navigation back on using the same button.

### 7.17.12 Administration

**ARP Admins** may access the following global administration settings via the right-most button in the upper toolbar labelled **Administration**.

**Administration**

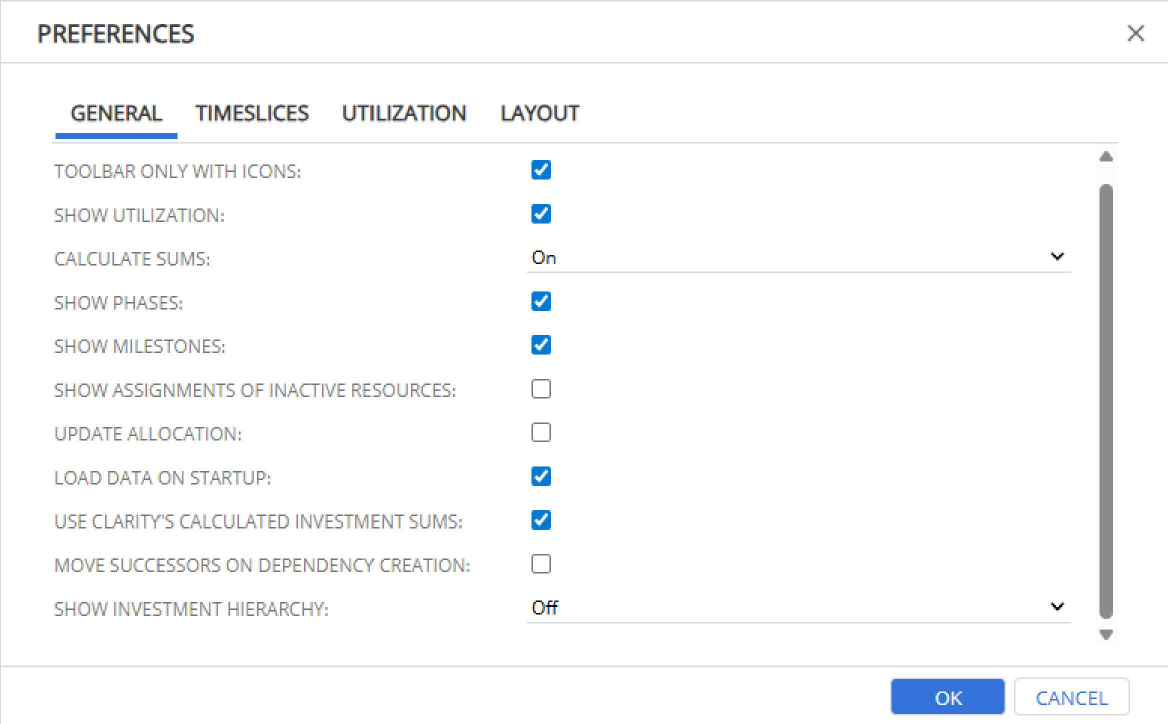
- **Views > Auto-Expand Previously Expanded Investments When Opening the View:** Deselect this to skip restoring the expand state of investments when opening the view, which may result in shorter loading time.
- **Views > Restrict 'Share with Everyone' Functionality:** This lets you restrict sharing views with everyone to selected groups. If you don't select any group, all users may share views with everyone.
- **Staffing > Disable Replacement Options:** This lets you hide unused replacement options for the **Allocations by Investment** mode to make staffing easier for users.
  All other view modes are not affected by this setting.

# 7.18 Preferences

Click on the **Preferences** button in the toolbar to edit view options.

## 7.18.1 General

Settings in the **General** tab control the display and behavior of the current view.




> **Toolbar Only with Icons:** select this to hide the captions on buttons with icons, reducing the width of the toolbar.

> **Show Utilization:** when the histogram isn't displayed, this setting controls whether the global total utilization and remaining capacity of roles, resources and teams are displayed per period in the resource list. The setting has no effect on the histogram.

> **Calculate Sums:** specify here whether totals of the workload fields (in the assignment modes: **Estimated Effort**, **Actuals** and **Total Effort**) should be calculated and displayed for all aggregation levels (In this mode: task, phase and investment).
You can choose between **On** (display global sums), **Filtered** (apply assignment filter to global sums) and **Off** (don't calculate sums).
This setting affects the loading time, with **Off** being the fastest and **Filtered** the slowest method.

> **Show Phases:** specify here whether to display phases between investments and associated tasks. If phases are not displayed, tasks associated with phases will be displayed directly under their respective investments.

> **Show Milestones:** specify here whether milestones should be displayed.

> **Show Assignments of Inactive Resources:** display or hide assignments of inactive resources.

> **Update Allocation:** specify here whether assignments entered for tasks should automatically be entered as allocation in the associated projects as well.

> **Load Data on Startup:** specify here whether data is loaded directly when opening itd Advanced Resource Planning or only after clicking the filter button.

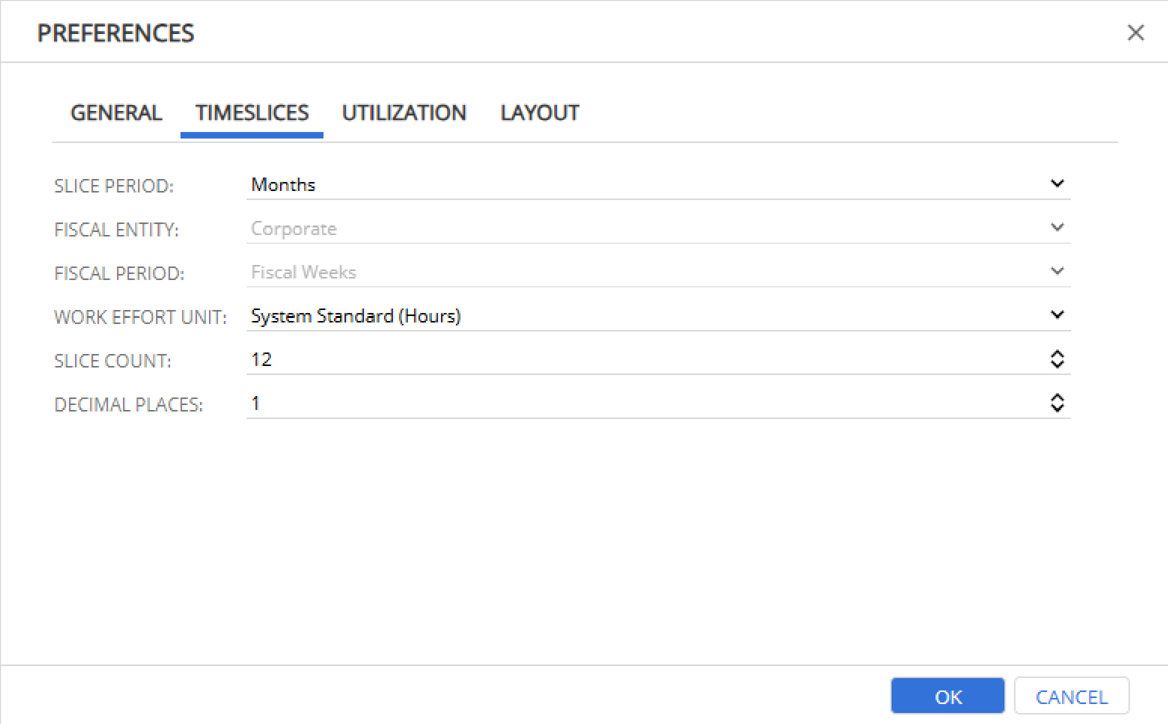
> **Use Clarity PPM's Calculated Investment Sums:** when **Calculate Sums** is set to **On** or **Filtered**, select this to display the investment sums calculated by Clarity PPM, which are also displayed in investment lists, instead of letting itd Advanced Resource Planning calculate these sums.

- **Move Successors on Dependency Creation:** with this option, new dependencies that are initially violated will automatically be satisfied by moving the selected successor and any of its own successors ahead. Please note that existing dependencies between the successor and its own successors that are already violated won't be automatically satisfied in this process.
  Also, if the selected successor or any of its successors has actuals or the **Exclude from Autoscheduling** property, that task or milestone and its successors won't be moved.
- **Show Investment Hierarchy:** in **Assignments by Investment** mode, select this to display parent and sub-investments of investments explicitly selected via your assignment filter, see "4.8.2 Selecting Investment Hierarchies in by Investment Modes" on page 30.

  Hiding investment hierarchies may speed up loading the view.

### 7.18.2 Timeslices

Settings in the **Timeslices** tab control the time axis scale and display period.




> **Slice Period:** enter the planning period here. Possible settings are **Days**, **Weeks**, **Months**, **Quarters**, **Calendar Years** and, if configured, **Fiscal Period**.
The selection may be limited by Clarity PPM application administrators via the **itd AE Preferences** lookup, see "9.12.3 Restrict Time Slice Periods in the Preferences and in the Toolbar" on page 161. In this case, only options enabled via the associated lookup value will be available here and in the toolbar of itd Advanced Resource Planning and the itd Portfolio Optimizer.

> **Fiscal Entity** and **Fiscal Period:** with the **Fiscal Period** setting, if multiple fiscal entities or periods have been defined in your Clarity PPM system, select the desired fiscal entity and period here.

> **Work Effort Unit:** specify the unit for efforts here. By default, the **System Standard** will be applied. Alternatively, **Hours**, **Days** or full time equivalents (**FTE**) are available for selection here.
The selection may be limited by Clarity PPM application administrators via the **itd AE Preferences** lookup, see "9.12.4 Hide Work Effort Units" on page 161. In this case, only options not disabled via the associated lookup value will be available.

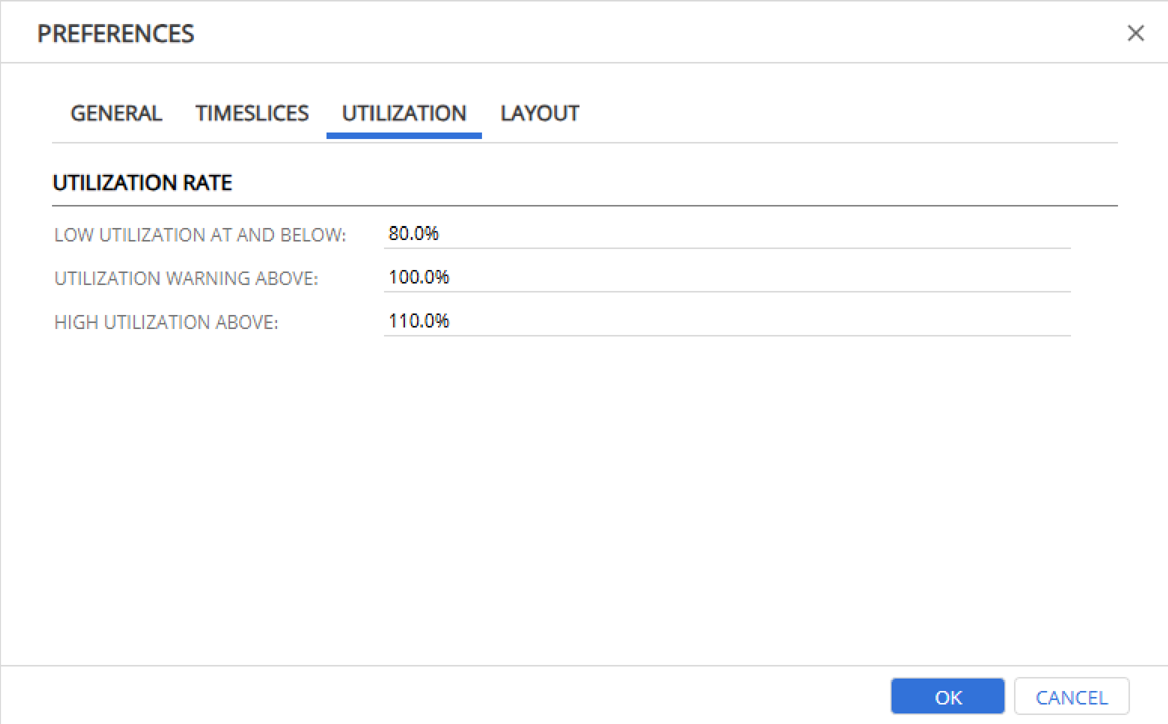
> **Slice Count:** enter the amount of slices to be displayed.

> **Decimal Places:** enter the desired number of decimals for entering and displaying assignments.

### 7.18.3 Utilization

Settings in the **Utilization** tab control the display and calculation of the utilization.

In **Assignments by Investment** mode, the utilization will be calculated from assignments.

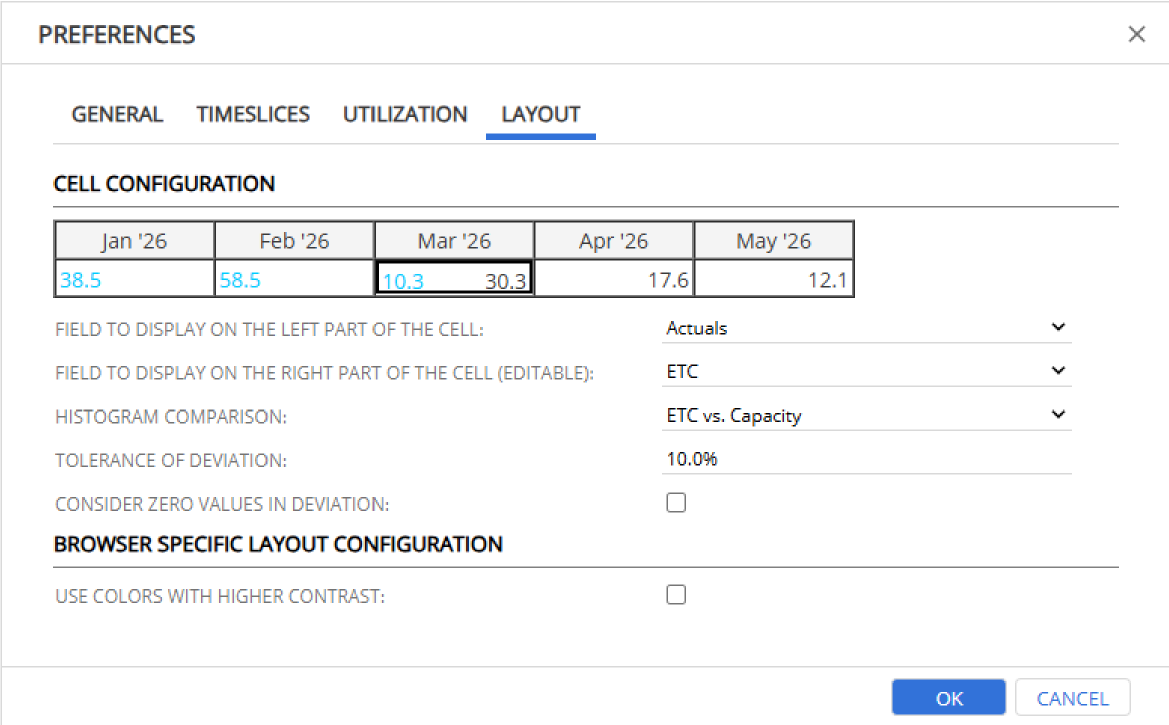



> The **Utilization Rate** controls the visualization of low or high utilization.
  - **Low Utilization at and Below:** upper utilization boundary below which resources, roles and teams will be marked as lowly utilized with a grey background in the respective period. Utilization between the thresholds for low utilization and utilization warning (e.g., above 80% to 100% as according to the screenshot) will be marked as optimal with a green background. This threshold value has no effect in the histogram.
  - **Utilization Warning Above:** lower utilization boundary above which resources, roles and teams will be marked as slightly over-utilized with a yellow background in the respective period. This applies as long as the utilization stays at or below the lower boundary for high utilization. In the histogram, workload is colored green up to this threshold value.
  - **High Utilization Above:** lower boundary above which resources, roles and teams will be marked as highly over-utilized with a red background in the respective period. In the histogram, workload is colored yellow up to this threshold value and red above.

### 7.18.4 Layout

Settings in the **Layout** tab control the assignment grid display and sorting fields.

In single investment mode, you also select display values for the histogram here.




> **Cell Configuration:** here you configure the right hand side assignment grid.

- **Field to Display on the Left Part of the Cell:** Empty (no field), ETC, Actuals, Capacity or time-scaled **Money** value, see "7.7 Editing Custom Time-Scaled Money Values" on page 94.
- **Field to Display on the Right Part of the Cell (Editable):** ETC or time-scaled **Money** value, see "7.7 Editing Custom Time-Scaled Money Values" on page 94.

These settings only affect the right hand side assignment grid.

Use the **Columns** button in the upper toolbar to display or hide sum columns for **Estimated Effort**, **Actuals**, **Total Effort** or custom time-scaled **Money** values in the upper left hand side list, see "7.17.6 Columns" on page 115.

To display aggregated totals for tasks, phases, and investments in the assignment grid and sum columns, set **Calculate Sums** to **On** or to **Filtered** in **General**, see "Calculate Sums" on page 119.

- **Histogram Comparison (Single Investment Mode Only):** Toggle histogram mode. For details about this feature, see section "7.15 Comparing Assignments with Allocations on page 112.

