Changepoint 2017 Service Pack 2
What's New

February 2019
Product Management
Changepoint Canada ULC

Stay Informed and Connected Online
Stay connected with Changepoint: www.changepoint.com or on social media.

Contents

Introduction

We are very pleased to provide preliminary information about the next release of Changepoint: Version 2017 Service Pack 2 (2017 SP2).

Changepoint 2017 SP2 introduces new enhancements for the Resource Scheduling Worksheet, the Project Planning Worksheet, Resource Request creation, additional general enhancements, and a Business Intelligence – Cognos 11.1 upgrade, which furthers our commitment to assist the market and our customers in solving their most critical business problems with our market leading PSA/PPM solution.

Please note this What's New document is a summary of features and enhanced capabilities added as of and since Changepoint 2017. The information is broken out by release so that each release components can be seen while also identifying the latest release components as part of 2017 SP2.

Target Release Date

Changepoint 2017 SP2 is targeted for general availability by February 28, 2019.

All product documentation and software for this release will be available through the standard channels. Contact your project consultant, customer care or customer success representative for assistance.

Resource Scheduling Worksheet (RSW)

The Resource Scheduling Worksheet provides market differentiated flexibility and capability to assist resource managers find better opportunities in managing resource workload requirements within a single interactive worksheet. The worksheet with an added Gantt style view, provides better visibility into resource availability, expertise and utilization to ensure financial responsibilities (cost containment and profitability) are executed with every staffing decision.

The RSW functionality has been released in phases. The Phase 1 "Early Adopter" release provided core capabilities that organizations could introduce to their resources in order to get value from it immediately. It has also been augmented through the monthly agile release process (monthly patches) based on prioritized customer feedback. Phase 2 is delivered with 2017 SP2.

RSW - 2017 SP1

View workloads: Graphically see the details of demand assigned to resources as well as their overall capacity, with red, yellow and green visual color indicators.

Staff new work: Using formal resource requests or less formal methodologies, resource managers have visibility into upcoming work and can quickly make staffing decisions based on the current demand assigned to resources, while ensuring the selected resource has the matching function, qualifications or other characteristics required.

Balance workloads: Using simple drag-and-drop functionality, resource managers can move work across the timeline or from one resource to another to ensure workloads are balanced.

Ensure the best resource is selected: Having access to all the important criteria will ensure that the resource manager selects the most appropriate resource for the work.

Available core views

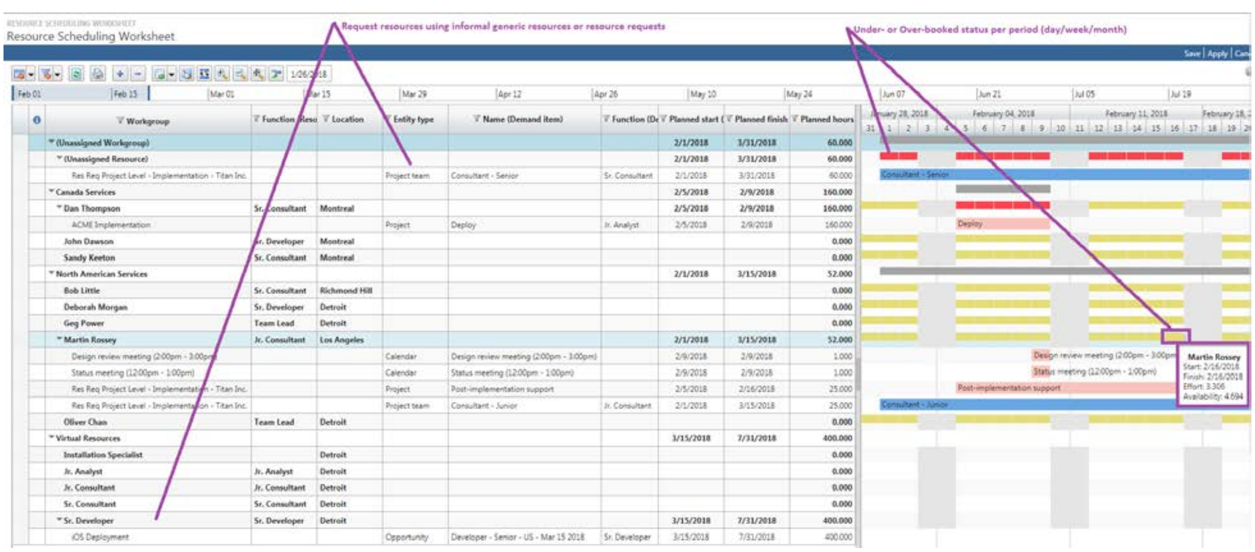
Select one of the 4 core views from the drop-down list. Select the pin icon to make one the default.

- Function, Resource and Entity (e.g. project)
- Function, Resource
- Workgroup, Resource and Entity

- Workgroup, Resource

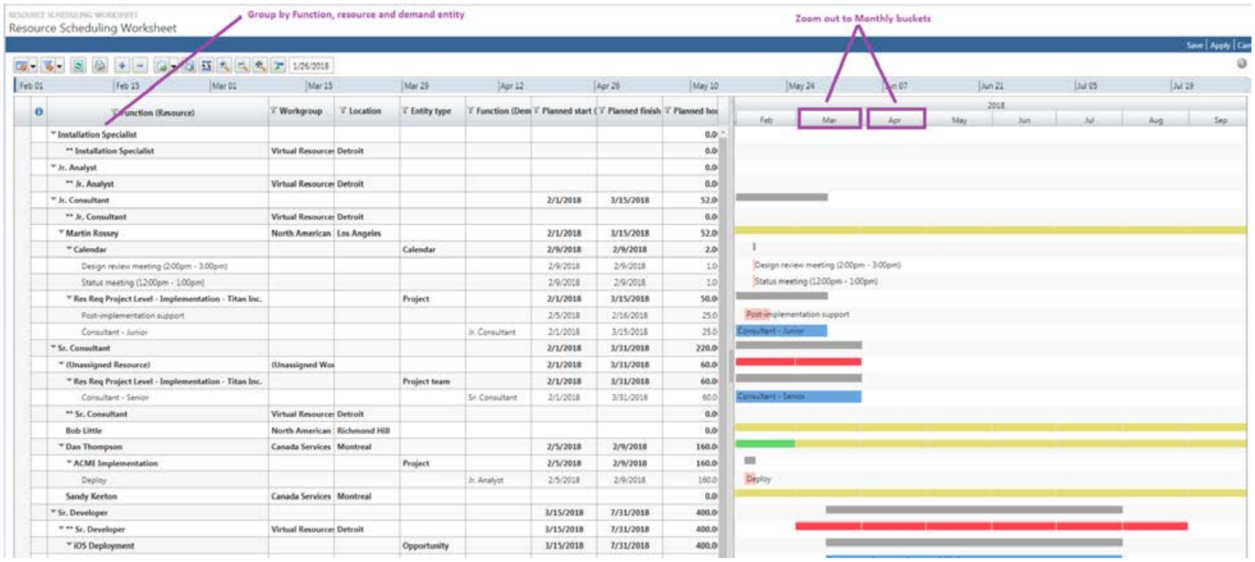
Columns available in RSW

- Workgroup/Resource/Entity name/Item name
- Function (of the resource) – primary function of the resource assigned to the demand item.
- Location – associated with the resource
- Entity type (calendar, engagement, project team, opportunity, request)
- Item function – the function selected on the demand item, which may be different than the resource's primary function
- Planned start
- Planned finish
- Planned effort
- Estimated effort – only relevant to project team items and shows the original demand for the item. The planned effort for project team items is net of task assignments.
- Resource request number – only relevant if the item is associated with a resource request
- Resource request status
- Requested demand – only relevant if the option **Show demand under requested resource** is selected and indicates that the resource is requested for this demand item but is not yet assigned to it.
- Comments (associated with the demand item)
- Billable
- Committed – based on the resource demand settings, set up in Changepoint Administration



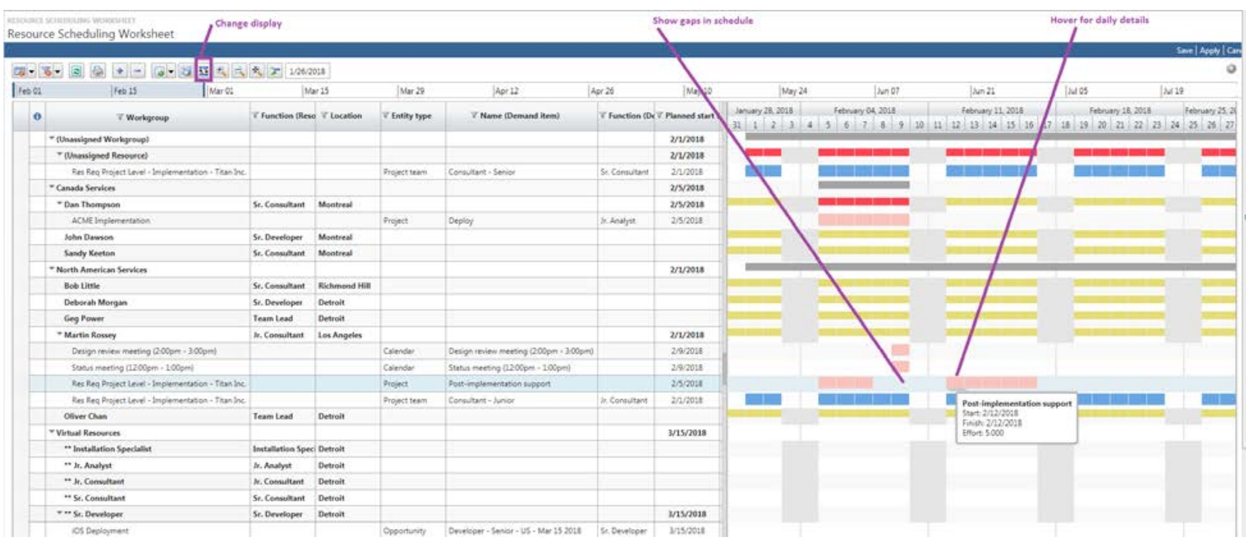
RSW - Initial view of RSW

Once a view is selected you can zoom in or out.



RSW - Zoomed view

Click the **Switch timescale display** icon to toggle between showing one bar for the entire item (which is useful when dragging or reassigning the whole item) or a bar per period for which there is demand. The periods shown depend on the zoom level.



RSW - Display multiple bars

Click the icon on the bottom left of RSW to see a legend of the colors. The selected view and filter are also shown on the bottom left.

The view selections, available fields, and order of the fields cannot be changed. User-defined views will be included in the 2017 SP2 version.

Worksheet filters

The following filters are available since 2017 SP1:

- Workgroups (with Include children option) and/or resources – the user must be a resource manager of the workgroup to see it in the filter selections
- Functions – primary or secondary functions of the resource
- Resource locations
- Demand types and committed/non-committed – right-click and select all rows, or select certain rows first and then right-click to select the committed/non-committed check boxes
- Resource request status
- Start date and end date – specify dates or leave the default of the next 90 days from the current date

All resources that meet the workgroup/function/location criteria will be shown, regardless of whether they have demand. Demand that is not assigned to a resource will also appear under an Unassigned node (only unassigned demand from resource requests will be shown). Other types of demand require a resource to be assigned to be displayed in RSW.

Demand items that meet the type/committed/non-committed status will be shown under the resources. Only demand configured as Included in demand in Changepoint Administration (Resource demand setup) is included in RSW.

Items associated with resource requests can be further filtered to show only certain request statuses. Requests in Canceled status are never shown.

