Resource Management

User Guide

Changepoint SA 2020

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1. Resource Basics

About resources

Resources are created and maintained in Changepoint Administration.

After resources are created, a reduced, read-only version of the resource profile is available in Changepoint. You can edit your own resource profile through the **My contact info** section of your preferences. For more information, see "Updating your personal contact information" in the *User Basics User Guide*.

Accessing a resource

1. Click **Resource** > **Resources**. The **Resources** tree view appears.
2. To access the resource from the tree view, expand the tree view and select the resource.

   The resource profile appears.
3. To access the resource by searching, do the following:

   a. Click **Options** > **View** > **Search**.

   b. In the search field, enter the first few letters of the resource's name.

   c. Click **Search**.

   d. In the search results, click the resource.

   The resource profile appears.

Viewing the qualifications of a resource

1. Access the resource.
2. Click **Actions** > **View** > **Qualifications**.

   The resource's qualifications, competencies, and years of experience appear.

Viewing the functions of a resource

1. Access the resource.
2. Click **Actions** > **View** > **Functions**.

   The resource's functions, competencies, and qualifications appear.

Viewing the workload for a resource

1. Access the resource.
2. Click **Actions** > **View** > **Workload**

   The workload for the resource appears.
3. Do the following as required:
   - To view a list of the resource's active tasks, click **Actions** > **View** > **To-do list**.
   - To view the details for the resource's active tasks, click **Actions** > **View** > **Details**.
   - To view the resource's completed tasks, click **Actions** > **View** > **Completed tasks**.

2. Forecasting Resources

About forecasting resource requirements for a contract

When a contract is created, you can create projected resources to forecast the resource requirements for the contract, and to create resource placeholders until the resources are confirmed.

If resource requests are enabled for the contract, you can select billing roles for projected resources and submit resource requests. You can request a resource but you cannot assign a specific resource.

Adding a projected resource to a contract

1. Access the contract for editing.

   The **Edit Contract** dialog box appears.

2. Click the **Projected resources** tab.

3. Right-click in the table and then select **Insert**.

   An empty row is added to the table.

4. Complete the fields as required. For more information, see "Create/Edit Contract dialog, Projected resources tab options" on page 12.

5. To add qualifications:

   a. In the **Qualifications** column, click .

      The qualifications tree view appears.

   b. Expand the tree view and select the check boxes for the qualifications that the projected resource requires.

   c. Click again to close the tree view.

6. Click **Save**.

Setting general options for projected resources

You can set the following general options for projected resources:

- If the assignment of project tasks for the contract is restricted to projected resources, and resource requests are not enabled at the project or task level, you can override this restriction.
- If resource requests are enabled for the contract, you can specify whether resource requests must be submitted from tasks or projects instead of the contract.

1. Access the contract for editing.

   The **Edit Contract** dialog box appears.

2. Click the **Projected resources** tab.
3. To allow tasks for the contract projects to be assigned to any resource, select the **Override task restriction** check box.
4. Do one of the following:
   - To allow resource requests to be submitted from tasks only, select the **Enable resource requests at task level** check box.
   - To allow resource requests to be submitted from projects only, select the **Enable resource requests at project level** check box.
5. Click **Save**.

Create/Edit Contract dialog, Projected resources tab options

Option	Description
First column	When the column contains a project icon , a project task for a quick project has been created for the projected resource.
Task created check box	When selected, indicates that a task has been created for the projected resource and prevents the projected resource from being selected for a quick project.

Option	Description
Assigned Resource list	If resource requests are not enabled, the resource (from your preferred resources) who will do the work for the contract. If resource requests are enabled, displays the resource who has been assigned to the contract through the resource request workflow.
Requested resource list	If resource requests are enabled, the resource that you want for the contract. Available only if resource requests are enabled.
Function list	Function of the projected resource.
Billing office type-ahead field	Billing office whose billing roles are used for the projected resource.
Billing role list	Billing role of the projected resource.
Estimated hours field	Estimated number of hours for the projected resource to work on the contract.
Start date field	Date that the projected resource will start the work for the contract.
Finish date field	Date that the projected resource will complete the work for the contract.
Request status field	Status of the resource request.
Comments field	Comments
Capital check box	When selected, indicates that the costs related to the projected resource are capital costs.
Soft-booked check box	When selected, the projected resource is tentatively booked for this contract. Soft-bookings become committed when the resource is approved.
Qualifications field	Qualifications for the projected resource.

Option	Description
Override task restriction check box	When selected, overrides the restriction that tasks can only be assigned to resources specified as projected resources. It must be selected to allow creation of open tasks. Available only when resource requests are enabled and task assignment restrictions can be overridden for the contract.
Enable resource requests at project level check box	When selected, resource requests can be submitted from projects, and the **Project team** tab appears on the project. This is available only when resource requests are enabled for the contract.
Enable resource requests at task level check box	When selected, resource requests can be submitted from tasks. This is available only when resource requests are enabled for the contract.

Editing a projected resource for a contract

1. Access the contract for editing.

   The **Edit Contract** dialog box appears.

2. Click the **Projected resources** tab.

3. Make the necessary changes. For more information, see "Create/Edit Contract dialog, Projected resources tab options" on page 12.

4. Click **Save**.

Deleting a projected resource from a contract

1. Access the contract for editing.

   The **Edit Contract** dialog box appears.

2. Click the **Projected resources** tab.

3. Click the row for the projected resource.

4. Right-click and then click **Delete**.

   The row is removed from the table.

5. Click **Save**.

3. Contractor Information

About contractors

Changepoint assists the communication and collaboration between your organization and its contractors. You assign contractors to your projects and you can reconcile contractor invoices with time and expense entries in Changepoint.

When setting up and managing contractors in Changepoint, note the following:

- Contractors are Changepoint resources with the resource type set to **Contractor**.
- Contractors are managed the same way as internal resources in your organization when forecasting for requirements, searching and scheduling resources, or assigning resources to tasks.
- Contractors enter their time and expense information in the same way as other Changepoint resources.
- The cost rate for the contractor is defined either for the contract or on the resource profile. For more information, see the "About cost rates for contractors" section on page 22.
- A customer profile must be set up to store the contractor invoice information. You can set up one or many customer profiles. You can use customer types, such as vendor, contractor or supplier to distinguish them. If you have one vendor billing for multiple contractors, only one customer profile must be set up. If the contractors bill independently, you can either set up one customer profile for each contractor or you can set up one customer (for example, Contractors) for all your contractors.
- Contractors can use either reimbursable or non-reimbursable expense categories for entering expenses.

About contractor invoice reconciliation

The **Contractor Invoice Reconciliation** report enables you to reconcile time and expense entries on the contractor invoice with time and expense entries in Changepoint. This ensures that no double billing occurs and all items are acceptable. For more information, see the "Reconciling a contractor invoice" on page 19.

When you accept entries in the reconciliation report, the corresponding time and expense entries are locked to prevent further changes. Accepted entries are excluded from future

reconciliation reports. Changepoint stores the reconciled time and expense entries with the contractor invoice number and invoice date, which you can access through the Reconciliation Results report. For more information, see "Running the Reconciliation Results report" on page 21.

You can invoice your customers for the time that a contractor spent on a project and for the expenses that the contractor incurred.

Running the Contractor Invoice Reconciliation report

1. Click **Report > Reports**. The **Reports** tree view appears.
2. Expand the **Contractor Management** category and select **Contractor Invoice Reconciliation**.

   The filter criteria window appears.
3. In the **Vendor** type-ahead field, enter the name of the organization to which the contractor belongs.
4. Refer to the contractor invoice that was sent to your organization and complete the following fields:
   a. In the **Contractor invoice number** field, enter the invoice number.
   b. In the **Contractor invoice date** field, enter the invoice date.
   c. In the **Contractor invoice amount** field, enter the invoice amount.
   d. From the **Contractor invoice currency** list, select the invoice currency.
5. In the **Workgroup** field, select the contractor’s workgroup.
6. In the **Contractor** field, select one or more contractors.

   The list displays all resources in the selected workgroup for which the resource type is set to **Contractor** in the resource profile.
7. To specify a date range:
   a. In the **Start date** field, enter the start date of the entries to include.
   b. In the **End date** field, enter the end date of the entries to include.
8. Do one of the following:

- To include both non-reimbursable and reimbursable expenses in the report, select the **Include reimbursable expenses** check box.
- To include only non-reimbursable expenses in the report, clear the **Include reimbursable expenses** check box.

9. In the **Time entry status** list, select the time status types to include in the report.
10. In the **Expense status** list, select the expense status types to include in the report.
11. Click **Go**.

    The **Contractor Invoice Reconciliation** report displays the time and expense entries that match your filter criteria. The report also displays the calculated subtotals and totals for the included entries.

Reconciling a contractor invoice

1. Run the **Contractor Invoice Reconciliation** report.
2. Expand the **Time entries** and **Expense entries** sections of the report.
3. Review the entries against the contractor invoice.
4. To accept and confirm the time and expense entries:
   a. In the **Time entries** section, select the check boxes for the entries that you want to accept or click **Select all** to accept all time entries.
   b. In the **Expense entries** section, select the check boxes for the entries that you want to accept or click **Select all** to accept all expense entries.
   c. Click **Actions** > **Reconcile**.
   d. In the **Contractor invoice amount** field, make the necessary changes.
   e. Click **Actions** > **Confirm**.
5. If the entries on the reconciliation report do not match the entries on the contractor invoice, consider the following options:
   - Change the filter criteria for the report and run the report again.
   - Accept the entries on the report and adjust the contractor invoice manually to match what the report shows.

- Send the contractor invoice back for reinvoicing or adjustment. Once a new invoice is received from the contractor, start the reconciliation process again.

About the Contractor Invoice Reconciliation report

The **Contractor Invoice Reconciliation** report displays the following:

- approved time entries that have not yet been included on a contractor invoice (includes project time, non-project time and request time)
- time adjustments
- non-reimbursable expense entries from approved expense reports that have not yet been included on a contractor invoice.
- subtotals for hours, extended cost, and extended expense amount.
- the total for the report (extended cost total plus extended expense amount total).

The report includes three sections: **Time entries**, **Expense entries**, and **Report totals**.

Contractor Invoice Reconciliation report data

Option	Description
Cost currency	Cost currency specified for the contract billing rate or the currency specified on the resource profile of the resource associated with the cost.
Cost rate	Cost rate. For information about cost rates, see "About cost rates for contractors" on page 22.
CP invoice number	Changepoint invoice number. If the time or expense entry has not yet been billed, this field is blank.
CP invoice status	Status of the Changepoint invoice that contains the invoiced time or expense entry. If your organization prefers to wait until payment is received from the customer before paying the contractor, you can monitor the invoice status for this purpose.
Date	Date of the of the time or expense entry.

Option	Description
Description	Description entered for the time or expense entry.
Exchange rate	Current exchange rate between the original currency of the cost and the currency selected for the report. If they are the same, one is used.
Expense amount	Expense amount in the resource's base currency.
Extended cost	Extended cost, which is calculated using the following formula: Extended cost = Hours * Cost rate * Exchange rate.
Extended expense amount	Extended expense amount, which is calculated using the following formula: Extended expense amount = Expense amount * Exchange rate
OT cost rate	Overtime cost rate. For information about overtime cost rates, see "About cost rates for contractors" on page 22.
Resource	Name of the resource. The resource in the **Expense entries** section is the resource who submitted the expense report. If the exchange rate was overridden by the resource, the system exchange rate is displayed in parentheses.

Running the Reconciliation Results report

The **Reconciliation Results** report allows you view reconciled time and expense entries.

1. Click **Report** > **Reports**. The **Reports** tree view appears.
2. Expand the **Contractor Management** category and select **Reconciliation Results**.

   The filter criteria window appears.
3. In the **Contractor** field, select one or more contractors.
4. To specify a date range:
   a. In the **Start date** field, enter the start date of the entries to include.
   b. In the **End date** field, enter the end date of the entries to include.

5. In the **Vendor** type-ahead field, enter the name of the organization to which the contractors belong.
6. In the **Contractor invoice number** list, select the number of an invoice that was reconciled in Changepoint.
7. In the **Contractor invoice date** field, enter the invoice date for a contractor invoice.
8. In the **Currency** list, select the currency to use for the report.
9. Click **Go**.

   The **Reconciliation Results** report displays reconciled entries that match the selection criteria, reported in the specified currency.

About cost rates for contractors

Cost rates for contractors are from either the contract or the resource profile for the contractor. The contractor rate is calculated based on the contractor cost rate multiplied by the burden rate specified on the cost center.

To determine which cost center to use for the cost rate calculation for project and request time, the system searches for a cost center with an active burden rate in the following order:

1. Billing office record
2. Contract record
3. Resource profile
4. Workgroup profile
5. Global workgroup profile

When the determination is based on resource profile, workgroup profile, or global workgroup profile, the following rules apply. For non-project time, the system uses the burden rate from the cost center on the resource profile. If a resource profile does not have a cost center selected, the cost center for the resource's workgroup determines the burden rate. If the workgroup does not have a cost center, then the cost center for the global workgroup is used.

If your organization is being invoiced at the same rate for all work by a contractor, it is not necessary to specify a resource/billing role combination on the contract, even if your customers are being billed at multiple billing role-based billing rates. You need only specify

one resource on the contract to track the cost you will be invoiced by the contractor for their services, and use normal billing role-based billing rules for billing the time to your customers.

If you invoice based on billing roles, task assignments must include both the resource and billing role to ensure the services are billed correctly to your customers. If a task is assigned without a billing role, the resource-only billing rate is used, which may result in an invoice to your customer that contains an incorrect billing rate.

The cost rate calculations for contractor invoice reconciliation is described in the following sections.

Project Time

The system checks the **Billing rates** tab of the **Contract** dialog box for the billing role and resource combination that matches the billing role and resource combination on the task assignment for the contractor.

- If a match exists, the cost rate specified for the resource and billing role on the contract is used.
- If no match is found, the system searches only for the resource on the **Billing rates** tab.
- If the resource is not found on the **Billing rates** tab of the **Contract** dialog box, the cost rate on the resource profile is used.
- If overtime hours are included, the cost rate is always the overtime cost rate on the resource profile.

If the contract is daily or mixed/daily, a conversion is done to convert the daily cost to hourly. If the rate is derived from the contract, the daily rate is divided by the resource's daily capacity setting (or by eight if not specified) to determine an hourly rate. If the cost rate is derived from the resource profile, the hourly cost rate is always used.

Non-project Time

If your contract with the contractor includes payment for non-project time, such as legal holiday, the cost for this time is always the hourly cost rate specified on the resource profile.

Request Time

If only the resource is specified in the **Billing rates** tab of the **Contract** dialog box, the cost from the contract is used.

The resource and billing role combination on the **Billing rates** tab is ignored when calculating the cost for request time.

If the resource is not specified on the contract, the hourly cost from the resource profile is used.

4. Resource Matches

Accessing the resource match panel

1. Click **Resource** > **Resource Match**.

   The **Resource Match** panel displays in the Folders view.