  **ETC vc. Capacity:** Column is **ETC**, line is **Capacity**.

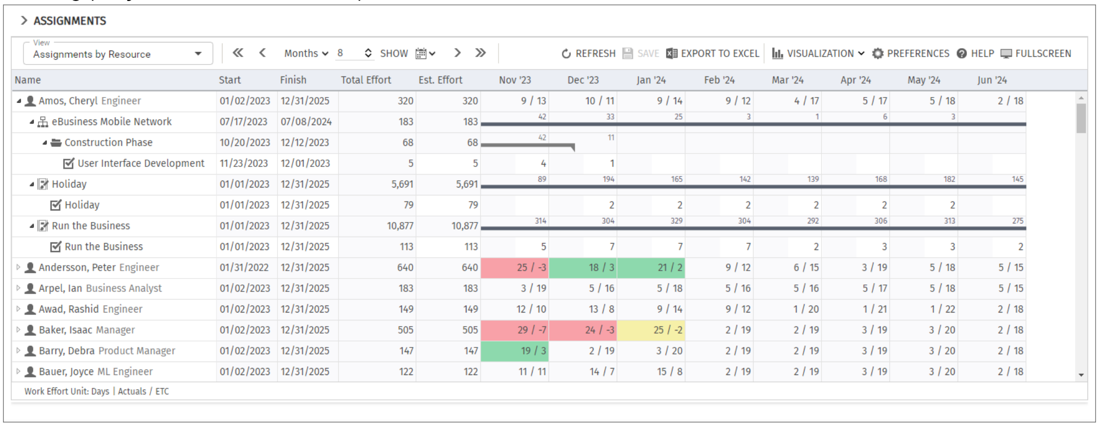
  **Effort vs. Allocation:** Column is total effort (**Actuals** + **ETC**), line is **Allocation**.

  **Effort vs. Hard Allocation:** Column is total effort (**Actuals** + **ETC**), line is **Hard Allocation**.
- **Tolerance of Deviation:** Treshold value for displaying trend arrows to indicate a deviation of the left cell value from the right one when activated via **Visualization**.
- **Consider Zero Values in Deviation:** Display an arrow even if one of both values is zero.

> **Browser Specific Layout Configuration:** Here you can select to **Use Colors with Higher Contrast**. This setting is global per user and will affect all of your views in itd Advanced Resource Planning.

# 8 Assignments by Resource

The **Assignments by Resource** mode groups investments, tasks and assignments by the assigned resources, roles and teams.
Their utilization and capacity are displayed directly in the right hand side assignment grid view.
Editing project structures isn't possible in this mode.




## 8.1 Displayed Data

In **Assignments by Resource** mode, the following data will always be displayed:

> Resources, roles and teams.
> Investments (custom types included) with team entries for displayed resources, roles and teams.
> Associated tasks and assignments.
> Team entries without assignments.
> You can limit the selection of data records via filter conditions, see "4 Filters" on page 25.

### 8.1.1 Show Utilization

With the **Show Utilization** option selected in the **General** tab of the **Preferences**, the utilization and capacity of a resource, role or team will be displayed in the associated row, see "8.13 Resource Utilization and Capacity" on page 133.

### 8.1.2 Assignments to Non-Project Investments

For each non-project investment, a task with the same name will be displayed under which associated assignments are listed.

### 8.1.3 Roles with Multiple Assignments

For roles assigned multiple times to a project task or non-project investment, the associated task will be displayed once for each assignment of the role.

### 8.1.4 Task and Assignment Fields

Tasks and associated assignments will be displayed in the same row. All displayed fields that exist for assignments as well as the assignment values will be taken from the assignment. Fields only existing for tasks (e.g., **ID** or additional fields only existing for tasks) will be taken from the task.

### 8.1.5 Displaying Phases and Parent Investment Hierarchies

Displaying phases and parent investment hierarchies is optional and can be toggled for each in the **General** tab of the **Preferences**.

## 8.2 Displayed and Editable Values per Period

In the **Layout** tab of the **Preferences**, you can select an optional display value for assignments per period, see "Field to Display on the Left Part of the Cell" on page 143.

> **Left (read-only):** Empty (no value), ETC, Actuals, Capacity or a custom time-scaled **Money** value. You can edit the latter in the right half of the cell after clicking on its left hand side current value, see "7.7 Editing Custom Time-Scaled Money Values" on page 94.

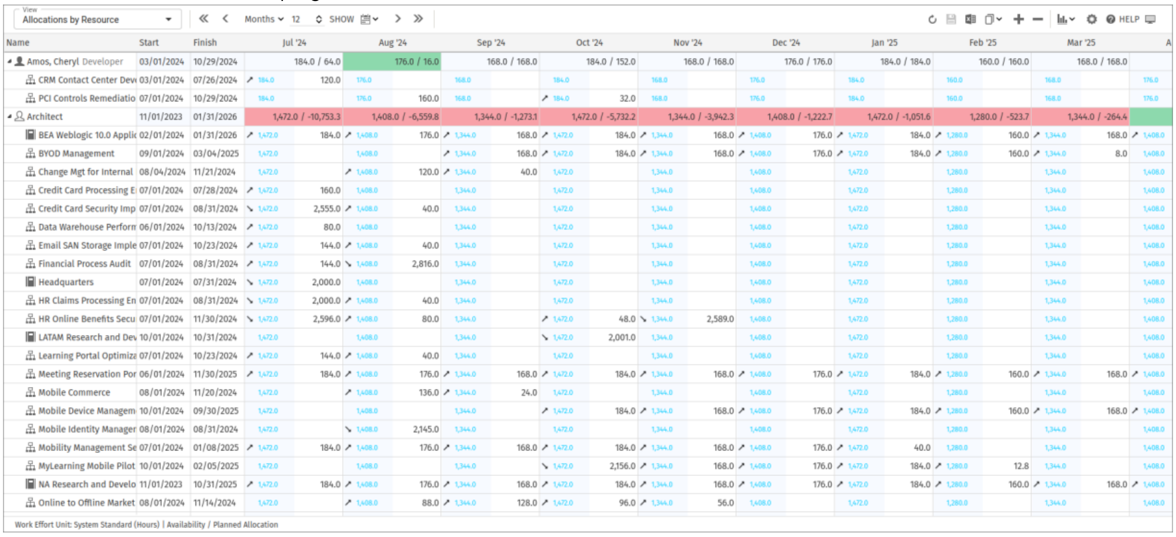
> **Right (editable):** In this mode, the right hand side editable value is always ETC.

The displayed utilization and capacity are always based on the ETC per period from assignments in this mode, see "8.13 Resource Utilization and Capacity" on page 133.

The configured values are displayed when hovering over the assignment grid with the associated preferences setting, see "9.12.10 Show Grid Hints for by Resource Views" on page 163.

## 8.3 Displaying Trend Arrows

Via the **Visualization** menu, you can display trend arrows comparing the left and right cell values, see "Visualization > Cell" on page 137.



For instance, this can help you to easily compare actuals with the originally planned values.

Wherever both values are present and different, a little arrow at the left cell edge visualizes a negative or positive deviation of the left cell value from the right cell value.

In the **Layout** tab of the **Preferences**, you can set a threshold percentage In the **Layout** tab of the **Preferences**, you can set a threshold percentage for the minimal deviation to visualize via arrow, see "Tolerance of Deviation" on page 143.

## 8.4 Displaying Investment Descriptions

Hover over an investment to display its description.

This feature may be deactivated via the **itd AE Preferences Lookup** by Clarity PPM application administrators, see "9.12.29 Hide Description Tooltips" on page 171.

## 8.5 Estimated Effort, Actuals and Total Effort Sums

Use the **Columns** button in the toolbar to display or hide sum columns for **Estimated Effort**, **Actuals**, **Total Effort** (**Estimated** + **Actuals**) or custom time-scaled **Money** values in the left hand side list, see "8.15.6 Columns" on page 136.

The fields display the respective values for each assignment.

With **Calculate Sums** in the **General** tab of the **Preferences**, aggregated sums will also be displayed per phase, investment and resource, role or team. Depending on your selection, global sums (**On**) or **Filtered** sums (using the assignment filter) will be displayed, see "Calculate Sums" on page 139.

You can edit the **Estimated Effort** for assignments by entering a value, see "8.8.2 Editing the Estimated Effort of Assignments" on page 128.

# 8.6 Editing Assignments

With **Show Gantt Bars for Assignments** turned off in the **Visualization** menu in the toolbar, you can edit the **ETC** per period that is displayed in the right half of each cell. Click on the right half of a cell to edit its value. The white background of a cell or its right half indicates that the value can be edited.

The left half of a cell displays **Actuals**, **Capacity** or any custom time-scaled **Money** value, see "Field to Display on the Left Part of the Cell" on page 143.

The configured values are displayed when hovering over the assignment grid with the associated preferences setting, see "9.12.10 Show Grid Hints for by Resource Views" on page 163.

The **Estimated Effort** will automatically be updated with the sum of efforts per period you enter.

Entering workload outside the duration of an assignment will expand it accordingly. If required, parent objects will also be expanded, such that they include the assignment.

Alternatively, enter the total **Estimated Effort** for an assignment in the associated column, see "8.8.2 Editing the Estimated Effort of Assignments" on page 128.

With **Update Allocation** in the **General** tab of the **Preferences**, the new assignment values will also be entered as allocation for the same periods.

## 8.6.1 Copying Grid Cells via Drag and Drop

Via drag and drop, you can copy the value of a grid cell to neighboring cells, either horizontally, on the timeline, or vertically, to other tasks:

- > Click in the cell you wish to copy, hold the mouse button and drag in the desired direction.
- > Release the mouse button when you're done to copy the selected assignment value to all grid cells you touched while dragging.
- > **Save** your changes via the toolbar or **Refresh** without saving to revert your changes.

## 8.6.2 Display ETC sums outside of visible time range

Via **Columns** in the **Preferences**, you can display ETC sums for assignmens that are before or after the visible period. The **ETC before** and **ETC after** columns display the total hours before or after the visible period. Click on values in these columns to shift the visible period there.

## 8.6.3 Display Options

Use the buttons and menus in the toolbar to select the start date and period and to specify how many periods to display at once. Display options for this view are also available in the **Timeslices** tab of the **Preferences**, see "8.16.2 Timeslices" on page 141.

## 8.6.4 Saving or Reverting Changes

Changes made to assignments won't be saved directly

Your changes will only be applied when you save them via the toolbar. You can easily identify unsaved changes via the red triangle in a field.

Refresh the view without saving to revert your changes.

Projects will automatically be locked for editing by other users while unsaved changes exist. This is indicated by a padlock icon. Saving or reverting your changes will unlock the project. If your session is interrupted before a project is unlocked, you or any **ARP Admin** can unlock it via the context menu. Please note that this is only possible for projects that were locked due to changes made in itd Advanced Resource Planning or the itd Portfolio Optimizer.

## 8.7 Editing Custom Time-Scaled Money Values

In **Assignments by Investment** mode, you can only select custom time-scaled **Money** values as left hand side values. However, you can still edit them here as in **Assignments by Investment** mode, see "7.7 Editing Custom Time-Scaled Money Values" on page 94.

## 8.8 Editing List Fields

In **Assignments by Resource** mode, the left hand side hierarchic list supports editing of the **Start**, **Finish**, **Estimated Effort** and **Loading Pattern** assignment fields, of the **Staff OBS Unit** team entry field, of the **ID** phase field and of most additional fields, if editing was enabled for them by **ARP Admins**, see "9.11 Configuring List and Filter Fields" on page 155.

Renaming investments, phases and tasks is not possible in this view mode.

Click on any field you wish to edit and enter or select the desired value.

Changes will only be applied when you save them via the toolbar. You can easily identify unsaved changes via the red triangle in a field.

Refresh the view without saving to revert your changes.

Projects will automatically be locked for editing by other users while unsaved changes exist. This is indicated by a padlock icon. Saving or reverting your changes will unlock the project. If your session is interrupted before a project is unlocked, you or any **ARP Admin** can unlock it via the context menu. Please note that this is only possible for projects that were locked due to changes made in itd Advanced Resource Planning or the itd Portfolio Optimizer.

### 8.8.1 Editing the Start and Finish of Assignments

You can edit the **Start** and **Finish** of assignments in the list while the status is **Not started** and no actuals exist for them. The status check can be turned off, see "9.12.28 Edit Task and Assignment Start and Finish Regardless of Status on page 171.

Changing an assignment this way will redistribute the ETC over the working hours during the assignment's new remaining duration (**Actuals Thru** until **Finish**) in the same proportions as before the change. You can then no longer edit the ETC per period until you save or revert the change.

With **Update Allocation** in the **General** tab of the **Preferences**, the updated assignment values will also be entered as allocation for the same periods.

Shifting or extending an assignment beyond the **Start** or **Finish** of the associated task or non-project investment will also extend the task or investment, such that it includes the assignment. Extending a task this way will also extend the associated phase and project, if required to include the new task duration. Shortening assignments won't shorten the associated task, phase or investment.

### 8.8.2 Editing the Estimated Effort of Assignments

You can edit the **Estimated Effort** of assignments in the list. The entered value will be distributed evenly over the assignment's new remaining duration (between **Actuals Thru** and **Finish**), overwriting any previous planning. The effort per period can then no longer be edited until the changes are applied or rejected.

With **Update Allocation** in the **General** tab of the **Preferences**, the new assignment values will also be entered as allocation for the same periods.

### 8.8.3 Editing a Custom Time-Scaled Money Value for an Assignment

You can edit any custom time-scaled **Money** value displayed as a visible column for an assignment in very much the same fashion as for editing the **Estimated Effort**.

To do this, click into the field in the associated row and enter the desired value.

> Changing a custom time-scaled **Money** value for an assignment will distribute that value over the working hours during the assignment, overwriting the previous planning, considering the **Loading Pattern**.

### 8.8.4 Editing the Loading Pattern of Project Task Assignments

You can edit the **Loading Pattern** of project task assignments. Click in the field to select a value.

### 8.8.5 Editing the Staff OBS Unit of Team Entries

You can edit the **Staff OBS Unit** field of team entries in the list. To do this, click in the field. Click on the magnifier icon to select an OBS unit or the trashcan icon to clear the field.

### 8.8.6 Editing the ID of Phases

If **Auto-numbering** is disabled for the **ID** field of tasks, you can edit the IDs of phases. You cannot edit the IDs of roles, resources, investments and tasks displayed in this view.

### 8.8.7 Editing Additional Fields

You can edit most additional list fields for which **ARP Admins** have enabled editing, see "9.11 Configuring List and Filter Fields" on page 155.

This is supported for most Clarity PPM standard fields as well as all custom fields displayed in the list except for fields of the **Calculated**, **Formula** and **URL** types.

To edit lookup fields, click in the field first. This gives you the following editing options.

> Type to open a list of propositions and select the desired value.
> Click on the magnifier icon to select a value from a filterable list.
> Click on the trashcan icon to empty the field (for lookup fields with only one value) ...
> ... or remove the selected item (for lookup fields with multiple values).

### 8.8.8 Copying List Fields

You can copy editable field values up or down via drag-and-drop. This feature supports lookup fields and respects restrictions on column values.

Copying field values this way requires the start and target row to be of the same type, i.e., resource/role/team, investment, phase, task or assignment.

For investments, the investment type must also be the same, e.g., project or idea. All custom investment types are considered to be the same type for this feature.

# 8.9 Resource, Role and Team Actions

Right-click on a resource, role or team in the **Name** column to open the context menu.

**ARP Admins** can reorder, restrict or remove the standard actions listed here and add custom actions, see "9.10 Defining Actions" on page 153.

## 8.9.1 Open Properties

Here you open the detail view for the selected resource, role or team in a new browser tab.

## 8.9.2 Add Assignment

Here you open a selection of available project tasks. You can select any number of tasks. Once you click on **Add** to confirm, assignments for the selected tasks will be directly created and displayed.

## 8.9.3 Expand All

This expands the selected resource, role or team and reveals its full sub-structure.

## 8.9.4 Jump to Start Date

Shift the timeline such that it starts with the start date of the earliest investment for which an assignment is displayed for the selected resource, role or team.

# 8.10 Investment Actions

Right-click on an investment in the **Name** column to open the context menu.

**ARP Admins** can reorder, restrict or remove the standard actions listed here and add custom actions, see "9.10 Defining Actions" on page 153.

## 8.10.1 Open Properties

Here you open the detail view for the selected investment in a new browser tab.

## 8.10.2 Remove Lock

The **Remove Lock** action is available in the context menu of projects locked due to changes made by users in itd Advanced Resource Planning or the itd Portfolio Optimizer.

Every user may select this context menu action to unlock projects that were locked due to their own changes made in itd Advanced Resource Planning or the itd Portfolio Optimizer.

**ARP Admins** may select this context menu action to unlock projects that were locked due to changes made by any user in itd Advanced Resource Planning or the itd Portfolio Optimizer.

Projects that were locked due to changes that weren't made in itd Advanced Resource Planning or the itd Portfolio Optimizer can only be unlocked via the associated button in the project's properties.

## 8.10.3 Expand All

This expands the selected investment and reveals its full sub-structure.

## 8.10.4 Jump to Start Date

Shift the timeline such that it starts with the investment's start date.

# 8.11 Phase and Task Actions

Right-click on a phase or task in the **Name** column to open the context menu.

**ARP Admins** can reorder, restrict or remove the standard actions listed here and add custom actions, see "9.10 Defining Actions" on page 153.