Users can only use the items available in the filter dialog. (User-defined filters on any fields will be introduced in a future release.)

Column filters

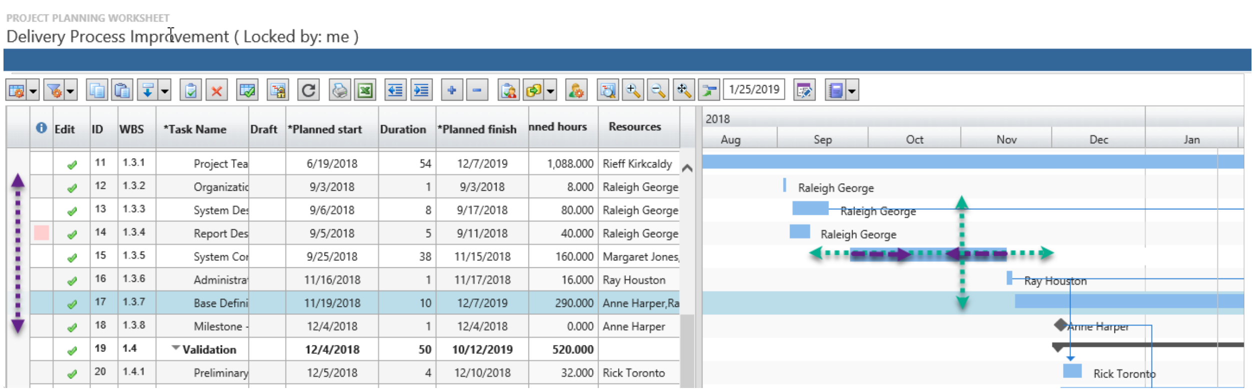
- Each column header in the grid has a filter icon that can be used to further filter the results without going back to the filter dialog. There are options for selecting multiple values or a range of values, depending on the field type.
- Applying a filter can reduce the rows that are displayed and also the values that are available for the other columns. There are options to clear the filters for a specific column, or if more than one filter is applied, for all worksheet columns.
- The selections in the column filters are based on the data in the rows. For example, if there are no non-billable items, you will only see All and Billable in the selection.
- The filter icon will display in blue for columns that have been filtered. The filtered columns will also be indicated at the bottom of the worksheet.

Note: The overbooked status is not recalculated when using column filters.

Modifying Demand

Users can use drag and drop in the Gantt chart to do the following actions:

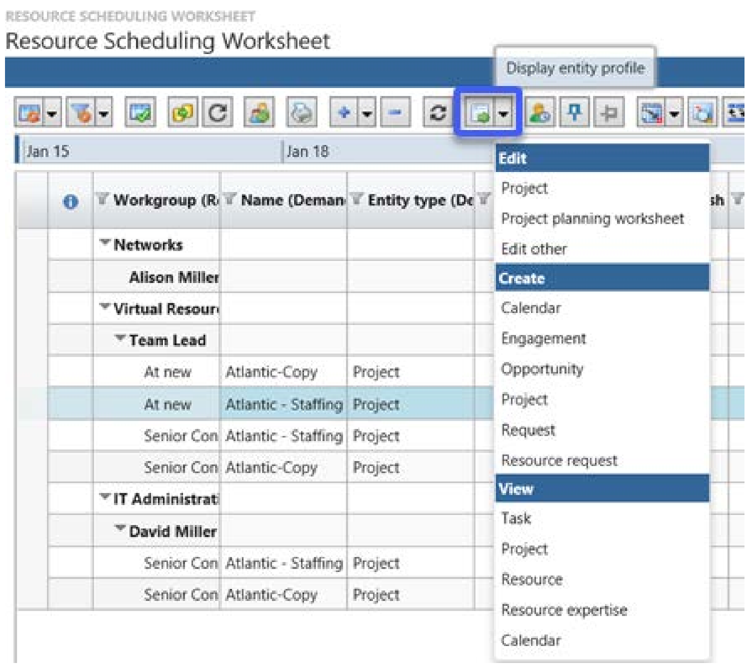
- Move demand across the timeline
- Shorten or lengthen the duration for demand
- Drag demand from one resource to another
    - You can drag the entire item or pieces of it, depending on the timescale display selected
- You can drag and reposition the demand for example, so that it starts later for the target resource.
- From the Gantt, you can select a single row, a summary row (for example a project or resource summary) or select multiple items and drag to a new resource. The entire item is moved, including past demand, when dragging from the Gantt (except for items with loading methods that replace past planned with actuals where only current/future demand is moved for those items).



RSW - Drag and drop items

Quick Edit/Create/View

You can create new items as well as launch the profile page, edit page, resource calendar and project planning worksheet for items in RSW. Your modifications can then be refreshed into the RSW Gantt.

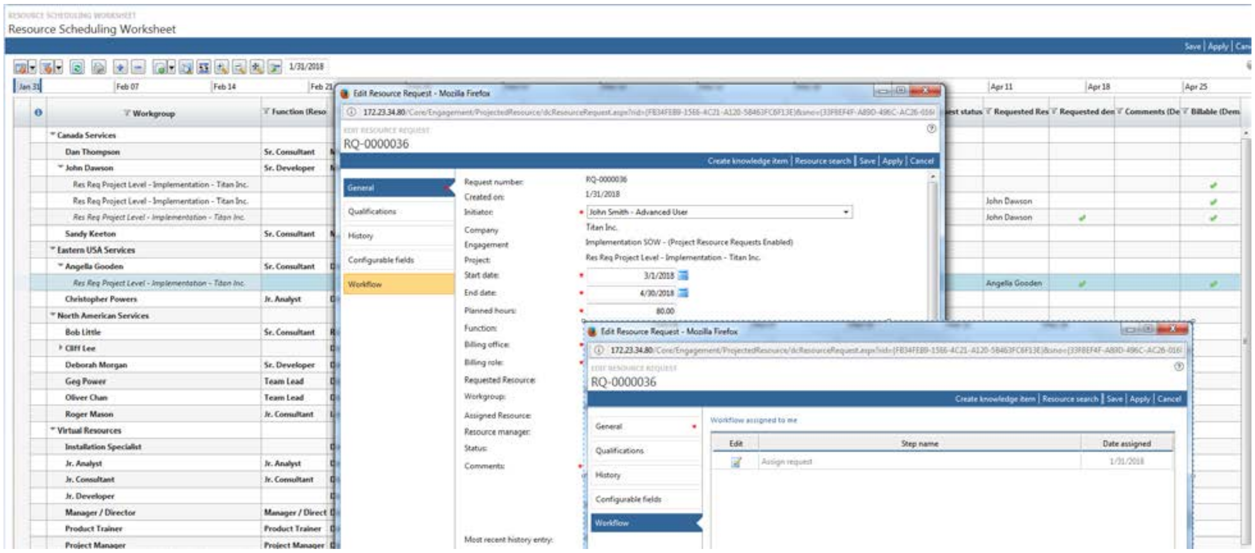


RSW - "Quick" options under Display entity profile icon

Workflow

For entities that support workflow (resource requests, requests, opportunities and projects), a new Workflow tab or section will be on the entity edit dialog, which lists the steps assigned to you. These are the same steps that would be visible in the **Workflow has been assigned to you** list in your **My reminders** portlet.

You can launch the edit dialog, make any changes necessary and complete the workflow steps from within that dialog, which gives you a seamless user experience from within RSW.



Entity edit dialog and workflow steps

RSW - 2017 SP1+ - Iterative Monthly Delivery (General Patch)

Changepoint has incrementally continued to deliver value on the first phase of the resource scheduling worksheet through our general patch process. A significant amount of new and enhanced functionality has been added since Changepoint 2017 SP1 through these 'SP1' patches.

**Please note, items listed as delivered through our monthly delivery are rolled into the SP2 release automatically.*

Pinning items

**Released 2017 SP1 GP 18.01.077.000 - June 2018*

The resource manager can pin one or more items or resources in RSW so that the items remain in the current view regardless of the filters that are subsequently applied.

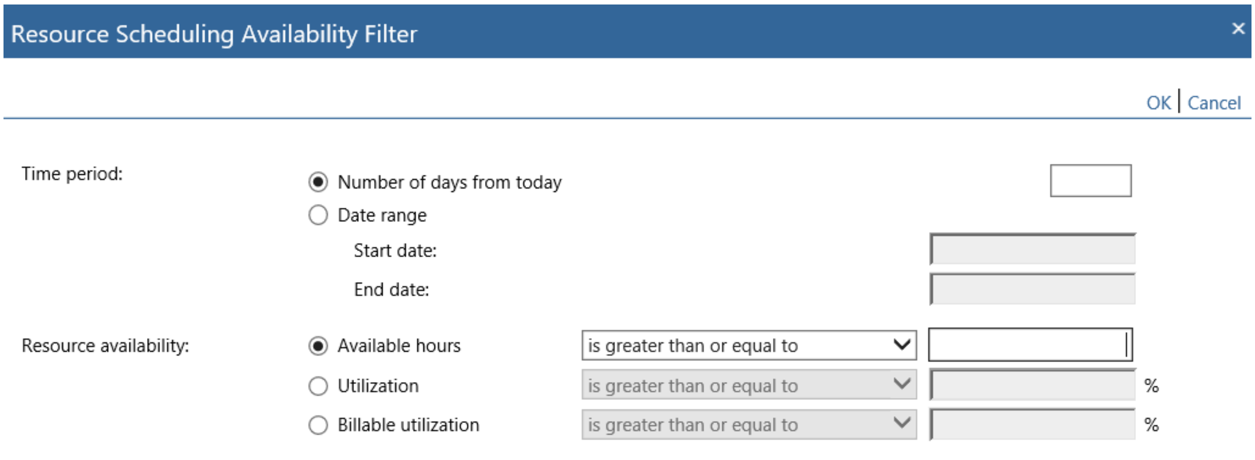
Two new icons (**Pin selected items**) and (**Unpin selected items**) represent this new functionality on the RSW toolbar. Keyboard shortcuts are also available Alt+P and Alt+U respectively.

Filtering based on resource availability

**Released 2017 SP1 GP 18.01.077.000 - June 2018*

To assist Resource Managers in finding available resources, a quick filter on availability has been added and enhanced. Resource managers 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 in order to identify suitable available resources quickly.

To access the Resource Scheduling Availability Filter options, Click the (**Filter resources by availability**) icon on the RSW toolbar.



Time period can be defined based on a specific **Number of days from today** such as 120 or based on a specific start date and/or finish date. See the next enhancement for details on a change in this area.

The Resource availability section allows the user to enter the effort required in the **Available hours** section for scenarios where a resource manager is staffing a specific demand item.

In workload balancing scenarios, the resource manager can quickly filter resources that have either high or low utilization percentages.

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

- **Utilization** – Total effort (demand) of items displayed in RSW divided by the capacity of the resource, for the time period specified in the filter.
- **Billable utilization** – Total effort (demand) 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.

