Resource Management

User Guide

Changepoint PSA 2017 SP2

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Contents

1. Resource Basics **11**

About resources 11
Accessing a resource 11
Viewing the qualifications of a resource 11
Viewing the functions of a resource 11
Viewing the workload for a resource 12

2. Forecasting Resources **13**

About forecasting resource requirements for an engagement 13
Adding a projected resource to an engagement 13
Setting general options for projected resources 13
Create/Edit Engagement dialog, Projected resources tab options 14
Editing a projected resource for an engagement 16
Deleting a projected resource from an engagement 16

3. Contractor Information **19**

About contractors 19
About contractor invoice reconciliation 19
Running the Contractor Invoice Reconciliation report 20
Reconciling a contractor invoice 21
About the Contractor Invoice Reconciliation report 22
Contractor Invoice Reconciliation report data 22
Running the Reconciliation Results report 23
About cost rates for contractors 24

4. Resource Searches **27**

Accessing the resource search panel 27
Searching for resources by workgroup 27
Searching for resources by location 28
Searching for resources by resource type 28
Searching for resources by qualifications 29
Searching for resources by function 29
Searching for resources based on previous project experience 30
Searching for resources based on availability 31
Availability search criteria 32
Assigning a resource in the resource search results 34
Resource Search Results view 35

Calculations in the Resource Search Results view 38

5. Resource Scheduling Calendar 43

About the resource scheduling calendar 43
Accessing the resource scheduling calendar 43
Filtering resources in the resource scheduling calendar 44
Creating an appointment for a resource in the resource scheduling calendar 44
Managing appointments in the personal calendars of resources 44
Viewing a resource profile from the resource scheduling calendar 45
Checking for resource capacity conflicts 45
Example of resource availability calculations 47

6. Resource Requests 49

About resource requests 49
Resource request statuses 49
About accessing resource requests 50
Copying a resource request 51
Submitting a resource request from an engagement 51
Assigning a resource to a resource request 52
Approving, rejecting, or canceling a resource request 53

7. Resource Demand Analysis 55

About resource demand scenarios 55
Accessing the graphical view of a resource demand scenario 55
About the graphical view of a resource demand scenario 56
Creating a resource demand scenario 57
Initiating the resource demand scenario and specifying the resources 57
Initiating a resource demand scenario from an opportunity scenario 58
Initiating a resource demand scenario from opportunity analysis 58
Specifying the time period for a resource demand scenario 58
Specifying the entities for a resource demand scenario 59
Working with the resource demand scenario data 60
Changing the time line of the Gantt view in a resource demand scenario 60
Sorting the entities in the Gantt view of a resource demand scenario 61
About changing the dates and duration of entity demand in a resource demand scenario 61
Changing the dates and/or duration of entity demand in a resource demand scenario 61
Moving all demand for an entity to the current period in a resource demand scenario 62
Undoing changes to an entity in a resource demand scenario 63
Excluding entity demand from a resource demand scenario 63
Changing the effort for a demand item in a resource demand scenario 63

Linking entities in a resource demand scenario 64
Unlinking entities in a resource demand scenario 64
Adding successor tasks in a resource demand scenario 64
Viewing the resource demand report for a resource demand scenario 65
Refreshing the histogram view in a resource demand scenario 65
Increasing the capacity in a resource demand scenario 65
Decreasing the resource capacity in a resource demand scenario 66
Changing the percent available for planned work of workgroups in a resource demand scenario 66
Excluding and including calendar entries in a resource demand scenario 67
Comparing resource demand scenario data with actual data 67
Viewing changes to the histogram view in a resource demand scenario 68
Saving a resource demand scenario 68
Saving a snapshot of a resource demand scenario 68
Deleting a resource demand scenario 69
Submitting a resource demand scenario 69
Approving or rejecting a resource demand scenario 69
Desubmitting an approved resource demand scenario 69

8. Resource Management Worksheet 71

About the Resource Management Worksheet (RMW) 71
Accessing the Resource Management Worksheet (RMW) 71
About RMW filters 72
Examples of RMW filters 73
Creating an RMW filter 73
Manage Filters dialog (RMW), General tab options 74
Adding filter criteria for an entity to an RMW filter 76
Editing an RMW filter 77
Deleting an RMW filter 77
About RMW views 78
About creating an RMW view 78
Creating an RMW view 79
Manage Views dialog (RMW), general options 80
Manage Views dialog (RMW), Columns tab options 80
About availability threshold settings for RMW views 81
Setting up availability thresholds in an RMW view 83
Manage Views dialog (RMW), Thresholds tab options 84
Setting the color of demand items in the RMW 85
Manage Views dialog (RMW), Demand items tab options 86
Editing an RMW view 86

Deleting an RMW view 87
RMW basics 87
Expanding and collapsing groups in the RMW 88
About errors in the RMW 88
Rearranging and resizing columns in the RMW 89
Selecting multiple rows in the RMW 89
About sorting rows in the RMW 90
Refreshing the RMW 90
Printing the RMW 90
Viewing entity profiles from the RMW 90
Viewing and editing resource qualifications and functions from the RMW 91
About exporting RMW data to Microsoft Excel 91
Exporting RMW data to Microsoft Excel 91
About editing data in the RMW 92
Changing the validation settings in the RMW 93
Validating changes manually in the RMW 93
Switching between daily and fiscal periods in the RMW 93
Displaying fiscal or daily periods starting from a specific date in the RMW 94
Displaying the previous or next fiscal or daily periods in the RMW 94
About locking and unlocking rows in the RMW 94
Locking or unlocking a row in the RMW 95
Deleting a demand item on the RMW 95
Preventing time entry on a task assignment in the RMW 95
Setting a task assignment to Completed in the RMW 96
About discarding uncommitted changes in the RMW 96
Allocating recurring demand in the RMW 96
Editing recurring demand in the RMW 97
About reassigning demand in the RMW 98
About reassigning demand by using drag and drop in the RMW 98
Reassigning demand by using drag and drop in the RMW 99
About reassigning demand by using the Reassign Demand Items dialog 100
Reassigning a demand item by using the Reassign Demand Items dialog 101
Reassign Demand Items dialog options 102
Displaying the original values in the RMW 103
Displaying availability based on committed demand only 104
Displaying availability based on demand for selected items only 104
Displaying the original availability in the RMW 104
Displaying actual hours in the RMW 105
Pinning rows in the RMW 105
About resource management scenarios 106

Accessing a resource management scenario 106
Saving uncommitted changes as a resource management scenario 106
Granting access to a resource management scenario 107
Adding uncommitted changes to a resource management scenario 108
Manage Scenario dialog box (RMW) options 108
Deleting a resource management scenario 109
About saving (committing) changes in the RMW 109
Committing changes in the RMW 110
About resource requests in the RMW 111
About the Required Fields dialog box 111
About the Edit Resource Request dialog box 112
Viewing resource requests associated to a resource management scenario 112
Scenario Resource Requests dialog box options 112
About using exempt resources in the RMW 113
Using the RMW from a comparison scenario 113
Troubleshooting the RMW 114

9. Resource Scheduling Worksheet (RSW) 119

About the resource scheduling worksheet (RSW) 119
About demand in RSW 120
About messages and warnings in RSW 120
About validating and saving changes in RSW 121
RSW basics 121
Accessing RSW 121
Switching RSW views and filters 122
Setting a default RSW view 122
Setting a default RSW filter 122
Expanding and collapsing groups in RSW 122
Searching in RSW 123
Displaying time periods that start from a specific date in RSW 124
Displaying the previous x or next x number of periods in RSW 124
Refreshing RSW 124
Refreshing a demand item 124
Adjusting the date range that is displayed in the Gantt chart 125
Adjusting the width of the worksheet and Gantt chart 125
Showing or hiding the worksheet 126
Showing or hiding the Gantt chart 126
Viewing the Gantt chart legend 126
Zooming in and zooming out in the Gantt chart 126
Displaying a bar per time period for demand items 127

Printing RSW 127
Exporting RSW data to Microsoft Excel 127
Sorting rows based on column data in RSW 127
RSW best practices 128
About RSW settings 129
Setting availability threshold settings for color coding in RSW 129
Specifying settings for demand items that have been reassigned in RSW 130
About RSW views 130
Columns in the standard RSW views 131
About the Function (Resource) column 132
About creating RSW views 133
Creating an RSW view 134
Manage Views (RSW) dialog box options 135
Displaying demand under the requested resource 137
Pinning items in RSW 137
Showing and hiding actual effort in RSW 138
Switching between daily and fiscal periods in RSW 138
About filtering data in RSW 138
About RSW filters 139
Creating an RSW filter 139
About filtering rows based on column data in RSW 141
Editing the column filters 142
Filtering rows based on column data in RSW 142
Filtering resources based on availability in RSW 142
About reassigning demand in RSW 144
Reassigning demand to a single resource using drag and drop in RSW 144
About reassigning demand to one or more resources in RSW 145
Reassigning demand to one or more resources in RSW 146
About allocating recurring demand in RSW 147
Managing resource requests in RSW 148
About finding matching resources to replace a resource or reassign a demand item 148
Specifying default resource match criteria 149
Finding matching resources to replace a resource or reassign a demand item 149
Viewing additional resource information in RSW 150
About editing demand items in RSW 150
Editing demand items in the worksheet 150
Editing demand items in the Gantt chart 152
About switching loading methods in RSW 152
Managing entities in RSW 153
Viewing the profile of a demand entity in RSW 154

Creating an entity in RSW 154
Editing an entity in RSW 154
About processing workflow steps in RSW 155
Processing a workflow step in RSW 155
Troubleshooting RSW 156

Index 159

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 **General** > **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 an engagement

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

If resource requests are enabled for the engagement, 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 an engagement

1. Access the engagement for editing.

   The **Edit Engagement** 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 Engagement dialog, Projected resources tab options" on page 14.

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 engagement 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 engagement, you can specify whether resource requests must be submitted from tasks or projects instead of the engagement.

1. Access the engagement for editing.

   The **Edit Engagement** dialog box appears.

2. Click the **Projected resources** tab.
3. To allow tasks for the engagement 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 Engagement 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 engagement. If resource requests are enabled, displays the resource who has been assigned to the engagement through the resource request workflow.
Requested resource list	If resource requests are enabled, the resource that you want for the engagement. 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 engagement.
Start date field	Date that the projected resource will start the work for the engagement.
Finish date field	Date that the projected resource will complete the work for the engagement.
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 engagement. 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 engagement.
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 engagement.
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 engagement.

Editing a projected resource for an engagement

1. Access the engagement for editing.

   The **Edit Engagement** dialog box appears.

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

3. Make the necessary changes. For more information, see "Create/Edit Engagement dialog, Projected resources tab options" on page 14.

4. Click **Save**.

Deleting a projected resource from an engagement

1. Access the engagement for editing.

   The **Edit Engagement** 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 engagement or on the resource profile. For more information, see the "About cost rates for contractors" section on page 24.
- A company profile must be set up to store the contractor invoice information. You can set up one or many company profiles. You can use company types, such as vendor, contractor or supplier to distinguish them. If you have one vendor billing for multiple contractors, only one company profile must be set up. If the contractors bill independently, you can either set up one company profile for each contractor or you can set up one company (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 21.