2. Enter the match criteria. For more information, see the following topics:

   - "Search for resource matches by workgroup" on page 25
   - "Search for resource matches by location" on page 26
   - "Search for resource matches by resource type" on page 26
   - "Search for resource matches by qualifications" on page 27
   - "Search for resource matches by function" on page 27
   - "Search for resource matches based on previous project experience" on page 28
   - "Search for resource matches based on availability" on page 29

   Note: You can also access the resource match criteria when creating or editing projected resources, creating or editing project teams, creating or editing task assignments, creating or editing resource requests. Although you can start a resource match from different areas, the actual resource match functionality is the same throughout Changepoint.

Search for resource matches by workgroup

1. Access the resource match panel.

2. To search by workgroup:

   a. Expand the **Organization** section.

   b. In the **Global workgroup** type-ahead field, enter the global workgroup to which the resources must belong.

   c. In the **Workgroup** type-ahead field, enter the workgroup to which the resources must belong, or leave the field blank to include all workgroups for the specified global workgroup.

   d. Select the **Include children** check box to search all workgroups within the specified workgroup.

3. To specify how resource availability is calculated:

   a. Expand the **Availability** section.

   b. In the **Search** subsection, select one or more check boxes. For more information, see "Availability match criteria" on page 30

4. Click **Search**.

   The **Resource Match Results** view appears. For more information, see "Resource Match Results view" on page 33.

Search for resource matches by location

1. Access the resource match panel.

2. To search by location:

   a. Expand the **Location** section.

   b. Select the check boxes of the required locations.

3. To specify how resource availability is calculated:

   a. Expand the **Availability** section.

   b. In the **Search** subsection, select one or more check boxes. For more information, see "Availability match criteria" on page 30

4. Click **Search**.

   The **Resource Match Results** view appears. For more information, see "Resource Match Results view" on page 33.

Search for resource matches by resource type

1. Access the resource match panel.

2. To search by resource type:

   a. Expand the **Resource type** section.

   b. Select the check boxes of the required resource types.

3. To specify how resource availability is calculated:

a. Expand the **Availability** section.

b. In the **Search** subsection, select one or more check boxes. For more information, see "Availability match criteria" on page 30

4. Click **Search**.

   The **Resource Match Results** view appears. For more information, see "Resource Match Results view" on page 33.

Search for resource matches by qualifications

1. Access the resource match panel.
2. To search by qualifications:

   a. Expand the **Qualifications** section.

   b. Expand the tree view and select the check boxes for the categories, qualifications, and competencies to include.

   c. Do one of the following:

      - Select the **All** option if a resource must have all the specified qualifications and competencies to be included in the search results.
      - Select the **Any** option if a resource must have at least one of the specified qualifications or competencies to be included in the search results. You can specify which qualifications and competencies are required and which are optional. Right-click each required qualification and competency and select **Set as preferred**.

3. To specify how resource availability is calculated:

   a. Expand the **Availability** section.

   b. In the **Search** subsection, select one or more check boxes. For more information, see "Availability match criteria" on page 30.

4. Click **Search**.

   The **Resource Match Results** view appears. For more information, see "Resource Match Results view" on page 33.

Search for resource matches by function

1. Access the resource match panel.

2. To search by function:
   a. Expand the **Function** section.
   b. Expand the tree view and select the check boxes for the functions to include.

      Resources are included in the search results if either their primary or secondary functions matches the selected functions.
   c. Do one of the following:
      - Select the **All** option if a resource must have all the specified functions to be included in the search results.
      - Select the **Any** option if a resource must have at least one of the specified functions to be included in the search results.
3. To specify how resource availability is calculated:
   a. Expand the **Availability** section.
   b. In the **Search** subsection, select one or more check boxes. For more information, see "Availability match criteria" on page 30.
4. Click **Search**.

   The **Resource Match Results** view appears. For more information, see "Resource Match Results view" on page 33.

Search for resource matches based on previous project experience

1. Access the resource match panel.
2. To search based on previous project experience:
   a. Expand the **Project history** section.
   b. Do one of the following:
      - Select the **All** option if a resource must meet all the project history match criteria to be included in the search results.
      - Select the **Any** option if a resource must meet at least one of the project history match criteria to be included in the search results.
   c. In the **Project type** list, select the type of projects with which resources must have previous experience.

d. In the **Industry type** list, select the type of industries with which resources must have previous experience.

e. In the **Project value** field, enter the lowest project value amount of the projects with which resources must have previous experience.

f. In the currency list, select the currency for the specified project value.

3. To specify how resource availability is calculated:

   a. Expand the **Availability** section.

   b. In the **Search** subsection, select one or more check boxes. For more information, see "Availability match criteria" on page 30.

4. Click **Search**.

   The **Resource Match Results** view appears. For more information, see "Resource Match Results view" on page 33.

Search for resource matches based on availability

1. Access the resource match panel.

2. To search based on availability:

   a. Expand the **Availability** section.

   b. In the **Search** subsection, select one or more check boxes. For more information, see "Availability match criteria" on page 30.

   c. In the **Available for** field, complete the formula that specifies the minimum amount of time that resources must be available to be included in the search results. To complete the formula, select the unit of time and enter the corresponding value (for example, **Hours >= 4**). If you enter a value of 0, the field is ignored.

      The unit of time that you select determines the display units for the demand and availability numbers in the resource match results.

   d. In the **Period start** and **Period end** date fields, enter the start and end dates that the resource must be available.

      The default values for the date fields depend on how you accessed the resource match criteria. If you accessed the criteria from another entity, the start and end dates from that entity are transferred if defined. Otherwise, the dates default to today's date.

e. To include weekends, holidays and other nonworking days in the resource's availability, select the **Include nonworking days** check box.

3. Click **Search**.

   The **Resource Match Results** view appears. For more information, see "Resource Match Results view" on page 33.

Availability match criteria

When you search for resources, the system calculates resource availability based on the options that you select in the **Search** subsection of the **Availability** section of the resource match criteria. You must select at least one option. For more information, see "Calculations in the Resource Match Results view" on page 36.

Example

If you select the **Calendar entries** check box, calendar entries entered directly in the personal calendars by a resource or resource manager are included in resource availability calculations. Calendar entries that the system creates when it copies demand items from other areas of Changepoint are not included. There is an additional option that determines whether or not the system includes flexible bookings in the calculations:

- If you select the **Exclude flexible bookings** check box under the **Calendar entries** check box, the system assumes that resources are unavailable during their flexible bookings. For example, if a resource has an eight-hour work day and a two-hour flexible booking on Tuesday, the search results will show six hours available for the resource on Tuesday.
- If you clear the **Exclude flexible bookings** check box under the **Calendar entries** check box, the system assumes that resources are available during their flexible bookings. For example, if a resource has an eight-hour work day and a two-hour flexible booking on Tuesday, the search results will show eight hours available for the resource on Tuesday.

Calendar entries

Field	Description
Calendar entries check box	When selected, calendar entries entered directly in the personal calendars by a resource or resource manager are included in resource availability calculations. Calendar entries that the system creates when it copies demand items from other areas of Changepoint are not included.
Exclude flexible bookings check box	When selected, flexible bookings in calendar entries are excluded in resource availability calculations.

Projects and tasks

Field	Description
Projects and tasks check box	When selected, bookings made through the **Assignments** section of the task editing view are included in resource availability calculations.
Include draft projects check box	When selected, tasks associated with draft projects are included in resource availability calculations.
Exclude soft-bookings check box	When selected, soft-booked time is excluded in resource availability calculations.

Project team entries

Field	Description
Project team entries check box	When selected, bookings made through the **Project team** tab of the **Edit Project** dialog box are included in resource availability calculations.
Include draft projects check box	When selected, tasks associated with draft projects are included in resource availability calculations.
Exclude soft-bookings check box	When selected, soft-booked time for project team resources is excluded in resource availability calculations.

Contracts

Field	Description
Contracts check box	When selected, bookings made through the **Projected resources** tab of the **Contract** dialog box are included in resource availability calculations.
Exclude soft-bookings check box	When selected, soft-booked time for projected resources for the contract is excluded in resource availability calculations.

Requests

Field	Description
Request check box	When selected, bookings made through the **Resource demand information** tab of the **Request** dialog box are included in resource availability calculations.
Exclude soft-bookings check box	When selected, soft-booked time for resources on the **Resource demand information** tab of the **Request** dialog box is excluded in resource availability calculations.

Assigning a resource in the resource match results

The **Actions** menu of the **Resource Match Results** view has an assignment option if you initiate a resource match from the following entities:

- projected resources of an contract
- project team of a project (add mode only)
- assignment section of a task
- resource request

1. In the entity dialog box or view, do one of the following:
   - Click **Resource Match**.
   - Click **Actions** > **Resource Match**.

2. Complete the resource match criteria. For more information, see "Accessing the resource match panel" on page 25.

   The **Resource Match Results** view appears.

3. Do one of the following:

   - If an option button appears beside each resource name, select the option button for the resource that you want to assign. You can only assign one resource.
   - If a check box appears beside each resource name, select the check boxes for the resources that you want to assign. You can select multiple resources.

4. Click **Actions** and select the assignment option.

   The system transfers the details from the selected resource or resources to the entity dialog box or view from which you initiated the resource match.

5. Complete the entity dialog box or view as usual.

Resource Match Results view

The **Resource Match Results** view contains of the following:

- Resource match results table. Click the active links in the table to view additional information.
- Legend for interpreting the resource match results table. The legend is displayed below the table.
- Summary of the rematch criteria that you specified. The summary is displayed below the legend.
- **Actions** menu with options for viewing resource schedules and creating knowledge items, and snapshots. A menu option for assigning resources may also be available. For more information, see "Assigning a resource in the resource match results" on page 32.

Columns in the resource match results table

The following table provides a brief description of the columns in the resource match results table, but it does not include details on how the numerical results are calculated. For more information, see "Calculations in the Resource Match Results view" on page 36.

Icon	Name	Descriptions
	Number	Row number.
	Name	Name of the resource.
	Workgroup	Workgroup to which the resource belongs.
	Planned hours	Number of planned and booked hours for all of the availability types included in the resource match criteria.
	Qualification match	Rating (expressed in terms of a percentage) of how closely the resource's qualifications match the specified qualifications. If you did not include qualifications in your match criteria, the system does not assign a rating; however, you can still view the qualifications through the link provided.
	Function match	Rating (expressed in terms of a percentage) of how closely the resource's functions match the specified functions. For more information, see "Calculations in the Resource Match Results view" on page 36. If you did not include functions in your match criteria, the system does not assign a rating; however, you can still view the functions through the link provided.
	Calendar entries	Demand (in hours, days, or percentage) from calendar bookings for the resource for the specified period. If you did not include calendar entries in your resource match criteria, the system does not calculate this column; however, you can still view the calendar through the link provided. If no calendar entries can be created for this resource, then **Not applicable** is displayed instead of a link.

Icon	Name	Descriptions
	Projects and tasks	Demand (in hours, days, or percentage) from assigned tasks for the resource for the specified period. The demand includes both those tasks that display in the personal calendar and those that do not. If you did not select projects and tasks in your resource match criteria, the system does not calculate this column; however, you can still view task details through the link provided.
	Project team	Demand (in hours, days, or percentage) from project team entries assigned to the resource for the specified period. The demand includes all project team entries assigned to the resource and not only those that display in the personal calendar. If you did not select project team entries in your resource match criteria, the system does not calculate this column; however, you can still view project team details through the link provided.
	Contract	Demand (in hours, days, or percentage) from the projected resources of the contracts that were assigned to the resource for the selected period. If you did not select contract in your resource match criteria, the system does not calculate this column; however, you can still view projected resource details through the link provided.
	Requests	Demand (in hours, days, or percentage) associated with bookings for the resource for the specified period made through the **Resource demand information** tab of the **Request** dialog box. If you did not select requests in your resource match criteria, the system does not calculate this column; however, you can still view request details through the link provided.

Icon	Name	Descriptions
	Project history	Link to completed and active projects for the resource.
	Project count	Number of active projects to which the resource is assigned. If the tasks assigned to the resource have been locked, the project is not included.
	Total availability	Total availability (in hours, days, or percentage) from all the availability types that you selected in your resource match criteria.

Calculations in the Resource Match Results view

The following sections explain how the system calculates the data presented in the **Resource Match Results** view.

Qualification match

If you selected the **All** option when you specified the qualification criteria for the resource match, only those resources with 100% of the selected qualifications are included in the search results.

If you selected the **Any** option when you specified the qualification criteria for the resource match, resources with one or more of the selected qualifications are included in the search results. For example, if you selected three qualifications in your search criteria, resources with one of those qualifications are assigned qualification match rating of 33.33%, while resources with two of the qualifications are assigned a rating of 66.67%, and resources with all qualifications are assigned a rating of 100%.

Function match

If you selected the **All** option when you specified the function qualification criteria, only those resources with 100% of the selected functions are included in the search results.

If you selected the **Any** option when you specified the qualification criteria, resources with one or more of the selected functions are included in the search results. For example, if you selected three functions in your search criteria, resources with one of those functions are assigned qualification match rating of 33.33%, while resources with two of the functions are assigned a rating of 66.67%, and resources with all functions are assigned a rating of 100%.

Calendar entries

The demand from calendar entries is reported in the calendar entries column of the **Resource Match Results** table. The last column of the table reports the total availability from all the demand that you selected in your resource match criteria.

The system calculates the total availability for the selected period based on the following formula: Availability = Capacity - Demand.

When you search for resources based on calendar entries, the system calculates the capacity by taking the value in the hours-per-day setting in the user setup (default = 8 hours/day) and multiplying it by the number of working days in the specified period, less weekends and legal holidays. The system then calculates the availability by subtracting the number of hours in calendar entries in the specified period, excluding calendar entries that were copied by the system into the personal calendar of the resource from other areas of Changepoint.

The number of hours for a full-day calendar entry is calculated based on hours-per-day setting in the user setup. There is a difference between a full-day calendar entry that is designated as a working day and a full-day calendar entry that is designated as a nonworking day. The former is included in the demand, and the latter is subtracted from the capacity.

If you selected the **Exclude flexible bookings** check box in the search criteria, the system counts all flexible bookings as unavailable time.

The following is a calculation example.

Parameters:

- The **Calendar entries** and **Exclude flexible bookings** check boxes are selected in the resource match criteria.
- The specified period contains 5 working days.
- The daily capacity setting for the resource is 8 hours.
- In the specified period, the resource has one full-day calendar entry that is designated as a working day and one full-day calendar entry that is designated as a nonworking day.
- In the specified period, the resource has one inflexible booking for 3 hours and one flexible booking for 2 hours.

Calculation:

- Total capacity for the specified period: (8 x 5) - 8 = 32 hours

- Total demand for the specified period: 8 + 3 + 2 = 13 hours
- Availability: 32 - 13 = 19 hours

Projects and tasks

The demand from projects and tasks is reported in the projects and tasks column of the **Resource Match Results** table. The last column of the table reports the total availability from all the demand that you selected in your resource match criteria.

The system calculates the total availability for the selected period based on the following formula: Availability = Capacity - Demand.

When you search for resources based on projects and tasks, the system calculates the capacity by taking the value in the hours-per-day setting in the user setup (default = 8 hours/day) and multiplying it by the number of working days in the specified period, less weekends and legal holidays. The system then calculates the availability by subtracting the number of hours from tasks assigned to the resource. All assigned tasks within the selected time period are evaluated. If the resource has updated the status of the tasks with forecasted hours, the remaining hours and the forecast finish date are used as the basis for calculations. If not, the original planned hours from the task profile are used.