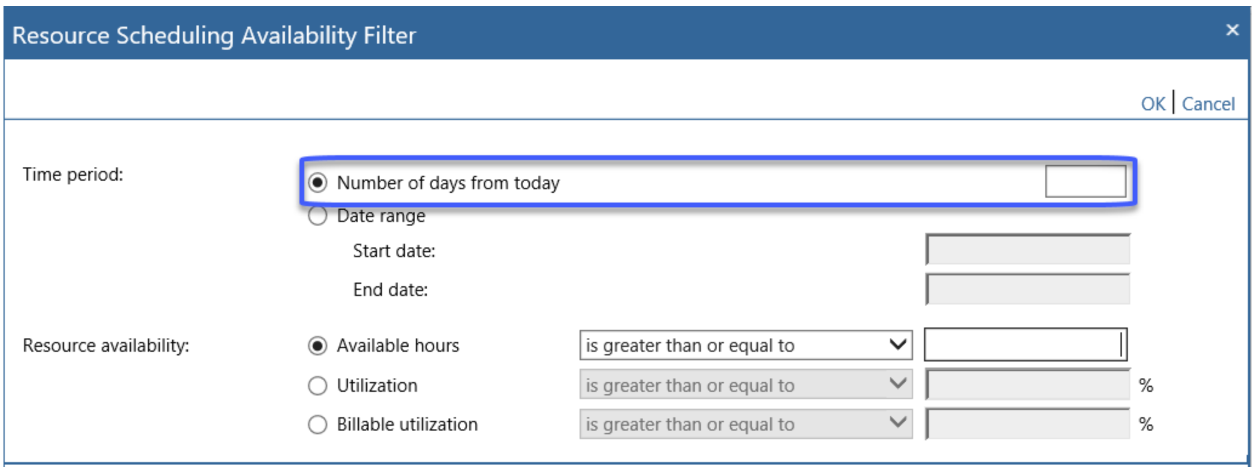
Note: Column filters can be used in conjunction with the Availability filter. Once the resource manager has identified a resource or demand items, they can then use column filters to narrow down the choices (such as by location or function) and then further narrow down the choices by applying the availability filtering.

'Next 90 days' availability filter option replaced with 'Number of days from today' filter for demand items

**Released 2017 SP1 GP 18.01.077.000 - June 2018*

To provide greater filtering flexibility in RSW, the hard-coded **next 90 days** was replaced with a user input field, **Number of days from today** so that resource managers can specify their precise number of desired days to include in the filter.

Any existing filters that used the **next 90 days** option will be converted to an input value of 90 days, which can be changed if desired.



Enhancement to Availability filter

Edit planned start, planned finish and planned effort

**Released 2017 SP1 GP 18.01.077.000 - June 2018*

Resource managers can efficiently edit the planned start, planned finish and planned effort directly in the worksheet column cells. When they 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, they can use the Gantt chart.

Note: Changing only the planned start or planned finish will behave the same as dragging the start or finish in the Gantt: the item will not be shifted; it will be expanded or shrunk. To shift the item and leave its duration the same, drag it in the Gantt.

If the item has a manual loading method, a warning will present indicating that the action will remove the manual effort allocation. If desired, refresh the item to remove your change.

When planned effort is changed, any existing manual effort distributions will be left as-is when possible, and additional effort will be distributed to working days that do not have effort.

However, in some cases, the planned effort must be redistributed manually, for example, when the planned effort amount is reduced demand must be re-distributed.

Edit planned effort in daily or fiscal periods

**Released 2017 SP1 GP 18.01.077.000 - June 2018*

Resource managers can edit effort in the worksheet for daily or fiscal period allocations by selecting one of either the Daily or a set of fiscal period options from the **Switch Fiscal Periods**  icon. They can select **None** if they do not want to display the effort distribution.

When a user makes a change to a daily or fiscal period cell, the loading method will be changed to **Manually distribute – No Update** to ensure the distribution is not lost. When the fiscal period cell is changed, the effort will be evenly redistributed to the working days within the fiscal period.

When a resource request is actioned, the assigned resource field is populated and the workflow step is run, and the effort distribution will be maintained for the assigned resource.

Change loading method, completed, locked and soft-booked

**Released 2017 SP1 GP 18.01.077.000 - June 2018*

Users can change the loading method, completed, locked or soft-booked selections for task assignments, giving them more flexibility for new and existing items.

The initial loading method will be the same as the source item when demand is dragged to another resource but it can be changed. Prior to the general patch, the loading method was set to manual to preserve any manual effort allocations that may have existed.

Completed check box: Completed (Demand item) – Available only for task assignments.

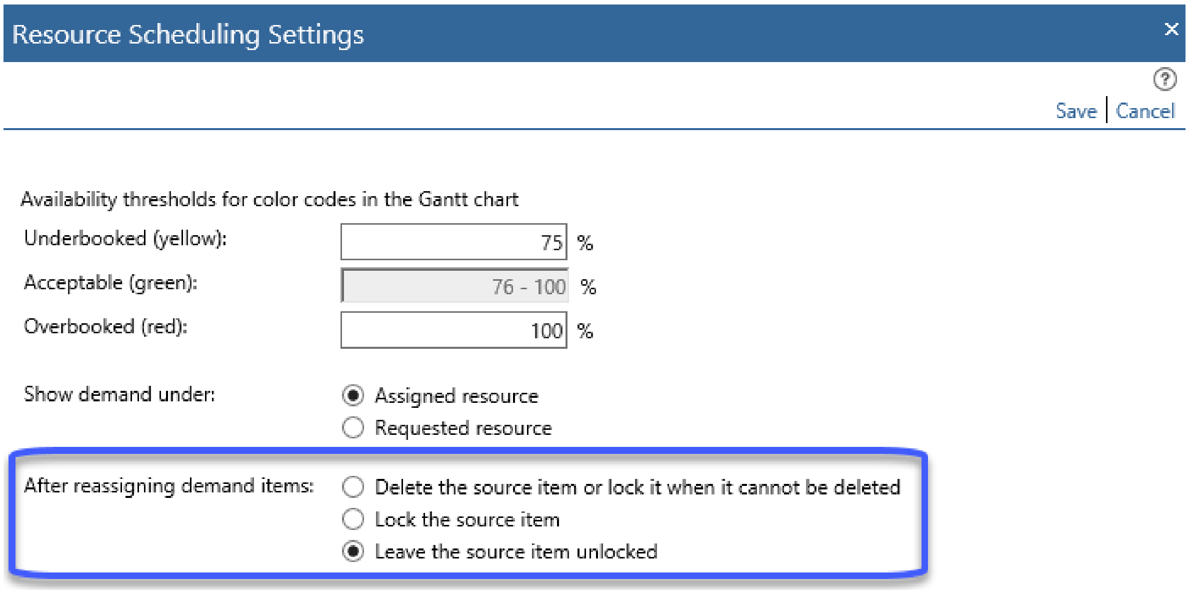
Locking and unlocking rows: Locked task (Demand item) – Available only for task assignments. When selected, prevents resources from entering time for the task assignments for the task.

Soft-booked checkbox: When selected, the projected resource is tentatively booked for this item. Soft-bookings become committed when the resource is approved. Soft-booked (Demand item) is available only if enabled on the billing office associated with the request or project.

Options when removing all demand (planned effort) from a resource

**Released 2017 SP1 GP 18.01.077.000 - June 2018*

Users can now set a preference in the **RSW settings** that determines the behavior when all demand is removed from a resource via the drag-and-drop.



RSW Settings

The choices are:

- Delete the source item or lock it when it cannot be deleted
    - When selected, the source item will be deleted when the effort is zero after the reassignment.

  Note: If there is still effort on the source item or it cannot be deleted (e.g. a task assignment has time booked against it), it will not be deleted but will be locked. There may still be effort if a task assignment has a loading method that replaces past with actuals. If only past data remains on the source, the item will be locked but not deleted.

- Lock the source item
    - When selected, the task assignment will be locked, which prevents resources from entering any more time against it.
- Leave the source item unlocked
    - When selected, the assignment will not be locked.
    - This option is the behavior before the general patch and is the default option.

The source item is considered to have no effort when:

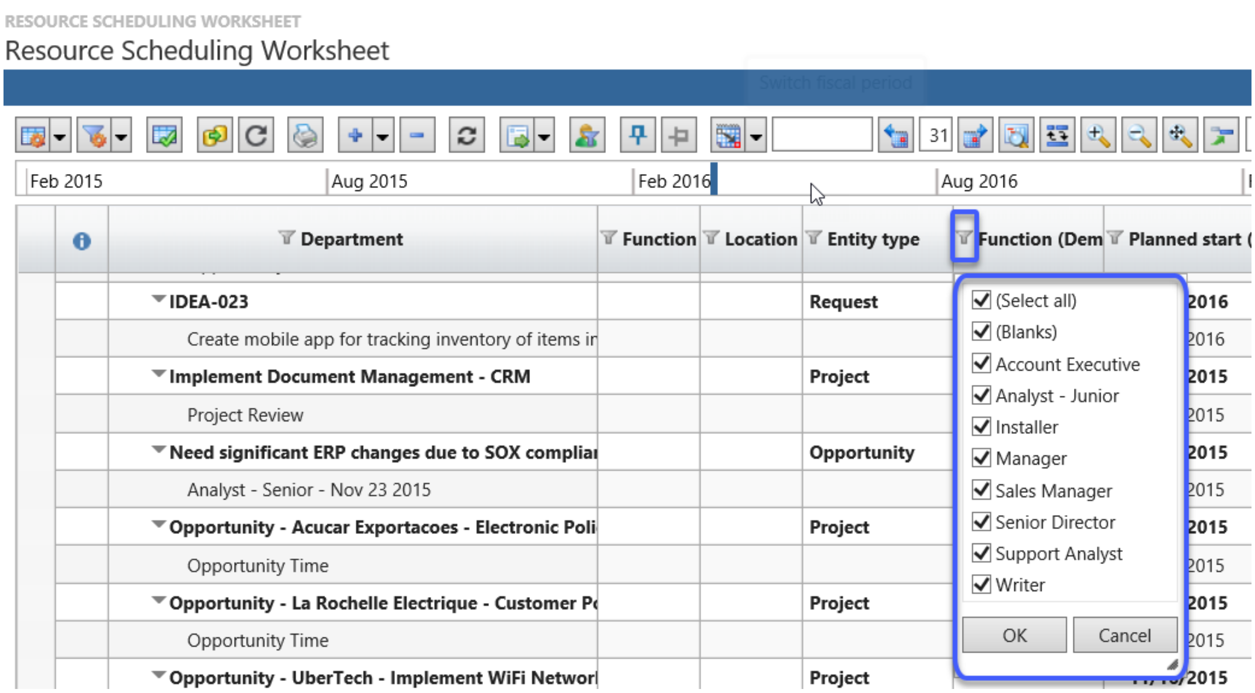
- All demand is reassigned to the target item and the source item has zero effort.
- For task assignments with loading methods that replace past with actuals, the total effort on the source is equal to the actual effort (meaning no planned effort is associated with the source item).

Editing column filters

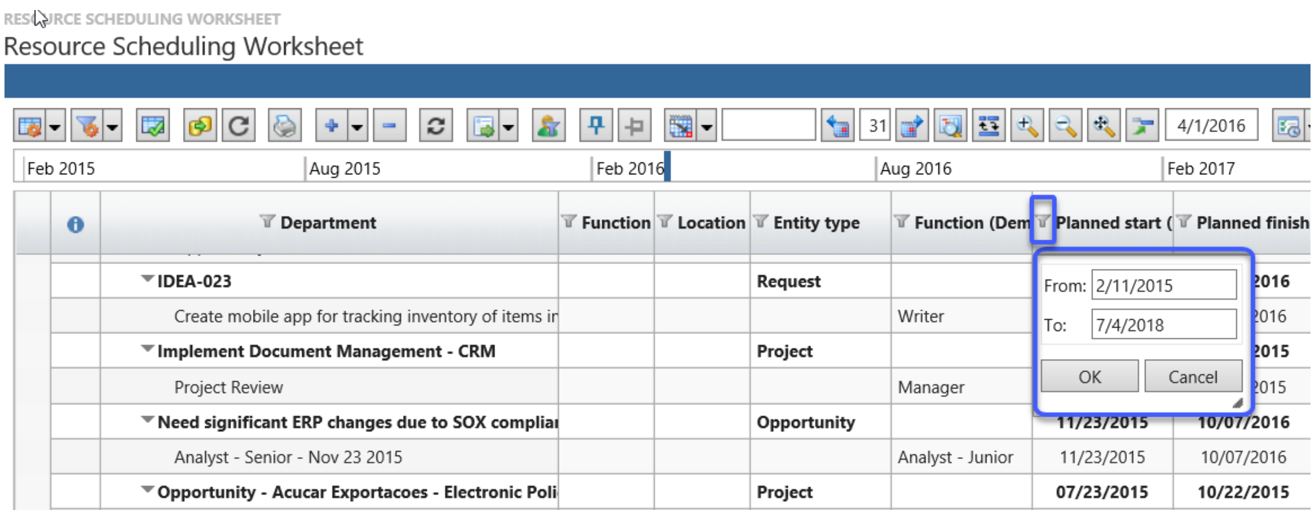
**Released 2017 SP1 GP 18.01.081.000 - August 2018*

This enhancement allows column filters to be edited by adding or removing the data values without the need to clear the column filter first.