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 23.

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 **General** > **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 engagement 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 24.
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 24.
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 **General** > **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 engagement 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. Engagement 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 engagement, even if your customers are being billed at multiple billing role-based billing rates. You need only specify one resource on the engagement 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 **Engagement** 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 engagement 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 **Engagement** 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 engagement is daily or mixed/daily, a conversion is done to convert the daily cost to hourly. If the rate is derived from the engagement, 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 **Engagement** dialog box, the cost from the engagement 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 engagement, the hourly cost from the resource profile is used.

4. Resource Searches

Accessing the resource search panel

1. Click **Services** > **Resource Search**.

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

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

   - "Searching for resources by workgroup" on page 27
   - "Searching for resources by location" on page 28
   - "Searching for resources by resource type" on page 28
   - "Searching for resources by qualifications" on page 29
   - "Searching for resources by function" on page 29
   - "Searching for resources based on previous project experience" on page 30
   - "Searching for resources based on availability" on page 31

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

Searching for resources by workgroup

1. Access the resource search 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 search criteria" on page 32

4. Click **Search**.

   The **Resource Search Results** view appears. For more information, see "Resource Search Results view" on page 35.

Searching for resources by location

1. Access the resource search 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 search criteria" on page 32

4. Click **Search**.

   The **Resource Search Results** view appears. For more information, see "Resource Search Results view" on page 35.

Searching for resources by resource type

1. Access the resource search 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 search criteria" on page 32

4. Click **Search**.

   The **Resource Search Results** view appears. For more information, see "Resource Search Results view" on page 35.

Searching for resources by qualifications

1. Access the resource search 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 search criteria" on page 32.

4. Click **Search**.

   The **Resource Search Results** view appears. For more information, see "Resource Search Results view" on page 35.

Searching for resources by function

1. Access the resource search 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 search criteria" on page 32.
4. Click **Search**.

   The **Resource Search Results** view appears. For more information, see "Resource Search Results view" on page 35.

Searching for resources based on previous project experience

1. Access the resource search 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 search criteria to be included in the search results.
      - Select the **Any** option if a resource must meet at least one of the project history search 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 search criteria" on page 32.

4. Click **Search**.

   The **Resource Search Results** view appears. For more information, see "Resource Search Results view" on page 35.

Searching for resources based on availability

1. Access the resource search 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 search criteria" on page 32.

   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 search 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 search 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 Search Results** view appears. For more information, see "Resource Search Results view" on page 35.

Availability search 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 search criteria. You must select at least one option. For more information, see "Calculations in the Resource Search Results view" on page 38.

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.

Engagements

Field	Description
Engagements check box	When selected, bookings made through the **Projected resources** tab of the **Engagement** dialog box are included in resource availability calculations.
Exclude soft-bookings check box	When selected, soft-booked time for projected resources in the engagement 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 search results

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

- projected resources of an engagement
- 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 Search**.
   - Click **Actions** > **Resource search**.

2. Complete the resource search criteria. For more information, see "Accessing the resource search panel" on page 27.

   The **Resource Search 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 search.

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

Resource Search Results view

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

- Resource search results table. Click the active links in the table to view additional information.
- Legend for interpreting the resource search results table. The legend is displayed below the table.
- Summary of the research 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 search results" on page 34.

Columns in the resource search results table

The following table provides a brief description of the columns in the resource search results table, but it does not include details on how the numerical results are calculated. For more information, see "Calculations in the Resource Search Results view" on page 38.

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 search 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 search 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 Search Results view" on page 38. If you did not include functions in your search 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 search 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 search 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 search criteria, the system does not calculate this column; however, you can still view project team details through the link provided.
	Engagement	Demand (in hours, days, or percentage) from the projected resources of the engagements that were assigned to the resource for the selected period. If you did not select engagement in your resource search 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 search 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 search criteria.

Calculations in the Resource Search Results view

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

Qualification match

If you selected the **All** option when you specified the qualification criteria for the resource search, 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 search, 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 Search Results** table. The last column of the table reports the total availability from all the demand that you selected in your resource search 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 search 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 Search Results** table. The last column of the table reports the total availability from all the demand that you selected in your resource search 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 search 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

Engagement

The calculations are similar to those performed for project and tasks. For more information, see "Projects and tasks" on page 40.

If both the **Projects and tasks** and the **Engagement** check boxes are selected in the resource search criteria, the availability calculations include both hours assigned to projected resources for the engagement and hours assigned to resources for project tasks. Some assigned times may be counted twice: once from the projected resources of the engagement 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 **Engagement** 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 engagement 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 the resource management worksheet, you can access a broader range of data, and also replace and reassign demand items. For more information, see "Resource Management Worksheet" on page 71.

Accessing the resource scheduling calendar

1. Click **Services** > **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 **General** > **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 engagements, 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 engagement, 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 scheduling worksheet (RSW)
- **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 an engagement

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

1. Access the engagement for editing.
2. Click the **Projected resources** tab.
3. Add the projected resources. For more information, see "Adding a projected resource to an engagement".
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 on your home page.

1. Access your **My Reminders** portlet.
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 search**.

      The **Search for Available Resources** window appears.
   b. Complete the search criteria as necessary and click **Search**. For more information, see "Accessing the resource search panel" on page 27.

      The **Resource Search 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 (engagements, 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 the resource management worksheet. For more information, see "About the Resource Management Worksheet (RMW)" on page 71.

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 **Services > 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 57.
2. Specify the time period. For more information, see "Specifying the time period for a resource demand scenario" on page 58.
3. Specify the entities. For more information, see "Specifying the entities for a resource demand scenario" on page 59.
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 60.

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 an engagement that are based on billing roles, you specify the staffing workgroups of the engagement.

1. Click **Services** > **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 58.

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 57.

Initiating a resource demand scenario from opportunity analysis

1. Click **Services** > **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 57.

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 59.

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 60.

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, engagements, 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 64.

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 Management Worksheet

About the Resource Management Worksheet (RMW)

You use the resource management worksheet (RMW) to manage the demand for resources' time and allocate work to resources. The following table lists the entities and their demand items.

Entity	Demand item
calendar	calendar entries (calendar entries displayed in the resource management worksheet are limited to personal calendar entries only.)
engagement	projected resources (resource requests from engagements)
opportunity	service items
project	task assignments
project team	project team entries (resource requests from projects)
request	request demand

Accessing the Resource Management Worksheet (RMW)

When you access the resource management worksheet 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 proceed.

1. Click **Services** > **Resource Management Worksheet**.
2. If the **Manage Filters** dialog box appears, do one of the following:
   - To select an existing filter, in the **Filters** list, select the filter.
   - To create a new filter, select **[New filter]**. For more information, see "Creating an RMW filter" on page 73.

   The resource management worksheet appears with the default resource management worksheet view (until you specify a different default view).

About RMW filters

You create resource management worksheet filters to specify the data that is displayed in the resource management worksheet. Completed task assignments and projects are never displayed in the resource management worksheet.

About specifying resources in a filter

When you create a filter, you first specify the general filter options and the resources for which you want to view and allocate demand as well as other general filter options. In the **General** tab, there are options available for specifying:

- resources by workgroups or individually
- individual resources with a future activation date
- resources with a future activation date in selected workgroups
- functions that the resources must have

You can further specify resources by adding filter criteria in the **Resources** tab.

About specifying demand items in a filter

In the **General** tab, the general options for specifying demand items include:

- types of demand items
- whether to include committed and noncommitted demand items
- a date range for the demand items

After you specify the general and resource options, you can specify filter criteria in one or more of the entity tabs to include only the demand items for a particular resource, project, project team, opportunity, engagement, request, calendar appointments or from shared configurable fields.

> **Note:** Configurable fields for resource requests are not available in the filters or in the worksheet.

About specifying resource management scenarios in a filter

You can include a scenario in a filter. The demand items that have not yet been committed will be included in addition to the demand items in your filter. The scenario is displayed in the **Scenario** list on the worksheet.

You can include only demand items from a scenario by creating a filter with only the scenario selected and no other filters. Or, on the worksheet you can select no filter and then select a scenario in from the **Scenario** list.

How the filter criteria work

The options that you select for resources and functions in the **General** tab are joined by a logical AND operator to the filters created in the **Resource** tab. That is, the resources that are filtered in the **Resource** tab filters must also meet the conditions in the **General** tab.

The options for committed and uncommitted demand items in the **General** tab are joined by a logical AND operator to the filters created in the entity tabs. That is, the demand items that are filtered in the entity tab filters must also meet the conditions in the **General** tab.

> **Note:** You can specify criteria based on committed and uncommitted demand items either on the **General** tab or an entity tab, but not both.

Examples of RMW filters

To display all of the demand items for the selected resources based only on the committed status of the demand items:

- On the **General** tab, in the **Resources** list, select the workgroups or resources.
- In the **Items** section, select the committed status for the demand item types.
- Do not specify criteria on any of the other tabs.

To display all committed demand for resources for a project:

- On the **General** tab, in the **Resources** list, select the workgroups or resources.
- In the **Items** section, select the **Committed** check box for **Task assignments**.
- On the **Projects** tab, create a filter to specify the project:

  Name (Project) Equal to [project name]

Creating an RMW filter

You can include resources with a future activation date, which are indicated by .

1. Access the resource management worksheet.
2. Click .

The **Manage Filters** dialog box appears.

3. In the **Filters** list, select the filter that you want to base the new filter on.
4. In the **Filters** list, select **[New filter]**.
5. In the **Name** field, enter the name for the filter.
6. To include a resource management scenario in the view, in the **RMW scenario** list, select the scenario.
7. In the **Resources** list, select the workgroups and resources.
8. To include all resources that have a future activation date from the selected workgroups, select the **Include resources with a future activation date** check box.
9. You must specify filter criteria by doing at least one of the following:
   - In the **Item** section, select the committed or noncommitted demand item types that you want to include.
   - In one or more entity tabs, specify filter criteria. For more information, see "Adding filter criteria for an entity to an RMW filter" on page 76.
10. Complete the fields as required. For more information, see "Manage Filters dialog (RMW), General tab options" on page 74.
11. Click **Save**.

    The information that matches your filter criteria appears in the worksheet.

Manage Filters dialog (RMW), General tab options

This table includes the general fields at the top of the dialog box.

Option	Description
Filters list	Available resource management worksheet filters.
Name field	Name of the resource management worksheet filter.
RMW scenario list	Available resource management scenarios.
Share the filter check box	When selected, other resources can view and edit the filter.

Option	Description
Set as default check box	When selected, applies the current filter automatically when you access the resource management worksheet.
New criteria button	On all tabs except the **General** tab, inserts a new criteria row above the currently selected row.
Delete criteria button	On the **General** tab, clears all settings. On all other tabs, deletes the selected criteria rows.
Resources list	The workgroups and resources for which you are the resource manager.
	Displays all available resources and workgroups in the **Resources** list in a tree view in the **Resources** list.
	Displays only the selected resources and workgroups in the **Resources** list.
	Clears all selected resources and workgroups in the **Resources** list.
Include children check box	When selected, includes the subworkgroups of the selected workgroups.
Include resources with a future activation date check box	When selected, includes new resources that are in the selected workgroups and have an activation date in the future.
Functions list	When the check box for a function is selected, includes the resources who have the function.
Include only resources whose primary functions are the specified functions check box	When selected, includes only the resources whose primary function matches the selected functions. When cleared, includes resources whose primary or secondary function matches the selected functions.