## 8.11.1 Open Properties

This opens the detail view for the selected phase or task on top of itd Advanced Resource Planning in the same browser tab.

## 8.11.2 Allocate From Estimates

This is only available in the context menu for tasks. For the team entry of the task's assignment, it will enter the sum of the estimated effort entered for associated assignments as allocation.

This action will be directly applied without further confirmation.

## 8.11.3 Delete

This is only available in the context menu for tasks with assignments without actuals.

Here you delete the associated assignment. Before it is deleted, you will be asked for confirmation.

Assignments with actuals can't be deleted.

Deleting other objects isn't supported in **Assignments by Resource** mode.

## 8.11.4 Jump to Start Date

Shift the timeline such that it starts with the phase's or task's start date.

# 8.12 Interactive Gantt Bars

In **Assignments by Resource** mode, you can toggle the display of interactive Gantt bars separately for investments, phases and assignments via the **Visualization** menu in the toolbar.

In this mode, you can only shift and resize assignments via drag and drop of their Gantt bars.

Critical paths for projects aren't available in this mode.

## 8.12.1 Gantt Bars for Investments

Gantt bars for investments will be displayed when selecting **Show Gantt Bars for Investments** in the **Visualization** menu in the toolbar.

In this mode, you can't edit Gantt bars for investments via drag and drop.

## 8.12.2 Gantt Bars for Phases

Gantt bars for phases will be displayed when selecting **Show Gantt Bars for Tasks and Phases** in the **Visualization** menu in the toolbar.

In this mode, you can't edit Gantt bars for phases via drag and drop.

## 8.12.3 Gantt Bars for Assignments

Gantt bars for assignments will be displayed when selecting **Show Gantt Bars for Assignments** in the **Visualization** menu in the toolbar.

While Gantt bars are displayed for assignments, you can't edit the ETC values per period directly.

You can shift and resize assignments via drag and drop of their Gantt bars.

You can only change the **Start** and **Finish** of assignments while the status is **Not started** and no actuals exist for them. The status check can be turned off, see "9.12.28 Edit Task and Assignment Start and Finish Regardless of Status on page 171.

Changing an assignment this way will redistribute the ETC displayed per period for the respective assignment over the capacity of the assigned resource, role or team during the new remaining duration (between **Actuals Thru** and **Finish**) with the same proportions as before the change.

With **Update Allocation** in the **General** tab of the **Preferences**, the updated assignment values will also be entered as allocation for the same periods.

Shifting or extending an assignment beyond the **Start** or **Finish** of the associated task or non-project investment will also extend the task or investment, such that it includes the assignment. When a task is extended this way, the change will also be applied to the associated phase and project, if required to include the new task duration. Reducing the durations of assignments won't reduce the duration of the associated task, phase or investment.

## 8.12.4 Saving or Reverting Changes

Changes made to Gantt bars won't be saved directly

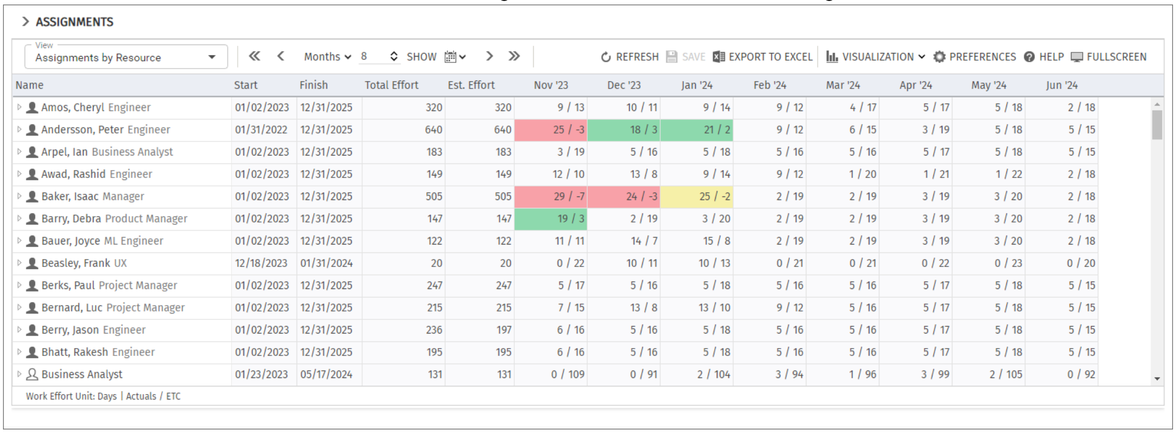
Your changes will only be applied when you save them via the toolbar. You can easily identify unsaved changes via the red triangle in a field.

Refresh the view without saving to revert your changes.

Projects will automatically be locked for editing by other users while unsaved changes exist. This is indicated by a padlock icon. Saving or reverting your changes will unlock the project. If your session is interrupted before a project is unlocked, you or any **ARP Admin** can unlock it via the context menu. Please note that this is only possible for projects that were locked due to changes made in itd Advanced Resource Planning or the itd Portfolio Optimizer.

# 8.13 Resource Utilization and Capacity

With **Show Utilization** in the **General** tab of your **Preferences**, the utilization and remaining capacity of resources, roles and teams, based on assignments, will be displayed per period in a grid.
The values are based on the total remaining estimated effort from assignments.




| Name | Start | Finish | Total Effort | Est. Effort | Nov '23 | Dec '23 | Jan '24 | Feb '24 | Mar '24 | Apr '24 | May '24 | Jun '24 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Amos, Cheryl Engineer | 01/02/2023 | 12/31/2025 | 320 | 320 | 9 / 13 | 10 / 11 | 9 / 14 | 9 / 12 | 4 / 17 | 5 / 17 | 5 / 18 | 2 / 18 |
| Andersson, Peter Engineer | 01/31/2022 | 12/31/2025 | 640 | 640 | 25 / -3 | 18 / 3 | 21 / 2 | 9 / 12 | 6 / 15 | 3 / 19 | 5 / 18 | 5 / 15 |
| Arpel, Ian Business Analyst | 01/02/2023 | 12/31/2025 | 183 | 183 | 3 / 19 | 5 / 16 | 5 / 18 | 5 / 16 | 5 / 16 | 5 / 17 | 5 / 18 | 5 / 15 |
| Awad, Rashid Engineer | 01/02/2023 | 12/31/2025 | 149 | 149 | 12 / 10 | 13 / 8 | 9 / 14 | 9 / 12 | 1 / 20 | 1 / 21 | 1 / 22 | 2 / 18 |
| Baker, Isaac Manager | 01/02/2023 | 12/31/2025 | 505 | 505 | 29 / -7 | 24 / -3 | 25 / -2 | 2 / 19 | 2 / 19 | 3 / 19 | 3 / 20 | 2 / 18 |
| Barry, Debra Product Manager | 01/02/2023 | 12/31/2025 | 147 | 147 | 19 / 3 | 2 / 19 | 3 / 20 | 2 / 19 | 2 / 19 | 3 / 19 | 3 / 20 | 2 / 18 |
| Bauer, Joyce ML Engineer | 01/02/2023 | 12/31/2025 | 122 | 122 | 11 / 11 | 14 / 7 | 15 / 8 | 2 / 19 | 2 / 19 | 3 / 19 | 3 / 20 | 2 / 18 |
| Beasley, Frank UX | 12/18/2023 | 01/31/2024 | 20 | 20 | 0 / 22 | 10 / 11 | 10 / 13 | 0 / 21 | 0 / 21 | 0 / 22 | 0 / 23 | 0 / 20 |
| Berks, Paul Project Manager | 01/02/2023 | 12/31/2025 | 247 | 247 | 5 / 17 | 5 / 16 | 5 / 18 | 5 / 16 | 5 / 16 | 5 / 17 | 5 / 18 | 5 / 15 |
| Bernard, Luc Project Manager | 01/02/2023 | 12/31/2025 | 215 | 215 | 7 / 15 | 13 / 8 | 13 / 10 | 9 / 12 | 5 / 16 | 5 / 17 | 5 / 18 | 5 / 15 |
| Berry, Jason Engineer | 01/02/2023 | 12/31/2025 | 236 | 197 | 6 / 16 | 5 / 16 | 5 / 18 | 5 / 16 | 5 / 16 | 5 / 17 | 5 / 18 | 5 / 15 |
| Bhatt, Rakesh Engineer | 01/02/2023 | 12/31/2025 | 195 | 195 | 6 / 16 | 5 / 16 | 5 / 18 | 5 / 16 | 5 / 16 | 5 / 17 | 5 / 18 | 5 / 15 |
| Business Analyst | 01/23/2023 | 05/17/2024 | 131 | 131 | 0 / 109 | 0 / 91 | 2 / 104 | 3 / 94 | 1 / 96 | 3 / 99 | 2 / 105 | 0 / 92 |

Work Effort Unit: Days | Actuals / ETC

## 8.13.1 Visualization of Low, Optimal, High and Very High Utilization

Cell colors indicate a low (white), optimal (green), high (yellow) or very high (red) utilization of a resource, role or team in a period, based on their associated total capacity and remaining estimated effort from assignments. You can edit the thresholds for each color in the **Utilization** tab of your **Preferences**, see "8.16.3 Utilization" on page 142.

Utilization histogram charts are not available in this mode.

## 8.13.2 Filtering the View

With **Calculate Sums** set to **Filtered** in the **General** tab of your **Preferences**, the utilization will only include displayed assignments, as selected by your assignment filter.

With **Calculate Sums** set to **On** or **Off**, the utilization will be based on all assignments in the associated period, visible or not.

The remaining capacity is always global and based on the **ETC** value of all assignments in the associated period. It is never affected by the assignment filter.

## 8.13.3 Displaying Utilization and Capacity Details

Hover over a cell to display the filter mode (**Filtered Assignments** or **All Assignments**).

For roles, the values included in the calculation of the remaining capacity is also displayed.

## 8.13.4 Displaying Actuals

Optionally, the remaining capacity displayed for the current period will consider actuals entered for that period, see "9.12.25 Consider Actuals for Remaining Capacity" on page 170.

## 8.13.5 Role Capacities

The total capacity of a role is the total capacity of all resources with that primary role.

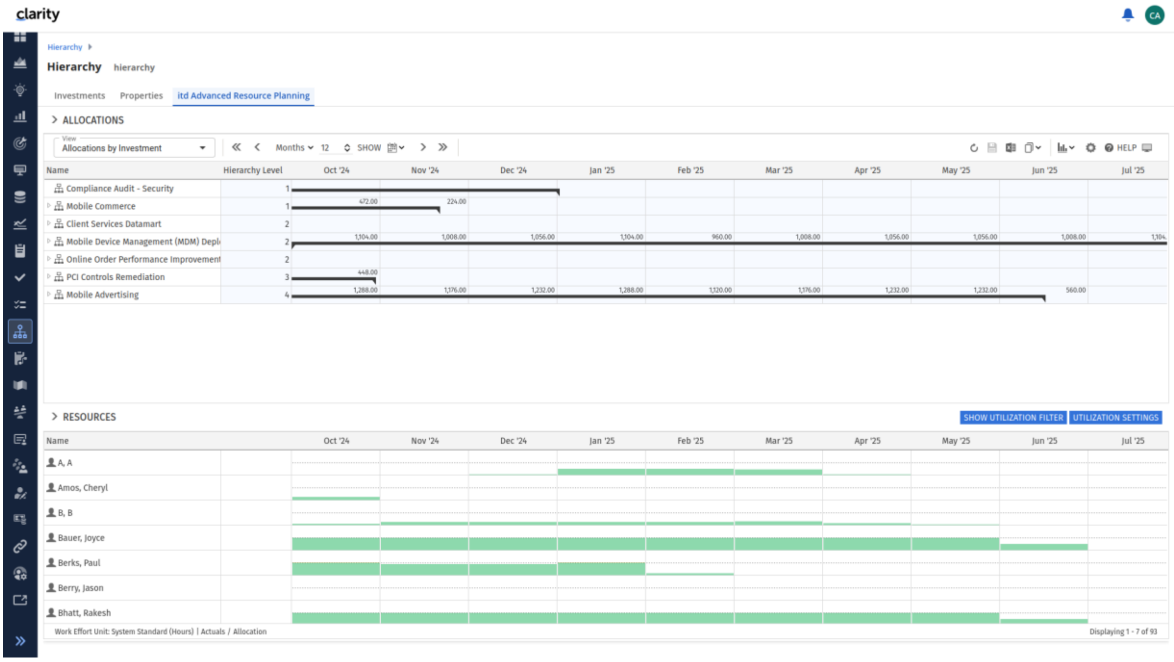
The remaining capacity of a role is its total capacity less the **ETC** from all assignments of itself and its resources.

# 8.14 Hierarchy Mode

You can integrate itd Advanced Resource Planning in the **Hierarchies** module for hierarchies of the **Investment** type.

Please note that the hierarchy mode feature is only available after adding an itd Advanced Resource Planning channel to the hierarchy blueprint, see "9.7 Planning Modes” on page 151.

With the hierarchy mode, hierarchies offer an itd Advanced Resource Planning tab.




In this mode, the view is automatically filtered to show only investments included in the hierarchy. The selection for the **Investments** filter field is also reduced to include only these investments.

You can display and sort by the **Hierarchy Level** field, which displays an investment’s hierarchy level.

***Please note:*** *This mode is currently in the beta phase and is included as a preview. Further features are planned. We look forward to receiving feedback on this mode.*

# 8.15 Toolbar Features

In **Assignments by Resource** mode, you have access to the following features in the toolbar.

## 8.15.1 View

The **View** menu at the top left displays the active view and allows switching views, saving the current view under a new name and editing your favorites and view sharing settings under **Manage**.

If you have the right to save changes to the current view, the **Save View** button is active. If it isn't, you can still save a copy of the current view.

You can find details of the features available here under "3 Views" on page 22.

## 8.15.2 Display Period

To the right of the **View** menu, you have access to various controls for changing the display period.

The slice period and number of slices are saved with the view and are synchronized with the **Timeslices** tab of the **Preferences**, see "8.16.2 Timeslices" on page 141.

Most options available there are also available in the toolbar, with the exception of fiscal periods as slice periods.

The start date won't be saved. The view automatically starts with the current date.

**Previous Periods:** Here you switch back by the selected display period (e.g., 6 months).

**Previous Period:** Here you switch back by the selected slice period (e.g., 1 month).

**Slice Period and Number of Slices:** Select the slice period (e. g, months) and enter the number of slices in the field or use the buttons to raise or lower the number.
Then click on **Show** to update the view with the new slice settings.

**Jump to a Certain Date:** Here you select the view's start date in a calendar view.

**Next Period:** Here you switch ahead by the selected slice period (e.g., 1 month).

**Next Periods:** Here you switch ahead by the selected display period (e.g., 6 months).

## 8.15.3 Refresh and Save

Use the **Refresh** and **Save** buttons to discard or save your changes.

**Refresh:** This will reload all data. If there are unsaved changes, you will be asked if you want to save first. Answering no will discard your changes.

**Save:** This will save all unsaved changes you have made in the current view.

## 8.15.4 Export to Excel

You can export all rows and columns of the view to Microsoft Excel.

**Export to Excel**: Here you export the view to Microsoft Excel.
The data will be exported as displayed, with the same filter settings and with all rows and columns that are currently displayed. For list entries with sub-elements, these sub-elements will only be exported if their parent item has been expanded, such that they are currently visible.
The Excel export is limited to a maximum of 15,000 rows.

### 8.15.5 Filter

In **Assignments by Resource** mode, you can edit the filter field selection via the toolbar.

**ARP Admins** may add additional fields to the filter field selection. This includes most Clarity PPM standard fields and most custom fields of any object for which default filter fields are available, including investment sub-type fields. For details about the procedure and supported objects and fields, see "9.11 Configuring List and Filter Fields" on page 155.

**Filter:** The **Filter** button in the toolbar opens the filter field selection for the assignment filter.
All filter fields you select here will be available for filtering the view by investments, resources, roles and teams, team entries, tasks and assignments.
See section "4.8 Default Filter Fields for the Main View" on page 29 for details about the default filter fields available for this view.

Select available filter fields for the left and right filter column of the respective view.

> You can add filter fields to either column as well as determine their order via drag-and-drop:
- Drag filter fields from the **Available Filters** list to either column to add them.
- Drag filter fields from either column to the **Available Filters** list to remove them.
- Drag filter fields between columns or within a column to change their position.

> Alternatively, you can use the buttons to the left of a column list in order to...
- ... add fields selected in its left neighbor list (right arrow).
- ... remove fields selected in the list and add these fields to its left neighbor list (left arrow).
- ... change the field order by moving selected fields up or down in the list (up/down arrow).

### 8.15.6 Columns

In **Assignments by Resource** mode, you can edit the selection and order of columns displayed in the list of resources, roles, teams, project phases, tasks and assignments.

**ARP Admins** may add additional fields to the column selection and enable editing for them. This includes most Clarity PPM standard fields and most custom fields of any object for which columns are selectable by default, including investment sub-type fields. For details about the procedure and supported objects and fields, see "9.11 Configuring List and Filter Fields" on page 155.

**Columns:** The **Columns** button in the toolbar opens the column selection.
The following fields are always displayed in the first column:
- **Name (resource/role/team, investment, phase, task)**
- **Primary role (resource), parent role (role):** a resource's primary role is displayed next to their name. A role's parent role is displayed next to their name, if applicable. You can turn this off via a feature toggle, see "9.12.6 Hide Primary/Parent Role Name" on page 162.