Each column filter that is applied can reduce the rows that appear and therefore reduce the data values that are available in the remaining columns. To view the data values for a column that have been restricted by another column filter, you will have to adjust the selected values for the other column filter first.



RSW - Column filtering capabilities



RSW - Column filter based on a date range

Showing and hiding actual effort or planned effort minus actual effort

***Released 2017 SP1 GP 18.01.081.000 - August 2018**

Resource managers 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 have immediate visibility into these details.

The dual purpose  (**Show/hide actual effort**) icon has been added to the RSW toolbar.

The actual effort or planned effort minus actual amounts are displayed in **blue** to the left of the planned effort amounts.

Planned hours (Demand item)	
6,238.000	6,454.834
0.000	
0.000	
512.000	100.000

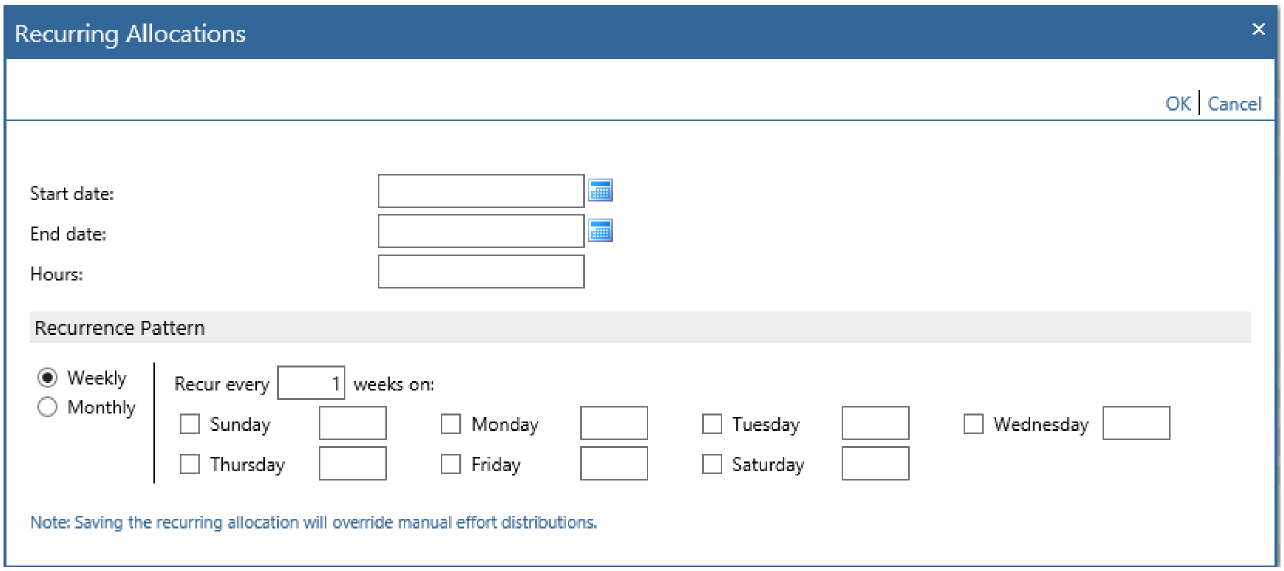
Alternatively, the option to hide actual effort is also available in order to allow each user to view the details most relevant for the task.

Recurring allocations

**Released 2017 SP1 GP 18.01.081.000 - August 2018*

To reduce the effort involved when allocating repetitive, recurring allocations functionality has been added to enable the allocation of recurring demand in the resource scheduling worksheet (RSW) Options include specifying a date range as well as identifying a recurrence pattern with daily, weekly and monthly options.

The (**Recurring Allocations**) icon has been added to the RSW toolbar.



RSW – Recurring Allocations

For example, a resource manager could 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, etc.

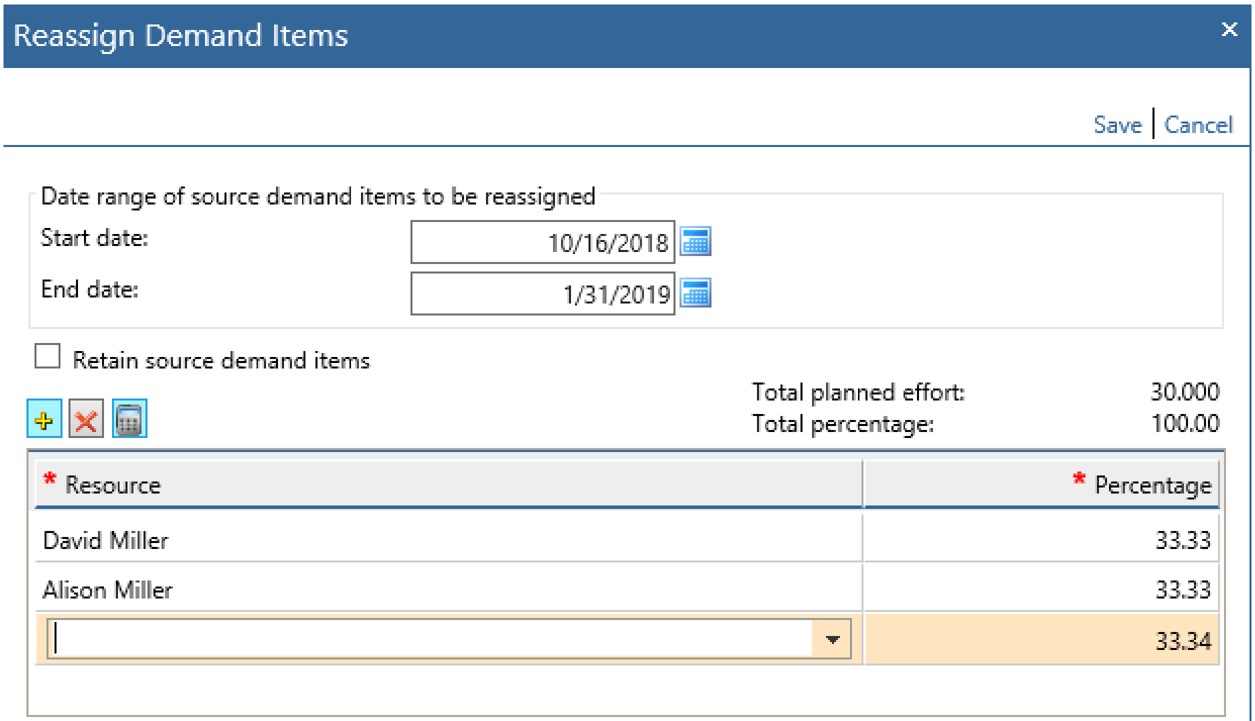
The recurring demand allocation replaces existing demand allocations for the selected demand items within the specified date range. Any existing demand allocations for the selected demand after the date range are removed.

Reassigning demand to one or more resources

**Released 2017 SP1 GP 18.01.082.000 - September 2018*

Resource managers can now quickly reassign demand (planned effort) for one or more source demand items or resources to one or more target resources when they need to respond to a staffing change such as when a resource becomes unavailable. Users may choose to reassign demand this way when a resource is going on leave, vacation or will have less time dedicated to a project.

The (**Reassign demand**) icon has been added to the RSW toolbar.



RSW Reassign Demand Items dialog

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

Effort allocation to the target items can be based on percentages of the source item effort. Effort can be increased 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. Users 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.

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

RSW - 2017 SP2

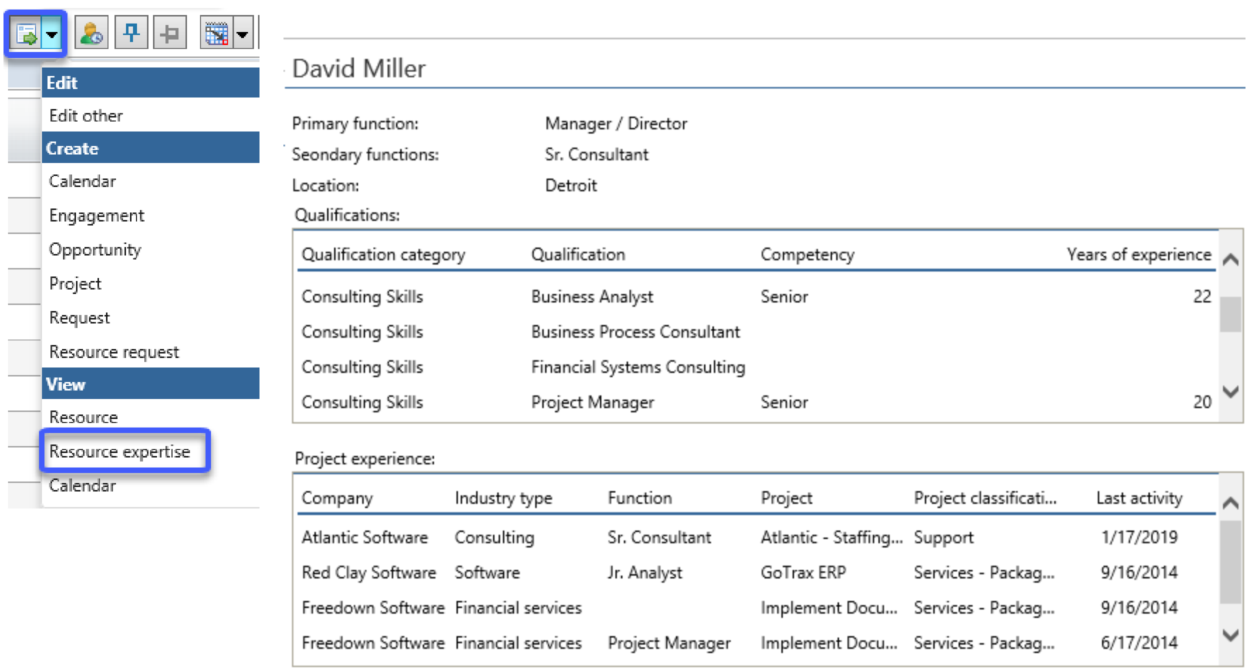
View resource expertise in RSW

**Released 2017 SP2 – February 2019*

Viewing resource information to assist in making staffing decisions has never been easier. A new dialog can be accessed by selecting a row that contains a resource name or is grouped by resource and then clicking the **Display entity profile** icon and then selecting **Resource expertise**.

This new dialog consolidates relevant details for each resource including functions, location, qualifications, competencies, years of experience and project experience (also known as project history), defaulting to display the experience with the latest activity in date ascending order.

Resource managers can view expertise details for each Resource consolidated into a single view from inside RSW in order to provide relevant details during assignment allocations.