Option	Description
Items list	When the **Committed** check box is selected, includes the demand items for the entity that are committed. When the **Noncommitted** check box is selected, includes the demand items for the entity that are not committed.
Start date field **Finish date** field	When both start and finish dates are specified, includes the demand items that have demand on one or more days between the start and finish dates (including the start date and finish date). When only a start date is specified, includes demand items that have demand on or after the start date. When only a finish date is specified, includes demand items that have demand on or before the finish date.

Adding filter criteria for an entity to an RMW filter

You can add additional filter criteria to further restrict the data in the resource management worksheet. For example, you can create a filter to include the demand items for a specific project only.

1. Access the resource management worksheet.
2. Click .

   The **Manage Filters** dialog box appears.
3. In the **Filters** field, select the filter.
4. To add entity-specific filter criteria:
   a. Click the entity tab.
   b. In the **Filter on** column, select the field that the criteria row applies to.
   c. In the **Condition** column, select the condition for the information in the column.
   d. In the **Value** column, select the values that the condition must meet.
   e. To add a new criteria row, click **New criteria**.

f. To add an operator, or an opening or closing parentheses, click a blank column in the row and then select the item from the list.

5. Click **Save**.

   The data that matches your filter criteria appears in the worksheet.

Editing an RMW filter

You can edit all settings in a filter, including its name.

1. Access the resource management worksheet.
2. Click .

   The **Manage Filters** dialog box appears.

3. In the **Filter** list, select the filter that you want to edit.
4. To rename the filter, in the **Name** field, enter the new name.
5. Make the necessary changes.
6. Click **Save**.

Deleting an RMW filter

It is good practice to keep at least one filter. Otherwise, you will have to create a new filter the next time that you access the resource management worksheet.

1. Access the resource management worksheet.
2. Click .

   The **Manage Filters** dialog box appears.

3. In the **Filter** list, select the filter that you want to delete.
4. Click **Delete**.
5. Click **Yes** to confirm.
6. Click **OK**.

About RMW views

Resource management worksheet views specify the data fields that are displayed in the resource management worksheet. There is a default view that is supplied with Changepoint, but you can create and manage your own views. If you have the access rights, you can also share your views and manage the shared views that have been created by other resources.

> **Note:** You can only use a view if you have access to all of the fields that are included in the view.

About creating an RMW view

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 order that you want the fields displayed as columns from left to right in the worksheet. The fields that you want to group by or be in the frozen section must be placed at the top of the list. Grouped fields always appear in the first column.

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

In some cases, a field is also distinguished by the level it is associated with. For example, **Name** and **Planned start** are identified by demand item, demand entity or resource.

> **Note:** When you group fields, **Name (demand item)** always appears in the view at the lowest level of the hierarchy, even if you do not specifically select it.

You can place another field beside a grouped field provided that both fields are from the same entity. For example, you could select the **Resource name** and **Primary function** fields from the **Resource** entity and then group by the **Resource name**. You would then select the display on group level option for the **Primary function** field. When you save the view, the function of each resource would display beside the resource's name.

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

Creating an RMW view

You must place frozen and grouped columns together at the top of the field list.

1. Access the resource management worksheet.
2. Click .

   The **Manage Views** dialog box appears.
3. In the **Views** field, select the view that you want to base the new view on.
4. In the **Views** field, select **[New view]**.
5. In the **Name** field, enter a name for the view.
6. To share the view with other resources, select **Share the view**.
7. To make this view your default view, select **Set as default**.
8. To add columns (fields) to the worksheet:
   a. Click the **Columns** tab.
   b. In the **Entity type** field, select the entity that contains the fields. The entity fields are listed in the table.
   c. Select the check boxes for the fields that you want to add.
   d. To move a field, click in the information column or **Field** column and then drag it up or down to the desired position.
9. To group on a column, select the check box in the **Group by column**.
10. To display a field value beside the grouped field, select the **Display on group level** check box.
11. For numeric fields only: To display the sum or average of the numeric field at each group level, select **Sum** or **Average** in the **Calculation** column.
12. For date fields only:
    - To display the earliest date value at each group level, in the **Calculation** column, select **Minimum**.

- To display the latest date value at each group level, in the **Calculation** column, select **Maximum**.

13. To display an outline of the view, select the **Preview** tab.
14. Click **Save**.

    The new view appears in the resource management worksheet.

Manage Views dialog (RMW), general options

Option	Description
Views list	List of available views.
Name field	Name of selected view.
Share the view check box	When selected, other resources can view and edit the view.
Set as default check box	When selected, this view is applied each time that you access the resource management worksheet.

Manage Views dialog (RMW), Columns tab options

Option	Description
Entity type list	List of entities, and entities and their configurable fields. When you select an entity, its fields are listed in the table below.
column	Displays color-coded error notifications. For more information, see "About errors in the RMW" on page 88.
Check box column	When the header check box is selected, all of the fields in the **Field** column are included in the view. When individual check boxes are selected, the corresponding column is included in the view.
Field column	Name of the column in the view.
Group by column	When selected, the data is grouped by the field.

Option	Description
Frozen column	When selected, the column remains in place when the view is scrolled to the right or left.
Display on group level column	When selected, displays the field next to the field on the worksheet that is listed above it in the dialog box.
Calculation column	For numeric fields, displays the sum or average at each group level. For date fields, displays the minimum (earliest) date or maximum (latest) date at each group level.

About availability threshold settings for RMW views

You can configure how the time for demand items is outlined in different colors according to whether the resource or the overall group is underbooked, overbooked, or within an acceptable range. You specify whether the time is calculated based on planned hours or forecast remaining hours, and displayed in days or fiscal periods. You can set different colors for the thresholds.

You can choose from the following methods for the thresholds to be calculated.

- Resource overbooked or underbooked status
- Percentage of total demand to total capacity

  Note: In all cases, capacity is calculated as: resource's daily capacity * workgroup percent available for planned work.

Resource overbooked or underbooked status

If you select this method, then you must set up the underbooked, acceptable, and overbooked statuses in order of priority. The entire group on the worksheet will have the same status as the resource in the group with the highest priority status.

For example, you could set the priority as:

- 1 overbooked
- 2 underbooked
- 3 acceptable

If at least one resource in the workgroup has an overbooked status, then the entire group is shown as overbooked on the worksheet. If no resources are overbooked and at least one resource is underbooked, then the entire group is shown as underbooked. The entire group is shown as acceptable only if all resources in the group are in the acceptable range.

The availability threshold is calculated as follows:

total demand for the resource that is displayed in the worksheet / resource's capacity for the day or fiscal period

Percentage of total demand to total capacity

The thresholds and available hours are calculated at each group level based on the ratio (expressed as a percentage) of total demand for items in the group to total capacity for all of the resources in the group. If you use this method, it is possible that the group as a whole could be shown as underbooked even though one or more resources in the group are overbooked.

About using forecast remaining hours in the RMW

Depending on how Changepoint has been configured, you can choose to display either planned hours or forecast remaining hours in the worksheet.

Forecast remaining hours are displayed from the later of the forecast start date or the current date, to the forecast finish date. If the forecast start date is in the past, the forecast remaining hours are displayed from the forecast start date to the earliest of the forecast finish date or the current date. If all dates are in the past, the forecast remaining hours are not displayed.

Note: When you make changes to demand, the planned hours are always changed, not the forecast hours, even when forecast hours are displayed on the worksheet. This behavior allows resource managers to replace planned hours with forecast hours. Forecast hours are never updated from the worksheet.

Displaying availability threshold colors on each demand item level

You can change the threshold colors. You can also display the threshold colors on the separate demand items, which is useful if you want to see the overbooked and underbooked status of each demand item for a resource.

Displaying available hours

You can display the available hours for each demand item and grouped level.

If the resource management worksheet view has been set up to display available hours, the available hours are displayed in green to the left of the demand value for demand items. If the view has been set up to include group levels, then the available hours are displayed at the group levels as well.

However, there are additional options in the worksheet to display the available hours based on:

- Total committed demand for the resource who is assigned to the demand item (not just the demand that is shown on the worksheet). For more information, see "Displaying availability based on committed demand only" on page 104.
- Total demand of the selected demand items. For more information, see "Displaying availability based on demand for selected items only" on page 104.

Setting up availability thresholds in an RMW view

1. Access the resource management worksheet.
2. Click .

   The **Manage Views** dialog box appears.
3. Click the **Thresholds** tab.
4. Complete the fields as required. For more information, see "Manage Views dialog (RMW), Thresholds tab options" on page 84.
5. To change the color of the threshold statuses:
   a. Double-click the colored bar of the threshold. The **Color Palette** appears.
   b. Select the color.
   c. Click **OK**. The color of the bar is changed.
6. To base the thresholds on the resource in the overbooked or underbooked status:
   a. In the **Threshold status priorities** list, drag the statuses into the order of priority, with the highest priority being at the top of the list and the lowest priority at the bottom of the list.
   b. Select the **Resource overbooked or underbooked status** option.
7. To base the thresholds on the percentage of total demand to total capacity, select the **Percentage of total demand to total capacity** option.

8. Click **Save**.

Manage Views dialog (RMW), Thresholds tab options

Option	Description
Data included in the demand list	Data to use in the worksheet: • Planned hours – time specified by the resource planner or resource manager • Forecast remaining hours – remaining time for the task as specified by resources
Timescale list	Option to display either fiscal or daily periods in the worksheet.
Fiscal periods list	Billing office whose fiscal periods are displayed in the worksheet.
Underbooked color bar	Color of demand items for which demand for the resource is below the resource's capacity.
Acceptable color bar	Color of demand for which demand for the resource is in the range between underbooked and overbooked.
Overbooked color bar	Color of demand items for which demand for the resource is greater than the resource's capacity.
Underbooked % field	Percentage threshold at which the demand for the resource's time is below capacity. The value cannot be below 0.
Overbooked % field	Percentage threshold at which the demand for the resource's time is over capacity. The value can be over 100, up to a maximum of 999.99.
Threshold status priorities list	Priority order in which threshold colors are displayed at the summary level when thresholds are reached by individual resources in a work group. For more information, see "About availability threshold settings for RMW views" on page 81.

Option	Description
Calculate thresholds and availability for each group based on options	Determines the method for calculating thresholds and availability. Options are: • **Resource overbooked or underbooked status** • **Percentage of total demand to total capacity**
Display the threshold color on the demand item level check box	When selected, applies the threshold color settings to each demand item of each resource.
Show availability check box	When selected, calculates and displays the resource availability in the view.

Setting the color of demand items in the RMW

You can change the background colors of demand items and nonworking days in the resource management worksheet. You can choose to show or hide the background colors on demand items, or group levels, or both.

Note: The background color for a group level is displayed only if all of the demand items in the group are the same type.

1. Access the resource management worksheet.
2. Click .

   The **Manage Views** dialog box appears.
3. Click the **Demand items** tab.
4. To change the background color of a demand item type:
   a. Double-click the colored bar of the demand item type. The **Color Palette** dialog box appears.
   b. Select a color.
   c. Click **OK**.
5. To show (or hide) the background colors for all demand items, select (or clear) the **Display colors on the demand items** check box.