The following is a calculation example.

Parameters:

- The **Projects and tasks** check box is selected in the resource match criteria.
- The specified period contains 5 working days.
- The hours-per-day setting for the resource is 8 hours.
- Task A: 2 hours/day for 5 days
- Task B: 2 hours/day for 2 days

Calculation:

- Total capacity for the specified period = 8 x 5 = 40 hours
- Demand from assigned tasks: (2 x 5) + (2 x 2) = 14 hours
- Availability: 40 - 14 = 26 hours

Contract

The calculations are similar to those performed for project and tasks. For more information, see "Projects and tasks" on page 38.

If both the **Projects and tasks** and the **Contract** check boxes are selected in the resource match criteria, the availability calculations include both hours assigned to projected resources for the contract and hours assigned to resources for project tasks. Some assigned times may be counted twice: once from the projected resources of the contract and once from the task. To avoid this problem, make sure that you select the **Task created** check box in the **Projected resources** tab of the **Contract** dialog box once a task has been created.

5. Resource Scheduling Calendar

About the resource scheduling calendar

You can use the resource scheduling calendar to view the monthly availability of resources in a selected workgroup. There are two main types of calendar entries:

- **Appointments** – Appointments are created in the personal calendar by the resource or the resource manager.
- **Demand items** – Demand items include task assignments, project team entries, and request demand items, which are created in other areas of Changepoint, and have been configured to be included in the calendars. You cannot edit demand items in the calendars.

The calendar entries are color-coded according to whether they are for a full day or partial day and whether the time is committed (hard-booked) or flexible (soft-booked). The gray cells are nonworking days.

You can access the personal calendars of resources from the resource scheduling calendar and add, edit, or delete appointments.

If resource requests and soft-bookings are enabled for the billing office of the contract or project, resource requests are considered soft-booked until the request is approved. Soft-booked calendar entries display as flexible in the resource scheduling calendar.

Tip: In Resource Planner, you can access a broader range of data, and also replace and reassign demand items.

Accessing the resource scheduling calendar

1. Click **Resource** > **Resource Scheduling**.

   The **Resource Scheduling** view appears.

2. In the **Global workgroup** list, select the global workgroup.
3. In the **Workgroup** list, select the workgroup. The dots before the workgroup indicate the number of levels that the workgroup is under the global workgroup.
4. To include all workgroups that are under the selected workgroup, select the **Include children** check box.
5. In the **View month/year** lists, select the month and year that you want to view.

6. Click **Go**.

   The resource scheduling calendar appears.

Filtering resources in the resource scheduling calendar

You can specify that only specific resources are displayed in the resource scheduling calendar.

1. Access the resource scheduling calendar.
2. **Ctrl**+ click the resources that you want to display in the resource scheduling calendar.

   The selected names are displayed in bold.
3. Right-click one of the selected names and then select **Filter**.
4. Click **OK** to confirm.

   Only the resources that are selected remain in the calendar. To see all resources again, click **Go** to reload the page.

Creating an appointment for a resource in the resource scheduling calendar

You can create an appointment for a resource directly in the resource scheduling calendar. However, to edit or delete an appointment for a resource, you must access their personal calendar.

1. Access the resource scheduling calendar.
2. In the resource row, double-click the day of the month for the appointment.

   The **Create Appointment** dialog box appears.
3. Complete the fields as required.
4. Click **Save**.

Managing appointments in the personal calendars of resources

You can create, edit, and delete appointments in the personal calendars of resources. You can access the personal calendar of a resource from the resource profile and from the resource scheduling calendar. You cannot edit the calendar entries for demand items in personal calendars.

1. Access the resource scheduling calendar, right-click the resource and then select **View calendar**.

   The personal calendar of the resource appears.

2. The procedures for creating, editing and deleting appointments are the same as for using your own personal calendar. For more information, see "Using Your Calendar" in the *User Basics User Guide*.

Viewing a resource profile from the resource scheduling calendar

1. Access the resource scheduling calendar.
2. Right-click the resource name and select **View resource profile**.

   The resource profile appears.

Checking for resource capacity conflicts

Conflict checking can be performed directly from the **Assignments** section in the task editing view. This functionality helps you to avoid overbooking resources.

1. Click **Project** > **Projects**. The **Projects** tree view appears.
2. Expand the project and click the appropriate task. The Task profile appears.
3. Click **Actions** > **Edit**. The Edit Task view appears.
4. Expand the **Assignments** section and ensure the **Planned hours** values for each of the resources are accurate. At least one resource must be assigned to the task and approved before you can check for available hours.
5. In the **Assignments** section, click **Actions** > **Check available hours**.

   The **Check available hours** dialog box appears with a resource availability report for each resource listed in the **Assignments** section.

6. The report provides the following information:
   - The resource’s name
   - The start and end dates for the task
   - The resource’s planned hours for the current task

- The resource's planned hours for all tasks assigned to the resource for the time period, excluding the hours for the current task
- The resource's calendar entries for the selected period
- The available hours for the resource in the selected period
- If the planned hours for a task exceeds a resource's available hours, the entry for that resource displays in red. The project manager can still choose to assign the task to that resource.

The system calculates the resource's available hours as follows:

- Required hours – the number of hours the resource is needed for a task.
- Total working hours – the number of working days in the selected period (Monday to Friday) times the resource's daily capacity setting.
- Planned task hours – all project-related task hours assigned to the resource within the selected period divided evenly over the number of working days. If the resource has updated the task status, the system uses the remaining hours and the forecast finish date from the **Status** dialog box. If the task status has not been updated, the system uses the planned hours and planned finish date from the task view. The system then adds together those hours that fall within the selected period to reach the total planned task hours.
- Calendar bookings – all bookings in the resource's calendar excluding all project-related tasks.
- Resource's available hours – total working hours minus (planned task hours plus calendar bookings)

Example of resource availability calculations

Planned hours for a new task	Start: Monday, January 1 End: Monday, January 8 Planned hours: 15
Total working hours	Working days in the selected period = 8 days less 2 weekend days and 1 legal holiday = 5 days Resource's daily capacity = 8 (defined in the **User Setup** dialog box) 5 x 8 = 40 total working hours
Planned task hours	**Task A** (based on planned hours, no status information available) Starts January 2, Ends January 11. Planned hours = 16 Working days = 8 days Hours required each day: 16/8 = 2 hours/day This project covers the full range of working days. **Task B** (based on remaining hours and forecast finish date) Starts January 5, Forecast finish: January 10. Remaining hours = 8 Working Days = 4 days Hours required each day: 8/4 = 2 hours/day Only two of the work days fall within the selected period (January 5 and January 8), as January 6 and 7 are Saturday and Sunday. Working days in selected period = 5 days **Task A**: Planned daily capacity for January 2 to 8 = 2 hours/day for 5 days **Task B**: Remaining daily capacity for January 5 to 8 = 2 hours/day for 2 days (2 x 5) + (2 x 2) = 14 planned task hours

Total calendar hours	The resource has three calendar bookings, each for half a day. The resource's daily capacity = 8 (8 x 0.5) x 3 = 12 Total calendar hours
Resource's available capacity	40 – (14 + 12) = 14
Capacity conflict	Available hours – Planned hours = 14 – 15 = -1 The report shows that this resource has zero (0) available hours.

6. Resource Requests

About resource requests

In organizations with centralized resource management, resource requests must be submitted and approved before a resource can be assigned to work. Depending on your Changepoint installation, you submit resource requests from contracts, projects, or tasks. You can also submit resource requests from the following locations:

- **New** menu
- **Actions** menu on project profiles, if resource requests are enabled at the project or task level

Two main roles are involved when requesting resources:

- Initiator – A person in the organization who requires a resource for upcoming work.
- Resource manager – A person or role who approves resource requests. The resource manager may be associated with the staffing workgroup, the workgroup of the requested resource, or can be directly selected on the resource request. The workflow determines how and to whom the resource request is routed.

Resource request statuses

The following table describes the resource request statuses and ways that your organization can use the available statuses within the resource request workflow.

Status	Example Use of Status
New	The resource request has been submitted by the initiator or resource manager.
In progress	A resource has not been assigned to the request, but some action has been taken. For example, the resource manager or project manager have submitted comments and are holding the request in a Draft status.
Assigned	The resource manager has assigned a resource to the request, and the assignment is waiting to be approved or rejected by the initiator.

Status	Example Use of Status
Reassigned	The resource manager has changed the assignment.
Sent to initiator	The resource manager has sent the request to the initiator with comments or questions.
Sent to resource manager	The initiator has sent the request to the resource manager with comments or questions.
Approved	The resource manager has assigned a resource to the request, and the initiator has approved the assignment.
Rejected	The resource manager has assigned a resource, but the initiator has rejected the assignment. When an assignment is rejected, the initiator must enter a reason for the rejection.
Canceled	The request has been canceled by the initiator or the resource manager. The request can be canceled at any time.
Re-opened	After a request has been canceled, it can be resubmitted by the resource manager or the initiator. All history is retained from the original request.

About accessing resource requests

You can access resource requests from the following locations:

- edit dialog of the contract, project, or task from which the resource request was submitted
- **Project Team** section of the project profile, if resource requests are enabled at the project level
- Resource Planner
- **Resource Request Workflow** link in **My Reminders**, if a workflow step is assigned to you

Copying a resource request

You can create a copy of a resource request. All of the values from the original resource request are copied to the resource request copy, except for the comments and history.

1. Access the source resource request.
2. Click **Copy**.
3. Complete the fields as required.
4. Click **Save**.

   The resource request copy is validated and sent into workflow as a new resource request.

Submitting a resource request from a contract

You can submit a resource request for a named resource, or you can create a resource request for multiple generic resources.

1. Access the contract for editing.
2. Click the **Projected resources** tab.
3. Add the projected resources. For more information, see "Adding a projected resource to a contract".
4. Select the projected resource for which you want to submit a resource request.
5. Right-click and select **Submit request**.

   The **Submit Resource Request** dialog box appears.
6. Do one of the following:
   - To submit a request for a named resource, enter the resource that you want to assign to the resource requests in the **Requested resource** type-ahead field.
   - To submit a request for one or more generic resources:
     - In the **Request resource** type-ahead field, select the generic resource.
     - In the **Number of resource requests** field, enter the number of resource requests that you want to submit for each projected resource.
7. In the **Comments** field, enter a comment.
8. Click **Submit**.

   The resource request is submitted and the dialog box closes. On the **Projected resources** tab, the resource request number appears in the resource request row.
9. Click **Apply**.

Assigning a resource to a resource request

If a resource request is routed to you for a resource assignment, a reminder displays in the **My Reminders** portlet.

1. Access your **My Reminders** from a dashboard that includes it.
2. Click **Resource Request Workflow has been assigned to you**.

   The **Workflow** view appears.
3. Click the **Step** name.

   The **Action** dialog box, showing instructions, appears.
4. Minimize the **Action** dialog box.
5. In the **Workflow** view, right-click the **Resource request number**.

   The **Edit Resource Request** dialog box appears.
6. In the **Assigned resource** type-ahead field, enter the name of the resource.
7. To search for a resource to assign, do the following:
   a. Click **Resource match**.

      The **Search for Available Resources** window appears.
   b. Complete the match criteria as necessary and click **Search**. For more information, see "Accessing the resource match panel" on page 25.

      The **Resource Match Results** view appears.
   c. Select the **Name** option button for the resource that you want to assign to the request.
   d. Click **Actions** > **Create** > **Assignment**.
8. Enter a comment in the **Resource request history comments** field.
9. Click **Save**.

   The **Edit Resource Request** dialog box closes.
10. Maximize the **Action** dialog box and select approved in the **Status** list.
11. Click **Save**.

Approving, rejecting, or canceling a resource request

As the initiator of a resource request, you must approve or reject the resource assigned by the resource manager.

1. Access your **My Reminders** portlet.
2. Click **Resource Request Workflow has been assigned to you**.

   The **Workflow** view appears.
3. To edit or review the resource request before approving, rejecting, or canceling it, click the resource request number.

   The resource request profile appears.
4. To edit a resource request, right-click the number of the resource request. The **Resource Request Summary** dialog box appears.
5. Make the necessary changes and click **OK**.
6. In the **Workflow** view, click the step name.

   The **Action** dialog box appears.
7. In the **Status** field, do one of the following:
   - To approve the resource assignment, select **Approved**.
   - To reject the resource assignment, select **Rejected**. Type a comment in the **Comment** field to explain why you are rejecting that resource. The request is sent back to the resource manager for a different assignment.
   - To cancel the resource request, select **Canceled**.
8. Click **Save**.

7. Resource Demand Analysis

About resource demand scenarios

Use resource demand scenarios to analyze resource demand for one or more entities (contracts, opportunities, projects, or requests). Resource demand scenarios display all of the resource demand from selected entities in a Gantt view, and a comparison of the resource demand to capacity data in a histogram view. In the Gantt view, you can change the duration and start and end dates of entity demand to see how the changes affect resource planning. In the histogram view, you can add and remove resources to evaluate different solutions to capacity issues.

When you are satisfied with a resource demand scenario, you save it, and then send it for approval. When a scenario is approved, email notifications are sent to the managers of the entities that are included in the scenario. The email notifications advise the managers to change their plans according to the scenario. When a scenario is rejected, email notifications are sent to the creator of the scenario.

You can compare resource demand scenarios by using the scenario comparisons worksheet. For more information, see "Scenario Comparisons Worksheet" in the *Customer Relationship Management User Guide*.

You can do a more detailed analysis of resources and demand items by using Resource Planner.

Accessing the graphical view of a resource demand scenario

Usually a resource demand scenario is created as part of the opportunity and project portfolio prioritization and selection process. As a result, the resource demand scenario can be accessed in a number of ways. You can access it from the applications menu bar, from an opportunity scenario, or from a project portfolio.

1. Click **Resource** > **Resource Demand**.

   A list of resource demand scenarios appears.

2. Double-click the resource demand scenario.

   The resource demand scenario appears.

3. Expand the **Scenario members** tab.

4. Click **Actions** > **Edit scenario**.

The Gantt view and the histogram view of the resource demand scenario appear.

About the graphical view of a resource demand scenario

The graphical view of a resource demand scenario consists of a Gantt view and histogram view.

Gantt view

The color-coded bars in the Gantt view represent the duration of the demand for the entities that you specified in the filter criteria. You can change the end and start dates by moving the bars, and the duration by making the bars longer or shorter.

The **Item** column in the Gantt view displays the name of the entity. For requests, the name is the request number followed by the short description of the request.

Histogram view

The bars in the histogram view represent the total demand for each time period. The total demand consists of the following:

- demand for the specified resources from all entities, including calendar appointments, that have been configured to be included in resource demand scenarios.
- unassigned demand from the projected resources entries and opportunity service forecast items.
- demand from all entities that are included in the scenario, regardless of whether the entities are configured to be included in resource demand scenarios.

The red bars are committed demand and the green bars are uncommitted demand. You can view the effect of the changes that you make in the Gantt view on overall demand and capacity.