RSW- Consolidated view into Resource expertise details

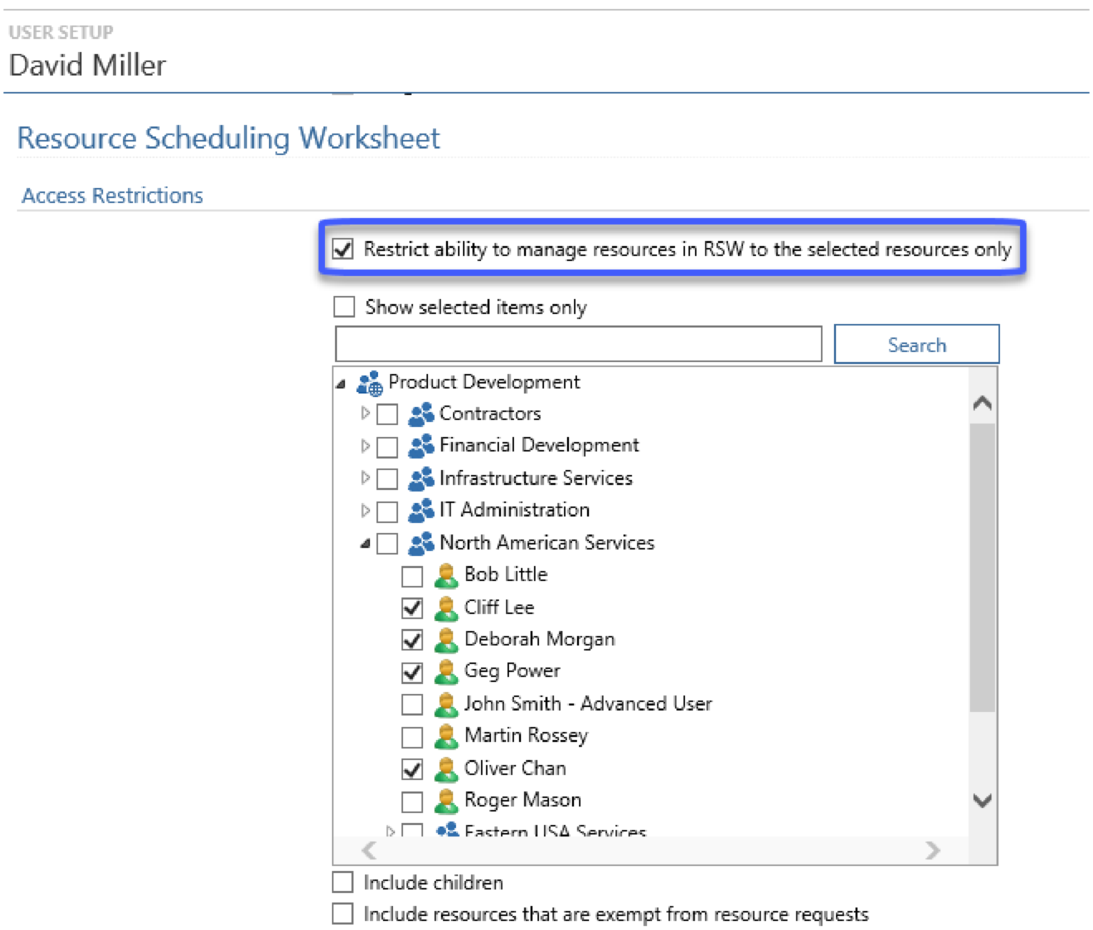
Restrict which users can be assigned to demand in RSW

**Released 2017 SP2 – February 2019*

An added layer of control can now be leveraged within RSW by further restricting the resources that a resource manager can manage. By default, resource managers can manage the demand for all resources in their workgroup. This feature provides an added layer of restriction for when an organization requires a resource manager to work with a subset of resources in a Workgroup.

For RSW only, organizations can now limit the resources that a resource manager can manage to a subset of the workgroup resources. This functionality can be implemented in order to control resource management without using resource requests or to accommodate any number of other resourcing scenarios depending on your organizational structure.

Note: This restriction applies only to RSW and not to resource requests or the resource management worksheet (RMW).



Restrict ability to manage resources in RSW to selected resources

User-defined views in RSW

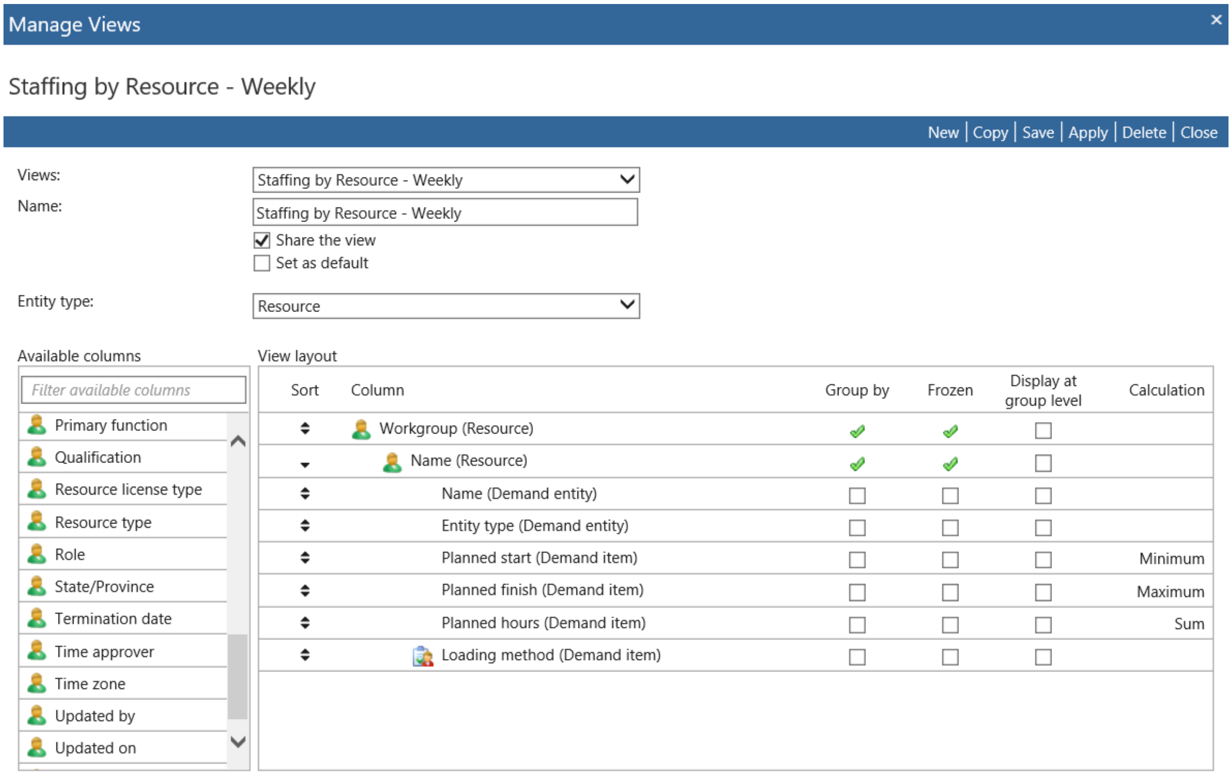
Resource managers can now tailor the RSW views to suit their needs. Create any number of views to manage the fields that appear in the worksheet to ensure that the details most relevant are placed into a view that can be repeatedly accessed, set as the default view and shared with others if desired.

When resource managers create a view, they select the fields from one or more entities and arrange the columns as required. Columns can be frozen and used to group data as desired with the added capability of applying sum or average calculations and date field minimum or maximums.

Available entities include:

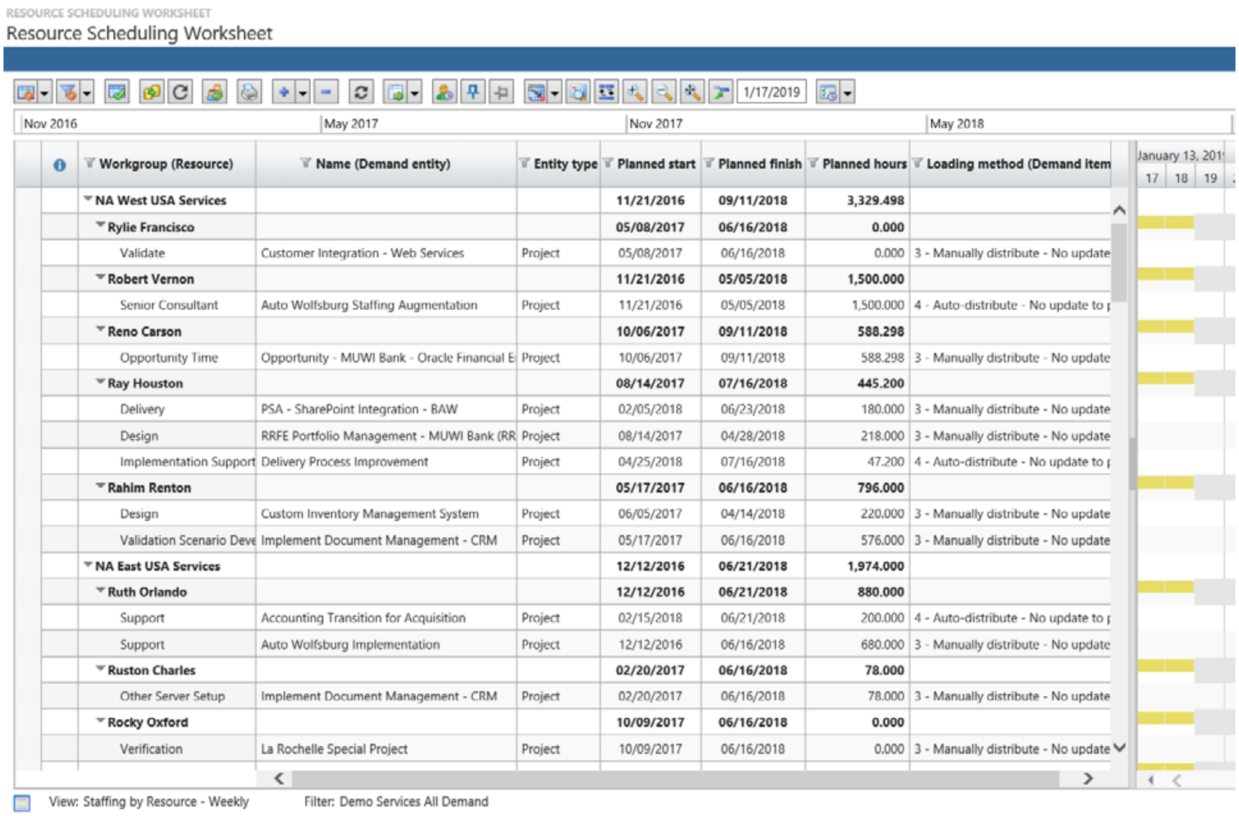
Calendar
Engagement
Engagement and configurable fields
Opportunity
Opportunity and configurable fields
Opportunity Service
Project
Project and configurable fields
Project team
Projected resource
Request
Request and configurable fields
Request demand
Resource
Resource and configurable fields
Resource request
Resource request configurable fields
Shared configurable fields
Task
Task and configurable fields
Task assignment
Task assignment and configurable fields

Note: Before using 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.