6. To show (or hide) the background color for all group levels, show (or hide) the **Display colors on the group levels** check box.
7. Click **Save**.

Manage Views dialog (RMW), Demand items tab options

Option	Description
Task assignment color bar	Color of task assignments.
Project team color bar	Color of project team demand items.
Request demand color bar	Color of request demand items.
Opportunity service color bar	Color of opportunity service demand items.
Calendar entry color bar	Color of calendar entry demand items.
Projected resource color bar	Color of projected resource demand items.
Display colors on the demand items check box	When selected, the colors are displayed on the demand items in the worksheet.
Display colors on the group levels check box	When selected, the colors are displayed on the group levels in the worksheet. All of the demand items must be of the same type for the color to be displayed.
Nonworking day	Color of nonworking days that were set up at the system, global workgroup, and workgroup levels, and for the resource in user setup.
Calendar nonworking day	Color of nonworking days that were set up in the resource's calendar.

Editing an RMW view

You cannot edit a resource management worksheet view while it is being used by another resource.

1. Access the resource management worksheet.

2. Click .

   The **Manage Views** dialog box appears.

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

4. Make the necessary changes.

5. Click **Save**.

Deleting an RMW view

You cannot delete a resource management worksheet view while it is being used by another resource.

1. Access the resource management worksheet.

2. Click .

   The **Manage Views** dialog box appears.

3. In the **View** list, select the view that you want to delete.

4. Click **Delete**.

5. Click **Yes** to confirm.

6. Click **OK**.

   The default system view is selected.

RMW basics

When you have applied a view and a filter, the data that has been specified in the filter will be displayed in the columns that have been specified in the view.

- To view the grouping structure of the current view, point to the header of the first column (after the information column).

- The numbers beside each group are the total number of rows below the group.

- A **No value** group indicates that there is no value for the field in the grouping and a **No demand** row indicates that there is no demand for the resource. However, you can assign demand to the resource.

About using planning in days in the resource management worksheet

Even when Changepoint is configured for planning in days, demand in the resource management worksheet is always displayed and entered in hours.

Therefore, the following columns and options display values in hours:

- **Planned hours** column, which is the equivalent of the **Planned days** field in the task dialog and project worksheet
- Fiscal or daily period columns
- Show original values icon displays the original demand in hours

Expanding and collapsing groups in the RMW

Groups that contain a large number of rows may take a long time to expand. Therefore, it is recommended that you limit the number of rows in groups by adding more filter criteria to the resource management worksheet filter.

You can expand and collapse groups as follows:

- To expand a single group, click the plus sign (+) beside the group name.
- To collapse a single group, click the minus sign (–) beside the group name.
- To expand all selected groups, click . To expand selected groups to the resource rows:
  - Select the groups
  - Click , and then click **Resources**
- To collapse all selected groups, click .

About errors in the RMW

Errors that occur in the resource management worksheet are displayed in the information column as follows:

- Red cell – the row cannot be saved until the error is corrected. Point to the red cell to display a tool tip with the reason for the error.

- Yellow cell – there is a potential problem with the row, but the row can still be saved. Point to the yellow cell to display a tool tip with the reason for the error.

  Note: To display the tool tips in a dialog box, select the rows and then click .

Rearranging and resizing columns in the RMW

You can temporarily rearrange the columns. However, to change the order of the columns permanently, you must rearrange the columns in the resource management worksheet view.

To rearrange columns

Click the column header and drag it to the new position.

To resize a column

- In the header row, point to the line that divides the headers until a double-ended arrow appears.
- Drag the line to the left or right as required.

Selecting multiple rows in the RMW

You can select all rows, a range of rows, or multiple nonconsecutive rows while working in the resource management worksheet.

To select all rows

- Click any row in the worksheet.
- Press **Ctrl+a**.

To select a range of rows

- Select the first row in the range by clicking the row.
- While pressing the **Shift** key, click the last row in the range.

  The range of rows is highlighted.

To select nonconsecutive rows

- Select the first row by clicking the row.
- While pressing the **Ctrl** key, click the other rows.

  The selected rows are highlighted.

About sorting rows in the RMW

You sort the rows (within the groups) in the worksheet by clicking a column header. For example, to sort by tasks, click the **Task name** column header. The first time that you click a column header, the rows are sorted in ascending order according to the data in the column. The subsequent times that you click the same header, the rows are sorted in the reverse order. When the rows are sorted based on a column, an arrow displays beside the column header to indicate whether the sort order is ascending (up arrow) or descending (down arrow).

To sort the rows by additional columns, press and hold **Ctrl** while clicking additional column headers.

Refreshing the RMW

When you refresh the worksheet, all uncommitted changes are lost, all locks are removed and your default view and filter are applied.

To refresh the worksheet, click .

Printing the RMW

You can print the resource management worksheet by clicking . This print option prints a default print area that is determined by the page size and margins, and cannot be adjusted. The printout includes each row that is displayed in the worksheet, but only includes as many columns that will fit in the default margins for the printout page.

To print the entire worksheet, try the following options:

- In the **Print** dialog box, change the paper orientation to landscape to print more columns. For more information, see the Microsoft Windows or **Print** dialog box online help.
- Remove some of the columns from the worksheet view.
- Export the worksheet data to Microsoft Excel and then print from Microsoft Excel.

Viewing entity profiles from the RMW

You can view the profiles of entities that are displayed in the resource management worksheet.

1. Click the row that includes the entity whose profile you want to view.
2. Click .

The entity profile appears.

Viewing and editing resource qualifications and functions from the RMW

You can view and edit the qualifications and functions of a resource from the resource management worksheet, but the changes will not be reflected unless you refresh the worksheet.

1. Click the row that includes the resource.
2. Click .

   The **Qualifications and Functions** dialog box appears.

About exporting RMW data to Microsoft Excel

You can export the data in the resource management worksheet to a Microsoft Excel file. All of the data in the worksheet is exported exactly as it is displayed, except for the color coding for availability thresholds and demand items. The uncommitted changes and columns that you would need to scroll to view are included. However, only groups that are expanded in the worksheet will display all rows in the Microsoft Excel file.

The first column is exported twice: the first column shows the indent structure, and the second column is left aligned, which is easier to scan and sort.

If you have displayed additional information in the worksheet such as actuals or original values, they are exported to a separate column, which allows you to use them for calculations in Microsoft Excel.

Exporting RMW data to Microsoft Excel

1. Access the resource management worksheet.
2. Click .

   The **File Download** dialog box appears.
3. Do one of the following:
   - To view the Microsoft Excel file with the exported data, click **Open**. Microsoft Excel launches and displays the spreadsheet.

- To save the Microsoft Excel file, click **Save** and then specify where you want to save the file.

The Microsoft Excel file is named using the format: `Export-[date-time].xls`.

About editing data in the RMW

You can edit the start date, finish date, total planned hours, and the planned hours in daily periods or fiscal periods for all demand items, except for calendar entries, for which you can only edit the fiscal or daily period amounts. You can also mark task assignments as locked or completed.

In all cases, when you edit the values for a demand item and then click outside of the row, the remaining values are updated to ensure that the total planned hours equal the planned hours that have been allocated to the fiscal or daily periods between the start date and finish date.

When you edit the start date, finish date or planned hours for a demand item, the planned hours are redistributed evenly over the working days between the start and finish dates, except when there are manual allocations.

When you edit the planned hours in the daily periods or fiscal periods for a demand item, the start date, finish date, and planned hours are updated accordingly, and the loading method is updated.

About editing demand in past fiscal periods

Providing that you have the required access rights, you can edit the demand in past fiscal periods for opportunity service records. You can also edit the demand in past fiscal periods for task assignments, unless the task assignment has a loading method that updates past planned data with actual data. In this case, the past planned data is automatically replaced with actual data when the project is rolled up. There is an option to display the actual data in the worksheet.

Manual allocations of planned hours

When you change the total planned hours for a demand item that includes planned hours that have been manually allocated, the manually-allocated planned hours are maintained and the remaining planned hours are allocated to the working days that do not include manual allocations.

There are cases when manually-allocated planned hours cannot be maintained:

- all of the working days between the start and finish dates include manual allocations

- the new total planned hours amount is less than the total of the planned hours that have been manually allocated
- new start date for the demand item is later than the previous start date
- new finish date for the demand item is earlier than the previous finish date

In all of these cases, the planned hours will be evenly distributed automatically to all of the working days between the start and finish dates, unless resource leveling is enabled, in which case the planned hours will be distributed according to resource leveling rules.

Tip: Add the **Loading method** column to your view so that you can identify the planned hours that have been manually distributed for projects and opportunities.

Changing the validation settings in the RMW

By default, the changes that you enter in the resource management worksheet are validated automatically after you enter data and then click outside of the row. However, you can change the settings so that changes are validated only when you validate the changes manually, which reduces the processing time after each change. Regardless of the setting, changes are always validated before they are committed.

1. To display the validation settings, in the top right corner of the resource management worksheet, click .
2. To validate rows only when requested manually, select the **Validate upon request** option.
3. To validate rows automatically, select the **Validate upon change** option.
4. To hide the validation settings, click .

Validating changes manually in the RMW

1. Select the rows.
2. Click .

Switching between daily and fiscal periods in the RMW

You can switch between daily and fiscal period amounts while working in the worksheet. You can also select daily or fiscal periods in the resource management worksheet view.

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. To start the time periods from a specific date, click in the column that includes the date.
2. In the **Time periods** list, 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.

Displaying fiscal or daily periods starting from a specific date in the RMW

You can specify the starting date for the range of fiscal or daily time periods that are displayed in the worksheet. If you select a date for which no fiscal or daily periods have been configured, then no periods are displayed at all.

Do one of the following:

- Click in the date field 03/01/2013, enter a date, and then press **Enter**.
- Click and then select a date.

Displaying the previous or next fiscal or daily periods in the RMW

- To display the next range of periods, click .
- To display the previous range of periods, click .

About locking and unlocking rows in the RMW

You must lock a row before you can edit it. There are two levels of locking:

- Fully locked – You can edit the demand item in the worksheet and commit the changes.
- Partially locked – You can edit the demand item in the worksheet and save the changes in a resource management scenario, but you cannot commit the changes.

Depending on the reason that you cannot fully edit the demand item, the cell is red or yellow. Point to the cell to display the reason in a tool tip.

If the value for a demand item has been changed since you accessed or last refreshed the resource management worksheet, the worksheet is refreshed when you lock a row. For performance reasons, if the changed value is in a group, the entire group is not refreshed. To redisplay all of the grouped information, you must refresh the resource management worksheet.

Locked rows are unlocked automatically when you change filters or refresh the resource management worksheet.

Locking or unlocking a row in the RMW

1. Select the row or group.
2. To lock the row or group, click .
3. To unlock the row or group, click .

Deleting a demand item on the RMW

You can delete individual demand items, or all demand items under a selected group.

1. Access the resource management worksheet.
2. Select the demand item or group and then click .
3. Click **OK** to confirm.

   An “x” appears in the information column.
4. Commit the change.