The orange line represents the total capacity for each period of all resources from the selected workgroups and who have the specified functions. The capacity for each resource is calculated as follows:

Daily capacity * number of working days in the time interval * workgroup percent available for planned work

When you change the capacity, the new capacity line is orange, and the original capacity line turns blue.

Creating a resource demand scenario

To create a resource demand scenario, you first specify filter criteria to determine the resources whose demand you want to include in the scenario and the time period for the scenario. This filter criteria results in a list of the entities that include demand for the selected resources during the time period. From the list you then select the entities that you want to include in the scenario.

1. Initiate the resource demand scenario and specify the resources. For more information, see "Initiating the resource demand scenario and specifying the resources" on page 55.
2. Specify the time period. For more information, see "Specifying the time period for a resource demand scenario" on page 56.
3. Specify the entities. For more information, see "Specifying the entities for a resource demand scenario" on page 57.
4. Click **Go**.

   The graphical view of the resource demand scenario appears.
5. You can then try different scenarios with the resource demand scenario data. For more information, see "Working with the resource demand scenario data" on page 58.

Initiating the resource demand scenario and specifying the resources

When you initiate a resource demand scenario, you must first specify the workgroups of the resources that you want to include. You can further filter the results by specifying the specific resources and functions.

For demand that is not assigned to specific resources, such as projected resources or opportunity service forecast items, you must specify the staffing workgroups of the associated entities. For example, to include projected resources for a contract that are based on billing roles, you specify the staffing workgroups of the contract.

1. Click **Resource** > **Resource Demand**.

   The **Resource Demand Scenarios** view appears.
2. Click **Actions** > **Create** > **Resource demand scenario**.

   The filter criteria window appears.
3. In the **Workgroup** list, select one or more workgroups.

4. In the **Resource** list, select the resources to be included in the scenario.
5. In the **Functions** list, select the functions that resources require to be included in the scenario.
6. To include only the resources who have the selected function as their primary function, select the **Include only resources whose primary functions are the specified functions** check box.
7. Specify the time period criteria. For more information, see "Specifying the time period for a resource demand scenario" on page 56.

Initiating a resource demand scenario from an opportunity scenario

1. Access the an opportunity scenario.
2. Click **Actions** > **Create** > **Resource demand scenario**.

   The **Resource Demand Scenarios** filter view appears.
3. Complete the fields as required. For more information, see "Creating a resource demand scenario" on page 55.

Initiating a resource demand scenario from opportunity analysis

1. Click **Customer** > **Opportunity Analysis**.

   The **Scenario Selection** view appears.
2. Click **Actions** > **Create** > **Resource demand scenario**.

   The **Resource Demand Scenarios** filter view appears.
3. Complete the fields as required. For more information, see "Creating a resource demand scenario" on page 55.

Specifying the time period for a resource demand scenario

You can specify either one or more fiscal periods, or a date range, and whether you want the data displayed in daily, weekly or monthly time intervals.

1. Initiate the resource demand scenario and specify the resource criteria.
2. To specify fiscal periods:

   a. Select the **Fiscal period** option.

b. In the **Fiscal period selection** list, select the billing office that contains the fiscal periods.

c. In the **Fiscal year** field, select the fiscal year. The fiscal periods display in the **Fiscal periods** field.

d. In the **Fiscal periods** field, select one or more fiscal periods.

3. To specify a date range:

   a. Select the **Date range** option.

   b. In the **Start date** field, enter the start date.

   c. In the **End date** field, enter the end date.

4. In the **Time interval** list, select the time interval option (daily, weekly, or monthly) for displaying the data.

5. Complete the entity criteria. For more information, see "Specifying the entities for a resource demand scenario" on page 57.

Specifying the entities for a resource demand scenario

After you specify the resources and time period for the resource demand scenario, you specify one or more entities whose resource demand you want to analyze.

Note: The entities that you specify are included in the scenario regardless of whether the entities are configured to be included in resource demand scenarios.

1. Specify the time period criteria.

2. In the **Entity type** list, select the entity type.

3. To include task assignment and project team information, select the **Include entries of project teams** check box.

4. In the **Status** field, select the statuses of the demand items that you want to include.

   The entities that match the filter criteria are displayed in the **Item** list.

5. To filter the demand items in the **Item** list:

   a. In the **Search** field, enter the name or partial name of the demand item.

   b. Select the entity type and status.

6. In the **Item** list, select the entities that you want to include in the resource demand scenario, and then click the right arrow.
7. To add entities of other entity types, repeat step 2 to step 6.
8. To prevent the demand for successor projects and tasks from being updated in the Gantt view based on changes to predecessor projects and tasks, select the **Do not modify the demand for unspecified dependent projects and tasks in the histogram** check box.
9. Click **Go**.

   The **Resource Demand Scenarios** window appears.
10. Work with the resource demand scenario data. For more information see, "Working with the resource demand scenario data" on page 58.

Working with the resource demand scenario data

After you specify the filter criteria for the resource demand scenario, you can then change the demand items and capacity in the Gantt and histogram views to determine the scenario that works.

Changing the time line of the Gantt view in a resource demand scenario

You can shorten the time line that is displayed in the Gantt view to display the data in greater detail.

1. Access the graphical view of the resource demand scenario.
2. Ensure that no items are selected.
3. Click .

   The **Change Period/Duration** dialog box appears.
4. Click the **Duration** tab.
5. Make the necessary changes to the start or end dates.
6. Click **OK**.

   The time line in the Gantt view changes.

Sorting the entities in the Gantt view of a resource demand scenario

You can change the order of the entities in the Gantt view by moving them up or down.

1. Create the resource demand scenario.
2. To move an item up, right-click the item and then select **Position** > **Move up**.
3. To move an item down, right click the item and then select **Position** > **Move down**.

About changing the dates and duration of entity demand in a resource demand scenario

After you create the resource demand scenario, you can change the dates and/or duration of entity demand as follows:

- changing the start and/or end date – the duration is updated as required
- dragging the entity bar forward or backward along the time line in the Gantt view – the start and end dates change, but the duration remains the same
- resizing the entity bar – the dates change and the duration is updated
- specifying the number of days for the duration – end date and duration is updated

After you change the dates and/or duration in the Gantt view, you can view the changes in the histogram view by refreshing it.

Changing the dates and/or duration of entity demand in a resource demand scenario

To change the start date and/or end date

1. In the Gantt view, click the entity bar.
2. Click .

   The **Change Period/Duration** dialog box appears.
3. Click the **Duration** tab.
4. Make the necessary changes to the start and end dates.
5. Click **OK**.

To drag the entity bar

1. In the Gantt view, click the entity bar to highlight it.
2. Point to the entity bar until the move icon appears.
3. Drag the entity bar to the new position.

To resize the entity bar:

1. In the Gantt view, click the entity bar.
2. Point to the left or right end of the entity bar until the double-sided arrow appears.
3. Drag the end of the entity bar left or right to the desired date. As you drag the bar, the currently selected date appears in the icon toolbar.

To specify the duration in days:

1. In the Gantt view, click the entity bar.
2. Click .

   The **Change Period/Duration** dialog box appears.
3. Click the **Period** tab.
4. Select the **Days** option.
5. In the **Days** field, enter the duration in days.
6. Click **OK**.

Moving all demand for an entity to the current period in a resource demand scenario

When you move an entity in the Gantt view, you have the option of moving effort from the past to the current period, for example, if you want to include all of the effort in the scenario for a demand item that has not been started.

1. Create the resource demand scenario.
2. In the Gantt view, click the entity bar.
3. Click .

   The **Change Period/Duration** dialog box appears.
4. Click the **Period** tab.
5. Select the **Move the entire effort …** check box.
6. Click **OK**.

Undoing changes to an entity in a resource demand scenario

1. In the Gantt view, right-click the entity, and then select **[Entity] > Remove changes**.
2. Repeat as required.

Excluding entity demand from a resource demand scenario

You can temporarily exclude entity demand from a resource demand scenario to view the results, and then include it again as needed.

1. Create the resource demand scenario.
2. To exclude a demand item, right-click the entity bar, and then select **[Entity] > Exclude from scenario**.
3. To exclude multiple items, select the item IDs, right-click one of the IDs, and select **[Entity] > Exclude selected items**.

   The excluded entity bars turn gray.
4. To refresh the histogram and view the results, click **Actions > Histogram > Refresh**.
5. To include the entity demand again, right-click the entity bar, and then select **[Entity] > Include in scenario**.

Changing the effort for a demand item in a resource demand scenario

You can increase or decrease the effort for a demand item by a specified percentage.

1. Create the resource demand scenario.
2. In the Gantt view, right-click the item and select **[Entity] > Change effort**.

   The **Change Effort** dialog box appears.
3. In the **Percentage** field, enter the amount in percent that you want the effort to change.
4. Do one of the following:
   - To increase the effort, select **Increase**.
   - To decrease the effort, select **Decrease**.
5. Click **OK**.

   The change in effort is applied to the selected item.

Linking entities in a resource demand scenario

You can create finish to start dependencies between opportunities, contracts, and requests in a resource demand scenario.

You can also link tasks under certain conditions. For more information, see "Adding successor tasks in a resource demand scenario" on page 62.

You can only link two entities at a time, but you can link an entity more than once.

1. Create the resource demand scenario.
2. In the Gantt view, click the ID of the predecessor entity.
3. While pressing the **Ctrl** key, click the ID of the successor entity.
4. Click .

   The successor entity is updated to start on the end date of the predecessor entity, and an arrow connects the two entities.

Unlinking entities in a resource demand scenario

When you unlink entities, the dependency is removed, but the successor entity dates remain the same.

1. Create the resource demand scenario.
2. In the Gantt view, click the ID of the predecessor entity.
3. While pressing the **Ctrl** key, click the ID of the successor entity.
4. Click .

Adding successor tasks in a resource demand scenario

When a linked project with a predecessor task is included in the resource demand scenario, you can link additional successor tasks to either the predecessor or successor tasks through the Gantt view.

1. Create the resource demand scenario.
2. In the Gantt view, right-click the task bar, and then select **Project > Add successor task**.

   The **Create Task Dependency** dialog box appears.

3. Complete the fields as required. For more information, see "Task dependency options" in the *Project Management User Guide*.

Viewing the resource demand report for a resource demand scenario

You can view a report of resource demand by item, function, or workgroup for the resource demand scenario either while you are working in the scenario or after you have saved it.

1. Do one of the following:
   - Access the graphical view of the resource demand scenario.
   - Create a resource demand scenario and make changes.
2. Click **Actions** > **View** > **Report**.

   The **Resource Demand by Item** report displays in a new window.
3. To view resource demand by function, click **Actions** > **View by function**.
4. To view resource demand by workgroup, click **Actions** > **View by workgroup**.
5. To view resource demand by item again, click **Actions** > **View by demand item**.

Refreshing the histogram view in a resource demand scenario

After you change dates or duration of demand items in the Gantt view, you can refresh the histogram view to see the effect of the changes on the capacity.

1. Create the resource demand scenario.
2. Make the necessary changes.
3. Click **Actions** > **Histogram** > **Refresh**.

Increasing the capacity in a resource demand scenario

You can increase the capacity by adding the number of resources according to function.

1. Create the resource demand scenario.
2. Click **Actions** > **Histogram** > **Change capacity**.

   The **Change Capacity** dialog box appears.
3. Click the **Add** tab.
4. In the **Function** field, select the primary function of the resources that you want to add.

5. In the **Number of resources** field, enter the number of resources that you want to add.
6. In the **Start date** field, enter the date that the increased capacity takes effect.
7. In the **End date** field, enter the date when the increased capacity ends.
8. Click **OK**.

   The original capacity line changes from orange to blue, and the new capacity line is orange.

Decreasing the resource capacity in a resource demand scenario

You can decrease the resource capacity by removing resources.

1. Create the resource demand scenario.
2. Click **Actions** > **Histogram** > **Change capacity**.

   The **Change Capacity** dialog box appears.
3. Click the **Remove** tab.
4. In the **Function** field, select the primary function of the resources that you want to remove.
5. In the **Resource** field, select the resources that you want to remove.
6. Click **OK**.

   The original capacity line changes from orange to blue, and the new capacity line is orange.

Changing the percent available for planned work of workgroups in a resource demand scenario

You can view how changing the percent available for planned work of the workgroups in the resource demand scenario would affect capacity.

1. Create the resource demand scenario.
2. Click **Actions** > **Histogram** > **Change availability**.

   The **Change Availability** dialog box appears.
3. In the **Workgroup** list, select the workgroup.
4. In the **Change to** field, enter the new percentage for the workgroup availability.

5. Click **OK**.

   The original capacity line changes from orange to blue, and the new capacity line is orange.

Excluding and including calendar entries in a resource demand scenario

You can exclude the calendar entries for the resources in one or more workgroups from your resource demand scenario, which allows you to view the effect of the calendar entries on the capacity.

1. Create the resource demand scenario.
2. To exclude the calendar entries:
   a. Click **Actions > Histogram > Exclude calendar entries**. The **Exclude Calendar Entries** dialog box appears.
   b. Select one or more workgroups.
   c. Click **Exclude**.

   The original capacity line changes from orange to blue, and the new capacity line is orange.
3. To include the calendar entries again:
   a. Click **Actions > Histogram > Exclude calendar entries**. The **Exclude Calendar Entries** dialog box appears.
   b. Select one or more workgroups.
   c. Click **Include**.

Comparing resource demand scenario data with actual data

You can compare the data in your scenario with actual data.

1. Create the resource demand scenario.
2. Click **Actions > Compare to actual data**.

   For each entity, the actual data is displayed in the row above the scenario data.
3. To remove the actual data, click **Actions > Remove actual data**.

Viewing changes to the histogram view in a resource demand scenario

You can view the changes that have been made to the histogram view.

1. Create the resource demand scenario.
2. Click **Actions** > **View** > **Histogram changes**.

   The **Histogram Changes** view appears.

Saving a resource demand scenario

After you save a resource demand scenario, you can no longer edit it. If you want to keep working with it, you can save a snapshot instead.

1. In the **Resource Demand Scenario** view, click **Actions** > **Save** > **Resource demand scenario**.

   The **Create Scenario** dialog box appears.
2. In the **Scenario name** field, enter a name for the resource demand scenario.
3. In the **Description** field, enter a description.
4. In the **Benefits** field, enter the benefits.
5. In the **Risks** field, enter the risks.
6. Click **OK**.

   The resource demand scenario is saved.

Saving a snapshot of a resource demand scenario

A snapshot is an HTML file that includes a picture of the Gantt and histogram views. The snapshot is saved as a knowledge item that is associated with the resource demand scenario. You can access a snapshot from the resource demand scenario or by doing a knowledge search.

1. In the **Resource Demand Scenario** view, click the **Actions** > **Save** > **Snapshot**.

   The **Create Snapshot** dialog box appears.
2. In the **Snapshot name** field, enter a name for the snapshot of the resource demand scenario.
3. In the **Description** field, enter a description.

4. Click **OK**.

   A message is displayed informing you that the snapshot has been saved.

5. Click **OK**.

Deleting a resource demand scenario

1. Access the graphical view of the resource demand scenario.
2. Click **Actions** > **Delete**.

   The resource demand scenario is deleted.