The following fields can be selected for display by default:
- **Actuals, Est. Effort, Total Effort (investment, phase, task, assignment):** worked, remaining and total hours; the **Total Effort** field displays the sum of **Est. Effort** and **Actuals**.
- **Department OBS, Location (resource/team)**
- **Duration (phase, task, assignment):** duration in work days according to the base calendar.
- **Effective Role (resource):** primary role.
- **Effective Role (role):** parent role.
- **Effective Role (assignment):** resource, role or team assignment role.
- **ID (investment, phase, task, milestone, resource/role/team)**
- **Investment Status (investment):** editable.
- **Investment Type (investment)**
- **Loading Pattern (assignment):** editable.

- **Requirement Name (resource team entry):** resource name.
- **Requirement Name (role team entry):** requested role name.
- **Skills (resource/role/team):** editable.
- **Staff OBS Unit (team entry):** editable.
- **Start, Finish (investment, phase, task, milestone, assignment):** editable for assignments.
- **Display ETC Sums outside of Visible Time Range:** see page 127.

### 8.15.7 Sort

In **Allocations by Resource** mode, you have access to the following sort options.

In addition to the fields listed here, any custom fields without lookups are available.

Use the button next to the sort field selection to determine the sort order, ascending or descending.

If you don't select the respective default field, items will be sorted by that field on the second level in ascending order.

Sort

- **Sort Resources By: Name (Default)** or **Primary Role**.
- **Sort Investments By: Name (Default)** or **Investment Type**.
- **Sort Tasks By: WBS Sort (Default)**, **Finish Date**, **Name** or **Start Date**.

### 8.15.8 Visualization

In **Assignments by Resource** mode, you have access to the following options under **Visualization**.

**Visualization > Cell:** Here you toggle the display of trend arrows for deviations of the left cell value from the right one, see "8.3 Displaying Trend Arrows" on page 125.

**Visualization > Gantt Bars:** Here you toggle the display of Gantt bars for investments, phases and assignments, see "8.12 Interactive Gantt Bars" on page 132.

### 8.15.9 Preferences

**Preferences:** Here you configure other view settings such as display fields and filter fields, see "8.16 Preferences" on page 139. Preferences will be saved separately for each view.

### 8.15.10 Help

**Help:** Here you can find information about itd Advanced Resource Planning and about asking for support. If you do, please always specify your version, which you can find under **Info**.

### 8.15.11 Fullscreen

**Fullscreen:** In full screen mode, the Clarity PPM navigation will be hidden, such that more items can be displayed in itd Advanced Resource Planning.

You can turn the navigation back on using the same button.

### 8.15.12 Administration

**ARP Admins** may access the following global administration settings via the right-most button in the toolbar labelled **Administration**.

**Administration**

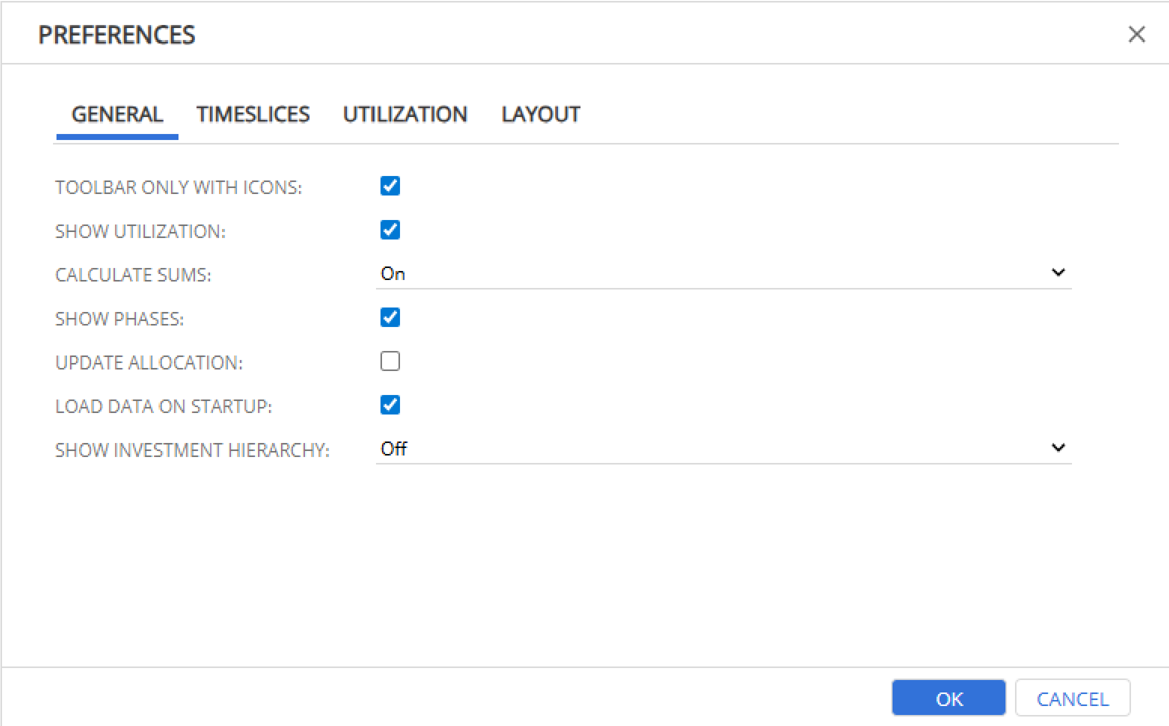
- **Views > Auto-Expand Previously Expanded Investments When Opening the View:** Deselect this to skip restoring the expand state of investments when opening the view, which may result in shorter loading time.
- **Views > Restrict 'Share with Everyone' Functionality:** This lets you restrict sharing views with everyone to selected groups. If you don't select any group, all users may share views with everyone.
- **Staffing > Disable Replacement Options:** This lets you hide unused replacement options for the **Allocations by Investment** mode to make staffing easier for users.
  All other view modes are not affected by this setting.

## 8.16 Preferences

Click on the **Preferences** button in the toolbar to edit view options.

### 8.16.1 General

Settings in the **General** tab control the display and behavior of the current view.




> **Toolbar Only with Icons:** select this to hide the captions on buttons with icons, reducing the width of the toolbar.

> **Show Utilization:** select this to display the utilization and remaining capacity of roles, resources and teams per period.
In this mode, with **Calculate Sums** set to **Filtered**, the assignment filter will also be applied to the utilization, such that only assignments matching the filter (i.e., displayed assignments) will be included. The remaining capacity is always global and includes any assignments in the associated period. With **Calculate Sums** set to **On** or **Off**, the displayed utilization is also global.

> **Calculate Sums:** specify here whether totals of the workload fields (in the assignment modes: **Estimated Effort**, **Actuals** and **Total Effort**) should be calculated and displayed for all aggregation levels (in this mode: task, phase and resource, role or team).
You can choose between **On** (display global sums), **Filtered** (apply assignment filter to global sums) and **Off** (don't calculate sums).
This setting affects the loading time, with **Off** being the fastest and **Filtered** the slowest method.
In **Assignments by Resource** mode, **On** will always display totals for investments and phases, including assignments of all roles, resources and teams.
**Filtered** will sum up over the displayed assignments and therefore only display sums for the roles, resources and teams below which the items are listed.
With **Show Utilization**, **Filtered** also applies to the displayed utilization in this mode, see above.

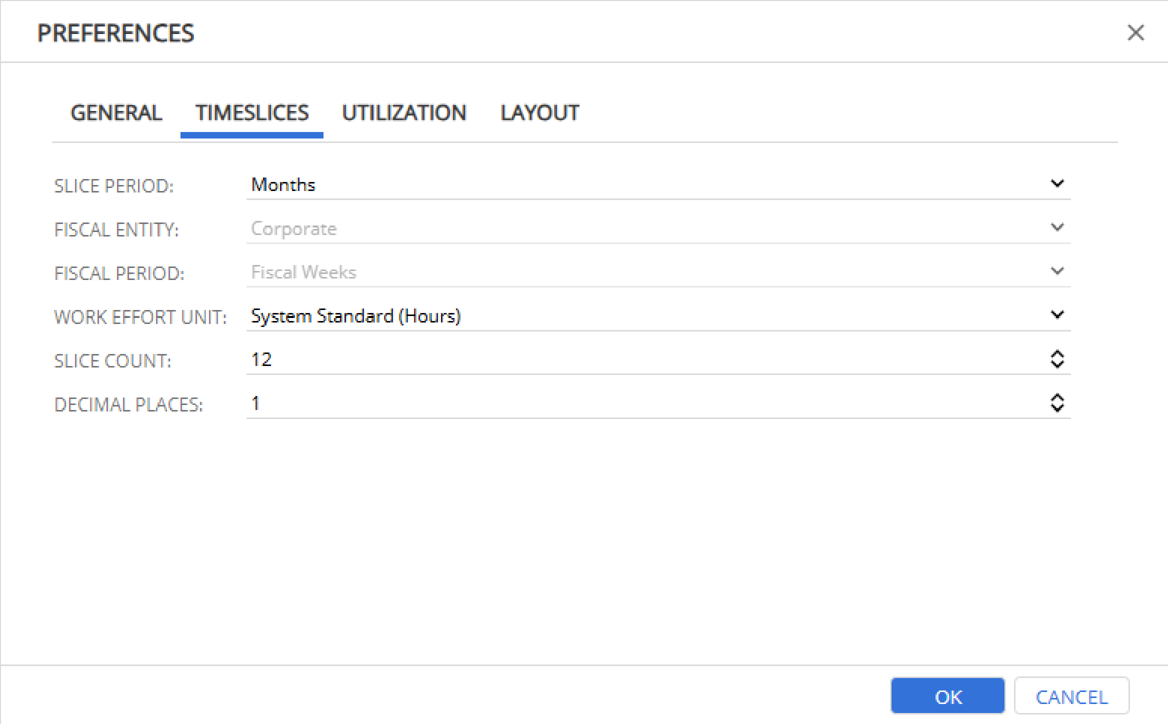
> **Show Phases:** specify here whether to display phases between investments and associated tasks. If phases are not displayed, tasks associated with phases will be displayed directly under their respective investments.

- **Update Allocation:** specify here whether assignments entered for tasks should automatically be entered as allocation in the associated projects as well.
- **Load Data on Startup:** specify here whether data is loaded directly when opening itd Advanced Resource Planning or only after clicking the filter button.
- **Show Investment Hierarchy:** in **Assignments by Resource** mode, select this to display parent investment hierarchies of displayed investments that you have explicitly selected via the assignment filter. Sub-investments are only displayed in the by investment modes.

  Hiding investment hierarchies may speed up loading the view.

### 8.16.2 Timeslices

Settings in the **Timeslices** tab control the time axis scale and display period.

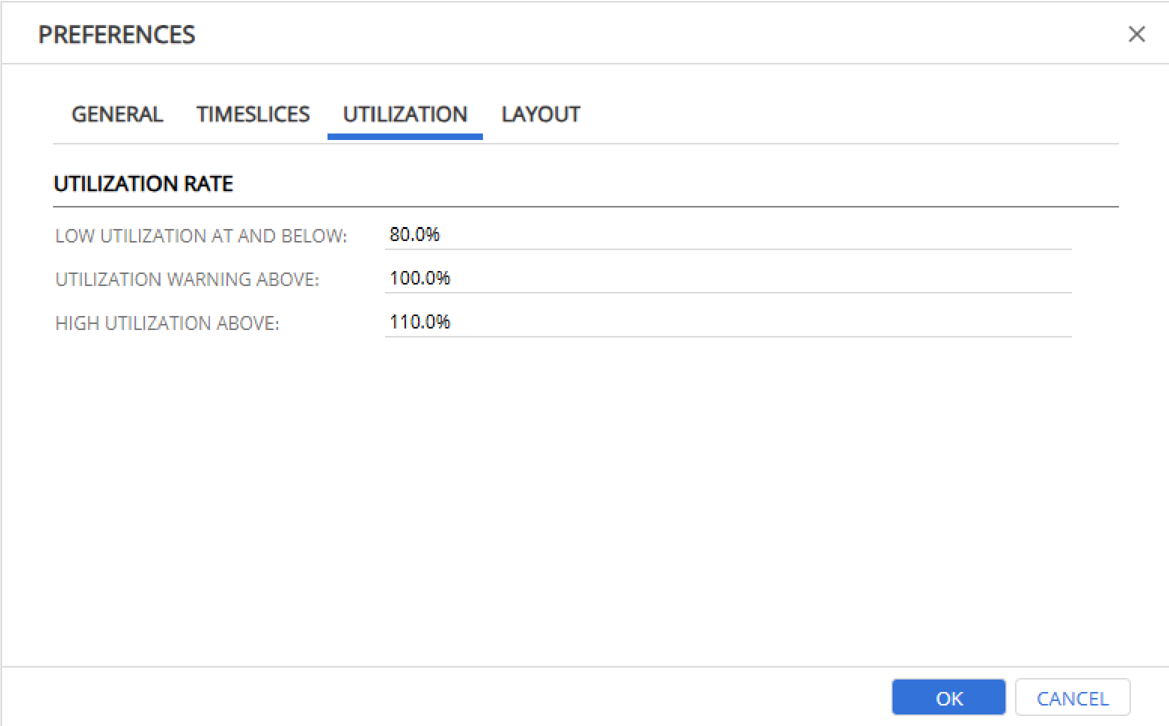



- **Slice Period:** enter the planning period here. Possible settings are **Days**, **Weeks**, **Months**, **Quarters**, **Calendar Years** and, if configured, **Fiscal Period**.
  The selection may be limited by Clarity PPM application administrators via the **itd AE Preferences** lookup, see "9.12.3 Restrict Time Slice Periods in the Preferences and in the Toolbar" on page 161. In this case, only options enabled via the associated lookup value will be available here and in the toolbar of itd Advanced Resource Planning and the itd Portfolio Optimizer.
- **Fiscal Entity** and **Fiscal Period:** with the **Fiscal Period** setting, if multiple fiscal entities or periods have been defined in your Clarity PPM system, select the desired fiscal entity and period here.
- **Work Effort Unit:** specify the unit for efforts here. By default, the **System Standard** will be applied. Alternatively, **Hours**, **Days** or full time equivalents (**FTE**) are available for selection here.
  The selection may be limited by Clarity PPM application administrators via the **itd AE Preferences** lookup, see "9.12.4 Hide Work Effort Units" on page 161. In this case, only options not disabled via the associated lookup value will be available.
- **Slice Count:** enter the amount of slices to be displayed.
- **Decimal Places:** enter the desired number of decimals for entering and displaying assignments.

### 8.16.3 Utilization

Settings in the **Utilization** tab control the display and calculation of the utilization.

In **Assignments by Resource** mode, the utilization will be calculated from assignments.

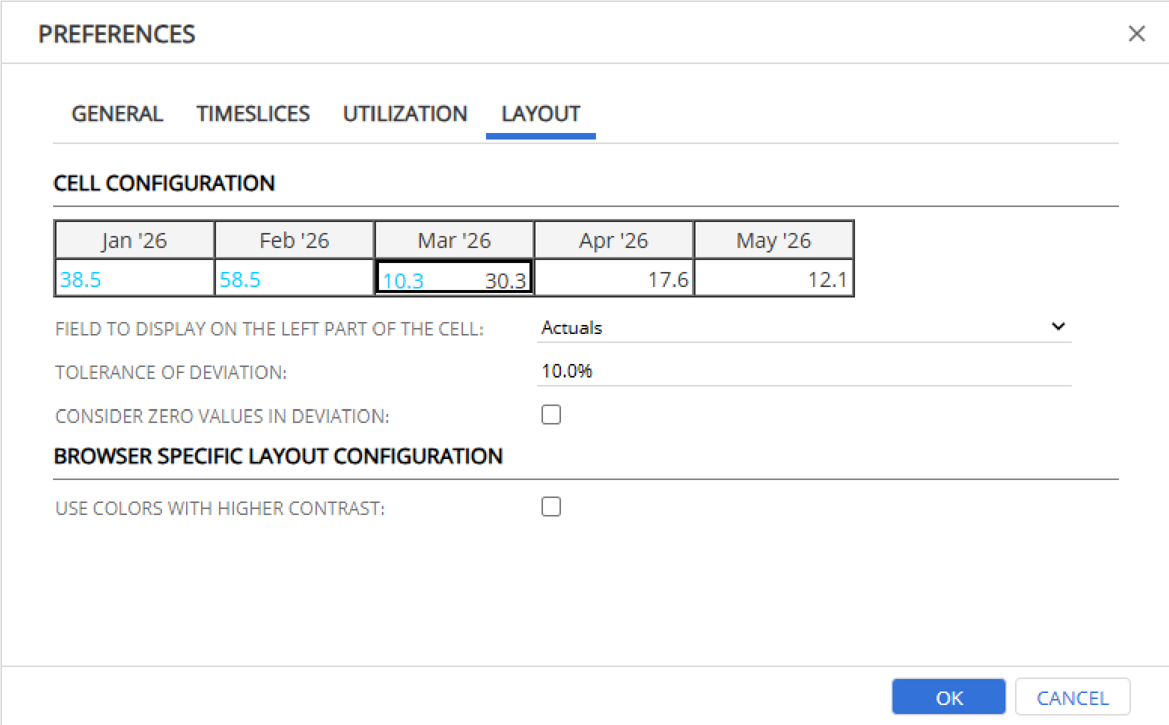



> The **Utilization Rate** controls the visualization of low or high utilization.