Preventing time entry on a task assignment in the RMW

To temporarily prevent time entry for a task assignment, you can lock the task assignment and then unlock it later.

1. Add the **Locked task (demand item)** field from the **Task assignment** entity to the resource management worksheet view.
2. To lock a task assignment, select the check box in the **Locked task (demand item)** column.

3. Commit the change.

Setting a task assignment to Completed in the RMW

You can set a task assignment to **Completed**. However, if you want to set a task back to not completed, you must use either the project worksheet or the task editing view.

1. Add the **Completed (demand item)** field from the **Task assignment** entity to the resource management worksheet view.
2. In the task assignment row, select the check box in the **Completed** column.

   Once you leave the row, the row becomes noneditable.

   Tip: To undo the change at this point, you must discard the change.
3. Commit the change.

About discarding uncommitted changes in the RMW

You can discard uncommitted changes in specific rows or groups by selecting the affected rows and then clicking . When you discard changes, the locks on rows are not removed.

Unlocking a row also discards the uncommitted changes in the row.

Note: To completely discard demand that you reassigned, you must select both the target and source rows.

To discard all changes in the resource management worksheet, refresh the worksheet by clicking . When you refresh the worksheet, the locks are removed from all of the rows.

Allocating recurring demand in the RMW

You can allocate recurring demand in the RMW 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 town hall meeting that occurs at the end of every quarter. The recurring demand replaces existing demand within the specified date range. Existing demand after the recurring demand end date is removed.

If the first date that the recurring demand is allocated is before the start date of the demand item, then the start date of the demand item is changed to the first date of the recurring demand. Similarly, if the last date that the recurring demand is allocated is after the demand item end date, the demand item end date is changed.

You can allocate recurring demand for tasks that have either an manual or automatic loading method. However, an automatic loading method will be switched to a manual loading method after recurring demand is allocated.

Warning: When you allocate recurring demand to a resource's calendar, individual calendar entries are created. 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 the RMW, ensure that daily periods are displayed.
2. Lock the demand items that you want to work with.
3. Select the demand items that the recurring demand will be allocated to.
4. Click .

   The **Recurring Allocations** dialog box appears.
5. Enter the date range, and the number of hours for the recurring allocation.
6. In the **Recurrence Pattern** section, select either the weekly or monthly options.
7. Click **Save**.

Editing recurring demand in the RMW

After you allocate recurring demand, the only way that you can edit all of the recurring demand settings at once is by first clearing out the planned hours (planned effort) for the demand item, and then reallocating the recurring demand. You can always edit the entries individually.

1. In the RMW, ensure that daily periods are displayed.
2. Lock the demand items that you want to work with.
3. In the **Planned hours** (Planned effort) column, enter 0.
4. Click outside of the row.
5. Click .

   The **Recurring Allocations** dialog box appears.
6. Enter the date range, and the number of hours for the recurring allocation.

7. In the **Recurrence Pattern** section, select either the weekly or monthly options.
8. Click **Save**.

About reassigning demand in the RMW

When you reassign demand, the demand is removed from the source resource and assigned to the target resource. If the target resource has already been assigned to the same demand item, the source demand is added to the target demand item. If the target resource has not been assigned the same demand item, then a new demand item is created and assigned to the target resource.

There are two ways to reassign demand items in the resource management worksheet:

- Drag and drop demand items in the resource management worksheet main grid. For more information, see "Reassigning demand by using drag and drop in the RMW" on page 99.
- Select the demand items and display **Reassign Demand Items** dialog box. For more information, see "Reassigning a demand item by using the Reassign Demand Items dialog" on page 101.

About reassigning demand for calendar entries

When you reassign demand for a full day calendar entry, if the resulting demand in the target calendar entry is less than the daily conversion factor value for the resource, then target calendar entry is not set as a full day.

However, when you reassign demand for partial day calendar entries, the target calendar entry is never set as a full day, even if the demand is equal to or greater than the daily conversion factor value for the resource.

About reassigning demand by using drag and drop in the RMW

You can reassign demand from one resource to another resource by selecting a source group, row, or one or more demand item cells, and then dragging them to a target resource.

You can drag one or more of the following:

- fiscal or daily period cells
- demand item row
- group row

Warning: Reassigning a large number of demand items (over 100 total demand items or rows) at the same time will reduce the performance of the worksheet.

When you reassign demand by drag and drop, the demand items are locked automatically, and the changes will be validated when you commit them.

Dragging fiscal or daily period cells

In general, the demand from the source demand items is added to the matching demand items for the target resource. If there is no matching demand item for the target resource, a new demand item is created. The demand value is removed from the source row, but the source row remains.

You cannot drag demand from a demand item to a different demand item for the same resource. However, you can drag demand from one fiscal or daily period cell within the same demand item row.

Dragging rows

When you drag a row to a target resource, the demand in the row is assigned to the target resource from the current date forward. The fiscal or daily period distributions will be maintained, except when the nonworking days are different for the target resource. In this case, the demand is shifted to the next working day.

When you drag a row to a fiscal or daily period cell, the demand starts on the first day of the fiscal period, or the first daily period. The finish date is calculated based on maintaining the duration of the source demand item, relative to the source start date. However, if the nonworking days are different for the target resource, demand that falls on a nonworking day is shifted to the next working day, which may lengthen the duration.

Note: When you drag a row, keep in mind that the demand for the entire row in the worksheet is reassigned, which includes the columns that you would have to scroll to view.

Reassigning demand by using drag and drop in the RMW

1. To reassign the demand in a single row or fiscal or daily period, select the source item and drag it to the target resource row or fiscal or daily period.
2. To reassign the demand in multiple rows:
   a. **Shift**+click or **Ctrl**+click to select the source rows.

b. Continue holding **Shift** or **Ctrl** and drag the rows to the target resource or fiscal or daily period.

3. To reassign demand in multiple fiscal or daily periods:

   a. **Shift**+click or **Ctrl**+click to select the source fiscal or daily periods.

   b. Continue holding **Shift** or **Ctrl**, click in the last cell that you selected (if the cell is in edit mode, click its border) and then drag the cells to the target resource or fiscal or daily period.

About reassigning demand by using the Reassign Demand Items dialog

If you require more precise control over how demand is reassigned, you can use the **Reassign Demand Items** dialog to reassign all or part of a source demand item to one or more target resources.

The source demand can include one or more effort cells within a demand item, one or more demand items, or all the demand items in a project. You also specify how the planned hours are allocated by selecting a distribution type.

The following distribution types are available for reassigning demand items.

Copy distribution

Copies the distribution of planned hours from the source demand item as-is to the target demand item. If the target start date or target finish date are different than the source dates, then the distribution of planned hours is shifted accordingly. Planned hours that fall on a nonworking day are moved to the next available working day.

Even distribution

Distributes the planned hours evenly between the target start date and target finish date. If target dates are not specified, then planned hours are distributed evenly between the source start date and source finish date.

Level distribution

If both a target start date and target finish date are specified, then resource leveling rules are used to distribute the planned hours between the start and finish dates.

If only one of the target start date or target finish date is specified, then the planned hours are allocated from the target start date going forward or from the target finish date going backward.

The maximum planned hours for each day is calculated as follows:

Work percentage * Resource's daily capacity * Percent available for planned work

where:

- **Work percentage** is the value specified in the **Reassign Demand Items** dialog box
- **Daily capacity** is the value set for the resource in the **User Setup** dialog box (or if not specified in **User Setup** dialog box, then the default value in Changepoint Administration)
- **Percent available for planned work** is the value set for the resource's workgroup

If the option to include committed items is selected, then existing committed demand for the resource is subtracted from the maximum planned hours for each day.

If neither a target start date or target finish date is specified, then the planned hours are calculated and allocated the same as when either a target start date or target end date is specified, except starting from the source start date going forward.

Reassigning a demand item by using the Reassign Demand Items dialog

1. Access the resource management worksheet.
2. Select the demand items that you want to reassign, and then click .

   The **Reassign Demand Items** dialog box appears.
3. To reassign the demand item to multiple resources:
   a. Select the demand item.
   b. Add additional rows by clicking .
4. Select the resource in the **Resource** column.
5. To search for resources based on their availability, click .
6. To reassign a shorter range of the source demand item:
   a. In the **Source start date** field and **Source finish date** field, specify the dates.
   b. To recalculate the source planned hours based on the new duration, select the rows and then click .

7. In the **Distribution type** column, select the option for distributing the planned hours.
8. In the **Target start date** field, enter the start date for the target demand item.
9. In the **Target finish date** field, enter the finish date for the target demand item.
10. Do one of the following to specify the planned hours for the target demand item:
    - Enter the planned hours for the target demand item in the **Target planned hours** field.
    - Enter the percentage of the total planned hours in the **Percentage** field.
11. To validate your changes, click .

Reassign Demand Items dialog options

Option	Description
	Opens the **Resource Search** dialog box.
	Adds a new row for each row that is selected.
	Deletes the selected rows.
	Recalculates the source planned hours for the selected row if you have changed the source start date or source finish date or both.
	Validates the changes in all rows.
Demand item column	Name of the demand item.
All row	If you complete this row, all of the demand items that are listed in the dialog box and for which you have not specified any options, are reassigned to the specified resource.
Resource column	Resource that the demand item is reassigned to.

Option	Description
Source start date column	Start date from which the demand of the source demand item is reassigned.
Source finish date column	Finish date of the demand of source demand item to be reassigned.
Source planned effort column	Planned effort for the source demand item.
Distribution type column	Method for distributing the demand. Options include: • Copy distribution • Even distribution • Level distribution
Target start date column	Start date of the target demand item.
Target finish date column	Finish date of the target demand item.
Target planned effort column	Total planned effort for the target demand item.
Percentage column	Percentage of the source planned hours to be assigned to the target demand item.
Work percentage column	Percentage of the resource's daily capacity that can be allocated to the target demand item. Available only when the distribution type is **Level distribution**.
Retain source planned effort column	When selected, new demand items are created, but the planned hours for the source demand item are not reduced.
Include committed items column	When selected, includes demand from all committed items in the calculation of the demand distribution for the target resource. Available only when the distribution type is **Level distribution**.

Displaying the original values in the RMW

After you have made changes to a row, you can display the original values for the planned start dates, planned finish dates, planned hours, and fiscal or daily periods. The original values are

the values that were last saved to the database (not a scenario) and are displayed in blue to the left of the changed values. In new demand items, the planned hours will be zero and the planned start and finish date cells will be blank.

To display the original values, select the rows that were changed and then click .

Displaying availability based on committed demand only

You can display the availability of the resources in selected rows that is calculated based on committed demand only, including demand items that are not displayed on the worksheet. If the demand in a selected row is not committed, then the demand is not included in the availability calculation.

The availability will be the same for every demand item for the resource. To identify the rows that are committed, add the **Committed** field to the view. The availability values display in blue to the left of the demand values.

1. Select the rows.
2. Click .

Displaying availability based on demand for selected items only

You can display the availability of resources that is calculated based on committed and uncommitted demand in the selected rows only. You can use this option to do what-if analysis of different combinations of demand for resources. The availability values display in blue to the left of the demand values.