Submitting a resource demand scenario

When submitted, the resource demand scenario is locked to prevent further changes, and a notification is sent to the **My reminders** portlet of the approvers.

1. Access the graphical view of the resource demand scenario.
2. Click **Actions** > **Submit**.

Approving or rejecting a resource demand scenario

When you approve a resource demand scenario, email notifications are sent to the appropriate managers to request that the managers change their plans accordingly. The creator of the scenario receives an email notification if the scenario is rejected.

1. Access the graphical view of the resource demand scenario.
2. Do one of the following:
   - Click **Actions** > **Approve**.
   - Click **Actions** > **Reject**.

Desubmitting an approved resource demand scenario

You can cancel an approved resource demand scenario by desubmitting it.

1. Access the graphical view of the resource demand scenario.
2. Click **Actions** > **Desubmit**.

   The **Desubmit** dialog box appears.

3. In the **Desubmit reason** field, enter the reason why the resource demand scenario was canceled.
4. Click **OK**.

   The system sends email notifications to the appropriate managers advising them to cancel the scheduled work.

8. Resource Planner

About Resource Planner

You use Resource Planner to manage the demand for resources' time. Resource Planner has two main sections:

- worksheet where the rows display demand items, which can be grouped as required according to the worksheet view. The columns display the demand item data.
- Gantt chart that displays the demand items and nonworking days, which are color-coded to indicate whether the demand is committed (or not) and the availability of the resource.

  Note: Resource Planner supports hours and days only, and not FTEs.

Using Resource Planner, you can do the following:

- use the standard views or create and edit your own Resource Planner views
- view overall resource workload and item details
- identify at a glance when resources are underbooked or overbooked
- easily assign new work, move work between resources and adjust planned effort, planned start and planned finish dates to balance workloads
- find resources that match specified criteria
- search for items
- edit planned effort in daily or fiscal periods
- change loading methods and Completed, Locked and Soft-booked statuses for demand items
- manage resource requests by assigning resources or approving changes in scope

  Note: Before you can manage resource requests in Resource Planner, the resource request workflow must be enabled and configured in Changepoint Administration.
- access resource and entity profile pages to view more details, or the entity edit dialogs to create or edit calendar appointments and resource requests
- process workflow steps

About demand in Resource Planner

Resource Planner displays demand items that have been assigned to resources in the workgroups for which you are a resource manager and resource requests, even when not assigned to a resource.

The demand items must be configured to be included in resource demand analysis, and are included based on the combination of entity status and hard-booked or soft-booked status.

The demand items are:

- task assignments (completed task assignments are not included)
- project team entries
- projected resources
- opportunity services
- request demand items
- calendar entries – nonworking day calendar entries are only visible as a shaded day, but no demand row is visible in Resource Planner

The effort for all demand items (except calendar entries) is stored in daily allocations, based on manual allocations made (if any) in an entity dialog or worksheet.

Committed and non-committed demand is the effort for entities that are configured as committed or non-committed demand in Changepoint Administration, based on a combination of the entity status, and hard- or soft-booked setting.

About messages and warnings in Resource Planner

The cells in the **State** column indicate when the row is locked or there is an error or message that applies to the data in the row:

- Lock icon – The demand item is locked for editing.
- Red cell – There is an error. The row cannot be saved until the error is corrected.
- Orange cell – There is a potential problem with the row, but the row can be saved. For example, you have edited and locked a demand item. If another user overrides the lock and saves a change to the demand item, the cell will turn yellow and a pop-up message will appear in the bottom right corner of the worksheet.

- Green cell – Informational message. For example, a message appears if a demand item that is in the current view is edited outside of Resource Planner.

  Note: To view the message, point to the cell.

About validating and saving changes in Resource Planner

While you are working in Resource Planner, some basic validation is performed to verify that the changes are valid on a high level, for example, that the demand item can be assigned to the target resource. You are prevented from making changes that fail this basic validation, but some changes that pass validation may still trigger warnings, such as when a resource is overbooked.

When you save Resource Planner, the complete validation is performed, which includes additional calculations and checks that are not covered by the basic validation. If all changes in the worksheet pass validation, the changes are saved (including the ones with warnings), and all locks are released.

If one or more changes does not pass validation, none of the changes are saved. You must either correct the errors, or clear the changes that have errors by refreshing the items before you can save the worksheet.

If you want to see the warnings and errors and deal with them before trying to save the worksheet, you can do the validation separately.

To save changes in Resource Planner

Do one of the following:

- To save changes and close Resource Planner, click **Save**.
- To save changes but continue working in Resource Planner, click **Apply**.

To validate changes in Resource Planner

Click **Validate**.

Resource Planner basics

Accessing Resource Planner

When you access Resource Planner for the first time, or if you have not specified a default filter, you must either select an existing filter or create a new filter to view data.

1. Click **Resource** > **Planner**.
2. To create a new filter, in the **Worksheet** toolbar, click the **Switch or manage filters** icon and then select **Manage filters**. The **Manage Filters** dialog box appears.
3. For more information, see "Creating a Resource Planner filter" on page 91.

Switching Resource Planner views and filters

You can temporarily switch the Resource Planner view by clicking the **Switch or manage views** icon, and then selecting a different view.

Similarly you can temporarily switch the Resource Planner filter by clicking the **Switch or manage filters** icon, and then selecting a different filter.

Note: If you have set a default view or filter, the currently selected view or filter applies only until the next time you access Resource Planner.

Setting a default Resource Planner view

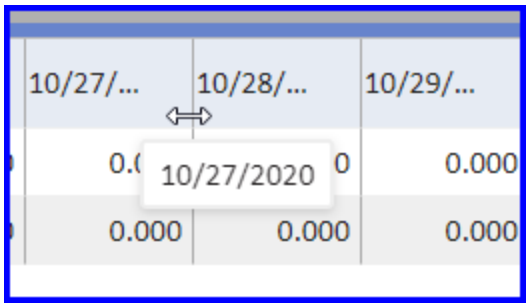
1. Click the **Switch or manage views** icon.
2. In the **Manage views** dialog box, select the set **Set as default** check box.
3. Click **Save**.

Setting a default Resource Planner filter

1. Click the **Switch or manage filters** icon and then select **Manage filters**.
2. In the **Filter** list, select the filter to be your default.
3. Select the **Set as default** check box.
4. Click **Save**.

Adjusting the width of columns in Resource Planner

1. Press and hold the **Ctrl** key and point to the divider between two column headings until the cursor changes to a double-sided arrow.



2. Move the cursor to the desired width.

To adjust the width for all **Effort distribution** columns at once

Note: This adjustment is temporary and applies only while you are working in the current view.

1. Press and hold the **Ctrl** key and point to the divider between two **Effort distribution** columns (daily or fiscal period) headings until the cursor changes to a double-sided arrow.
2. Adjust the column to the desired width. All effort distribution columns are adjusted to the same width.

Expanding and collapsing rows in Resource Planner

You can control the level of detail displayed in the worksheet rows. You can expand or collapse grouped rows individually by one level by clicking the right arrow ▸ or down arrow ▾ beside the group name. You can also select multiple rows and then expand or collapse them by one level. When you expand selected rows, the expanded level of lower rows is retained until you subsequently expand further or collapse them.

To expand the entire worksheet

To expand all rows completely, ensure no rows are selected, and then click .

To collapse the entire worksheet

Ensure no rows are selected (or select all rows), and then click .

To expand selected groups

Select the rows and then click .

To collapse selected groups

Select the rows and then click .

Searching in Resource Planner

You can search for items in Resource Planner. The search applies to all information that is included in the current worksheet view, including in collapsed rows but excluding information that has been filtered out.

1. Click the search icon .
2. Enter the search text and then press **Enter**. The number of rows that include matching results is displayed in the search field and the first matching row is highlighted.
3. To navigate through the rows that include matching results, click the up and down arrows in the search field.
4. To close the search field, click the **x** on the right end of the search field.

Displaying time periods that start from a specific date in Resource Planner

Click in the date field , enter a date, and then press **Enter**.

The range of fiscal periods, starting with the fiscal period that includes the specified date or the range of daily periods, starting with the daily period for the date, is displayed.

Displaying the previous *x* or next *x* number of periods in Resource Planner

1. In the number of periods field 31 , enter the number of periods that you want to change the starting period by. The range of the values that you can enter depends on the type of period as follows:
   - daily periods – 1 to 31
   - weekly fiscal periods – 1 to 54
   - monthly fiscal periods – 1 to 12
   - quarterly fiscal periods – 1 to 5
2. To display the range of periods that starts with the *x* number of periods before the current starting period, click .
3. To display the range of periods that starts with the *x* number of periods after the current starting period, click

Refreshing Resource Planner

When you refresh the entire worksheet, all unsaved changes are lost, and the current view and filter are reapplied.

To refresh the worksheet, click **Refresh**.

Refreshing a demand item

You can select one or more demand items and then refresh them. You might want to refresh a demand item in the following situations:

- to update the demand item when there is a notification that it has been updated outside of Resource Planner
- to discard the changes that you made to a demand item and revert it to the last saved values

When you refresh a demand item, all of its dependent tasks are also refreshed.

To refresh a demand item

Select one or more demand items.

In the **Actions** toolbar, click the **Refresh demand items** icon.

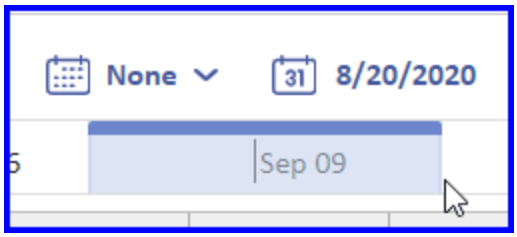
Adjusting the date range that is displayed in the Gantt chart

The Gantt chart initially displays days by week, and the date range is determined by the width of the browser window. The Gantt chart and the worksheet are each 50% of the width.

You can change the start date, end date, and duration of the date range by moving the blue bars that represent the date range in the calendar bar just above the worksheet area.

To change the start date or end date

1. Point to the start or end of the date range in the calendar bar that is below the **Worksheet** toolbar.



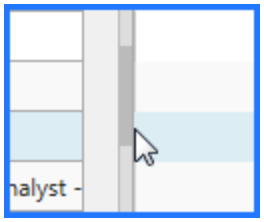
2. When the cursor changes to a two-headed arrow, move the bar to the desired date.

To keep the duration and change the start and end dates

1. Point to the blue-shaded area between the start and end date.
2. When the cursor changes to a four-sided arrow, drag the date range to the desired date.

Adjusting the width of the worksheet and Gantt chart

You can adjust the width of the worksheet and Gantt chart by dragging the darker bar in the middle of the divider bar between the worksheet and Gantt chart.



Showing or hiding the worksheet

To show or hide the worksheet, click the darker bar in the middle of the divider bar between the worksheet and the Gantt chart.

Showing or hiding the Gantt chart

To show or hide the Gantt chart, in the **Gantt** toolbar, click .

Viewing the Gantt chart legend

In the **Gantt** toolbar, click **Legend**

Navigating the Gantt chart

To go to a specific date in the Gantt chart

In the **Gantt** toolbar, click the **Go to the selected date** icon and then select the date. The Gantt chart displays the demand items starting from the date you entered.

To go to a specific demand item in the Gantt chart

You can display a specific demand item at the beginning of the Gantt chart.

1. Select the demand item row.
2. In the **Gantt** toolbar, click the **Go to the selected item** icon .

Zooming in and zooming out in the Gantt chart

Once a view is selected you can zoom in to display the data in finer detail or zoom out to display in less detail. The zoom levels are automatic and cannot be changed. You can also select an option to display the entire worksheet in the current browser window.

To change the timescale in the Gantt chart

To zoom in, click the **Zoom in** icon . The lowest zoom level shows the timescale in days per week.

To zoom out, click the **Zoom out** icon . The highest zoom level shows the timescale as semiannual.

To display the entire Gantt chart in the available space

Click the **Zoom to fit** icon . The Gantt chart is scaled to fit in the width of the pane.

Displaying a bar per time period for demand items

In the Gantt chart, you can manage demand items as single units or in smaller time periods. You can switch between displaying a solid bar for demand items, or a bar that is divided into time periods for demand items. The time periods correspond to the current zoom level and can range from days to years in duration.

To switch from a solid bar to a bar per time period (and vice versa), click the **Switch timescale display** icon .

Printing Resource Planner

You can print Resource Planner by clicking **More** > **Print**. The printout includes each row, but only includes the columns and portion of the Gantt chart that are currently displayed.

Exporting Resource Planner data to Microsoft Excel

You can export the data in Resource Planner to a Microsoft Excel file. All of the data in the worksheet is exported based on the current view and filters that are applied. The first column in the spreadsheet is named **Type** includes the item type for the row, such as workgroup, resource or demand item.

If you have displayed additional information in the worksheet, such as actual effort or planned effort minus actual effort, it is exported to a separate column, which allows you to use it for calculations in Microsoft Excel.

To export Resource Planner data to a Microsoft Excel file

1. Click **More** > **Export to Excel**.

2. Follow the browser prompts to open or save the file.

Sorting rows based on column data in Resource Planner

You can sort the rows in Resource Planner based on the data in one or more columns. If the column data is grouped, the groups are sorted and the data within the groups is sorted in the same order (ascending or descending).

Note: The sort order is temporary and is maintained only in the current view while you have Resource Planner open. You can specify a default sort order in Resource Planner views.

1. To sort based on column data, in the column heading, click . The following occurs:

   - the data in the column is sorted in ascending order
   - an up arrow (▲) appears beside the column heading

2. To sort in descending order, click the column heading again. The rows are sorted in descending order and a down arrow (▼) appears beside the column heading.

3. To sort based on more than one column, press and hold the **Ctrl** key while clicking the additional column headings.

4. To revert to the original sort order, refresh the worksheet by clicking .

   Tip: If you have changes that you do not want to save yet, you can revert to the original sort order by switching to a different view and then switching back.

Resource Planner best practices

For the best results when using Resource Planner, the following best practices are strongly recommended.

Include only the type and amount of data that you require

As much as possible, limit the data to only what you need to work with. Create and apply filters so that only the demand items that you require are displayed in the worksheet. Select the view that displays only the level of detail that you require. The less data that has to be processed and rendered, the better the response time of the worksheet.

Working with project team entries in Resource Planner

In Resource Planner, project team entries can represent both planned effort and restrictions on the planned effort. When a project team entry is assigned to a resource, it becomes a restriction against additional task assignments for the project team entry. That is, a task assignment for a project team entry reduces the amount of planned effort in the project team entry that is available for additional task assignments.

Therefore, once a project team has been assigned and task assignments have been created for a resource, you should refrain from updating the project team item and its task assignments in Resource Planner at the same time. Updates made to both will fail validation and cannot be saved.

About Resource Planner settings

You can set default settings for Resource Planner. For more information, see the following topics:

- "Setting availability threshold settings for color coding in Resource Planner" on page 79
- "Displaying demand items under the requested resource" on page 88
- "Specifying settings for demand items that have been reassigned in Resource Planner" on page 80
- "Specifying default resource match criteria" on page 101

Setting availability threshold settings for color coding in Resource Planner

Resource Planner displays the workload status that is color coded according to whether a resource is underbooked (yellow), overbooked (red), or has an acceptable workload (green). By default, the color codes are displayed in the Gantt chart, but you can also select an option to display the color codes in resource rows in the worksheet.