Sort	Column	Group by	Frozen	Display at group level	Calculation
	Workgroup (Resource)	✓	✓	☐	
	Name (Resource)	✓	✓	☐	
	Name (Demand entity)	☐	☐	☐	
	Entity type (Demand entity)	☐	☐	☐	
	Planned start (Demand item)	☐	☐	☐	Minimum
	Planned finish (Demand item)	☐	☐	☐	Maximum
	Planned hours (Demand item)	☐	☐	☐	Sum
	Loading method (Demand item)	☐	☐	☐	

Manage Views setup dialog



Workgroup (Resource)	Name (Demand entity)	Entity type	Planned start	Planned finish	Planned hours	Loading method (Demand item
NA West USA Services			**11/21/2016**	**09/11/2018**	**3,329.498**	
Rylie Francisco			**05/08/2017**	**06/16/2018**	**0.000**	
Validate	Customer Integration - Web Services	Project	05/08/2017	06/16/2018	0.000	3 - Manually distribute - No update
Robert Vernon			**11/21/2016**	**05/05/2018**	**1,500.000**	
Senior Consultant	Auto Wolfsburg Staffing Augmentation	Project	11/21/2016	05/05/2018	1,500.000	4 - Auto-distribute - No update to p
Reno Carson			**10/06/2017**	**09/11/2018**	**588.298**	
Opportunity Time	Opportunity - MUWI Bank - Oracle Financial E	Project	10/06/2017	09/11/2018	588.298	3 - Manually distribute - No update
Ray Houston			**08/14/2017**	**07/16/2018**	**445.200**	
Delivery	PSA - SharePoint Integration - BAW	Project	02/05/2018	06/23/2018	180.000	3 - Manually distribute - No update
Design	RRFE Portfolio Management - MUWI Bank (RR	Project	08/14/2017	04/28/2018	218.000	3 - Manually distribute - No update
Implementation Support	Delivery Process Improvement	Project	04/25/2018	07/16/2018	47.200	4 - Auto-distribute - No update to p
Rahim Renton			**05/17/2017**	**06/16/2018**	**796.000**	
Design	Custom Inventory Management System	Project	06/05/2017	04/14/2018	220.000	3 - Manually distribute - No update
Validation Scenario Deve	Implement Document Management - CRM	Project	05/17/2017	06/16/2018	576.000	3 - Manually distribute - No update
NA East USA Services			**12/12/2016**	**06/21/2018**	**1,974.000**	
Ruth Orlando			**12/12/2016**	**06/21/2018**	**880.000**	
Support	Accounting Transition for Acquisition	Project	02/15/2018	06/21/2018	200.000	4 - Auto-distribute - No update to p
Support	Auto Wolfsburg Implementation	Project	12/12/2016	06/16/2018	680.000	3 - Manually distribute - No update
Ruston Charles			**02/20/2017**	**06/16/2018**	**78.000**	
Other Server Setup	Implement Document Management - CRM	Project	02/20/2017	06/16/2018	78.000	3 - Manually distribute - No update
Rocky Oxford			**10/09/2017**	**06/16/2018**	**0.000**	
Verification	La Rochelle Special Project	Project	10/09/2017	06/16/2018	0.000	3 - Manually distribute - No update

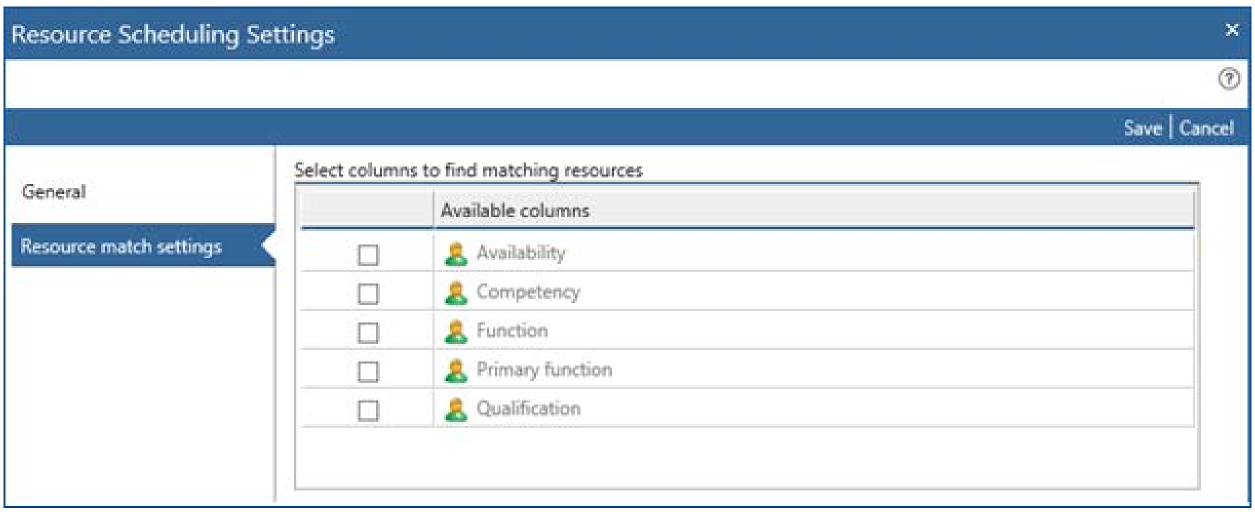
Resource Scheduling Worksheet View created in above setup example

Resource match based on selected item

**Released 2017 SP2 – February 2019*

Finding matching resources to replace a resource or reassign a demand item has previously involved performing a resource search. In RSW, resource managers can now select a resource or demand item row and find resources that can fulfill the demand item requirement.

Resource match criteria settings have been added as a new tab available in the **RSW Settings** These settings outline which criteria resource matches will consider when performing the match. These Resource match settings must be set up before the feature is available to perform within RSW.



RSW Settings - Resource match settings tab

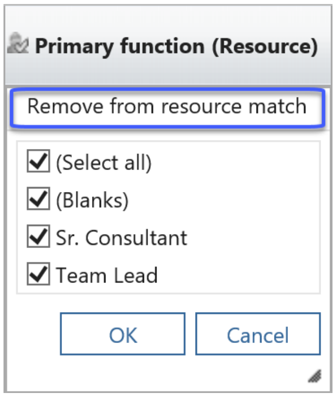
Match criteria can be selected from the following resource-related fields:

- Availability (planned start, planned finish, and planned effort)
- Competencies (related through demand and resource qualifications)
- Function (secondary functions for resources are matched to demand item functions)
- Primary function
- Qualifications
- Resource configurable fields, including shared configurable fields

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.

Note: Shared configurable fields will only be available to select in the settings if they exist. 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.

Users can also add columns to or remove columns from the resource match using the column header icon .



.

The (**Find matching resources**) icon to activate the match has been added to the RSW toolbar and is visible only after the **Resource match settings** criteria has been setup in the **RSW Settings** . The RSW view must also contain the selected columns. If one or more criteria columns are not in the RSW view, then the missing columns will not be evaluated during the match. Mouse right-click functionality to **Find matching resources** is also available.

Search option in RSW

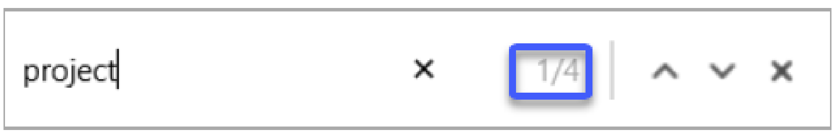
**Released 2017 SP2 – February 2019*

Users can now search for items in RSW to assist in finding, viewing or editing data relevant to their immediate actions. The search applies to all information that is included in the entire current worksheet.

The Search box is hidden until the User clicks on the **Search** icon.

The search result will highlight the first row in the worksheet where the search criteria is met.

Once the search is complete, the number of rows that include matching results are displayed to the right of the search text field and the first matching row is highlighted.



Next and **previous** arrows provide capabilities to allow users to move between search result rows and as you move between the results, the result row number out of total number such as 3/4 will display.

In this example, the user would be on the third result out of four matches found.

Keyboard capabilities are also available.

- Ctrl+F or F3 opens the search dialog
- Enter activates the search
- F3 takes you to the next result row
- Shift F3 takes you to the previous result row
- ESC closes the search dialog

Project Planning Worksheet (PPW)

PPW - 2014 SP2

The PPW functionality was released in phases. The Phase 1 "Early Adopter" release provided core capabilities that organizations could introduce to their resources and get value immediately.

Phase 1 of PPW (released in CP 2014 SP2) introduced some key capabilities based on customer feedback. Phase 1 capabilities included:

- A brand-new user interface that does not require third-party downloads. The functionality is .NET-based and does not use any add-ons
- Single project lock: all tasks are locked automatically when launching the project planning worksheet. Locking of individual tasks is not required
- Creation of tasks using an icon or the 'Insert' key
- Assigning tasks via a simple checkbox at the row level
- Assigning one or multiple resources to multiple tasks at once (by percentage or effort)
- Linking tasks, including all dependency types, by filling out the 'Predecessor' field or by using the Gantt:
    - Finish-to-start
    - Start-to-start
    - Finish-to-finish
    - Start-to-finish
- Copy and paste tasks
- Indent / outdent tasks
- Re-order tasks
- Gantt functionality, which allows users to visualize the tasks in a timeline, zoom in and out, move or expand/shrink tasks and link tasks

Changepoint 2017 (released April 2017) introduced the next Phase 2 set of features for the project planning worksheet (PPW) which included a significant amount of 'behind-the-scenes' enhancements ensuring the worksheet continued to be easy to use and performed well.

Changepoint 2017 users were pleased with the high-performing, easy-to-use worksheet while organizations appreciated the advanced functionality available, such as configurable fields and conditional values/properties.

The combination of ease-of-use and critical functionality continues to assist in driving greater adoption of PPW. Adoption is crucial to ensuring that higher quality information is available in Changepoint in order to promote better reporting, visibility and the ability to react to anomalies quickly.

PPW - 2017

User defined views and filters

**Released Changepoint 2017 – April 2017*

Changepoint added the ability for users to define specific and relevant views and filters, allowing users and organizations to tailor the worksheet to suit their needs.

When views are defined by users, they can select and arrange the columns as desired. Columns can be frozen, to hold their place when scrolling and users can specify a sort order for the rows. These views can be shared and marked as the default view.

When users create a worksheet filter, they can apply one or more conditions to filter the data as required. These filters can be shared and marked as the default filter.

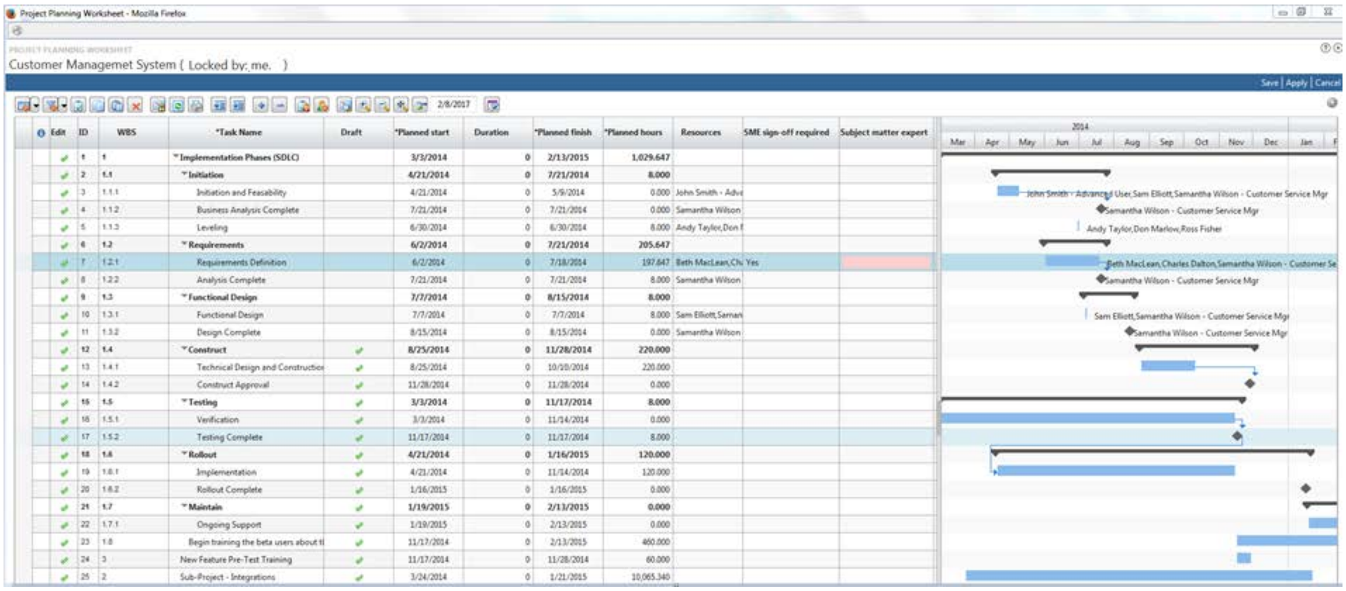
Task editing and ongoing management

**Released Changepoint 2017 – April 2017*

PPW includes the ability to edit existing tasks, including all task information. Many organizations use project templates as a starting point, which was possible with Changepoint 2017. Ongoing management of the project plan is also possible.