1. Select the rows.
2. Click .

Displaying the original availability in the RMW

If you selected the option to display availability based on committed demand only, or on the selected items only, then you can display the original availability values for selected rows. If the current resource management worksheet view is configured to display availability, then the original availability values are displayed in green.

1. Select the rows.

2. Click .

Displaying actual hours in the RMW

You can display the actual hours that have been entered by resources for task assignments. The actual hours display in blue to the left of the demand values.

1. Select the task assignment rows.
2. Click .

Pinning rows in the RMW

You can *pin* rows so that they appear in a separate *pinned section* at the bottom of the worksheet. In the pinned section it is easier to compare the effect of the changes that you make to the demand items. If the row that you select contains a group, then all of the rows from the group are copied to the pinned section.

To pin rows

- Select one or more rows, and then click .

  The rows are copied to the pinned section at the bottom of the worksheet.

To unpin a row

- In the pinned section, select the rows, and then click .

To hide the pinned section

- Double-click the line that separates the worksheet rows and the pinned section, or unpin all of the rows in the pinned section.

To show the pinned section

- Click .
- If a message indicates that there are no more demand items to pin, click **OK**.

To resize or rearrange columns in the pinned section

- You must use the column headers in the top of the worksheet.

To sort rows in the pinned section

- Click the column headers in the pinned section.

About resource management scenarios

You can save uncommitted changes to demand items in the worksheet as a *resource management scenario*, which is useful when you would like to view and work with the changes in the future, or another resource must review and commit the changes.

When you save a scenario, you can select an option to have the scenario automatically added to the currently displayed filter. You can also grant access to the scenario to other resources, who can then view the scenario, and add and change demand items. However, in order to commit the changes, the resources must have edit access to the demand items.

When you edit a scenario that is not currently displayed, you have the option of updating the scenario with the changes to demand items (if any) in the worksheet. If you update the scenario, then only the demand items that have been changed in the worksheet replace the matching demand items that are in the scenario. The other demand items in the scenario remain the same.

If there are changes to a demand item after you create a scenario such as, you no longer have access to the demand item, or the demand item has been deleted or completed, then the demand item will no longer be available in the scenario.

Accessing a resource management scenario

You can display a resource management scenario in addition to a filter, or by itself.

Note: Displaying or saving a new or different scenario will refresh the worksheet and therefore uncommitted changes in the worksheet will be lost.

1. Access the resource management worksheet.
2. In the **Scenario** list, select the resource management scenario.
3. To display only the resource management scenario, in the **Filter** list, select the blank at the top of the list.

Saving uncommitted changes as a resource management scenario

1. In the resource management worksheet, click .

   The **Manage Scenario** dialog box appears.

2. Complete the fields as required. For more information, see "Manage Scenario dialog box (RMW) options" on page 108.
3. Do one of the following:
   - To save the scenario and display it in the worksheet, click **Save**.
   - To save the scenario only, click **Apply**, and then **Close**.

Granting access to a resource management scenario

You can grant access to the scenario to other resources. You can select resources individually, or based on their workgroup or role. The selected resources have access to view the scenario, but can only view, add and change the demand items that they have view access to. Also, in order to *commit* the changes in the scenario, resources require edit access to the demand items in the scenario.

1. Access the resource management worksheet.
2. Click .

   The **Manage Scenario** dialog box appears.
3. In the **Scenarios** list, select the scenario.
4. In the **Resources** list, do one or more of the following:
   - To grant access to all resources in a workgroup, select the workgroup
   - To grant access to individual resources, select the resources

   Tip: To display the selected resources only, click .
5. To grant access to resources according to their roles, in the **Roles** list, select the roles.
6. Do one of the following:
   - To save the scenario and display it in the worksheet, click **Save**.
   - To save the scenario only, click **Apply**.
7. Click **Close**.

Adding uncommitted changes to a resource management scenario

If the scenario is currently displayed in the worksheet, all additional changes that you make are automatically added to the scenario when you commit the worksheet. However, you can use this procedure if you want to add uncommitted changes to a different scenario.

1. Access the resource management worksheet.
2. Click .

   The **Manage Scenario** dialog box appears.
3. In the **Scenarios** list, select the scenario.
4. Select the **Update scenario with changes from the worksheet** check box.
5. Do one of the following:
   - To save the scenario and display it in the worksheet, click **Save**.
   - To save the scenario only, click **Apply**.
6. Click **Close**.

Manage Scenario dialog box (RMW) options

Option	Description
Scenarios list	Available resource management scenarios.
Scenario name field	Name of the resource management scenario.
Add scenario to the current filter check box	When selected, adds the scenario to the filter that is currently displayed in the worksheet.
Update scenario with changes from the worksheet check box	When selected, the changes from the worksheet are added to the scenario.
Resources list	Selected workgroups and resources are granted access to the resource management scenario.
	Displays the tree view of workgroups and resources in the **Resources** list.

Option	Description
	Displays only the selected workgroups and resources in the **Resources** list.
	Clears all of the selections from the dialog box.
Roles list	Selected roles are granted access to the scenario.
Include children check box	When selected, grants access to the resources in the subworkgroups of the selected workgroups.

Deleting a resource management scenario

1. Access the resource management worksheet.
2. Click .

   The **Manage Scenario** dialog box appears.
3. In the **Scenarios** list, select the scenario.
4. Click **Delete**.
5. Click OK to confirm.

About saving (committing) changes in the RMW

The changes that you make in the resource management worksheet initially exist only in the worksheet. Validations are performed either when you move from a row or request them manually so that you can see whether your changes are permitted, but the changes are not applied to the actual demand items until you save (or *commit*) the worksheet. You can save the changes in a resource management scenario, and commit them at a different time. This behavior allows for some resources to create scenarios, and other resources to approve and commit the changes in the scenarios.

When you save the worksheet, the following occurs:

- If a resource management scenario is displayed when you save the worksheet, the unsaved changes are added to the scenario.
- If a resource management scenario is not displayed and resource requests must be created or updated, you are prompted to save the changes in a scenario.

- The demand items that are committed are removed from the scenario. If all demand items in the scenario are committed, the scenario is deleted.
- Demand items are updated with the changes.
- Resource request workflow is initiated. For more information, see the "About resource requests in the RMW" section on page 111.
- Email notifications that describe the changes are sent to the owners of the demand items.

Calendar entries

When you allocate the same number of hours on consecutive days to a resource's calendar, a single calendar entry is created. Separate calendar entries are created for dates that are not consecutive or that have a different number of hours allocated.

Committing changes in the RMW

When you commit changes in the worksheet, the data is first validated. If one or more demand items fail validation, then nothing is committed.

If the changes include reassigned demand and you want to delete the source row, be sure that you commit the target row either before or at the same time as the source row. If you delete and commit the source row before the target row is committed, you will not be able to commit the target row.

1. Select the rows that include the changes that you want to commit.
2. Click .

   One of the following occurs:

   - If all changes pass validation, the changes are committed.
   - If one or more of the changes fail validation, nothing is committed and error messages appear in the rows of the demand items that failed validation.
3. Review the error messages, and then do one of the following:
   - Correct the errors and then save the changes.
   - If the errors are only warnings, you can save the changes regardless.
   - Select and save only the rows that passed validation.

Note: If you select different rows than you did in step 1, then the rows are validated again, and warnings may appear again.

About resource requests in the RMW

Depending on how the resource request workflow has been configured for your Changepoint installation, and if you have the required access to edit resource requests and the resource request workflow, then when you save the resource management worksheet, the required resource requests can be updated or reopened (if there is a matching resource request) or created automatically (if a new resource request is required or the matching resource request is in process).

Resource requests are created or reopened when you make changes to demand items in the worksheet for engagements, projects or task assignments for which resource requests have been enabled.

Demand items will be grouped together in one resource request as much as possible. For example, if there are changes to multiple task assignments for the same resource on the same project, the project team resource request that most closely matches the range of dates and total hours in the task assignments will be reopened.

Note: In some cases, more than one project team resource request may be reopened if demand needs to be spread over more than one resource request.

When you save the worksheet, and resource requests need to be created or updated, you may be prompted to do one or more of the following:

- save the changes to a resource management scenario (if a scenario is not currently displayed)
- provide values for mandatory fields for demand items
- update the status of a resource request

If the resource requests cannot be updated or created (for example, because you do not have access to resource requests), then a message appears, and nothing is committed. A resource with the required access must either access the scenario and commit the worksheet changes, or complete the missing steps for you so that you can then commit the worksheet changes.

About the Required Fields dialog box

The **Required Fields** dialog box appears when you commit changes in the resource management worksheet and new demand items must be created, but values for one or more

required fields are missing.

To continue committing the changes, you must complete these required fields and then click **OK**.

About the Edit Resource Request dialog box

The **Edit Resource Request** dialog box appears when you commit changes in the resource management worksheet, and one or more resource requests must be approved or reassigned.

1. To continue committing the changes, change the status of the resource requests and then click **OK**.
2. Click .

Viewing resource requests associated to a resource management scenario

You can view the resource requests that are associated to the resource management scenario.

1. Access the resource management scenario.
2. Click .

   The **Scenario Resource Requests** dialog box appears.

   Note: If no resource requests are associated with the scenario, a message appears. If resource requests were previously associated with the scenario, this message indicates that they were processed successfully.

3. To view a resource request, click the number in the **Resource request** column.

   The **Resource Request Summary** dialog box appears.

Scenario Resource Requests dialog box options

All of the fields in this dialog box are read-only.

Option	Description
Resource request column	Resource request number, which links to the **Resource Request Summary** dialog box.
Start date column	Start date of the resource request.
Finish date column	Finish date of the resource request.
Effort column	Planned hours for the resource request.
Status column	Status of the resource request.
Resource column	Requested resource.
Function column	Function from the source demand item.
Billing role column	Billing role from the source demand item.
Billing office column	Billing office from the source demand item.

About using exempt resources in the RMW

Exempt resources are resources that are excluded from the resource request process due to an option that is set on their resource profile. Exempt resources can be actual resources or generic placeholder resources.

You can assign exempt resources to task assignments and project team entries. A resource manager can then use the resource management worksheet to replace the exempt resources with the actual resources for the project.

Using the RMW from a comparison scenario

When you use the resource management worksheet with a comparison scenario, you can only go back and forth between the worksheet and the comparison scenario. Therefore, the **Filters** field and **Scenario** fields are not available.

1. Access the scenario comparisons worksheet.
2. Select the scenario comparison view and filter.
3. Click any cell in the column of the comparison scenario (except the header) whose demand items you want to view in the resource management worksheet, and then click .

The **Workgroups** dialog box appears. Workgroups for which you are the resource manager display in the workgroup tree.

4. Do one of the following:
   - To calculate capacity based only on the resources that are assigned to the demand items in the scenario comparison, click **OK**.
   - To add resources from selected workgroups to the capacity calculations (in addition to the assigned resources), select the workgroups from the workgroup tree. Select the **Include children** check box to include the resources in all subgroups of the selected workgroups in the capacity calculations, and then click **OK**.

   The resource management worksheet appears.
5. Make the necessary changes in the resource management worksheet.
6. To return to the scenario comparisons worksheet, click .
7. If you did not commit your changes, a message appears, asking whether you want to update the scenario comparisons. Do one of the following:
   - To update the comparison scenario with the changes that you made in the resource management worksheet, click **Yes**. The changes are displayed in the scenario comparisons worksheet as what-if data in blue.
   - To return to the **comparison scenario** without updating, click **No**.