- **Low Utilization at and Below:** upper utilization boundary below which resources, roles and teams will be marked as lowly utilized with a grey background in the respective period.
  Utilization between the thresholds for low utilization and utilization warning (e.g., above 80% to 100% as according to the screenshot) will be marked as optimal with a green background.
  This threshold value has no effect in the histogram.
- **Utilization Warning Above:** lower utilization boundary above which resources, roles and teams will be marked as slightly over-utilized with a yellow background in the respective period. This applies as long as the utilization stays at or below the lower boundary for high utilization.
  In the histogram, workload is colored green up to this threshold value.
- **High Utilization Above:** lower boundary above which resources, roles and teams will be marked as highly over-utilized with a red background in the respective period.
  In the histogram, workload is colored yellow up to this threshold value and red above.

### 8.16.4 Layout

Settings in the **Layout** tab control the additional display value in the right hand side assignment grid as well as sorting fields for resources, investments and tasks.




> **Cell Configuration:** Here you configure the right hand side assignment grid.
In **Assignments by Resource** mode, the assignment value is always displayed on the right.

- **Field to Display on the Left Part of the Cell:** Empty (no field), ETC, Actuals, Capacity or any custom time-scaled **Money** value.
  You can edit the latter, see "7.7 Editing Custom Time-Scaled Money Values" on page 94.

This setting only affects the right hand side assignment grid.
Use the **Columns** button in the toolbar to display or hide sum columns for **Estimated Effort**, **Actuals**, **Total Effort** (**Estimated** + **Actuals**) or custom time-scaled **Money** values in the left hand side list, see "8.15.6 Columns" on page 136.
For aggregated totals of roles, resources and teams in the assignment grid and sum columns, set **Calculate Sums** to **On** or to **Filtered** under **General**, see "Calculate Sums" on page 139.

- **Tolerance of Deviation:** Treshold value for displaying trend arrows to indicate a deviation of the left cell value from the right one when activated via **Visualization**.
- **Consider Zero Values in Deviation:** Display an arrow even if one of both values is zero.

> **Browser Specific Layout Configuration:** Here you can select to **Use Colors with Higher Contrast**.
This setting will affect all your views in itd Advanced Resource Planning.

# 9 Administration

This chapter describes the administration of itd Advanced Resource Planning:



## 9.1 Requirements

itd Advanced Resource Planning 12.3.0 requires Clarity PPM 16.2.2 or newer.

## 9.2 Supported Locales

The following locales are currently supported:

- Danish, Danish(Denmark)
- Dutch, Dutch(Netherlands), Dutch(Belgium)
- English, English(United Kingdom), English(United States)
- Finnish, Finnish(Finland)
- French, French(Belgium), French(France)
- German(Germany), German(Switzerland)
- Italian(Switzerland)
- Norwegian, Norwegian(Norway)
- Spanish, Spanish(Spain)
- Swedish, Swedish(Sweden)

# 9.3 User and Administrator Groups

This section describes groups for users and administrators of itd Advanced Resource Planning.

## 9.3.1 ARP Users Group

Add users to this group to grant them access to the itd Advanced Resource Planning application.

Please note that users may also be able to use the application if they have general page and portlet access rights. In this case, these users will be added to the **ARP Users** group when accessing the application in order to keep track of who is using the application in your organization.

Please also note that, in order to access individual itd Advanced Resource Planning features, users also need the required resource, investment and scenario rights listed in section "9.5 User Access Rights" on page 147.

The **ARP Users** group grants users the following rights:

> **Instance Access Rights**
- Access itd Advanced Resource Planning pages and portlets.

## 9.3.2 ARP Admin Group

The **ARP Admin** group grants users the following administrative rights:

> **Instance Access Rights**
- Access itd Advanced Resource Planning pages and portlets.
- Edit and define itd Advanced Resource Planning pages and portlets.

> **Global Access Rights**
- Full rights for **itd AE Actions**: define menu actions, see "9.10 Defining Actions" on page 153.
- Full rights for **itd AE Attribute Configuration**: add list fields, editable fields and filter fields, see "9.11 Configuring List and Filter Fields" on page 155.
- Full rights for **itd AE Attribute Source**: add additional Clarity PPM standard fields to the list of available fields, please contact us if you wish to do this.

> **Other Administrative Features in itd Advanced Resource Planning**
- **Application:** Global administration settings in toolbar, see "9.9 Global Settings in the Application" on page 152.
- **Application:** unlock projects locked due to changes made in itd Advanced Resource Planning by other users. Any user may unlock projects that were locked due to their own changes in itd Advanced Resource Planning.
- **Application:** Full support for **Impersonate a User**.
- **`&flushCaches=true` URL Parameter:** apply newly added fields and changed settings.

  9.11 Configuring List and Filter Fields, page 155.

  9.12 itd AE Preferences Lookup, page 159.

  9.13 itd AE Included Investment Types Lookup, page 173.

  9.14 Governors Lookup (Limits and Caches), page 175.

# 9.4 Lookup Access

Some settings are managed via lookups. Editing them requires the global **Administration – Application Setup** right, which Clarity PPM application administrators have by default.

## 9.4.1 itd AE Preferences Lookup

Some application settings are managed via the **itd AE Preferences** lookup.

The **ID (code)** of this lookup is **PL.ITD.AE.LKP.PREFERENCES**.

It is used for both itd Advanced Resource Planning and the itd Portfolio Optimizer.

See "9.12 itd AE Preferences Lookup" on page 159 for details.

## 9.4.2 itd AE Included Investment Types Lookup

Use the **itd AE Included Investment Types** lookup to filter selected view modes by investment type. Modes for which you define no filters won't be filtered by investment type.

The **ID (code)** of this lookup is **PL_ITD_AE_LKP_INCLUDED_INV_TYPES**.

It is used for both itd Advanced Resource Planning and the itd Portfolio Optimizer.

***Please note:*** *This configuration is only valid for the global mode which shows all investments. It is ignored in the single investment, roadmap and hierarchy modes.*

See "9.13 itd AE Included Investment Types Lookup" on page 173 for details.

## 9.4.3 Governors Lookup (Limits and Caches)

Some database access and memory usage settings may be managed by creating a lookup with the **ID (code) = PL_ITD_AE_LKP_GOVERNORS**.

It is used for both itd Advanced Resource Planning and the itd Portfolio Optimizer.

The governors lookup can be used to control the amount of results returned by database queries, the amount of data contained in the applications' caches as well as load batch sizes with **Calculate Sums** set to **On** or **Filtered**.

See "9.14 Governors Lookup (Limits and Caches)" on page 175 for details.

# 9.5 User Access Rights

This section lists access rights required for application features by view mode.

## 9.5.1 Allocations by Investment Access Rights

| Features | Resource Access Rights | Investment Access Rights |
|---|---|---|
| • View team entries of investments and associated allocations | • None, all team entries for all visible investments and associated allocations will be displayed. | • View[1] |
| • View resources, roles and teams with total utilization and total capacity | • Resource - Soft Book OR Resource – View[2] | • None |
| • Show team entries (investments) when clicking on histogram segments | • Resource - Soft Book OR Resource – View OR Investment – View[2] | |
| • Add new resources, roles and teams[3]<br>• Replace allocation via drag-and-drop from the resource/role/team view[3] | • Resource – Soft Book<br>• Resource – Hard Book[4] | • Edit<br>• View |
| • Edit Allocation<br>• Allocate from Estimates<br>• Accept Hard Allocation | • Resource – Hard Book[5] | • View (no resource right required with **Edit**)[5] |
| • Move team entry without hard allocation (change start or finish date) | • Resource – Hard Book[5] | • View (no resource right required with **Edit**)[5] |
| • Move team entry with hard allocation (change start or finish date)<br>• Edit Hard Allocation<br>• Commit Allocation | • Resource – Hard Book[5] | • View[5] |
| • Create Requisition | • None | • Project – Create/Edit Requisition |

[1] Viewing team entries and associated allocations requires the respective investment type's **View** right (e.g., **Project – View**).

[2] Required rights may be configured via feature toggles, see items 9.12.12, 9.12.13 and 9.12.14 in section "9.12 itd AE Preferences Lookup" on pages 157ff.
Role capacities include all associated resources regardless of access rights for these resources.

[3] These actions are available with both combinations of access rights listed here.

[4] **Resource – Hard Book** includes **Resource – Soft Book**.

[5] With the **Edit** right for an investment type (e.g., **Project – Edit**), no resource right is required for editing team entries (except for editing the **Hard Allocation**, which requires **Resource – Hard Book**).

### 9.5.2 Allocations by Resource Access Rights

| Features | Resource Access Rights | Investment Access Rights |
|---|---|---|
| • View resources, roles and teams with team entries and associated allocations<br>• View total utilization and total capacity of resources, roles and teams | • None, all resources, roles and teams with team entries for visible investments will be displayed[1] | • View[1] |
| • Edit Allocation<br>• Allocate from Estimates<br>• Accept Hard Allocation | • Resource – Hard Book[2] | • View (with **Edit**, only **Resource – View** is required)[2] |
| • Move team entry without hard allocation (change start or finish date) | • Resource – Hard Book[2] | • View (with **Edit**, only **Resource – View** is required)[2] |
| • Move team entry with hard allocation (change start or finish date)<br>• Edit Hard Allocation<br>• Commit Allocation | • Resource – Hard Book[2] | • View[2] |
| • Create Requisition | • None[3] | • Project – Create/Edit Requisition |

[1] Viewing team entries and associated allocations requires the respective investment type's **View** right (e.g., **Project – View**).
Optionally, all resources, roles and teams for which the user has the **Resource – View** right will be displayed instead. In this case, no investment right is required for viewing associated team entries and allocations, see item 9.12.15 under "9.12 itd AE Preferences Lookup" on pages 157ff.
Role capacities include all associated resources regardless of access rights for these resources.

[2] With the **Edit** right for an investment type (e.g., **Project – Edit**), only **Resource – View** is required for editing team entries (except for editing the **Hard Allocation**, which requires **Resource – Hard Book**).

[3] **Resource – View** right optionally required, see [1].

### 9.5.3 Assignments by Investment Access Rights

| Features | Resource Access Rights | Investment Access Rights |
|---|---|---|
| • View assignments including investments, phases, tasks, milestones, dependencies and assigned resources, roles and teams | • None, all assignments for all visible investments will be displayed | • View[1] |
| • View resources, roles and teams with total utilization and total capacity | • Resource - Soft Book OR Resource – View[2] | • None |
| • Show team entries (investments) when clicking on histogram segments | • Resource - Soft Book OR Resource – View OR Investment – View[2] | |
| • Edit assignments<br>• Edit investments (project name, project structure with phases, tasks and milestones, start and finish of NPIOs) | • None | • Edit[3] |
| • Create assignments for team members (assign resources, roles and teams with existing team entries in the investment via drag-and-drop from the resource utilization view to tasks) | • Resource - View | • Edit[3] |
| • Create new team entries with assignments (assign resources, roles and teams without team entries in the investment via drag-and-drop from resource utilization view to tasks or NPIOs) & multi-role assignments | • Resource - Soft Book | • Edit[3] |
| • Allocate from Estimates | • Resource – Hard Book[4] | • View (no resource right required with **Edit**)[4] |

[1] Viewing assignments requires the respective investment type's **View** right (e.g., **Project – View**).

[2] Required rights may be configured via feature toggles, see items 9.12.12, 9.12.13 and 9.12.16 in section "9.12 itd AE Preferences Lookup" on pages 157ff.
Role capacities include all associated resources regardless of access rights for these resources.

[3] Editing assignments and investments and creating team entries and assignments requires the respective investment type's **Edit** right (e.g., **Project – Edit**).

[4] With the **Edit** right for an investment type (e.g., **Project – Edit**), no resource right is required for the **Allocate from Estimates** action.

### 9.5.4 Assignments by Resource Access Rights

| Features | Resource Access Rights | Investment Access Rights |
|---|---|---|
| • View resources, roles and teams with total utilization and total capacity | • None, all resources, roles and teams with team entries for visible investments will be displayed.[1] | • View[2] |
| • View assignments including investments and tasks as well as team entries without assignments | • None[1] | • View[2] |
| • Edit assignments | • None[1] | • Edit[3] |
| • Create assignments for resources, roles and teams with existing team entries in a project for associated tasks | • None[1] | • Edit[3] |
| • Create new team entries with assignments (create assignments for resources, roles and teams in tasks belonging to a project without team entries for those resources, roles and teams) | • Resource – Soft Book | • Edit[3] |
| • Allocate from Estimates | • Resource – Hard Book[4] | • View (no resource right required with **Edit**)[4] |

### 9.5.5 Access Rights for Resource Managers

Please note that while **Resource Managers** always have the **Hard Book** and **View/View Financial** resource rights, they still require the listed access rights for viewing and editing investments.

### 9.5.6 Access Rights for Scenarios

In the allocations modes, you can edit scenario data instead of the plan of record with edit rights for the respective scenario. Investment rights are not required. Shifting and resizing investments with hard allocations in this mode requires the **Resource – Hard Book** right for all associated resources.

For details about required access rights for generally accessing scenarios as well as viewing and editing specific scenarios, see section "5.13 Scenario Comparison" on page 55.

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[1] Optionally, the view will only display resources, roles and teams for which the user has the **Resource – View** right. In this case, **View** rights for associated investments are still required as well, see item 9.12.17 in section "9.12 itd AE Preferences Lookup" on pages 157ff.
Role capacities include all associated resources regardless of access rights for these resources.

[2] Viewing assignments requires the investment type's **View** right (e.g., **Project – View**).

[3] Editing and creating assignments requires the investment type's **Edit** right (e.g., **Project – Edit**).

[4] With the **Edit** right for an investment type (e.g., **Project – Edit**), no resource right is required for the **Allocate from Estimates** action. Please note that the **Resource – View** right may be required to display roles, resources and their assignments, see [1].

## 9.6 Integration and Invocation

itd Advanced Resource Planning is implemented as a standard Clarity PPM HTML portlet.

- **Name:** itd Advanced Resource Planning, **ID:** pl.itd.ae.prt.assignment.editor
- The portlet can be added to any portlet page.
- The portlet is accessible to users with appropriate access rights, similar to any other Clarity PPM portlet. Add users to the **ARP Users** group to grant them access to the itd Advanced Resource Planning application, see "9.3.1 ARP Users Group" on page 145.

## 9.7 Planning Modes

itd Advanced Resource Planning supports four planning modes, depending on how it is integrated:

- The **multiple investment mode** is evoked when itd Advanced Resource Planning is opened from any portlet page that is not an investment portlet page. In this mode, multiple investments and associated data will be displayed, depending on your filter settings.
- The **single investment mode** is evoked when itd Advanced Resource Planning is opened from the portlet page of an investment. This mode displays a single investment and associated data.
  In the single investment mode, in the **Assignments by Investment** view mode only, users may graphically compare assignments with the planned or hard allocation of associated team entries in the histogram instead of ETC and capacity. For details about using this feature, see section "7.15 Comparing Assignments with Allocations on page 112. For details about the **Preferences** for this feature, see "Histogram Comparison (Single Investment Mode Only)" on page 123.
- To evoke the **roadmap scenario mode**, integrate itd Advanced Resource Planning as a channel in a roadmap blueprint in the Modern UX as follows, replacing **`[clarity_url]`** by your Clarity URL:
  `https://`**`[clarity_url]`**`/niku/nu#action:pl.itd.ae.page.assignment.editor&puiFullscreen=on&puiHidePPMTabs=on&roadmapId=${_internalId}`
  This mode links roadmap scenarios to capacity scenarios in the **Allocations** modes. Roadmap item dates and the **In Plan** field are automatically applied to the linked investments in the capacity scenario.
  Changes made to these investment properties and allocations in itd Advanced Resource Planning are automatically synchronized back to the associated roadmap items in the linked roadmap scenario. Each roadmap scenario's capacity scenario is automatically created when the view is first opened for that roadmap scenario. When the view is reopened for the same roadmap scenario, no matter by which user, the stored capacity scenario will be loaded. This way, multiple users may work together on the same roadmap scenario. Any saved changes will be restored.
  See "5.14 Roadmap Scenario Mode" on page 58 for details.
- To evoke the **hierarchy mode**, integrate itd Advanced Resource Planning as a channel in a hierarchy blueprint in the Modern UX as follows, replacing **`[clarity_url]`** by your Clarity URL:
  `https://`**`[clarity_url]`**`/niku/nu#action:pl.itd.ae.page.assignment.editor&puiFullscreen=on&puiHidePPMTabs=on&hierarchyId=${_internalId}`

## 9.8 Changing Text Labels

Any text labels displayed in itd Advanced Resource Planning and the itd Portfolio Optimizer can be changed via a custom lookup. Please contact us if you wish to do so.

# 9.9 Global Settings in the Application

**ARP Admins** may access the following global administration settings in the application via the right-most button in the upper toolbar labelled **Administration**.