The screen shot below is an example of a task view which includes both draft and active tasks.

- All the tasks can be edited in the worksheet
- Draft tasks can be activated when the project manager is ready to do so. (Changepoint 2017 SP2 has added an option to automatically activate all tasks)
- Configurable fields can be added to the view. In the example below, the 'Subject matter expert' field has a conditional property that indicates to the user that it is now mandatory.



PPW- Task view

Task assignment management

**Released Changepoint 2017 – April 2017*

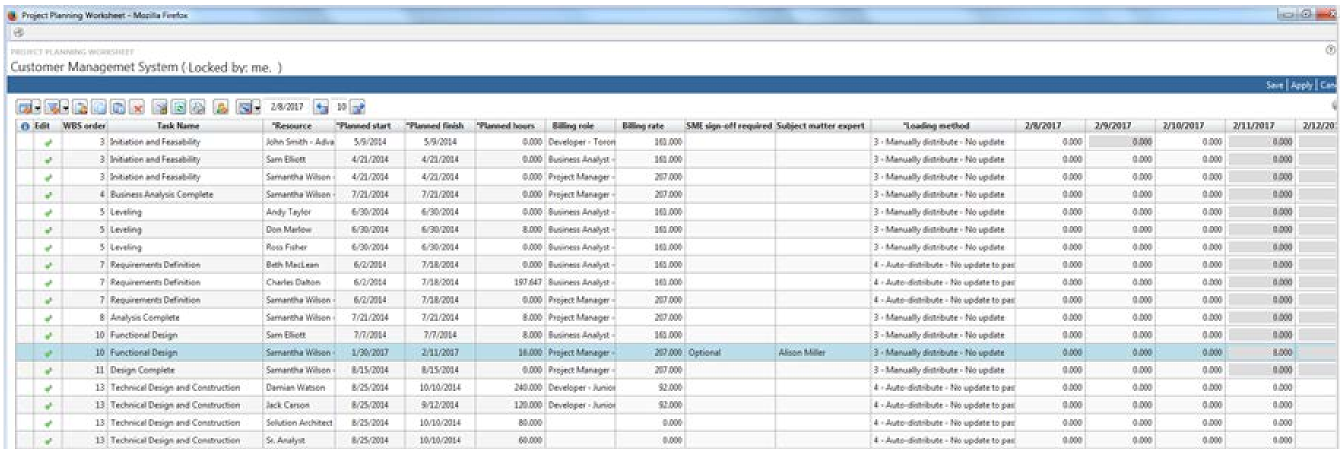
Changepoint provides one easy to use central worksheet to focus on task assignments in performing the following procedures:

- Edit task assignments, including all assignment information (e.g. start date, finish date, effort)
- Change forecast start/finish and remaining effort/percent complete on task assignments
- Change the percent complete on task assignments that are marked as Status not required which allows project managers to mark those assignments as complete
- Populate configurable fields on tasks and assignments, including conditional values and properties for task fields
- Edit task assignment effort in daily or fiscal period distributions
- Ability to assign tasks to personal groups

- Add effort to a non-working day when using a manual effort distribution (more details below)

The screen shot below is an example of a task assignment view, which includes configurable fields and additional columns that are important to this user. Notice several things:

- Task assignment information can be modified and can be different from the task level.
- Effort distribution can be shown in days (as below) or fiscal periods.
- Effort is added to Feb 11, which is a non-working day (Saturday).



Edit	WBS order	Task Name	*Resource	*Planned start	*Planned finish	*Planned hours	Billing role	Billing rate	SME sign-off required	Subject matter expert	*Loading method	2/8/2017	2/9/2017	2/10/2017	2/11/2017	2/12/20
✔	3	Initiation and Feasability	John Smith - Adva	5/9/2014	5/9/2014	0.000	Developer - Toron	161.000			3 - Manually distribute - No update	0.000	0.000	0.000	0.000	
✔	3	Initiation and Feasability	Sam Elliott	4/21/2014	4/21/2014	0.000	Business Analyst -	161.000			3 - Manually distribute - No update	0.000	0.000	0.000	0.000	
✔	3	Initiation and Feasability	Samantha Wilson -	4/21/2014	4/21/2014	0.000	Project Manager -	207.000			3 - Manually distribute - No update	0.000	0.000	0.000	0.000	
✔	4	Business Analysis Complete	Samantha Wilson -	7/21/2014	7/21/2014	0.000	Project Manager -	207.000			3 - Manually distribute - No update	0.000	0.000	0.000	0.000	
✔	5	Leveling	Andy Taylor	6/30/2014	6/30/2014	0.000	Business Analyst -	161.000			3 - Manually distribute - No update	0.000	0.000	0.000	0.000	
✔	5	Leveling	Don Marlow	6/30/2014	6/30/2014	8.000	Business Analyst -	161.000			3 - Manually distribute - No update	0.000	0.000	0.000	0.000	
✔	5	Leveling	Ross Fisher	6/30/2014	6/30/2014	0.000	Business Analyst -	161.000			3 - Manually distribute - No update	0.000	0.000	0.000	0.000	
✔	7	Requirements Definition	Beth MacLean	6/2/2014	7/18/2014	0.000	Business Analyst -	161.000			4 - Auto-distribute - No update to pas	0.000	0.000	0.000	0.000	
✔	7	Requirements Definition	Charles Dalton	6/2/2014	7/18/2014	197.647	Business Analyst -	161.000			4 - Auto-distribute - No update to pas	0.000	0.000	0.000	0.000	
✔	7	Requirements Definition	Samantha Wilson -	6/2/2014	7/18/2014	0.000	Project Manager -	207.000			4 - Auto-distribute - No update to pas	0.000	0.000	0.000	0.000	
✔	8	Analysis Complete	Samantha Wilson -	7/21/2014	7/21/2014	8.000	Project Manager -	207.000			3 - Manually distribute - No update	0.000	0.000	0.000	0.000	
✔	10	Functional Design	Sam Elliott	7/7/2014	7/7/2014	8.000	Business Analyst -	161.000			3 - Manually distribute - No update	0.000	0.000	0.000	0.000	
✔	10	Functional Design	Samantha Wilson -	1/30/2017	2/11/2017	16.000	Project Manager -	207.000	Optional	Alison Miller	3 - Manually distribute - No update	0.000	0.000	0.000	8.000	
✔	11	Design Complete	Samantha Wilson -	8/15/2014	8/15/2014	0.000	Project Manager -	207.000			3 - Manually distribute - No update	0.000	0.000	0.000	0.000	
✔	13	Technical Design and Construction	Damian Watson	8/25/2014	10/10/2014	240.000	Developer - Junior	92.000			4 - Auto-distribute - No update to pas	0.000	0.000	0.000	0.000	
✔	13	Technical Design and Construction	Jack Carson	8/25/2014	9/12/2014	120.000	Developer - Junior	92.000			4 - Auto-distribute - No update to pas	0.000	0.000	0.000	0.000	
✔	13	Technical Design and Construction	Solution Architect	8/25/2014	10/10/2014	80.000		0.000			4 - Auto-distribute - No update to pas	0.000	0.000	0.000	0.000	
✔	13	Technical Design and Construction	Sr. Analyst	8/25/2014	10/10/2014	60.000		0.000			4 - Auto-distribute - No update to pas	0.000	0.000	0.000	0.000	

PPW- Task Assignment view

Ability to add effort to a non-working day in PPW

**Released Changepoint 2017 – April 2017*

When doing manual daily effort distributions in PPW, effort can be added to non-working days. Users have asked for the ability to do so, since sometimes resources will be scheduled to work on non-working days such as during a weekend.

If a non-working day is created on a date where effort is already allocated, the effort will not be removed, and no automatic redistribution of effort will occur.

Note: Effort cannot be added to non-working days in the old project worksheet (PW) or resource management worksheet (RMW) and will not be visible in the old PW. It will only be visible in the new Project Planning Worksheet (PPW) since PPW supports the ability to add effort to a non-working day.

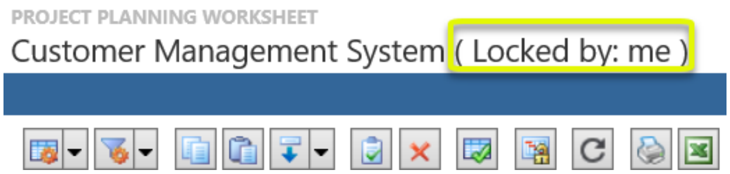
If an assignment that has effort on non-working days is edited in the old PW or RMW, the effort will be removed from the non-working day when the project or demand item is saved.

There will be an ability to report on effort that is currently allocated to non-working days.

Lock the entire project

**Released Changepoint 2017 – April 2017*

Customers requested that Changepoint allow for the entire project plan to be locked when a user launches PPW. With the entire project locked, only one user can edit the project plan at a time.



PPW – Lock notification

For summary task managers, although the entire project is locked, the users will only have view/edit access to their portion of the project plan.

Project Managers can override another user's lock on their project when necessary.

Gantt 'Zoom to fit' view option

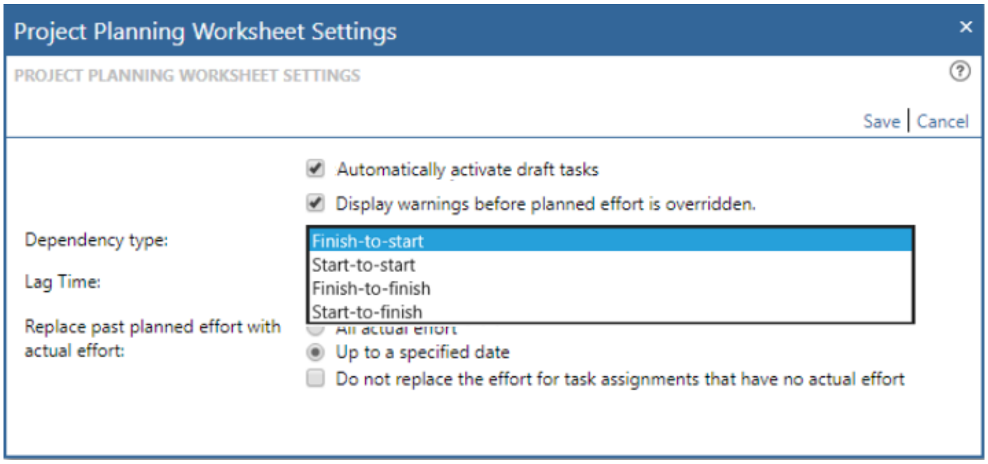
**Released Changepoint 2017 – April 2017*

A **Zoom to fit** icon has been added to PPW toolbar to assist users in their Gantt viewing options.