Troubleshooting the RMW

Cannot save a demand item that has planned effort on a nonworking day

In the project planning worksheet (PPW), it is possible to allocate planned effort to a nonworking day, which is not supported in RMW. To save a demand item that has planned effort on a nonworking day, you may have to manually redistribute the planned effort, or change the loading method to one that automatically distributes planned effort.

Demand items are missing

First verify that the resource management worksheet filter has been configured properly to include the demand items. If yes, then the problem could be:

- the demand item has not been configured to be included in the resource management worksheet

- your workgroup has been configured to require resource managers to have view access to the entity of the demand item for the resource management worksheet

Check with your system administrator.

You cannot lock a row or group

You may not be able to lock a row or group for one or more of the following reasons:

- you require edit access to the entity of the demand items in the row or group
- you require edit access for workflow-enabled entities, such as opportunities or requests
- the demand item is for an opportunity forecast that is locked
- the demand item is associated to a resource request, and you do not have edit access to the resource request

You cannot edit a demand item

You will not be allowed to edit a demand item in the following cases:

- If an existing resource request is directly associated with the demand item and workflow is in process, you will not be allowed to make any more changes until workflow completes. For example, if you changed a project team entry, which initiated a resource request, you will not be allowed to make changes while the workflow process is running.
- If an existing resource request is associated with a change made in the resource management worksheet, workflow is in process and you are in the same resource management worksheet session. For example, if you made changes to a task assignment that required a project team resource request to be reopened, you cannot make more changes to the same task assignment within the same resource management worksheet session. To make more changes to the same task assignment, you must close and reopen the resource management worksheet.

Demand is displayed on nonworking days in a resource management scenario

If the nonworking days have changed since a scenario was saved, it is possible that some demand becomes allocated to nonworking days.

To remove the demand from nonworking days, change the values in one or more of the fiscal or daily period cells, planned start, planned finish, or planned hours cells, which will redistribute the demand to working days.

You want to view demand items that have a status that is not set up to be included in the RMW

You must add the following criteria to your resource management worksheet filter:

- On the **General** tab, in the **Items** section, clear the **Committed** and **Non-committed** check boxes for the entity of the demand item.
- On the entity tab, add filter criteria to include the demand item statuses, and both of the settings for the Committed field:

```
Status Equal to [status 1] OR
Status Equal to [status 2] OR
Committed Equal to [selected check box] OR
Committed Equal to [cleared check box]
```

You saved the RMW, but a message indicates that changes have not been saved

The initial save of the resource management worksheet ensures that the validations are performed and that any resource requests are processed as required. You must save the worksheet again to finalize the save process.

Demand item is missing from a resource management scenario

After you create a resource management scenario, demand items may not be available for the following reasons:

- You no longer have access to the demand item.
- Demand item has been deleted or completed.

Task assignment dates move after you commit changes in a resource management scenario

If a task has been made a successor task after you created a resource management scenario, then when you commit the changes in the scenario, the start date for the task assignment might be moved due to the dependency.

Actual hours are distributed evenly in the RMW

For performance reasons, the actual hours in daily cells for past fiscal periods are displayed as being distributed evenly in the resource management worksheet instead of on the dates that the actual hours were entered by the resources. However, you can manually display the dates that the actual hours were entered by resources. For more information, see "Displaying actual hours in the RMW" on page 105.

Warning to contact your system administrator to set up demand types for your workgroup appears

This warning appears if the demand type (planned hours or forecast remaining hours) that is set on the current resource management worksheet view is different than the one that is set for your workgroup.

Click **OK**, and then verify that the resource management worksheet view has the correct demand type set on the **Thresholds** tab, or change to a view that includes the correct demand type.

Availability threshold color is not applied to a group

The availability threshold colors will not be applied to a group when, on the resource management worksheet view, the **Average** calculation is set for the group, and the **Percentage of total demand to total capacity** threshold option is selected.

Changes committed in the RMW do not appear when you return to the comparison scenario

If you launched the resource management worksheet from a comparison scenario, the changes that you commit in the worksheet do not appear in the comparison scenario until a system update is run. Typically these updates are run at least once per day.

Calculated field value is not updated when demand is updated or reassigned

A calculated field can be configured so that its value is calculated when the entity is saved. For performance reasons, the values for these calculated fields are not updated when demand is updated or reassigned in the RMW.

9. Resource Scheduling Worksheet (RSW)

About the resource scheduling worksheet (RSW)

You use RSW to manage the demand for resources' time. RSW 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: RSW supports hours and days only, and not FTEs.

Using RSW, you can do the following:

- use the standard views or create and edit your own RSW 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 RSW, 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 entities
- process workflow steps

About demand in RSW

RSW 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 the RSW

The demand 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 demand 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 RSW

The cells in the information 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.
- Yellow 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 RSW.

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

About validating and saving changes in RSW

While you are working in RSW, 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 RSW, 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 RSW

Do one of the following:

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

To validate changes in RSW

Click .

RSW basics

Accessing RSW

When you access RSW 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 **Services** > **Resource Scheduling Worksheet**.

2. To create a new filter, click . The **Manage Filters** dialog box appears. For more information, see "Creating an RSW filter" on page 139.

Switching RSW views and filters

You can temporarily switch the RSW view by clicking the down arrow next to the view icon , and then selecting a different view.

Similarly you can temporarily switch the RSW filter by clicking the down arrow next to the filter 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 RSW.

Setting a default RSW view

Click the view icon , and then click the pin icon beside the view name.

Setting a default RSW filter

1. Click . The **Manage Filters** dialog box appears.
2. Select the **Set as default check** box.
3. Click **Save**.

Expanding and collapsing groups in RSW

Depending on the selected view, the rows in RSW are grouped either by function or workgroup, then by resource, and include the demand entity and demand items or just the demand items.

You can control the level of detail displayed in the worksheet rows. You can expand or collapse groups individually by clicking the right arrow ( ) or down arrow ( ) beside the group name.

There are options to expand all rows or only selected rows to the demand items, just to the resource rows, or just to the demand entity rows.

Note: Expanding groups to the resource rows or entity rows collapses the rows below the resource rows or entity rows.

To expand the entire worksheet

To expand all groups completely, do one of the following:

- Ensure no rows are selected, and then click .
- Ensure no rows are selected, and then click , and then select **All**.

To collapse the entire worksheet

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

To expand selected groups

Select the groups and then do one of the following:

- To expand all selected groups, click .
- To expand selected groups to the resource rows, click , and then select **Resources**.
- To expand selected groups to the entity rows, click , and then select **Entities**.

To collapse selected groups

Select the groups and then click .

Searching in RSW

You can search for items in RSW. 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 RSW

Click in the date field 7/1/2018 , 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 RSW

1. In the number of periods field 12 , 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 RSW

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

To refresh the worksheet, click .

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 RSW
- 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, and then click .

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 blue bar at the start or end of the date range.

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, double-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, click .

Viewing the Gantt chart legend

To view a legend of the color codes, point to the icon at the bottom left of the worksheet. The names of the current view and filter are also displayed at the bottom left.

Navigating the Gantt chart

To go to a specific date in the Gantt chart

In the date field, enter 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. Click .

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.

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 .

Printing RSW

You can print RSW by clicking . The printout includes each row, but only includes the columns and portion of the Gantt chart that are currently displayed.

Exporting RSW data to Microsoft Excel

You can export the data in RSW 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 RSW data to a Microsoft Excel file

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

Sorting rows based on column data in RSW

You can sort the rows in RSW 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 RSW open. You can specify a default sort order in RSW views.

1. To sort based on column data, click the column heading. The following occurs:
   - the data in the column is sorted in ascending order

- an up arrow (▲) appears beside the column heading
- the sorted columns icon appears in the bottom left corner of the worksheet

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 view a list of the columns that are sorted, point to the sorted columns icon . The columns appear in the order in which they are sorted. In the following screen shot, the worksheet data would be sorted by **Primary function** in ascending order and then by **Location** in descending order.

5. 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.

RSW best practices

For the best results when using RSW, 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 RSW

In RSW, 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 RSW at the same time. Updates made to both will fail validation and cannot be saved.

About RSW settings

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

- "Setting availability threshold settings for color coding in RSW" on page 129
- "Displaying demand under the requested resource" on page 137
- "Specifying settings for demand items that have been reassigned in RSW" on page 130
- "Specifying default resource match criteria" on page 149

Setting availability threshold settings for color coding in RSW

RSW displays the workload status that is color coded according to whether a resource is under-booked (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 RSW 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 . The **Resource Scheduling 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 RSW

When you reassign a demand item in RSW, 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 RSW and locking it so that time cannot be entered for it
- leaving the source demand item in RSW unlocked

1. Click . The **Resource Scheduling Settings** dialog box appears.

2. In the **After reassigning demand items** field, select the option.

About RSW views

RSW views control the grouping of data and the fields that are displayed in RSW. 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 RSW views" on page 133.

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 RSW 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, engagement, 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 RSW 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	engagement (resource requests from engagements)
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 RSW 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 an RSW 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 RSW, click . The **Manage Views** dialog box. appears, displaying the current default 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 (RSW) dialog box options" on page 135.
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 **View layout** section.
- drag the column to a specific location in the **View layout** section.

5. To remove columns from the view, in the **View layout** section, do one of the following:
   - double-click the column
   - drag the column to the **Available columns** section
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, 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 (RSW) dialog box options

Option	Description
Views list	List of available views.
Name field	Name of selected view.
Share the view check box	When selected, other resources can view and edit the view.

Option	Description
Set as default check box	When selected, this view is applied each time that you access RSW.
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.
View Layout 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
Columns 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.

Option	Description
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

Displaying demand under the requested resource

By default, RSW displays the demand under the assigned resources, and requested demand appears 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 for resources together. When you change the setting, the demand where no resource is assigned or a generic resource is assigned is grouped under the requested resource.

1. Click . The **Resource Scheduling Settings** dialog box appears.
2. In the **Show demand 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 RSW

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

1. Select one or more items and then 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 click .

Showing and hiding actual effort in RSW

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 , 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 , and then select **Hide actual effort**.

Switching between daily and fiscal periods in RSW

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. To start the time periods from a specific date, click in the column that includes the date.
2. In the **Time periods** list, 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 RSW

There are different layers of filtering available in RSW. The primary level of filtering is the RSW 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 RSW 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 RSW filters

In RSW 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 RSW, 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

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

RSW 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 RSW 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 under the requested resource" on page 137.

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 an RSW filter

1. In RSW, click . The **Manage Filters** dialog box appears.

2. Do one of the following:
   - To base the new filter on an existing filter, select the filter in the **Filters** list, and then in the **Filters** list, select **[New filter]**.
   - To create a new filter, clear the dialog box by clicking **Reset**.
3. In the **Name** field, enter the name for the filter.
4. To share the filter with other resources, click **Share the filter**.
5. To apply the filter each time you access RSW, click **Set as default**.