**Administration**

- **Views > Auto-Expand Previously Expanded Investments When Opening the View:** Deselect this to skip restoring the expand state of investments when opening the view, which may result in shorter loading time.
- **Views > Restrict 'Share with Everyone' Functionality:** This lets you restrict sharing views with everyone to selected groups. If you don't select any group, all users may share views with everyone.
- **Staffing > Disable Replacement Options:** This lets you hide unused replacement options for the **Allocations by Investment** mode to make staffing easier for users.
  All other view modes are not affected by this setting.

# 9.10 Defining Actions

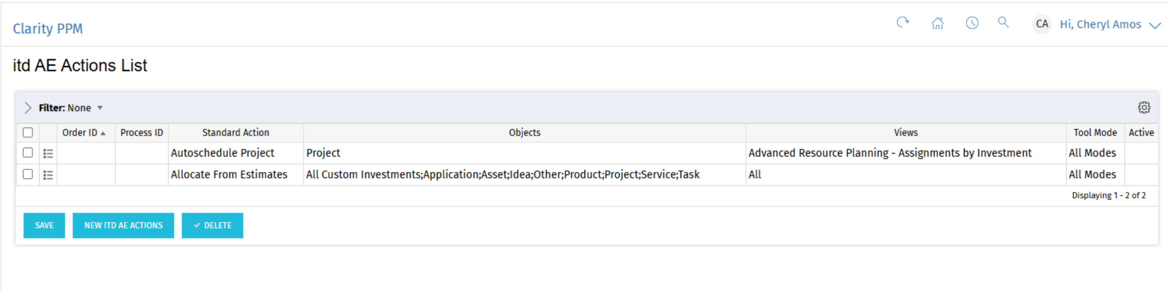
**ARP Admins** may reorder, remove or restrict standard context menu actions and add custom actions for itd Advanced Resource Planning and the itd Portfolio Optimizer.

## 9.10.1 Accessing the Action Configuration

In the Classic UI, select **Home – Custom Objects – itd AE Actions List**.

## 9.10.2 Action Overview

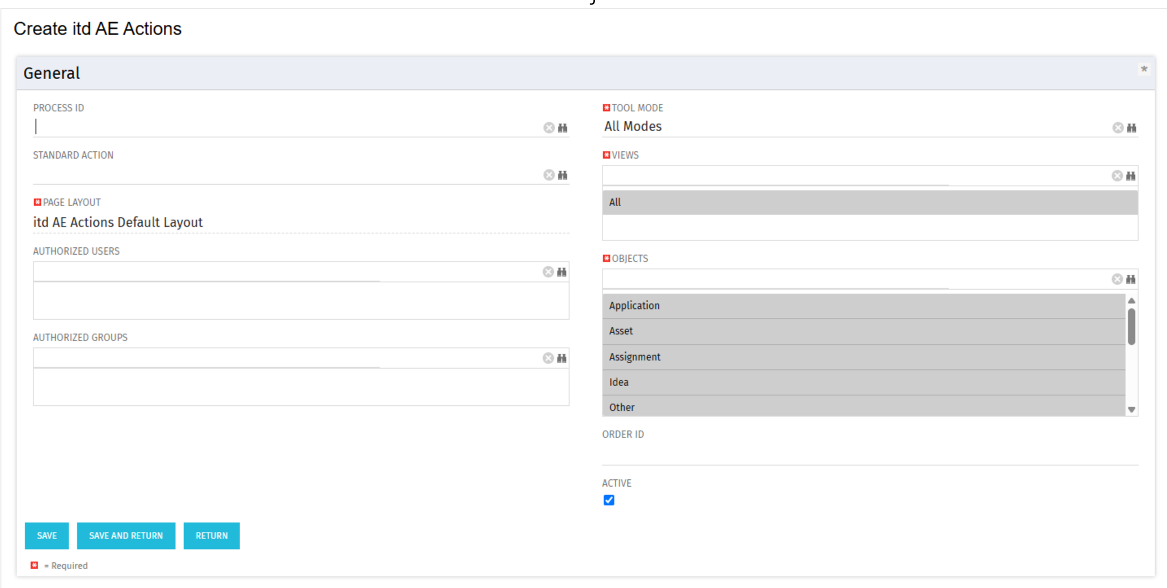
The action list provides an overview of defined actions.




> **Order ID**: determines the order of the actions. The lowest ID will be placed first. To reorder standard actions, add them and order them via this field.
> **Process ID** and **Standard Action:** these columns define the type of the action.
> **Objects:** object types for which the action will be available.
> **Views:** this column shows in which applications and view modes the action will appear.
> **Tool Mode:** this column shows in which tool mode the action will be available: **All Modes**, **All Investments Mode**, **Single Investment Mode**, **Roadmap Mode** or **Hierarchy Mode**.
  Each action can only be enabled for either all modes or for exactly one mode.
> **Active:** deactivate actions altogether, regardless of selected filters.

## 9.10.3 Adding an Action Object

Click **New itd AE Actions** to create a new action object.




> Select a **Process ID** to add a process action or select a **Standard Action** to configure.
> **Process Action:** invokes a Clarity PPM process when the user invokes the action.
  • The data of the current model is transferred to the process as parameters.

- To support processes covering different object types, we transfer the **OBJECT_TYPE** and **OBJECT_ID** of the objects for which the process should be called.
- Select for which **Users**, **Groups**, **Tool Mode**, **Objects** and **Views** the action should be visible.
  If you select neither **Users** nor **Groups**, the action will be available to all users and groups.
  For all other filters, you need to select the **All** option or select all items to disable them.

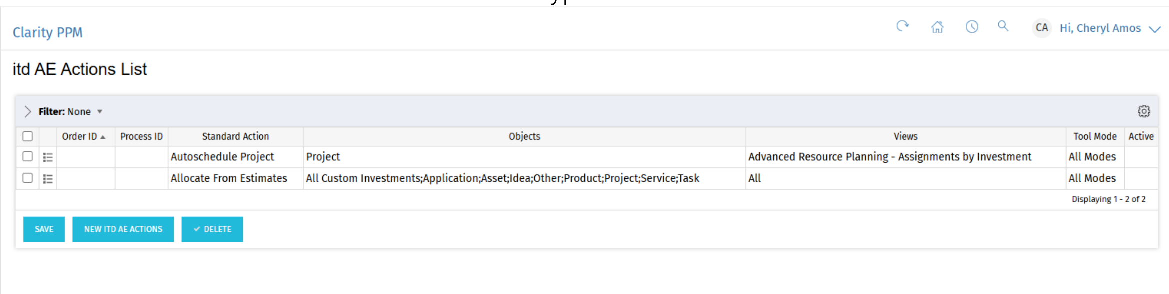
> **Standard Action:** select an existing standard actions to …
- … reorder actions via the **Order ID** column. The lowest ID will be placed first.
- … remove a standard action altogether by deselecting **Active**.
- … restrict it to selected **Users**, **Groups**, **Tool Mode** (All Investments, Single Investment, Roadmap or Hierarchy), **Objects** and **Views** (applications and view modes).
  If you select neither **Users** nor **Groups**, the action will be available to all users and groups.
  For all other filters, you need to select the **All** option or select all items to disable them.

***Please note**: although all tool modes, objects and views will initially be selected when adding a standard action, most standard actions are only available for some objects (listed under **Description** in the lookup browse window for selecting a standard action) and views.*
*You can't add an action for an object or view for which it isn't available by default.*
*Deleting a Standard Action item will reset to the default for that action.*

## 9.10.4 Examples for Deactivating Standard Actions

The following examples deactivate these standard actions:

> **Autoschedule Project** for **Projects** in **Assignment by Investment** mode and all tool modes.
> **Allocate from Estimates** for all investment types in all view and tool modes.




Please note that you don't have to specify exactly where to disable standard actions as has been done in the screenshot with the autoschedule feature for the sake of clarity. Additional filters, as preselected by default, have no effect if an action isn't available for the respective object or mode

## 9.10.5 Updating itd Advanced Resource Planning

To update itd Advanced Resource Planning after changing the action configuration, simply refresh your browser by pressing [F5].
Resetting the cache for itd Advanced Resource Planning is not required.

# 9.11 Configuring List and Filter Fields

**ARP Admins** may add list and filter fields to itd Advanced Resource Planning and to the itd Portfolio Optimizer in the attribute configuration list.

> For list fields, you can also determine whether they are editable.

> Use the `&flushCaches=true` URL parameter to update the applications with newly added fields, see section "9.11.11 Updating itd Advanced Resource Planning" on page 158.

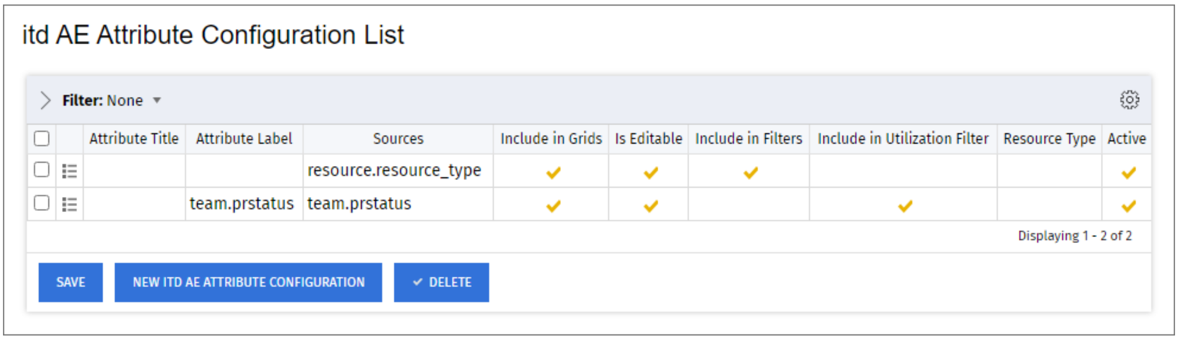
## 9.11.1 Accessing the Attribute Configuration List

In the Classic UI, select **Home – Custom Objects – itd AE Attribute Configuration List**.

## 9.11.2 Attribute Configuration List View

The attribute configuration list displays additional list and filter fields.

Here, you can edit, deactivate or remove fields and add new fields.




The following properties control where each field is available in itd Advanced Resource Planning:

> **Include in Grids:** field may be added to displayed **Columns** or **Utilization – Columns**.
Exactly where a field will be available as a column depends on the objects of the associated view. For example, only resource fields will be available under **Utilization – Columns**.

> **Is Editable:** field may be edited in the list. This is only relevant when **Include in Grid** is selected.
Attributes configured as **Read-Only** in the **Studio** will never be editable, even if selected here.
Some attribute types don't support editing and will never be editable, even if selected here, see "9.11.5 Supported Attribute Types" on page 157.
This also applies to a small number of Clarity PPM default attributes.

> **Include in Filters:** field may be selected as a filter field.
Some attribute types don't support filtering and will never be available as filter fields even if selected here, see "9.11.5 Supported Attribute Types" on page 157.
This also applies to a small number of Clarity PPM default attributes.

> **Include in Utilization Filter:** field is included in the utilization filter. This is currently supported for **Lookup** and **Boolean** fields of the **Investment** and **Team** objects.

> **Active:** deselect this to remove a field from the selection of columns and filter fields without deleting the associated configuration.

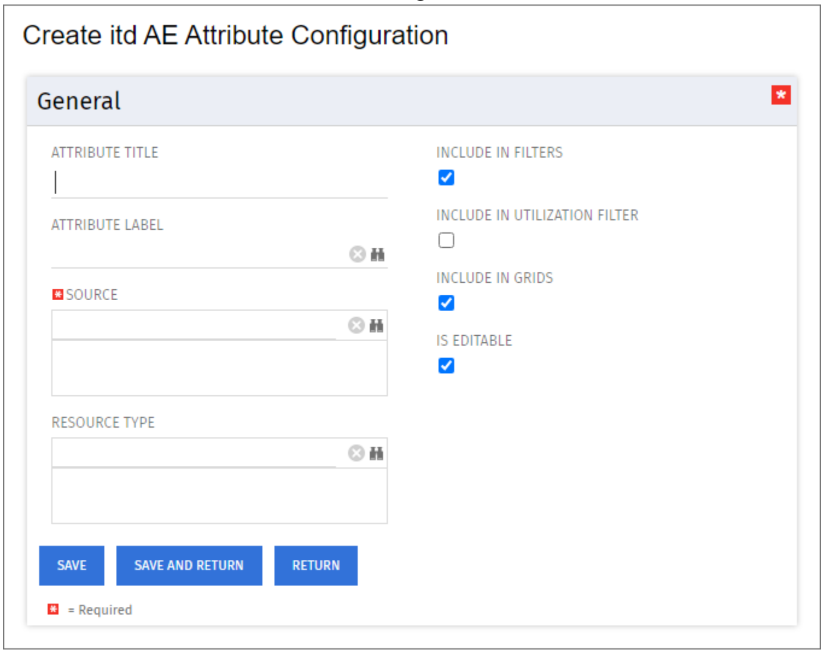
The following properties only apply to custom time-scaled **Money** values of the **time-varying** attribute type, see "7.7.1 Integrating a Custom Time-Scaled Money Value" on page 94:

> **Ignore Conversion:** Disables automatic conversion of values.

> **Resource Type:** Defines for which resource types the value will be displayed and editable.

### 9.11.3 Adding Fields

Click on **New itd AE Attribute Configuration** to add a new field.




> **Attribute Title:** field name to display. This is only required if you don't wish to display the name of the field specified as **Attribute Label** or **Source** field.

> **Attribute Label:** field whose name to display. This is only required if you don't wish to display the name of the field specified as **Source** field, or if you are defining a field with multiple sources.
*__Please note:__ for merged fields (fields with multiple sources), the __Attribute Label__ also determines the views in which the field may be added as a __Visible Column__. See following section for details.*

> **Source:** field or fields to display. You can merge fields by selecting more than one field here to display fields for multiple objects in the associated rows or to filter by multiple objects at once. In this case, consider the following:

- Use no more than one field from each object.
  Additional fields from the same object will be ignored.
- Use the same data type for all source fields (e.g., String or Number).
  Merged fields with multiple data types won't be selectable as columns or filter fields.
- Select a field as **Attribute Label** to display as column header in the list. If you don't specify a label field, a random source field will automatically be selected as label field.
  *__Please note:__ The label field not only determines the displayed column header but also the views in which the merged field will be available for selection under __Columns__.*
  The label field's object must be generally available in the respective view:
  - **Allocations by Investment:** investments & sub-types, team entries
  - **Allocations by Resource:** resources, team entries
  - **Assignments by Investment:** investments & sub-types, tasks, assignments
  - **Assignments by Resource:** resources, tasks, assignments

  **Examples:**
  - A field with label `Project.field` will be restricted to the **by Investment** views.
  - A field with label `Resource.field` will be restricted to the **by Resource** views.

  Merged fields will always be available as filter fields for all view modes regardless of the selected label field.

- If you also specify an **Attribute Title**, that will be displayed as column header in the list instead of the **Attribute Label**. In this case, the **Attribute Label** will still determine the views in which the merged field will be available.

See section "9.11.2 Attribute Configuration List View" on page 155 for all other properties you can configure in this view.

### 9.11.4 Supported Object Types

The following object types are currently supported:

- Application
- Asset
- Assignment
- Idea
- Investment
- Other
- Product
- Project
- Resource
- Service
- Task
- Team

### 9.11.5 Supported Attribute Types

The following attribute types are currently supported:

- String
- Large String
- Number
- Percent
- Calculated, see "9.11.6 Restrictions for Calculated and Formula Attributes" on page 158**
- Formula, see "9.11.6 Restrictions for Calculated and Formula Attributes" on page 158**
- Money
- Boolean
- Date
- Static Lists:
  - Single Value Number, String
  - Multi Value Number, String
- Static Dependent Lists:
  - Single Value Number, String
  - Multi Value Number, String
- Dynamic SQL (also with parameters)
  - Single Value Number, String
  - Multi Value Number, String
- URL*
- Time-varying, for assignments only, see "7.7.1 Integrating a Custom Time-Scaled Money Value" on page 94

* This type doesn't support editing.

** This type doesn't support editing or filtering.

### 9.11.6 Restrictions for Calculated and Formula Attributes

Most of the attributes which can be used in a **Calculated** or **Formula** attribute are supported.
Attributes which the custom calculated/formula columns do not support:

> All Lookup attributes
> Assignment – Has Guidelines
> Investments – Business Alignment
> Investments – Include Sub-Departments
> Project – Schedule to Baseline
> Project – Schedule Variance %
> Resource – Capacity Rate
> Resource – Show Resources in Sub-departments

### 9.11.7 Restrictions for Virtual Attributes

Virtual attributes are generally supported.
The following restrictions currenty apply:

> Virtual attributes on custom investments are not yet supported.
> Virtual attributes on other virtual attributes are not yet supported.

### 9.11.8 Custom Investment Types

You can't directly add attributes for custom investment types. However, custom investment types automatically inherit any attributes you add on the **Investment** object level.

### 9.11.9 Supported Attributes

You can add most Clarity PPM standard attributes and any custom attributes of supported objects and types, see "9.11.4 Supported Object Types" and "9.11.5 Supported Attribute Types" on page 157.

### 9.11.10 Adding Additional Clarity PPM Standard Attributes

Please contact us if you wish to add a Clarity PPM standard attribute that isn't currently supported.