The workload statuses are based on threshold percentages of the resources' availability that is taken up by demand.

In Resource Planner settings, you specify percentage thresholds for the overbooked and underbooked statuses. The color codes appear in the resource rows only, and not the workgroup or entity rows. The percentages are based on the demand items that are specified in the filter criteria and for the selected time period (days, weeks, months, fiscal periods).

The percent of availability that is taken up by demand is calculated as daily demand divided by the resource's daily capacity multiplied by the percent available for project work that is configured for the workgroup.

When the selected time period is not daily, the total of the daily demand is divided by the total of the daily capacity for the time period. The result is a resource could be overbooked for some days in the time period, but overall is underbooked.

1. Click **More** > **Resource Planner settings** The **Resource Planner settings** dialog box appears.
2. In the **Underbooked** field, enter the percentage threshold at or below which the demand for the resource's time is considered below capacity, and is displayed in yellow cells. The value cannot be negative.
3. In the **Overbooked** field, enter the threshold percentage amount over which the demand for the resource's time is considered over capacity, and is displayed in red cells. The maximum value is 999

   The value in the **Acceptable** field is automatically updated to show the range of percentages that are acceptable, and is displayed in green cells.
4. To display the color codes in the worksheet, select the **Show color codes in worksheet time periods** check box.
5. Click **Save**.

Specifying settings for demand items that have been reassigned in Resource Planner

When you reassign a demand item in Resource Planner, the planned hours for the item is transferred to the target demand item. You can specify how you want the source demand item to be handled after it is reassigned and no planned effort remains. These settings also apply to task assignments with loading methods that replace past with actuals when the total effort on the source demand item is equal to the actual effort, which effectively means there is no planned effort.

The options include:

- deleting the source demand item or locking the demand item when it cannot be deleted (for example because time records have been created for it)

- leaving the source demand item in Resource Planner and locking it so that time cannot be entered for it
- leaving the source demand item in Resource Planner unlocked

1. Click **More** > **Resource Planner settings** The **Resource Planner settings** dialog box appears.
2. In the **After reassigning, when source demand items have zero effort** field, select the option.

About Resource Planner views

Resource Planner views control the grouping of data and the fields that are displayed in Resource Planner. There are standard views that you can use as is or edit as required. You can also create your own custom views, which can be shared with other resources. For more information, see "About creating Resource Planner views" on page 83.

The following standard views are available:

- Function and resource – resource rows grouped by primary resource function, then the demand items
- Function, resource, and entity – resource rows grouped by primary resource function, then the demand entities, and demand items
- Workgroup and resource – resource rows grouped by workgroup, then demand items
- Workgroup, resource, and entity – resource rows grouped by workgroup, then the demand entities and demand items

  Note: The workgroup, resource, and entity standard view is the default view until you select a different standard or custom view as your default view.

  Note: Calendar demand items are grouped under a generic Calendar entity.

Columns in the standard Resource Planner views

The columns included in all the standard views are:

- Function (Resource) – The data in this column varies depending on the selected view. For more information, see below.
- Location – from the resource profile

- Entity type – Entity for the demand item (calendar, contract, project, project team, opportunity, request).
- Name (Demand item) – Name or description of the demand item.
- Function (Demand item) – The function selected on the demand item, which can be different than the resource's primary function.
- Planned start (Demand item)
- Planned finish (Demand item)
- Planned hours (Demand item) or Planned days (Demand item)
- Loading method (Demand item) – Available only for task assignments.
- Estimated hours (Demand item) or Estimated days (Demand item) – For project team items only, the original effort from the project team entry. The planned effort for project team items is the original effort minus the effort of the related task assignments.
- Resource request number (Demand item) – Applicable only if the demand item is associated with a resource request.
- Request status (Demand item)
- Requested resource (Demand item)
- Requested demand (Demand item) – Applicable only when the setting to show demand under the requested resource is enabled. When selected, indicates that the resource is requested for this demand item but not assigned to it.
- Comments (Demand item) – Comments on the demand item.
- Billable (Demand item)
- Committed (Demand item)
- Completed (Demand item) – Available only for task assignments.
- Locked task (Demand item) – Available only for task assignments. When selected, prevents resources from entering time for the task assignments for the task.
- Soft-booked (Demand item) – Available only if enabled on the billing office associated with the request or project.
- Include in resource demand (Demand item)

- daily or fiscal periods

About the Function (Resource) column

The Function (Resource) column displays the primary function of the resource who is assigned to the demand item. If no resource is assigned to the demand item, the column is blank when the selected view groups by workgroup or resource.

Similarly, when the setting to show demand under the requested resources is selected, then the column displays the function of the requested resource. If no resource has been requested, the column is blank when the selected view groups by workgroup or resource. If the selected view groups by function, then the items are grouped under the empty function row.

> **Note:** The setting to show demand under the requested resource applies only when there are demand items that are not assigned, or are assigned to a generic resource.

About creating Resource Planner views

When you create a view, you select the fields from one or more entities and then arrange the fields from top to bottom in the view layout in the order that you want the fields displayed as columns from left to right in the worksheet.

You can group fields by placing them under the field that you want to group by. For example, to see all of the demand items by resource, you would group by the Name (Resource) field and then add the demand item fields to the view layout below the Name (Resource) field.

You can also freeze the fields that you want to prevent from scrolling out of the worksheet view.

To select fields, you first select the entity type. The fields for the entity are listed in the **Available columns** section. Fields that have an entity icon are specific to the entity. Fields without icons are shared by two or more entities. The data for the entities that share the field will appear in the same column but in different rows in the worksheet.

About the Name (Demand entity) field

The Name (Demand entity) field is a field that is shared by all entities. When you add the Name (Demand entity) field to a view, the value that appears in the Name (Demand entity) column for a demand item is the name of the *parent entity* of the demand item. .

Demand item	Parent entity
opportunity service item	opportunity
project team entry	project (resource requests from projects)
projected resource	contract (resource requests from contracts)
request demand	request number
task assignment	project

About calculations on numeric and date fields

You can apply calculations on grouped numeric and date fields as follows:

- numeric fields – you can have the sum or average of the numeric field values displayed at each group level
- date fields – you can display the minimum (earliest) or maximum (latest) date in the date fields at each group level

The calculations are applied at the lowest demand item level and the results are displayed at the grouped by level.

Tip: To view an example of how calculations work, see the standard **Function and resource** view.

About views for assigning and replacing resources

Before you use Resource Planner to assign demand items or replace resources, ensure that the view groups by resources so that you can see the total demand for and capacity of the resources.

Creating a Resource Planner view

Tip: To get an idea of how the views are set up, compare the layout of the standard views to how the data is displayed in the worksheet.

1. In the **Worksheet** toolbar, click the **Switch or manage views** icon > **Manage views**.

   The **Manage views** dialog box. appears, displaying the current view.

2. Do one of the following:

- To create a new view, click **New**.
- To create a new view based on an existing view, click select the view in the **Views** list, and then click **Copy**.

3. Complete the fields as required. For a description of all fields, see "Manage Views (Resource Planner) dialog box options" on page 86.
4. To add columns (fields) to the view:
   a. In the **Entity type** field, select the entity.
   b. In the **Available columns** list, do one of the following:
      - double-click the column to add it to the bottom of the list in the **Selected columns** section
      - drag one or more columns to a specific location in the **Selected columns** section
      - select one or more columns and then click
5. To remove columns from the view, in the **Selected columns** section, do one of the following:
   - double-click the column or click
   - drag one or more columns to the **Available columns** section
   - select one or more columns and then click
6. To change the order of the columns, drag the columns up or down to the desired position.
7. To prevent a column from scrolling to the left in the worksheet, select the check box in the **Frozen** column.
8. To group on a column, select the check box in the **Group by** column.

   Note: Group by columns are automatically set to be frozen.
9. To display a field value beside the grouped field:
   a. Select the **Display on group level** check box.
   b. Ensure that the column is below a name column for the same entity type, and that the name column is marked as **Group by**.
10. To set a default sort order for column rows, in the **Sort** column, do one of the following:

- to sort in ascending order, click the arrows until only the up arrow ▲ is displayed
- to sort in descending order, click the arrows until only the down arrow ▼ is displayed
- to revert to the original sort order, click until both arrows ⬍ appear

11. Click **Save**.

Manage Views (Resource Planner) dialog box options

Option	Description
View list	List of available views.
Name field	Name of selected view.
Share view with others check box	When selected, other resources can view and edit the view.
Set as my default view check box	When selected, this view is applied each time that you access Resource Planner.
Entity type list	List of entities, and entities and their configurable fields. When you select an entity, its fields are listed in the **Available columns** section.
Available columns section	
Filter available columns field	Field for filtering the list of available columns.
Selected columns section	
Sort column	The arrows indicate the sort order of the rows for the column data: • both arrows – original sort order • up arrow only – ascending order • down arrow only – descending order

Option	Description
Column column	List of columns that indicate the order that the columns are displayed. The order from top to bottom in the list is the order that the columns are displayed from left to right in the worksheet.
Group by check box	When selected, the rows that include the column are grouped by the column values in the worksheet.
Frozen check box	When selected, the column remains displayed in the worksheet when the user scrolls to the right.
Display at group level check box	When selected, the column data is displayed at the group level immediately above the current column.
Calculation column	The selected option calculates and displays the values at each group level. For numeric fields, the options are: • Sum • Average • Minimum • Maximum For date fields, the options are: • Minimum – earliest date • Maximum.– latest date

Editing a Resource Planner view

Tip: To get an idea of how the views are set up, compare the layout of the standard views to how the data is displayed in the worksheet.

1. In the **Worksheet** toolbar, click the **Switch or manage views** icon > **Manage views**.

   The **Manage views** dialog box. appears, displaying the current view.

2. In the **View** list, select the view that you want to edit.

3. Edit the fields as required. For a description of all fields, see "Manage Views (Resource Planner) dialog box options" on page 86.

4. To delete the view, click **Delete**.

5. Click **Save**.

Displaying demand items under the requested resource

By default, Resource Planner displays the demand items under the assigned resources, and requested demand items appear under **Unassigned Resource** at the top of the spreadsheet. However, you can change the setting to display demand under the requested resources so that you can view all the demand items for resources together. When you change the setting, the demand item where no resource is assigned, or a generic resource is assigned, is grouped under the requested resource.

1. Click **More** > **Resource Planner settings**. The **Resource Planner settings** dialog box appears.
2. In the **Show demand items under** field, select **Requested resource**.
3. Click **Save**.

   The requested demand rows are displayed in italic type under the requested resource, and the check box in the **Requested Demand** column indicates the affected rows.

Pinning items in Resource Planner

You can pin one or more items in Resource Planner so that they remain in the current view regardless of the filters that are subsequently applied.

1. Select one or more items and then in the **Actions** toolbar click .

   The items are pinned and a pin icon appears in the information column.

   Note: If you pin a resource, all items for the resource are pinned and the pins for demand items for the resource are cleared.
2. To unpin an item, select the item and then in the **Actions** toolbar click .

Showing and hiding actual effort in Resource Planner

You can show the actual effort or the difference of planned effort minus actual effort beside each planned effort amount in the fiscal or daily period cells.

To show actual effort in the worksheet

Click the **Show/hide actual effort or availability** icon, and then select **Show actual effort** or **Show planned effort minus actual effort**. The actual effort amounts are displayed in blue to the left of the planned effort amounts.

To hide actual effort

Click the **Show/hide actual effort or availability** icon, and then select **None**.

Showing and hiding availability in Resource Planner

You can show the availability for resources beside each planned effort amount in the fiscal or daily period cells.

To show availability in the worksheet

Click the **Show/hide actual effort or availability** icon. and then select **Show availability**.

The availability amounts are displayed in blue to the left of the planned effort amounts.

To hide availability

Click the **Show/hide actual effort or availability** icon, and then select **None**.

Switching between daily and fiscal periods in Resource Planner

You can switch between daily and fiscal period amounts while working in the worksheet. When you change the display to fiscal or daily time periods, the earliest date in the fiscal or daily time periods that is currently displayed determines the starting fiscal or daily period. You can also specify a specific start date for the new time period.

1. Click the **Switch time periods** icon, and then do one of the following:

   - To display daily periods, select **Daily**.
   - To display fiscal periods, select the billing office that includes the fiscal periods that you want to display.
   - To revert to the calendar-based periods, select **None**.

About filtering data in Resource Planner

There are different layers of filtering available in Resource Planner. The primary level of filtering is the Resource Planner filter, which determines the data to be displayed in the worksheet, and is mandatory.

You can further filter the data that is displayed by the Resource Planner filter based on column data, and by resources based on availability.

Note: When you apply multiple filters, keep in mind that the filters are always applied to the data that is displayed in the worksheet at the time the filter is applied

About Resource Planner filters

In Resource Planner you have access to the demand items for the resources in the workgroups for which you are a resource manager. Depending on how the workgroups have been configured, there may be additional access requirements to demand items.

Before you use Resource Planner, you must create at least one filter to specify which demand items you want to work with. The demand items can be filtered by the following criteria:

- workgroups and/or resources
- resource functions (primary or secondary functions)
- resource locations
- demand types based on committed or non-committed status
- resource request status
- time period of the specified number of days from the current date or a date range

Note: At minimum, you must select one resource or workgroup, and one demand item type.

Resource Planner displays all resources that match the workgroup, function, and location criteria that are specified in the filter, even if a resource has no demand.

Demand items that match the criteria set in the filter are listed under the assigned resources. The only type of unassigned demand that appears in Resource Planner is resource requests, which are listed under **Unassigned Resource**. There is a settings option to have the resource requests listed under the requested resource. For more information, see "Displaying demand items under the requested resource" on page 88.

Items associated with resource requests can be filtered based on the request statuses. Demand items for resource requests with **Canceled** and **Rejected** status are never shown.

Creating a Resource Planner filter

1. In the **Worksheet** toolbar, click the **Switch or manage filters** icon > **Manage filters**.

   The **Manage Filters** dialog box appears.

2. Do one of the following:

   - If this is the first filter to be created, go to the following step.
   - To create a new filter, click **New**.
   - To base the new filter on an existing filter, select the filter in the **Filter** list, and then click **Copy**.

3. In the **Name** field, enter the name for the filter.
4. To share the filter with other resources, click **Share filter with others**.
5. To apply the filter each time you access Resource Planner, click **Set as my default filter**.

To filter based on a time period

1. Click the **General** tab.
2. To display the data for only the next *n* number of days:

   a. In the **Time period** field, click **Number of days from today**.

   b. Enter the number of days.

3. To display the data for a specific date range:

   a. In the **Time period** field, click **Date Range**.

   b. Enter the start date and end date for the date range.

To include demand items

1. In the **Demand items to included** section, select the committed and non-committed demand items that you want to be included.