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 filter demand items

1. In the **General** tab, select the check boxes for the demand item types by committed and non-committed status.

   Tip: You can right-click and then choose from options to select or deselect the selected rows or all rows.
2. By default, the demand items for the next 90 days from the current date are displayed, but you can edit the number of days. To specify a date range instead:
   a. In the **Date range** section, click **Specify date range**.
   b. Enter the dates in the **Start date** and **End date** fields.
3. Click **Save**.

   The information that matches your filter criteria appears in the worksheet.

To specify the resources whose demand items you want to include

1. Click the **Resources** tab.
2. In the **Resource selection** section, select the resources individually or by workgroup:
   a. To search for an item, enter the search text and then click **Search**.
   b. To display the tree view, clear the **Show selected items only** check box, ensure that the search field is empty, and then click **Search**.
   c. Select one or more items.
   d. To display the selected items only, select the **Show selected items only** check box, ensure that the search field is empty, and then click **Search**.
3. To include the subworkgroups of the selected workgroups, select the **Include children** check box.

To filter based on resource functions or resource locations

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

To filter based on the status of resource requests

1. Click the **Resource requests** tab.
2. Select the check boxes for the statuses to be included.

About filtering rows based on column data in RSW

After you apply an RSW 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 RSW

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

1. Click the filter icon beside 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 workgoup, function, resource, demand entity or demand item. The options vary depending on the current view.
3. Click **OK**. The following occurs:
   - Only the rows that include values that match the filter criteria are displayed
   - the color of the filter icon beside the column name changes from gray to blue
   - a blue filter icon appears in the bottom left corner of the worksheet view
4. To remove a column filter, click the filter icon, and then click **Clear filter: [filter name]**.

Filtering resources based on availability in RSW

You can filter the resources that appear in RSW 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 RSW:

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

1. Click . The **Resource Scheduling 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**.

About reassigning demand in RSW

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 RSW, or you can change the RSW 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 RSW" on page 130.

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 RSW

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 four-headed arrow appears.
3. When the cursor changes to a four-headed arrow, drag it 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 four-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 RSW view is grouped by entity.
2. Select the source entity row.
3. Point to the first column in the row until the four-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 option 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 RSW

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 RSW 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 RSW

1. Select the source demand items.
2. Click . The **Reassign Demand Items** dialog box appears.
3. Using the date fields, specify the duration of the source 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. To leave the source items as is, select the **Retain the source demand items** check box.
5. To add a target resource, click in the **Resource** cell and select a target resource from the list.
6. To allocate the effort do one of the following:

- In the **Percentage** column, specify the percentage of the source item effort to assign to each target resource. To allocate additional effort, specify a percentage greater than 100.
- To evenly distribute the effort to the target resources, click .
- To create a target demand item with zero effort, specify a percentage of 0.

Note: When the total percentage is less than 100, the difference remains on the source demand items.

7. To add a resource row, click .
8. To delete a resource row, select the row, and then click .

About allocating recurring demand in RSW

You can allocate recurring demand in the RSW 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 RSW, 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 RSW

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 RSW.

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

You specify the default resource match criteria in RSW settings.

Note: You can also add columns to or remove columns from the resource match using the column filters.

1. Click . The **Resource Scheduling Settings** dialog box appears.
2. Click the **Resource match settings** tab.
3. Select the check boxes for the fields that you want to use to find matching resources.

   The Find matching resources icon ( ) appears in the headers of the columns that correspond to the selected fields.
4. Click **Save**.

Finding matching resources to replace a resource or reassign a demand item

1. Click the resource row or demand item row for which you want to find the matching resources.
2. Click (or right-click and then select **Find matching resources**). The icon appears in information column of the selected row. Only the resource rows that match the resource match criteria in the selected row are displayed.

   Note: You can edit the column filters and add or remove columns from the resource match settings as required.
3. To add a column to (or remove a column from) the resource match criteria:
   a. Click the filter icon beside the column name of the column that you want to use for finding matching resources. Only the columns for resource match settings are applicable.
   b. Click **Add to resource match (Remove from resource match)**.

Note: If you save the worksheet, the changes you make to the resource match settings here are saved as well.

4. Replace the resource or reassign the demand item.
5. To clear the resource match results, click .

Viewing additional resource information in RSW

You can view the following additional resource information from any row in RSW 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 click .
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 RSW

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 RSW. 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 RSW

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 RSW.

About switching loading methods in RSW

You can change loading methods for a task or 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 RSW, 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 RSW. 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 RSW.

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 you have not saved the task assignment, you can reinstate the task assignment to its previous state by refreshing it in RSW.

Managing entities in RSW

In RSW you can view the entity details by launching the profiles for demand entities. You can also create and edit the following entities:

- calendar appointments
- engagements
- opportunities
- projects
- requests
- resource requests

You can also launch PPW to edit tasks and task assignments.

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

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

If the row is a workgroup or demand entity, then you have the option to create an entity or edit other entities. If the row is a resource, you can additionally view the resource profile, and view the resource's calendar or create a calendar entry for the resource. Only the actions that you have the access rights to perform are available.

Note: You can edit entities that are not displayed in RSW, but new entities and edited entities are not automatically displayed in RSW.

Viewing the profile of a demand entity in RSW

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

1. Select a demand item for the entity.
2. Click , and then select **View** > **[entity type]**.

Creating an entity in RSW

1. Do one of the following:
   - To create a calendar entry, select a resource row or demand entity row that is assigned to a resource.
   - To create any other entity, select any row or no row.
2. Click , and then select **Create** > **[entity type]**. The **Create [entity type]** dialog box appears.
3. Complete the required fields and then click **Save**.

Editing an entity in RSW

You can edit an entity that is related to a demand item in RSW as well as entities that are not displayed in the current RSW view.

Editing an entity for a demand item in RSW

1. Select a demand item for the entity.
2. Click , and then select **Edit** > **[entity type]**. The **Edit [entity type]** dialog box appears.
3. Make the necessary changes and then click **Save**.

Editing an entity not in the current RSW view

1. Select any row.
2. Click , and then select **Edit** > **Edit other**.

   The **Select entity** dialog box appears.
3. Select the entity type and entity.
4. Click **OK.** The **Edit [entity type]** dialog box appears.
5. Make the necessary changes, and then click **Save**.

About processing workflow steps in RSW

You can process workflow steps directly from RSW 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 RSW

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 RSW, 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 RSW

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 project team are updated and saved at the same time

To ensure that estimated hours are calculated correctly, 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 RSW view (that is, 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.

No notification appears when a demand item changed outside of RSW

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

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 RSW.

Unassigned resource does not appear in RSW

Only active resources appear in RSW.

Index

C

Contractor Invoice Reconciliation report
- about 22
- running 20

Contractor Invoice Reconciliation report data 22

contractors
- about 19
- cost rates, about 24
- reconciling invoices 21
- reconciling invoices, about 19

Create/Edit Engagement dialog, Projected resources tab options 14

E

Edit Resource Request dialog box 112

engagements
- forecasting resource requirements 13
- projected resources, adding 13
- projected resources, deleting 16
- projected resources, editing 16
- submitting resource requests for 51

F

functions
- viewing 11

M

Manage Filters dialog (RMW), General tab options 74

Manage Scenario (RMW) dialog box options 108

Manage Views dialog (RMW), Columns tab options 80

Manage Views dialog (RMW), Demand items tab options 86

Manage Views dialog (RMW), general options 80

Manage Views dialog (RMW), Thresholds tab options 84

P

projected resources
- adding in engagements 13
- deleting 16
- editing 16
- general options, setting 13

Q

qualifications
- viewing 11

R

Reassign Demand Items dialog box options 102

Reconciliation Results report
- running 23

Required Fields dialog box options 111

resource availability calculations
- example 47

resource capacity conflicts
- checking for 45

Resource Demand by Item report 65

resource demand scenarios
- about 55

accessing 55
approving 69
availability, changing 66
calendar entries, excluding and including 67
comparing 67
components 56
creating 57
deleting 69
demand items, changing dates and duration 61
demand items, linking 64
demand items, moving effort to current period 62
demand items, removing 63
demand items, sorting 61
demand items, undoing changes to 63
demand items, unlinking 64
desubmitting 69
effort, changing 63
entity bar, draging or resizing 61
filter criteria, entity 59
filter criteria, resource 57
filter criteria, time period 58
Gantt view, using 60
histogram view, changes to 68
initiating from opportunity analysis 58
initiating from opportunity scenarios 58
rejecting 69
resources, adding 65
resources, removing 66
saving 68
saving snapshot 68
submitting 69
successor tasks, adding 64
timeline, changing 60
view, refreshing 65
viewing resource demand by item 65

resource management scenarios
about 106
accessing 106
deleting 109
granting access to 107
resource requests, viewing 112
uncommitted changes, adding to 108
uncommitted changes, saving as 106

resource management worksheet
about 71
actual hours, displaying 105
availability, displaying for selected items only 104
availability, displaying on committed demand only 104
basics 87
changes, discarding uncommitted 96
changes, saving (committing) 110
changes, saving (committing), about 109
columns, rearranging and resizing 89
comparison scenarios, using 113
data, editing 92
demand items, deleting 95
demand items, setting color 85
demand, reassigning by dragging 99
demand, reassigning by dragging, about 98
demand, reassigning using the Reassign Demand Items dialog 101
demand, reassigning using the Reassign Demand Items dialog, about 100
demand, reassigning, about 98
entity profiles, viewing 90
errors 88
exempt resources, using, about 113
expanding and callapsing groups 88
exporting to Excel 91
exporting to Excel, about 91
filter criteria, adding 76
filters, deleting 77
filters, editing 77
fiscal or daily periods, displaying from a specific date 94
fiscal or daily periods, displaying previous

or next 94
fiscal or daily periods, switching between 93
original availability, displaying 104
original values, displaying 103
printing 90
qualifications and functions, editing 91
refreshing 90
resource requests, about 111
rows, locking and unlocking, about 94
rows, locking or unlocking 95
rows, pinning 105
rows, selecting multiple 89
rows, sorting 90
tasks, preventing time entry 95
tasks, setting to completed 96
thresholds, setting up 83
troubleshooting 114
validating changes manually 93
validation settings, changing 93
views, about 78
views, creating 79
views, creating, about 78
views, deleting 87
views, editing 86
views, threshold settings for 81

resource management worksheet. See RMW 71

resource requests
about 49
accessing, about 50
approving 53
assigning resources 52
canceling 53
rejecting 53
status types 49
submitting for engagements 51

resource scheduling calendar
about 43
accessing 43
appointments, creating 44
appointments, managing 44
filtering 44
resource profiles, viewing 45

resource search
assigning resources from search results 34
availability criteria 32
calculations 38
searching based on availability 31
searching based on previous experience 30
searching by function 29
searching by location 28
searching by qualification 29
searching by resource type 28
searching by workgroup 27

resource search panel
accessing 27

Resource Search Results view 35

resources
about 11
accessing 11
checking for capacity conflicts 45
functions 11
qualifications 11
workload, viewing 12

RMW
accessing 71
allocating recurring demand 96
editing recurring demand 97

RMW filters
about 72
creating 73
examples 73

S

Scenario Resource Requests dialog box
options 112

T

task assignments
checking for resource capacity conflicts 45

troubleshooting
resource management worksheet 114

W

workload
viewing 12