### 9.11.11 Updating itd Advanced Resource Planning

After adding new attributes, you need to reset the cache for itd Advanced Resource Planning to make them available in the application.
This requires membership in the **ARP Admin** group.
To do so, call the portlet with `&flushCaches=true`, replacing **`[clarity_url]`** by your Clarity URL:

`https://[clarity_url]/niku/nu#action:pl.itd.ae.page.assignment.editor&flushCaches=true`

**Please note that the parameter won't be passed to an embedded page in the Modern UX.**
**You need to open the portlet in the Classic UI with `&flushCaches=true` to reset the cache.**

# 9.12 itd AE Preferences Lookup

Some application settings are managed via the **itd AE Preferences** lookup:

> The **ID (code)** of this lookup is **PL.ITD.AE.LKP.PREFERENCES**.

> Creating and editing lookups requires the global **Administration – Application Setup** right, which Clarity PPM application administrators have by default.

> This lookup is used for both itd Advanced Resource Planning and the itd Portfolio Optimizer. Please note that not all settings apply to all view modes in both applications, see **Scope**.

> Use the `&flushCaches=true` URL parameter to update the applications with changed settings, see section "9.12.33 Updating itd Advanced Resource Planning" on page 172.

The following options are available. Options are sorted by scope, from largest to smallest impact.

### 9.12.1 Hide Preferences Tabs

**Scope:** itd Advanced Resource Planning and itd Portfolio Optimizer

**ID (LOOKUP_CODE):** hidden_preference_tabs

**Initial Setting:** active with **Description = query_limits**

**Activate:** set **Active = true** AND add elements to **Description**, separated by commas ","

**Deactivate:** set **Active = false** (will apply default) OR remove elements from **Description**

**Possible Elements:** (default: query_limits, deprecated)

- general: **General**
- time_slice: **Timeslices**
- utilization: **Utilization**
- layout: **Layout**

**Effect:**

- Hide **Preferences** tabs listed in **Description**

### 9.12.2 Hide Toolbar Buttons

**Scope:** itd Advanced Resource Planning and itd Portfolio Optimizer

**ID (LOOKUP_CODE):** hidden_toolbar_buttons

**Initial Setting:** active with **Description = expand_all, collapse_all**

**Activate: Active = true** AND add elements to **Description**, separated by commas ","

**Deactivate: Active = false** (will apply default) OR remove elements from **Description**

**Possible Elements:** (default: expand_all, collapse_all)

- preferences: **Preferences**
- visualization: **Visualization**
- export_to_excel: **Export to Excel**
- scenario: **Scenario**
- expand_all: **Expand all** (this may affect the performance when expanding many items)
- collapse_all: **Collapse all** (this may affect the performance when collapsing many items)
- detailed_view: **Detailed view** of assignments in **Assignments by Investment** mode.

**Effect:**

- Hide toolbar buttons listed in **Description**

### 9.12.3 Restrict Time Slice Periods in the Preferences and in the Toolbar

**Scope:** itd Advanced Resource Planning and itd Portfolio Optimizer

**ID (LOOKUP_CODE):** preference_tab_time_slice

**Initial Setting:** deactivated with **Description = timeslice_mode: month, year, quarter**

**Activate: Active = true** AND add elements to **Description**, separated by commas ","

**Deactivate: Active = false** (will apply default) OR remove elements from **Description**

**Possible Elements:** (default: all)

> day: **Days**
> week: **Weeks**
> month: **Months**
> quarter: **Quarters**
> year: **Calendar Years**
> fiscal_period: **Fiscal Period**

**Effect:**

> Only time slice periods listed in the **Description** will be available for selection in the **Preferences** and in the toolbar.

### 9.12.4 Hide Work Effort Units

**Scope:** itd Advanced Resource Planning and itd Portfolio Optimizer

**ID (LOOKUP_CODE):** hidden_work_effort_units

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true** AND add elements to **Description**, separated by commas ","

**Deactivate: Lookup Value Name = 0** OR **Active = false** OR remove elements from **Description**

**Possible Elements:** (default: none)

> UNIT_HOURS: **Hours**
> UNIT_DAYS: **Days**
> UNIT_FTE: **FTE** (full time equivalents)

**Effect:**

> Entered units aren't selectable in itd Advanced Resource Planning and itd Portfolio Optimizer.
> The **System Standard** list item is never affected even if the associated unit is hidden.
> When opening a view that was saved with a hidden unit, that view is automatically switched to the **System Standard** unit.

### 9.12.5 Prevent Editing by Work Effort Unit

**Scope:** itd Advanced Resource Planning and itd Portfolio Optimizer

**ID (LOOKUP_CODE):** read_only_work_effort_units

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true** AND add elements to **Description**, separated by commas ","

**Deactivate: Lookup Value Name = 0** OR **Active = false** OR remove elements from **Description**

**Possible Elements:** (default: none)

- UNIT_SYSTEM: **System Standard** (configurable)
- UNIT_HOURS: **Hours**
- UNIT_DAYS: **Days**
- UNIT_FTE: **FTE** (full time equivalents)

**Effect:**

- When an entered unit is selected for itd Advanced Resource Planning, it is no longer possible to enter, delete or modify workloads. Additionally, it is no longer possible to change the start or finish of any object in the list or Gantt view or rename investments or tasks.
- It is still possible to add, replace or copy assignments and team entries.

### 9.12.6 Hide Primary/Parent Role Name

**Scope:** itd Advanced Resource Planning and itd Portfolio Optimizer

**ID (LOOKUP_CODE):** hide_primary_role_name

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true**

**Deactivate: Lookup Value Name = 0** OR **Active = false**

**Effect:**

- By default, the **Name** column displays a resource's primary role or a role's parent role, if applicable, next to their name in all modes.
- With this setting, primary roles for resources and parent roles for roles won't be displayed.

### 9.12.7 Use Old Skills Hierarchy

**Scope:** itd Advanced Resource Planning and itd Portfolio Optimizer

**ID (LOOKUP_CODE):** use_old_skills_hierarchy

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true**

**Deactivate: Lookup Value Name = 0** OR **Active = false**

**Effect:**

- By default, Clarity 16.2.3 and up uses the new skills defined in the modern UX.
- As the new skills, unlike the **Skills Hierarchy**, are not supported on team entries by default, you can switch back to the old **Skills Hierarchy** with this feature toggle.
- Alternatively, you can enable MUX skills on team entries, as described in the following section.

### 9.12.8 Use MUX Skills on Role Team Entries

**Scope:** itd Advanced Resource Planning and itd Portfolio Optimizer

**ID (LOOKUP_CODE):** team_attr_id_mux_skills

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:**

> Create a **Skills** attribute for the **Team** object. In the following example, we will use **Name = Skills** and **ID = z_skills**. Use **Data Type = Multi Valued Lookup** with **Lookup ID = LOOKUP_SKILLS**.

> Create a preferences lookup value with **Lookup Value Name = [Skills ID]** AND **Active = true**. If you are using the values from our example, set **Lookup Value Name = z_skills**.

**Deactivate: Active = false**

**Effect:**

> This configuration enables MUX skills on role team entries via the newly created **Skills** attribute. This includes displaying skills in the **Skills** column, using the lookup UI to enter, edit or remove skills and matching role team entry skills against resource skills via **Show candidates**.

### 9.12.9 Show Grid Hints for by Investment Views

**Scope:**

> itd Advanced Resource Planning, Allocations/Assignments by Investment

> itd Portfolio Optimizer

**ID (LOOKUP_CODE):** layout_option_tooltip_invest

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true**

**Deactivate: Lookup Value Name = 0** OR **Active = false**

**Effect:**

> With this setting, hovering over the allocation or assignment grid will show a hint listing the displayed values as configured in the **Layout** tab of the **Preferences**, such as **ETC / Capacity**. This doesn't affect the hints for the grid in the resource list, which are always displayed.

### 9.12.10 Show Grid Hints for by Resource Views

**Scope:** itd Advanced Resource Planning, Allocations/Assignments by Resource
**ID (LOOKUP_CODE):** layout_option_tooltip_resource

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true**

**Deactivate: Lookup Value Name = 0** OR **Active = false**

**Effect:**

> With this setting, hovering over the allocation or assignment grid will show a hint listing the displayed values as configured in the **Layout** tab of the **Preferences**, such as **ETC / Capacity**. This doesn't affect the hints for the grid in resource rows, which are always displayed.

### 9.12.11 Initially Load Investment Structure in Investment Modes

**Scope:**

> itd Advanced Resource Planning, Allocations/Assignments by Investment
> itd Portfolio Optimizer

**ID (LOOKUP_CODE):** calc_inv_has_children_flag

**Initial Setting:** active (lookup value doesn't exist)

**Activate: Lookup Value Name = 1** OR **Active = false**

**Deactivate:** create lookup value with **Lookup Value Name = 0** AND **Active = true**

**Effect:**

> By default, in the investment modes, opening or refreshing the view will load the complete sub-structure of each displayed investment. In **Assignments by Investment** mode, this includes sub investments, phases, tasks and assignments. In **Allocations by Investment** mode, this includes sub investments and team entries.
  The expand icon will then only be displayed for investments with a sub-structure.
  Loading the complete sub-structure of each investment can take considerable time, depending on the exact data structure.
> Create a lookup value with **Lookup Value Name = 0**, **ID = calc_inv_has_children_flag** and **Active = true** to prevent loading the full sub-structure of each investment when the view is opened or refreshed, saving some loading time.
  The expand icon will then be displayed for all investments without checking whether they do have a sub-structure. Clicking this icon will load existing sub-structures or hide the icon where no sub-structure exists.

### 9.12.12 Configure by Investment Resource View Rights

**Scope:**

> itd Advanced Resource Planning, Allocations/Assignments by Investment
> itd Portfolio Optimizer

**ID (LOOKUP_CODE):** check_res_view_right_for_util

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true**

**Deactivate: Lookup Value Name = 0** OR **Active = false**

**Effect:**

> By default, the resource utilization histogram will display the utilization for any resource, role or team for which the user has at least the **Resource – Soft Book** right.
> With this setting, the resource utilization histogram will only display the utilization for resources, roles and teams for which users have at least the **Resource – View** right.

### 9.12.13 Configure by Investment Resource View Popup Rights

**Scope:**

- itd Advanced Resource Planning, Allocations/Assignments by Investment
- itd Portfolio Optimizer

**ID (LOOKUP_CODE):** capacity_popup_with_soft_book

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true**

**Deactivate: Lookup Value Name = 0** OR **Active = false**

**Effect:**

- By default, clicking on utilization histogram slices will only display team entries and investments for resources, roles and teams for which the user has at least the **Resource – View** right.
- With this setting, clicking on utilization histogram slices will display team entries and investments for resources, roles and teams for which the user has at least the **Resource – Soft Book** right.
- Depending on the **resource_view_right_all_by_inv** and **resource_view_right_ass_by_inv** settings, investment rights may apply for team entries of resources, roles and teams for which users have no resource rights, see sections 9.12.14 below and 9.12.16 on page 166.

### 9.12.14 Configure Allocations by Investment View Resource Rights

**Scope:**

- itd Advanced Resource Planning, Allocations by Investment
- itd Portfolio Optimizer

**ID (LOOKUP_CODE):** resource_view_right_all_by_inv

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true** AND add elements to **Description**, separated by commas ","

**Deactivate: Lookup Value Name = 0** OR **Active = false** OR remove elements from **Description**

**Possible Elements:** (add both to apply to both modes)

- SINGLE_INV: apply setting to single investment mode
- ALL_INV: apply setting to multiple investment mode

**Effect:**

- By default, clicking on utilization histogram slices will display team entries for investments for which the user has at least the **Investment – View** right as well as team entries of any resource, role and team for which the user has at least the **Resource –View/Soft Book** right, see section 9.12.13 above.
- With this setting, clicking on utilization histogram slices in the **Allocations by Investment** view will only consider resource rights and ignore any additional investment rights.
- The setting may be activated for single investment mode and multiple investment mode independently by adding either or both of **SINGLE_INV** and **ALL_INV** to the **Description**.

### 9.12.15 Configure Allocations by Resource View Rights

**Scope:** itd Advanced Resource Planning, Allocations by Resource

**ID (LOOKUP_CODE):** resource_view_right_all_by_res

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true** AND add elements to **Description**, separated by commas ","

**Deactivate: Lookup Value Name = 0** OR **Active = false** OR remove elements from **Description**

**Possible Elements:** (add both to apply to both modes)

- SINGLE_INV: apply setting to single investment mode
- ALL_INV: apply setting to multiple investment mode

**Effect:**

- By default, the **Allocations by Resource** view will display any resources, roles and teams with team entries for investments for which the user has the respective **View** right.
- With this setting, any resources, roles and teams for which the user has the **Resource – View** right and their team entries will be displayed instead, ignoring investment rights.
- The setting may be activated for single investment mode and multiple investment mode independently by adding either or both of **SINGLE_INV** and **ALL_INV** to the **Description**.

### 9.12.16 Configure Assignments by Investment View Resource Rights

**Scope:** itd Advanced Resource Planning, Assignments by Investment

**ID (LOOKUP_CODE):** resource_view_right_ass_by_inv

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true** AND add elements to **Description**, separated by commas ","

**Deactivate: Lookup Value Name = 0** OR **Active = false** OR remove elements from **Description**

**Possible Elements:** (add both to apply to both modes)

- SINGLE_INV: apply setting to single investment mode
- ALL_INV: apply setting to multiple investment mode

**Effect:**

- By default, clicking on utilization histogram slices will display team entries for investments for which the user has at least the **Investment – View** right as well as team entries of any resource, role and team for which the user has at least the **Resource –View/Soft Book** right, see section 9.12.13 on page 165.
- With this setting, clicking on utilization histogram slices in the **Assignments by Investment** view will only consider resource rights and ignore any additional investment rights.
- The setting may be activated for single investment mode and multiple investment mode independently by adding either or both of **SINGLE_INV** and **ALL_INV** to the **Description**.

### 9.12.17 Configure Assignments by Resource View Rights

**Scope:** itd Advanced Resource Planning, Assignments by Resource

**ID (LOOKUP_CODE):** resource_view_right_ass_by_res

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true** AND add elements to **Description**, separated by commas ","

**Deactivate: Lookup Value Name = 0** OR **Active = false** OR remove elements from **Description**

**Possible Elements:** (add both to apply to both modes)

> SINGLE_INV: apply setting to single investment mode
> ALL_INV: apply setting to multiple investment mode

**Effect:**

- By default, the **Assignments by Resource** view will display any resources, roles and teams with team entries for investments for which the user has the respective **View** right.
- With this setting, only resources, roles and teams for which the users has the **Resource – View** right will be displayed. In this case, the **View** right for associated investments is still required in addition to the **Resource – View** right.
- The setting may be activated for single investment mode and multiple investment mode independently by adding either or both of **SINGLE_INV** and **ALL_INV** to the **Description**.

### 9.12.18 Disable Resource List Links in Investments Modes

**Scope:**

- itd Advanced Resource Planning, Allocations/Assignments by Investment
- itd Portfolio Optimizer

**ID (LOOKUP_CODE):** disable_link_in_util_panel

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true**

**Deactivate: Lookup Value Name = 0** OR **Active = false**

**Effect:**

- With this setting, it is no longer possible to open the associated properties by clicking on a resource, role or team in the resource list.

### 9.12.19 Include Sub-Roles in Role Capacity in Allocations Modes

**Scope:**

- itd Advanced Resource Planning, Allocations by Investment/Resource
- itd Portfolio Optimizer

**ID (LOOKUP_CODE):** calc_role_availability_option

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true**

**Deactivate: Lookup Value Name = 0** OR **Active = false**

**Effect:**

- By default, the capacity of a role is calculated based only on associated resources.
- Activating this lookup value adds the **Role Capacity** setting to the **Utilization** tab of the user preferences for the **Allocations by Investment** and **Allocations by Resource** view modes.
- Use this setting to enable the inclusion of sub-role resources in the role capacity calculation.
- The setting will be saved per view.

### 9.12.20 Role Capacities in Allocations by Investment Mode

**Scope:**

> itd Advanced Resource Planning, Allocations by Investment
> itd Portfolio Optimizer

**ID (LOOKUP_CODE):** raw_avail_in_utilization

**Initial Setting:** activated with **Lookup Value Name = 1**

**Activate: Lookup Value Name = 1** AND **Active = true**

**Deactivate: Lookup Value Name = 0** OR **Active = false**

**Effect:**

> When this lookup value is active, the utilization grid In **Allocations by Investment** views will show the non-histogram mode capacity value selected in the **Utilization** tab of the **Preferences** for both resources and roles, **Capacity** or **Remaining**.
> When you deactivate this lookup value, either capacity value will show up as the remaining capacity for roles. Resources will still use the selected value.
- **Capacity** will show the total capacity for resources and the remaining capacity for roles.
- **Remaining** will show the remaining capacity for both resources and roles.

> The histogram is not affected by this setting.

### 9.12.21 Disable Replacement Options

**Scope:**

> itd Advanced Resource Planning, Allocations by Investment
> itd Portfolio Optimizer

**ID (LOOKUP_CODE):** disable_replacement_option

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true** AND add elements to **Description**, separated by commas ","

**Deactivate: Lookup Value Name = 0** OR **Active = false** (will apply default) OR remove elements from **Description**

**Possible Elements:** (default: none)

> TotalAvailability: **Total Capacity**
> RemainingAvailability: **Remaining Capacity**
> Complete: **Full**

**Effect:**

> Deactivated replacement options are disabled when replacing allocations in **Allocations by Investment** mode, with a hint stating they have been deactivated by an administrator.