To specify the resources whose demand items you want to include

1. Click the **Resources** tab.

2. In the **Filter on selected resources** section, select the resources individually or by workgroup:
   a. To search for a resource or workgroup, enter the search text and then click **Search**.
   b. To display the resources in a list, click the **Show resources in a list** check box.
   c. To display the tree view, clear the **Show resources in a list** check box.
   d. Select one or more resources and/or workgroups.

   Note: When a workgroup is selected, all of the resources in the workgroup and its subworkgroups are automatically selected. If resources are subsequently added to or removed from the workgroup and its subworkgroups, they are automatically selected or cleared (deselected) in this filter. However, deselecting a resource or subworkgroup under a selected workgroup automatically deselects the workgroup and then you must add and remove the workgroup resources and subworkgroups manually for the filter.
3. To display the tree view / selected items only:
   a. Select the **Show all items** / **Show selected items only** in the drop-down.
   b. Ensure that the search field is empty, and then click **Search**.

To filter based on resource functions or resource locations

1. Click the **Functions/Locations** tab.
2. In the **Filter on selected resource functions** option, select the functions.
3. To include only the resources whose primary function matches one of the selected functions, select the check box.
4. In the **Filter on selected resource locations** option, select the locations.

To filter based on the statuses of resource requests

1. Click the **Resource requests** tab.
2. In the **Filter on selected resource request statuses** option, select the resource request statuses to be included.

About filtering rows based on column data in Resource Planner

After you apply an Resource Planner filter, you can further filter the information that is displayed by specifying filter criteria for the data in one or more of the columns. The filter criteria is based on the data in the column. Depending on the type of data in the column, you can specify one or more specific data values, a range of data values, or the rows that have no value in the column.

The workgroup, resource function, and location columns filter the resources. The resources that match the filter criteria and their demand items are displayed. The remaining columns further filter the demand items. The resources remain in the view even when all demand items have been filtered out.

The values that are available as filter criteria are based on the values in the rows that are currently in the view. For example, if only billable items are in the view, there will not be an option to filter on non-billable.

Editing the column filters

You can edit column filters by adding or removing the data values.

Filtering rows based on column data in Resource Planner

Column filters are temporary and remain in effect only while you have Resource Planner open.

1. Click the column name. The filter criteria appear.
2. Select the filter criteria:
   - For check boxes, select the check boxes for the values that you want to include in the view. To display the rows that do not have a value in the column, select the check box for **(Blanks)**.
   - For a range of values, specify the from and to values. To specify a single value, enter the same value in both fields.
   - For the **Workgroup** column, you can use the drop-down to select whether to filter on the workgroup, function, resource, demand entity or demand item. The options vary depending on the current view.
3. Click **OK**. Only the rows that include values that match the filter criteria are displayed
4. To remove a column filter, click the filter icon , and then click **Clear filter**.

5. To remove column filters from all columns, click the filter icon in the State column and then select **Clear all filters**.

Filtering resources based on availability in Resource Planner

You can filter the resources that appear in Resource Planner based on a date range or the number of days from the current date, and/or the available hours, utilization percentage or billable utilization percentage.

The utilization amounts are based on the data that is displayed in Resource Planner:

- utilization – total effort of items displayed in Resource Planner divided by the capacity of the resource for the time period specified in the filter
- billable utilization – total effort for all rows displayed in Resource Planner for which the Billable option is selected, divided by the capacity of the resource for the time period specified in the filter

1. Click **Availability filter**. The **Availability filter** dialog box appears.
2. To display the data for only the next *n* number of days:
   a. In the **Time period** field, click **Number of days from today**.
   b. Enter the number of days.
3. To display the data for a specific date range:
   a. In the **Time period** field, click **Date range**.
   b. Enter the start date and end date for the date range.
4. To filter resources based on available hours:
   a. In the **Resource availability** field, click **Available hours**.
   b. Select the greater than or equal to, or less than or equal to option.
   c. Enter the number of hours.
5. To filter resources based on utilization percentage:
   a. In the **Resource availability** field, click **Utilization**.
   b. Select the greater than or equal to, or less than or equal to option.
   c. Enter the utilization percentage.

6. To filter resources based on billable utilization percentage:
   a. In the **Resource availability** field, click **Billable utilization**.
   b. Select the greater than or equal to, or less than or equal to option.
   c. Enter the billable utilization percentage.
7. Click **OK**.

To remove an availability filter

1. Click **Availability filter**. The **Availability filter** dialog box appears.
2. Click **Clear filter**.
3. Click **OK**.

About reassigning demand in Resource Planner

You can reassign demand from one or more demand items or resources to one or more resources .

> **Note:** When you reassign a demand item, the demand in past periods is included except when the demand entity is an opportunity service or a task assignment that has a loading method that replaces planned effort in past periods with actual effort.

When you reassign a demand item, the source demand item remains with 0 effort, except for calendar items, which are deleted automatically. The owner of the item can delete it separately outside of Resource Planner, or you can change the Resource Planner settings to have the source demand item deleted or locked automatically. For more information, see "Specifying settings for demand items that have been reassigned in Resource Planner" on page 80.

When you reassign demand to a target resource who has different nonworking days than the source resource, the demand is not automatically reallocated based on the nonworking days.

If the target resource is already assigned to the demand item, a copy of the demand item (except for task assignments) is created. For task assignments, the demand is added to the existing demand item.

For resource requests, if the target resource is the requested resource for the demand item, then the demand item will be assigned to the target resource.

Reassigning demand to a single resource using drag and drop in Resource Planner

You can use drag and drop to reassign the following items to a target resource:

- one or more demand items
- entire demand item or part of a demand item
- all demand items for a resource
- all demand items for an entity

Note: When you reassign items, check that the lock icon appears in the information column. Otherwise you will not be able to save the changes.

To reassign one or more demand items in the worksheet

1. In the worksheet, select the demand items.
2. Point to the first column until the two-headed arrow appears.
3. Drag the rows to the desired resource. A box appears around the resource name to indicate when you can drop the demand item.

To reassign all the demand items for a resource to another resource

1. Select the source resource row.
2. Point to the first column in the row until the two-headed arrow appears.
3. Drag the row to the box that appears around the target resource name.

To reassign all the demand items for an entity to a resource

1. Ensure that the Resource Planner view is grouped by entity.
2. Select the source entity row.
3. Point to the first column in the row until the two-headed arrow appears.
4. Drag the row to the box that appears around the target resource name.

To reassign a demand item in the Gantt chart

1. Switch the timescale display to display the demand items as single bars.
2. Select the demand bar and then drag it to the desired resource and time period.

To reassign part of a demand item in the Gantt chart

1. Switch the timescale option to display the demand items as separate bars per time period.
2. Select the zoom level option to display the time periods that you want to reassign.
3. In the Gantt chart, click the demand bar and drag it to the desired resource and time period.

About reassigning demand to one or more resources in Resource Planner

You can reassign the demand (planned effort) for one or more source demand items or resources to one or more target resources. You might want to reassign demand this way when a resource is going on leave or vacation, or will have less time dedicated to a project.

Note: To be available for selection, the target resources must be included in the main filter that is currently applied to the worksheet.

You can reassign all effort from the source items, only the effort for a specified date range, or all effort either before or after a specified date.

You allocate the effort to the target items based on percentages of the source item effort. You can increase the effort for a target resource by assigning a percentage greater than 100, or leave some effort on the source item by assigning a total percentage less than 100. You can also assign zero effort to a target item.

When demand is reassigned, the effort on the source item is reduced accordingly. If the effort on the source item is reduced to zero, the item is handled according to the Resource Planner settings that you specified for reassigned demand items. However, you can override the settings and leave the source item completely unchanged; for example, if you wanted to assign a copy of the source item to another resource.

Reassigning demand to one or more resources in Resource Planner

1. Select the source demand items.
2. In the Actions toolbar, click **Resource** > **Reassign**. The **Reassign resources** dialog box appears.
3. Using the date fields, specify the duration of the source demand item to be reassigned:
   - To reassign the entire source item, leave both the start and end dates blank.
   - To reassign for a given date range, specify both the start and end dates.

- To reassign from a specific date to the planned finish date of the source demand items, specify the start date only.
- To reassign from the planned start date of the source demand item to a specific end date, specify the end date only.

4. Reassign the demand by percentage or effort as outlined below.

To reassign the demand based on a percentage of the total available effort

1. In the **Reassign demand items based on** field, select **Percentage**.
2. To leave the source items as is, select the **Retain the source demand items** check box.
3. To add a target resource, click **Add new**.
4. In the **Resource** cell, select a target resource from the list.
5. In the **Percentage** column, do one of the following:
   - Specify the percentage of the source item effort to be assigned to each target resource. To assign additional effort than is in the source item, specify a percentage greater than 100.
   - To create a target demand item with zero effort, specify a percentage of 0.
   - To distribute the effort evenly, add all target resources first and then click the **Distribute evenly** icon.

   Note: When the total percentage to be reassigned is less than 100, the difference remains on the source demand items.
6. To delete a resource row, click .

To reassign the demand based on effort amounts

1. In the **Allocate effort based on** field, select **Effort**.
2. To leave the source items as is, select the **Retain the source demand items** check box.
3. To add a target resource, click **Add new**.
4. In the **Resource** cell, select a target resource from the list.
5. In the **Effort** column, do one of the following:

- Specify the number of hours to be assigned to each target resource
- To distribute the effort evenly, add all target resources first and then click the **Distribute evenly** icon .

6. To delete a resource row, click .

About allocating recurring demand in Resource Planner

You can allocate recurring demand in Resource Planner within a date range. There are weekly and monthly options. For example, you can allocate demand for a meeting that occurs every day during a project, or for a departmental meeting that occurs at the end of each month.

The recurring demand allocation replaces existing demand allocations for the selected demand items within the specified date range. Any existing demand allocations for the selected demand after the date range are removed.

Warning: When you allocate recurring demand to a calendar entry, individual calendar entries are created, but they are not related. Once the recurring demand settings are saved, the only way that you can edit the recurring demand settings is by editing or deleting each calendar entry separately.

1. In Resource Planner, display the daily periods so that you can view the results of your work.
2. Select the demand items that the recurring demand will be allocated to.
3. Click .

   The **Recurring Allocations** dialog box appears.
4. Enter the date range, and the number of hours for the recurring allocation.
5. In the **Recurrence Pattern** section, select either the weekly or monthly options. You can override one or more daily amounts in the weekly options, if necessary.
6. Click **Save**.

Managing resource requests in Resource Planner

Demand associated with a resource request must be managed through the resource request. That is, you must assign and reassign resource through the resource request. You can launch

the **Edit Resource Request** dialog box, make the appropriate changes, change the workflow status, and complete workflow steps.

If the resource request workflow requires changes to the demand entity as well as completion of workflow steps, it is more efficient to make both changes in the resource request rather than in Resource Planner.

About finding matching resources to replace a resource or reassign a demand item

You can select a resource or demand item row and find the resources that match the default resource match criteria that you specify beforehand. Only the resources that are displayed in the worksheet at the time you perform the resource match will appear in the results. Resources that are hidden by the applied filters will be excluded from the results.

You can select from the following resource-related fields to use as criteria for finding matching resources:

- availability (planned start, planned finish, and planned effort of demand items)
- primary functions and functions (both the primary and secondary functions for resources (if selected as resource match criteria), are checked for matches to the demand item function.)
- qualifications
- competencies (since demand items do not have associated competencies, resources will be matched based on the resources having competencies specified for the same qualifications as the demand item.)
- shared resource configurable fields (configurable fields for the resource entity that are shared with demand item entities)

  Note: To find matching resources based on a shared resource configurable field, you must add the shared configurable field from both the **Resource** entity and the **Shared configurable field** entity to the view.

For example, you can select a resource or demand item row and find the resources that have the same qualifications and the same or greater availability based on the planned effort and planned start and finish dates that are specified in the selected row.

Specifying default resource match criteria

1. In the **Actions** toolbar, click **Resource** > **Match settings**. The **Resource match settings** dialog box appears.
2. In the **Columns to be used to find matching resources** field:
   a. Click the list icon to display the list of columns.
   b. Click the columns that you want to use to find matching resources.
   c. To search for a column, type the first few letters of the column name and then select from the matching columns that appear.
3. To remove a selected column, click the **x**.
4. To save the resource match criteria, click **Save**.

   The resource match icon appears in the headers of the selected columns.

Finding matching resources to replace a resource or reassign a demand item in Resource Planner

1. Click the resource row or demand item row for which you want to find the matching resources.
2. In the **Actions** toolbar, click **Resource** > **Apply match**. Only the resource rows that match the resource match criteria in the selected row are displayed.
3. Replace the resource or reassign the demand item.
4. To clear the resource match results, reload the worksheet by clicking **Refresh**.

Viewing additional resource information in Resource Planner

You can view the following additional resource information from any row in Resource Planner that contains a resource name or is grouped by a row that includes a resource name:

- resource profile
- calendar
- resource expertise (functions, location, qualifications, and project experience (history) based on previous and current task assignments)

Note: In the **Resource Expertise** dialog box, the date in the **Last activity** column of the **Project experience** section is from the most recent activity on the resource's task assignments for the project. That is, the most recent (date in the past) of the planned, actual, baseline, and forecast dates, and the date of the last task status update. Task assignments for which all dates are in the future do not appear in the list.

1. Select the row, and then in the **Actions** toolbar, click **Display profile**.
2. To view the resource's profile, click **Resource**.
3. To view the resource's functions, qualifications and project experience, click **Resource expertise**.
4. To view the resource's calendar, click **Calendar**.

About editing demand items in Resource Planner

Editing demand items in the worksheet

In the worksheet, you can edit the values for dates, effort, and other demand item fields directly in the column cells.

Editing planned start, planned finish, and planned effort

You can edit the planned start, planned finish, and planned effort for demand items in the worksheet. When you change the planned start or planned finish, the duration of the demand item is changed. To change the dates for a demand item while maintaining the same duration, use the Gantt chart.

Tip: A warning message appears when you make a change that will remove the manual distribution of planned effort. To undo the change, select the demand item, and then click .

When planned effort is changed, the existing manual distributions of planned effort are left as-is and the additional planned effort is automatically distributed to working days that do not have effort. In some cases the planned effort must be redistributed manually, for example, when the planned effort amount is reduced.

Editing planned effort in daily or fiscal periods

You can also edit the planned effort in daily or fiscal periods. When you edit planned effort in a daily or fiscal period cell, the loading method is changed to a manual method to ensure that the distribution is not lost. The resource manager can change the loading method back to an

automatic method; however, the manual effort distributions will be lost if the planned start, planned finish, or total planned effort is later edited on the task assignment.

Editing project team entries

For project team entries, the net demand (project team entry effort minus effort for task assignments) is distributed to fiscal periods. The net planned effort can be reallocated in the fiscal periods that are within the planned start and planned finish dates for the project team entry. To change the dates or total planned effort, you must edit the resource request and then refresh Resource Planner. The effort distribution will be lost. Therefore it is best to change the dates and total planned effort first before distributing the effort.

Managing resource requests in Resource Planner

When you approve a resource request, the assigned resource field is populated and the planned effort distribution is maintained. If the planned effort distribution is subsequently changed and then the resource request is later modified, it is possible that the planned effort distribution may be lost.