### 9.12.22 Disable Role Allocation Replacement

**Scope:**

- itd Advanced Resource Planning, Allocations by Investment
- itd Portfolio Optimizer

**ID (LOOKUP_CODE):** disable_role_replacement_alloc

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true**

**Deactivate: Lookup Value Name = 0** OR **Active = false**

**Effect:**

- In **Allocations by Investment** mode, roles can no longer be replaced in an allocation via drag-and-drop of other roles, resources or teams from the resource list.

### 9.12.23 Remaining Capacity: Don't Remove Team Role Entry

**Scope:**

- itd Advanced Resource Planning, Allocations by Investment
- itd Portfolio Optimizer

**ID (LOOKUP_CODE):** keep_role_with_remain_avail_op

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true**

**Deactivate: Lookup Value Name = 0** OR **Active = false**

**Effect:**

- In **Allocations by Investment** mode, completely replacing a role allocation via **Remaining Capacity**, such that there is no role allocation left, will no longer remove the role's team entry.

### 9.12.24 Remaining Capacity: Only Shift Editable Value

**Scope:**

- itd Advanced Resource Planning, Allocations by Investment
- itd Portfolio Optimizer

**ID (LOOKUP_CODE):** only_read_value_remain_avail

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true**

**Deactivate: Lookup Value Name = 0** OR **Active = false**

**Effect:**

- In **Allocations by Investment** mode, replacing a role via **Remaining Capacity** will only replace the editable value in the right-hand side of the cell, **Planned** or **Hard**, not the respective other value.

### 9.12.25 Consider Actuals for Remaining Capacity

**Scope:** itd Advanced Resource Planning, Assignments by Investment/Resource

**ID (LOOKUP_CODE):** consider_actuals_for_remaining

**Initial Setting:** deactivated with **Lookup Value Name = 1**

**Activate: Lookup Value Name = 1** AND **Active = true**

**Deactivate: Lookup Value Name = 0** OR **Active = false**

**Effect:**

> When the histogram is displayed, actuals entered for a period will be added to the total **Effort** and subtracted from the **Remaining** capacity displayed for that period.

> When the histogram isn't displayed, actuals entered for a period will only be subtracted from the remaining capacity displayed for that period, and won't be included in the utilization.

> **Example:** 20 hrs actuals and 80 hrs ETC entered for a month with total capacity 160 hrs.
- With this setting, the displayed **Remaining** capacity will be 60 hours.
- Without this setting, the displayed **Remaining** capacity will be 80 hours.

### 9.12.26 Filter Utilization by Custom Assignment Field

**Scope:** itd Advanced Resource Planning, Assignments by Investment/Resource

**ID (LOOKUP_CODE):** util_ass_curve_filter

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true** AND **Description = Attribute_ID: Lookup Value IDs** (**Attribute_ID** must be a custom static string lookup assignment field, separate **Lookup Value IDs** by commas ",")

**Example:** request_status: Approved, Booked

**Deactivate: Lookup Value Name = 0** OR **Active = true** OR remove **Description**

**Effects:**

> **Assignments by Investment:** the utilization displayed in the **Resources** list will be filtered.

> **Assignments by Resource:** per resource, role and team, the total utilization will be displayed, but the utilization used to determine the remaining capacity displayed per resource will be filtered and a resource, role or team will be displayed as under- or overbooked based on the filtered utilization.

### 9.12.27 Editable Resource Types

**Scope:** itd Advanced Resource Planning, Assignments by Investment/Resource

**ID (LOOKUP_CODE):** editable_resource_types

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true** AND add elements to **Description**, separated by commas ","

**Deactivate: Lookup Value Name = 0** OR **Active = false** (will apply default) OR remove elements from **Description**

**Possible Elements:** (default: all)

> labor

> equipment

> material

> expense

**Effect:**

> **ETC** column and **ETC** in assignment grid only editable for resource types listed in **Description**

### 9.12.28 Edit Task and Assignment Start and Finish Regardless of Status

**Scope:** itd Advanced Resource Planning, Assignments by Investment/Resource

**ID (LOOKUP_CODE):** disable_status_check_for_edit

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true**

**Deactivate: Lookup Value Name = 0** OR **Active = false**

**Effect:**

> By default, you can only change the **Start** and **Finish** of tasks and assignments with the **Not started** status.
> With this setting, the status check will be disabled. The **Start** and **Finish** will still be locked for tasks and assignments with actuals.

### 9.12.29 Hide Description Tooltips

**Scope:** itd Advanced Resource Planning, Assignments by Investment/Resource

**ID (LOOKUP_CODE):** hide_description_tooltip

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true**

**Deactivate: Lookup Value Name = 0** OR **Active = false**

**Effect:**

> By default, when hovering over an investment name in **Assignments by Investment** or **Assignments by Resource** views, the associated description will be displayed in a tooltip.
> With this setting, these tooltips may be deactivated.

### 9.12.30 Keep Task Duration

**Scope:** itd Advanced Resource Planning, Assignments by Investment

**ID (LOOKUP_CODE):** default_keep_task_duration

**Initial Setting:** active (lookup value doesn't exist)

**Activate: Lookup Value Name = 1** OR **Active = false**

**Deactivate:** create lookup value with **Lookup Value Name = 0** AND **Active = true**

**Effect:**

> This setting is active by default. In this case, changing the start date of a task or phase via the **Start** column will also change the **Finish**, retaining the duration of the task or phas.
> Create a lookup value with **Lookup Value Name = 0**, **ID = default_keep_task_duration** and **Active = true** to deactivate, such that changing the start date of a task or phase won't change the finish.

### 9.12.31 Automatically Create New Team Entries for Roles

**Scope:** itd Advanced Resource Planning, Assignments by Investment

**ID (LOOKUP_CODE):** auto_create_new_team_entry

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true**

**Deactivate: Lookup Value Name = 0** OR **Active = false**

**Effect:**

> By default (without this setting), dragging a role from the **Assignment by Investment** view's resource list on a project task or an NPIO which already has a team entry for that role will open a dialog allowing users to select an existing team entry or create a new one.
> With this setting, a new team entry will always be created automatically for the role instead.

### 9.12.32 Disable Role Replacement for Assignments

**Scope:** itd Advanced Resource Planning, Assignments by Investment

**ID (LOOKUP_CODE):** disable_role_replacement_ass

**Initial Setting:** inactive (lookup value doesn't exist)

**Activate:** create lookup value with **Lookup Value Name = 1** AND **Active = true**

**Deactivate: Lookup Value Name = 0** OR **Active = false**

**Effect:**

> In **Assignments by Investment** mode, roles can no longer be replaced in an assignment via drag-and-drop of other roles, resources or teams from the resource list.

### 9.12.33 Updating itd Advanced Resource Planning

After changing settings for itd Advanced Resource Planning via the **itd AE Preferences** lookup, you need to reset the cache to apply the new settings.

This requires membership in the **ARP Admin** group.

To do so, call the portlet with `&flushCaches=true`, replacing **`[clarity_url]`** by your Clarity URL:

`https://[clarity_url]/niku/nu#action:pl.itd.ae.page.assignment.editor&flushCaches=true`

**Please note that the parameter won't be passed to an embedded page in the Modern UX.**

**You need to open the portlet in the Classic UI with `&flushCaches=true` to reset the cache.**

# 9.13 itd AE Included Investment Types Lookup

Use the **itd AE Included Investment Types** lookup to filter selected view modes by investment type. Modes for which you define no filters won't be filtered by investment type.

The **ID (code)** of this lookup is **PL_ITD_AE_LKP_INCLUDED_INV_TYPES**.

It is used for both itd Advanced Resource Planning and the itd Portfolio Optimizer.

***Please note:*** *This configuration is only valid for the global mode which shows all investments. It is ignored in the single investment, roadmap and hierarchy modes.*

## 9.13.1 Configuring Included Investment Types

To configure an investment type filter, add a lookup value with the following field values:

> **ID** equal to the Clarity **object code** of the investment type you want to include (usually the investment type name in lower case, e.g., "asset" for the **Asset** investment type).

> **Name** has no effect other than being displayed in the lookup value list.

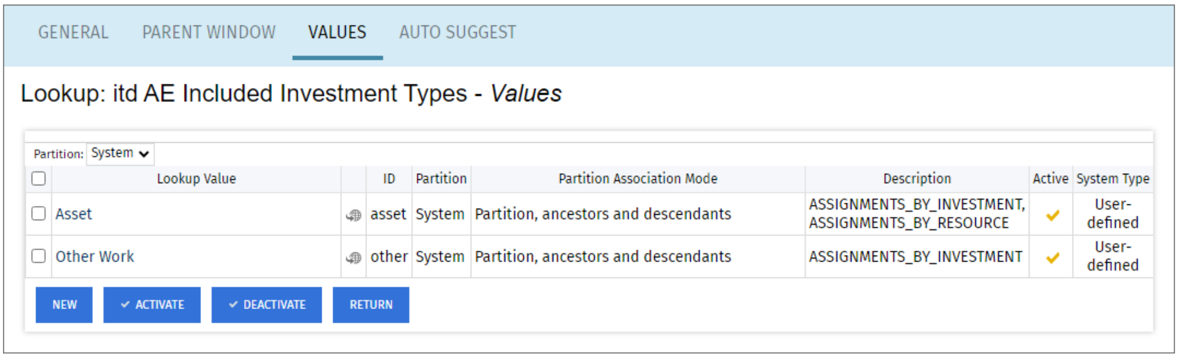
> **Description** specifies all view modes to include the investment type and needs to be spelled exactly as follows, in capital letters:

- ALLOCATION_BY_INVESTMENT_ASE
- ALLOCATION_BY_RESOURCE_ASE
- ASSIGNMENTS_BY_INVESTMENT
- ASSIGNMENTS_BY_RESOURCE

If you are specifying multiple view modes, you may choose any separator, such as a space or comma, as long as all required view modes are present in the correct spelling.

> **Active** can be removed to disable a lookup value, as if it wasn't there.

## 9.13.2 Example


GENERAL PARENT WINDOW VALUES AUTO SUGGEST

Lookup: itd AE Included Investment Types - *Values*

Partition: System

| Lookup Value | ID | Partition | Partition Association Mode | Description | Active | System Type |
|---|---|---|---|---|---|---|
| Asset | asset | System | Partition, ancestors and descendants | ASSIGNMENTS_BY_INVESTMENT, ASSIGNMENTS_BY_RESOURCE | ✓ | User-defined |
| Other Work | other | System | Partition, ancestors and descendants | ASSIGNMENTS_BY_INVESTMENT | ✓ | User-defined |

NEW ACTIVATE DEACTIVATE RETURN

This configuration has the following effects on itd Advanced Resource Planning:

> **Allocations by Investment:** No investment type filter.

> **Allocations by Resource:** No investment type filter.

> **Assignments by Investment:** Only **Other Work** and **Asset** investments included.

> **Assignments by Resource:** Only **Asset** investments included.

## 9.13.3 Filtering in Views

If an investment type is configured for a specific view mode, the **Investment Type** filter is effectively prefilled with the configured investment types. However, this is not visualized in the **Investment Type** filter control, which can still be used to filter by the configured investment types.

### 9.13.4 Utilization

The utilization that is calculated and displayed on the resource level isn't affected by the filter.

Therefore, filtered out investments will still be displayed in the flyout when hovering over associated utilization segments in **by Investment** views.

### 9.13.5 Updating itd Advanced Resource Planning

After changing settings for itd Advanced Resource Planning via the **itd AE Included Investment Types** lookup, you need to reset the cache to apply the new settings.

This requires membership in the **ARP Admin** group.

To do so, call the portlet with `&flushCaches=true`, replacing **`[clarity_url]`** by your Clarity URL:

`https://[clarity_url]/niku/nu#action:pl.itd.ae.page.assignment.editor&flushCaches=true`

**Please note that the parameter won't be passed to an embedded page in the Modern UX.**

**You need to open the portlet in the Classic UI with `&flushCaches=true` to reset the cache.**

# 9.14 Governors Lookup (Limits and Caches)

Some database access and memory usage settings may be managed via the governors lookup:

> The governors lookup doesn't exist by default. To change associated settings, create a new lookup with **ID (code) = PL_ITD_AE_LKP_GOVERNORS**.

> Creating and editing lookups requires the global **Administration – Application Setup** right, which Clarity PPM application administrators have by default.

> This lookup is used for both itd Advanced Resource Planning and the itd Portfolio Optimizer. Please note that not all lookup values apply to both applications.

> Use the `&flushCaches=true` URL parameter to update the applications with changed settings, see section "9.14.4Updating itd Advanced Resource Planning" on page 176.

The governors lookup can be used to control the amount of results returned by database queries, the amount of data contained in the applications' caches as well as load batch sizes with **Calculate Sums** set to **On** or **Filtered**.

Similar to the preferences lookup, the settings controlled via the governors lookup need to be created as lookup values with the **ID (code)** set to the property name and the **name** set to the desired value (e.g. the resource limit can be shifted from the default value of 250 to 500 by creating a lookup value with **ID (code) = query.limit.resources** and **name = 500**).

This section lists all settings controllable via the governors lookup and their defaults.

## 9.14.1 Query Limits

When Investments, Resources and Assignments are retrieved from the database, the query limits parameters can limit the number of records held in memory and returned to the client.

These values may be controlled via the `query.limit.*` properties:

```
query.limit.resources=250
query.limit.investments=150
query.limit.assignments=500
```

## 9.14.2 Cache Sizing

The server-side caching mechanism we use (Guava Caches) allows for the definition of the Cache's maximumSize().

You can edit these values via the `cache.max.*` properties:

```
cache.max.clarity.system.attrs=1 [system attributes]
cache.max.loading.pattern.lkp=1 [loading pattern lookup]
cache.max.investment=10 [investments]
cache.max.glob.rights.by.user=100 [global rights by user]
cache.max.object.perm.by.user=40 [object permissions by user]
cache.max.translation.cache=20 [translation cache]
cache.max.preference.lkp=300 [preferences lookup]
cache.max.calender=1 [calendar]
cache.max.project.hpd.factor=1 [project hours per day factor]
cache.max.custom.inv=1 [custom investments]
```

***Please note:*** *Changing these values will not impact the amount of data loaded and used, only the amount of data that is cached for later use. Raising these values will take up more working memory. Lowering these values will result in reduced performance.*

### 9.14.3 Load Batch Sizing

With **Calculate Sums** set to **On** or **Filtered** in the **General** tab of the **Preferences** for the respective view mode, aggregated values will be calculated and displayed for all visible aggregation levels (task, phase, investment, resource/role/team). These data will be loaded from Clarity PPM curves. Curves will be loaded in batches to save heap space.

You can configure the size of these batches.

You can edit these values via the `cache.max.batch.curve.*` properties:

```
cache.max.batch.curve.task=100 [tasks]
cache.max.batch.curve.res=100 [resources]
cache.max.batch.curve.inv.res=100 [investments per resource]
cache.max.batch.curve.inv=100 [investments]
```

Please consider the following when adjusting these numbers:

- Lower values will cause more frequent requests to the database
- Higher values will increase the amount of working memory used during these calculations.

### 9.14.4 Updating itd Advanced Resource Planning

After changing settings for itd Advanced Resource Planning via the governors lookup, you need to reset the cache to apply the new settings.

This requires membership in the **ARP Admin** group.

To do so, call the portlet with `&flushCaches=true`, replacing **`[clarity_url]`** by your Clarity URL:

```
https://[clarity_url]/niku/nu#action:pl.itd.ae.page.assignment.editor&flushCaches=true
```

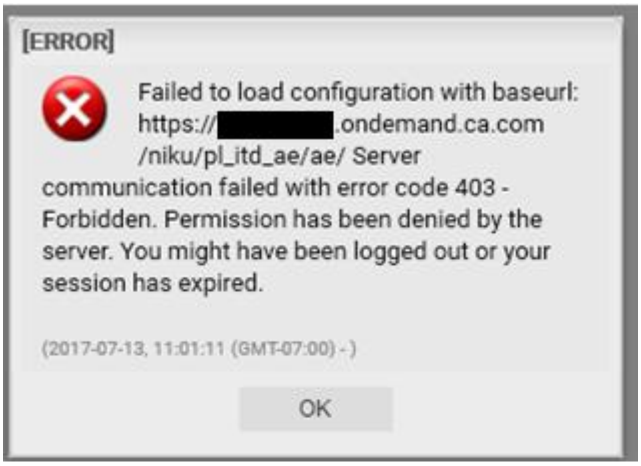
**Please note that the parameter won't be passed to an embedded page in the Modern UX.**
**You need to open the portlet in the Classic UI with `&flushCaches=true` to reset the cache.**

## 9.15 Troubleshooting

This section provides solutions for known issues with itd Advanced Resource Planning.

### 9.15.1 Failed to load configuration with baseurl - error 403 – Forbidden

**Issue:** any user trying to access itd Advanced Resource Planning, including system administrators, gets a "403 – Forbidden" error.




**Cause:** reference to the `pl_itd_ae` component removed from the `components.xml` file.
This may happen when a general patch is installed on the Clarity PPM server (not necessarily for the affected customer).

**Solution:** insert line <component id="pl_itd_ae" active="true" type="plugin"/> in `components.xml` file or reinstall the itd Advanced Resource Planning application.
The latter is the only viable solution for SaaS systems.