Editing demand items in the Gantt chart

In the Gantt chart, you can edit demand items as follows:

- change the planned start and planned finish dates while maintaining the same duration by moving the demand bar forward or backward along the time line
- change the duration of a demand item by clicking either end of a demand bar and dragging it to the desired date

  Note: When you edit the dates or duration for tasks or task assignments, the predecessor and/or successor tasks are adjusted accordingly, even if they are not displayed in Resource Planner.

About switching loading methods in Resource Planner

You can change loading methods for a task assignment. However, it is important to understand how the different loading methods work, otherwise you could have unintended results.

For more information about loading methods, see the *Project Management User Guide*.

Changing from a manual loading method to an auto-distribute loading method

If you change from a manual loading method to an auto-distribute loading method, the manual allocations of planned effort will be removed, and the planned effort will be distributed evenly over the periods according to the loading method type.

Changing from a loading method that does not replace planned hours in past periods to one that does

If you change the loading method from one that does not replace past information with actual information (3,4) to one that does (0,1,2), the planned hours in past periods is replaced with the actual hours for the past periods. For performance reasons in Resource Planner, the planned hours are distributed evenly over the past periods that contained actual hours and not according to the dates when the actual effort was entered.

To view the exact distribution of the actual hours in the past periods, you must save and then refresh Resource Planner. Saving the task assignment saves the daily distribution of the planned effort and actual effort in the past periods for the assignment and initiates a project rollup.

Changing from a loading method that does not replace planned hours in past periods to one that updates past only can change total planned hours

Changing the loading method from one that does not replace planned hours in past periods (3, 4) to one that *only* replaces planned hours in past periods (0, 2) will change the total planned hours when the actual hours in the past periods are not equal to the planned hours that were previously allocated in the past periods.

The actual effort is distributed evenly between the first date that there is actual effort in a past period and the last date there is actual effort in a past period. To view the exact distribution of the actual hours in the past periods, you must save and then refresh Resource Planner.

Changing the loading method and then changing it back does not automatically reinstate the previous planned effort and distribution

For the reasons described above, changing a loading method can change the planned effort and/or how it is distributed.

Provided that you have not saved the task assignment, you can reinstate the task assignment to its previous state by refreshing it in Resource Planner.

Managing demand entities in Resource Planner

In Resource Planner you can view the details of demand entities by displaying their profiles. You can also create and edit the calendar appointments and resource requests.

Note: To avoid record locking issues, do not edit entities that are displayed inline in the Details view while you are editing entities in Resource Planner.

You select a row in the worksheet and then click the **Display entity profile** icon . If the row is a demand item, then options for the entities related to the selected row are displayed.

If the row is a resource, you can additionally view the resource profile, resource experience, and calendar, or create a calendar entry for the resource.

Viewing the profile of a demand entity in Resource Planner

You can view the profile for an entity that is related to a demand item that is displayed in the current Resource Planner view.

1. Select a demand item for the entity.
2. In the **Actions** toolbar, click the **Display profile** > **View** > **[entity type]** .

Creating a calendar appointment or resource request in Resource Planner

1. Do one of the following:
   - To create a calendar appointment, select a resource row or demand entity row that is assigned to a resource.
   - To create a resource request, select any row or no row.
2. In the **Actions** toolbar, click **Display profile** > **Create** > **Calendar appointment** or **Resource request**. The **Create Appointment** or **Create Resource Request** dialog box appears.
3. Complete the required fields and then click **Save**.

Editing a calendar appointment or resource request in Resource Planner

You can edit calendar appointments and resource requests.

1. Select a demand item for the entity.

2. In the **Actions** toolbar, click **Display profile** > **Edit** > **Calendar appointment** or **Resource request**. The **Edit Appointment** or **Edit Resource Request** dialog box appears.
3. Make the necessary changes and then click **Save**.

About processing workflow steps in Resource Planner

You can process workflow steps directly from Resource Planner by accessing the **Edit** option for the related entity. The workflow steps that are assigned to you are listed on the **Workflow** tab of the edit entity dialog box.

You launch the workflow step by clicking . In the workflow step dialog box, you can perform all the regular actions for the step type. When you save the workflow step, the entity dialog and list of workflow steps are refreshed. Depending on the workflow configuration, completing one step could change the list of steps assigned to you, and could change the entity itself.

Sometimes changing data on the entity can cause the workflow steps to be refreshed. For example, the workflow could be triggered based on certain values in the entity, and therefore changing the value in a field on the entity will cause a new workflow to be initiated.

Note: You must save changes to the entity before launching a workflow step.

Processing a workflow step in Resource Planner

1. Access the edit dialog of the demand entity.

   Note: When you are assigned to a workflow step, you automatically have access to the edit dialog of the related entity in Resource Planner, even if you normally only have view access to it.

2. Click the **Workflow** tab.
3. In the step row, click . The step dialog appears.
4. Follow the instructions in the dialog and then click **Save**.

Troubleshooting Resource Planner

Estimated hours for a project team entry is incorrect

The estimated hours for a project team entry might be calculated incorrectly in the following scenario:

- resource is exempt from resource requests
- the planned hours for the task assignment and demand hours for the project team are updated and saved at the same time

To ensure that estimated hours are calculated correctly, you must update and save the planned hours for task assignment and the demand hours for the project team separately.

Cannot change the planned start date in the worksheet because it keeps reverting to the original date

It is not possible to change the planned start date to a date that is later than the planned finish date in the worksheet. You must change the planned finish date first and then change the planned start date. If you want to change the dates but maintain the duration of the demand item, you can move it in the Gantt chart.

After validating, the planned hours were not updated for a project team item

When you assign or reassign a task assignment for a project team item, the number of planned hours for the project team item is calculated during validation but not displayed on the worksheet. To view the adjusted planned hours, you must save the worksheet.

Reassigned task assignment does not appear in the worksheet, even after saving

Verify whether the target resource is already assigned to the task, and whether the task assignment is included in the current Resource Planner view and not being excluded by the filter criteria.

It is not possible to assign more than one task assignment for the same task to a resource. If you reassign a task assignment to a resource that is already assigned to the same task, then the planned hours for the source task assignment are added to the target task assignment. If the task assignment for the target resource is excluded by the filter criteria, it will not be displayed.

Calendar demand is split into separate rows after saving

When created in the Changepoint calendar, a multiple-day calendar entry (series) must have the same number of hours on consecutive days. Therefore, separate calendar entries are created if you interrupt the series by doing one or more of the following:

- move part of the calendar demand to a non-consecutive day
- reassign part of the calendar demand to another resource
- make the demand amount different for some of the days

Successor task does not move when predecessor is moved

If the successor task has effort in past fiscal periods, then the resource moving the predecessor task requires the security feature to edit information in past fiscal periods to move the successor task. This restriction applies even when the move is the result of moving the predecessor task.

Notification does not appear when a demand item changed outside of Resource Planner

Only changes made using Changepoint or through the Changepoint web API can be detected by Resource Planner.

For example, a workflow step that uses a stored procedure to update data based on a status change on the entity, or a custom trigger that updates values in the database will not be detected by Resource Planner.

Unassigned resource does not appear in Resource Planner

Only active resources appear in Resource Planner.

About workforce planning notifications

You can set up workforce planning notifications to monitor for resources who are over a specified capacity threshold percentage. Resources can be monitored for 30, 60 or 90 days from the current date. You receive notifications when demand for one or more resources meets or exceeds the capacity threshold. The notifications are prioritized according to the monitoring periods as follows:

- Critical (within 7 days)
- High (within 8 to 30 days)

- Medium (within 31 to 60 days)
- Low (within 61 to 90 days)

The color of the notification (bell) icon indicates whether you have received notifications:

- no notifications – gray
- notifications – blue
- critical notifications – blue with orange dot

You click the notification message to view the details. The Resources Over Capacity view includes the list of resources over the capacity threshold. You click a resource to view the resource details, which include the following:

- resource information, including the available resource capacity (resource capacity with the percentage available for planned work applied)
- details for each of the days that the resource is over the capacity threshold, which include:
  - total percentage the assigned effort is of resource capacity
  - blocks that are sized relative to the demand for each customer or calendar item
  - amount of the resource's available effort, which can be negative

  Note: If effort is assigned to a nonworking day, the total percentage of resource capacity is always 100% and the amount of available effort is the negative amount of assigned effort.

Setting up workforce planning

1. Review the access requirements in in the "Using workforce planning".
2. Set up the options in in the "Setting workforce planning preferences" section of the User Basics User Guide.

Using workforce planning notifications

1. Click the notifications icon. A message indicates the time periods that the notifications occur within.
2. To view the details, click the message. The **Resources over capacity threshold** view displays the list of resources who are over capacity.

3. To view the details for a resource, click the resource. The **Capacity threshold overview** appears.
4. To view the demand details for a customer, click the customer block. Resource Planner opens and displays the resource's data from the date of the block. You can view and adjust the demand allocations to correct the capacity threshold overage.

9. Service Scheduler

About Service Scheduler

Service Scheduler is a tool for assigning time-based tasks to resources in specific time slots. The Service Scheduler has two different views.

Calendar view

The **Calendar view** is a read-only view that includes a column for each resource that you have access to view in Service Scheduler. The columns display the assignments for time-based tasks and calendar items. You can click the assignments and calendar items to view more details about them. The nonworking days and the time slots that are outside of the resource's daily hours are gray.

Assigning tasks view

The **Assigning tasks** view is the working view where you assign, edit and delete task assignments. This view displays a list of tasks in the **Tasks** pane, and a calendar in the right pane. When you select a customer, the tasks for all of the customer's time-based projects are listed. You can filter the tasks by a specific project.

By default, the view displays the time slots in the current user's time zone and each of the resource's time zones are converted to it. You have the option of displaying each resource according to their time zone.

You assign a task by dragging it to a 15 minute time slot for a resource. The assignment starts at the beginning of the time slot and lasts for the default duration of an hour, which you can change. You have the option to specify that an assignment is enforced to begin at the specified start time for the specified duration regardless of which resource it is assigned to. When an assignment is saved, it is automatically added to the resource's personal Changepoint calendar.

You can also edit assignments, move assignments to a different time slot or resource, and delete assignments.

Preparing to use Service Scheduler

Before you can use Service Scheduler, you must set up the following:

1. Ensure that resources have the security access requirements. Review the access requirements for users of Service Scheduler and the resources that tasks will be assigned

to. For more information, see "Using Service Scheduler" in the *Security Access Reference Guide* or in the online help.

2. The resources that can be viewed or assigned tasks in Service Scheduler can be restricted for specific users in User Setup.
3. Create a project and ensure that the time-based project option is enabled.
4. In Project Worksheet, create the tasks that you want to assign and schedule.
5. In Service Scheduler assign and schedule time-based tasks.

About using Project Worksheet for time-based projects

For time-based projects, you use Project Worksheet only to create the tasks to be assigned using Service Scheduler. The assignments that are created in Service Scheduler are displayed in Project Worksheet with the following limitations:

- assignments are read-only and can only be edited in Service Scheduler
- the effort for an assignment is displayed on the start date of the assignment, even when the assignment spans over two calendar days. For example, you create an assignment with a two hour duration from 11:00 PM February 1 to 01:00 AM February 2. The same assignment in Project Worksheet is displayed on February 1 with a planned effort of two hours.
- open tasks and task dependencies are not supported
- summary tasks do not support time-based assignments, but the subtasks do
- time-based projects can be copied but their assignments cannot be copied

  Note: In the above case, time entry restrictions for the task will not be effective because the restrictions cannot be applied to the individual assignment time slots.

Accessing Service Scheduler

1. Click **Resource** > **Service Scheduler**.

   Service Scheduler appears in **Calendar view**.

2. To assign tasks, click **Assign tasks** at the top-right corner of the view.

Assigning tasks in Service Scheduler

1. Click **Resource** > **Service Scheduler**.

Service Scheduler appears in **Calendar view**.

2. Click **Assign tasks** at the top-right corner of the calendar view. The view changes to the working view and the resources appear as columns.
3. In the **Customer** list, select the customer. All of the tasks for the time-based projects of the customer appear.
4. To view the tasks for a single project, select the project in the **Project** list. The tasks appear in the **Tasks** pane.
5. To change the time zone that is displayed, do one of the following:
6. To view all resource columns converted to a time zone, select the time zone from the list.
7. To display each resource column in their time zone, click the time zone list and then select **Global time zones**.
8. To view more details about the resource's committed effort from other projects, click the hours under the resource name.

To assign a task

1. Select the task and drag it to the time that the assignment should start in the resource column.
2. In the dialog that appears, specify the duration of the assignment in hours and minutes.
3. If the start time and time zone for the assignment should not be modified, enable the **Enforced** option.
4. Click **Save**.

To reassign an assignment

Select the assignment on the source resource and drag it to the target resource.

To edit the duration of an assignment

1. Click the assignment.
2. In the dialog that appears, click **Edit**.
3. Edit the duration.
4. Click **Save**.

To delete an assignment

1. Click the assignment.
2. In the dialog that appears, click **Remove**. The assignment is deleted.

Troubleshooting Service Scheduler

Cannot assign a task that has existing assignments

Check if the task has been changed to a summary task. Summary tasks are not supported in Service Scheduler.

Time-based assignment appears on different dates in Service Scheduler and Project Worksheet

If the time zone for the resource is changed after the time-based task is assigned to the resource, the task assignment is displayed according to the new time zone in Service Scheduler, but according to the original time zone in Project Worksheet. This limitation applies only to task assignments that exist at the time that the time zone is changed.

10. Workforce Planning

About workforce planning notifications

You can set up workforce planning notifications to monitor for resources who are over a specified capacity threshold percentage. Resources can be monitored for 30, 60 or 90 days from the current date. You receive notifications when demand for one or more resources meets or exceeds the capacity threshold. The notifications are prioritized according to the monitoring periods as follows:

- Critical (within 7 days)
- High (within 8 to 30 days)
- Medium (within 31 to 60 days)
- Low (within 61 to 90 days)

The color of the notification (bell) icon indicates whether you have received notifications:

- no notifications – gray
- notifications – blue
- critical notifications – blue with orange dot

You click the notification message to view the details. The Resources Over Capacity view includes the list of resources over the capacity threshold. You click a resource to view the resource details, which include the following:

- resource information, including the available resource capacity (resource capacity with the percentage available for planned work applied)
- details for each of the days that the resource is over the capacity threshold, which include:
  - total percentage the assigned effort is of resource capacity
  - blocks that are sized relative to the demand for each customer or calendar item
  - amount of the resource's available effort, which can be negative

  Note: If effort is assigned to a nonworking day, the total percentage of resource capacity is always 100% and the amount of available effort is the negative amount of assigned effort.

Setting up workforce planning

1. Review the access requirements in in the "Using workforce planning".
2. Set up the options in in the "Setting workforce planning preferences" section of the User Basics User Guide.

Using workforce planning notifications

1. Click the notifications icon . A message indicates the time periods that the notifications occur within.
2. To view the details, click the message. The **Resources over capacity threshold** view displays the list of resources who are over capacity.
3. To view the details for a resource, click the resource. The **Capacity threshold overview** appears.
4. To view the demand details for a customer, click the customer block. Resource Planner opens and displays the resource's data from the date of the block. You can view and adjust the demand allocations to correct the capacity threshold overage.

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