Default dependency type

**Released Changepoint 2017 – April 2017*

Changepoint has added the ability for users to select a default dependency type to allow users to efficiently progress through their planning without needing to define their most frequently used dependency type for each dependency. This is available to setup within **PPW settings** dialog.



PPW Settings- Default dependency type options

Export to Excel

**Released Changepoint 2017 – April 2017*

The ability to export your plan to Excel has been added to provide users with this option. A new **Export to Excel** icon has been added to PPW toolbar.

PPW - 2017 SP1+ - Iterative Monthly Delivery (General Patch)

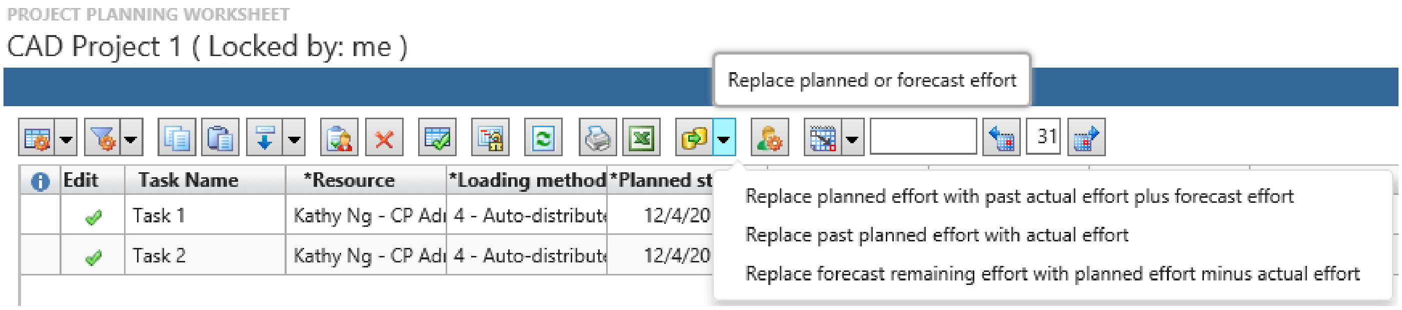
Options to replace planned effort or forecast effort

**Released 2017 GP 18.00.130.000 - December 2017*

This feature provides a new **Replace planned or forecast effort** icon in PPW with multiple options, and additional settings to specify the default actions. It also includes new options added to PPW settings.

The **Replace planned or forecast effort** icon is available on both task views and task assignment views.

- The icon is not available if the planning units are FTEs for the project
- Effort can be replaced for multiple rows and summary task level batches



Options for the **Replace planned or forecast effort**  icon:

1. Replace planned effort with past actual effort plus forecast effort
2. Replace past planned effort with actual effort
3. Replace forecast remaining effort with planned effort minus actual effort

Option 1: **Replace planned effort with past actual effort plus forecast effort**

This option applies only to task assignments with auto loading methods.

When this option is selected:

- Planned effort in past days or fiscal periods is replaced with the actual effort
- Planned effort in the current date or fiscal period is replaced with remaining hours, which is evenly distributed between the current fiscal period or date
- If the **Up to a specified date** option has been set, the planned effort is replaced up to the date. Otherwise the planned effort is replaced up to the current date or fiscal period

Option 2: **Replace past planned effort with actual effort**

This option applies to all loading methods.

When this option is selected:

- Planned effort in past days or fiscal periods is replaced with actual effort
- Planned effort in the current date or fiscal periods is not changed
- Total planned effort becomes the total of actual effort in all past fiscal periods plus planned hours in current and future fiscal periods
- If the **Up to a specified date** option has been set, the planned effort is replaced up to the date. Otherwise the planned effort is replaced up to the current date or fiscal period

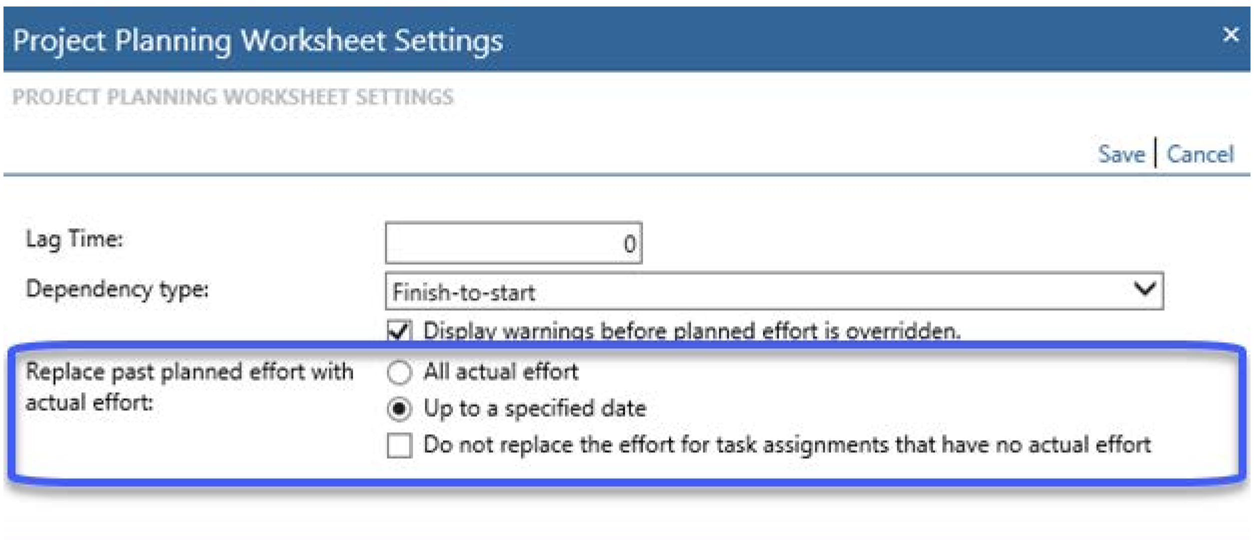
Option 3: **Replace forecast remaining effort with planned effort minus actual effort**

This option does not affect planned hours and applies to all loading methods.

When this option is selected:

- Remaining effort is set to planned effort minus actual effort
- If the **Up to a specified date** option has been set, the planned effort is replaced up to the date. Otherwise the planned effort is replaced up to the current date or fiscal period

Note: Remaining effort is not replaced if the actual effort up to the specified or current date exceeds the planned effort.



PPW Settings- Replace past planned effort with actual effort options

Replace past planned effort with actual effort:

- All actual effort
- Up to a specified date – When this option is selected, the user must select a date before proceeding. This is the default option.
- Check box: Do not replace the effort for task assignments that have no actual effort
    - If selected, planned effort will only be replaced for task assignments that have actual effort.

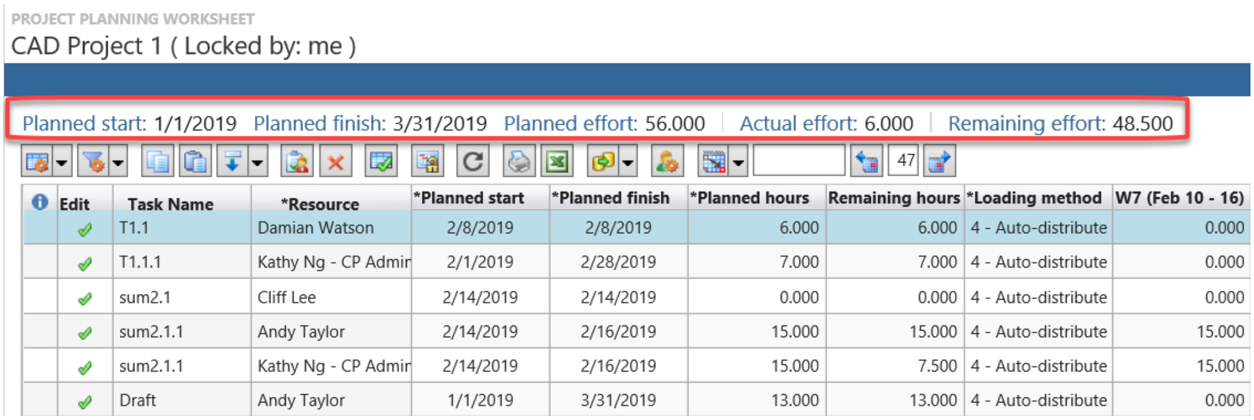
PPW - 2017 SP2

Display project summary level planned, actual and forecast data

**Released 2017 SP2 – February 2019*

Project managers often need a summary view of project information. A new section of PPW is dedicated to display project summary level information.
The summary fields displayed are listed below:

1. **Planned start** - Immediately updates as the user makes changes
2. **Planned finish** - Immediately updates as the user makes changes
3. **Planned effort** - Immediately updates as the user makes changes
4. **Actual effort** - Updates upon clicking Apply, Save or Validate
5. **Remaining effort** - Immediately updates as the user makes changes



Edit	Task Name	*Resource	*Planned start	*Planned finish	*Planned hours	Remaining hours	*Loading method	W7 (Feb 10 - 16)
	T1.1	Damian Watson	2/8/2019	2/8/2019	6.000	6.000	4 - Auto-distribute	0.000
	T1.1.1	Kathy Ng - CP Admir	2/1/2019	2/28/2019	7.000	7.000	4 - Auto-distribute	0.000
	sum2.1	Cliff Lee	2/14/2019	2/14/2019	0.000	0.000	4 - Auto-distribute	0.000
	sum2.1.1	Andy Taylor	2/14/2019	2/16/2019	15.000	15.000	4 - Auto-distribute	15.000
	sum2.1.1	Kathy Ng - CP Admir	2/14/2019	2/16/2019	15.000	7.500	4 - Auto-distribute	15.000
	Draft	Andy Taylor	1/1/2019	3/31/2019	13.000	13.000	4 - Auto-distribute	0.000

PPW Settings- Project summary details

Search option in PPW

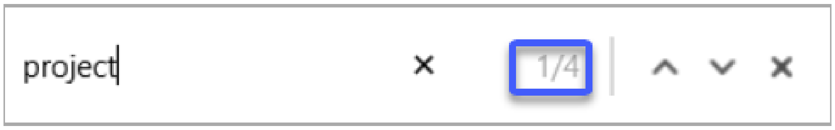
**Released 2017 SP2 – February 2019*

Users can now search for items in PPW to assist in viewing or editing data relevant to their immediate actions. The search applies to all information that is included in the entire current worksheet.

The Search box is hidden until the User clicks on the **Search** icon.

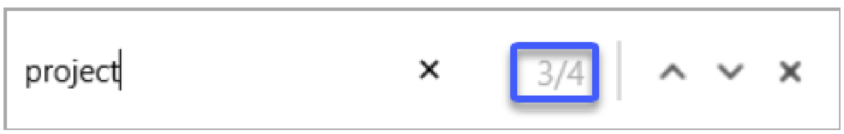
The search result will highlight the first row where the search criteria is met.

Once the search is complete, the number of rows that include matching results is displayed to the right of the search field and the first matching row is highlighted.



Next and **previous** arrows provide capabilities to allow users to move between search result rows and as you move between the results, the result row number out of total number such as 3/4 will display.

In this example, the user would be on the third result out of four matches found.



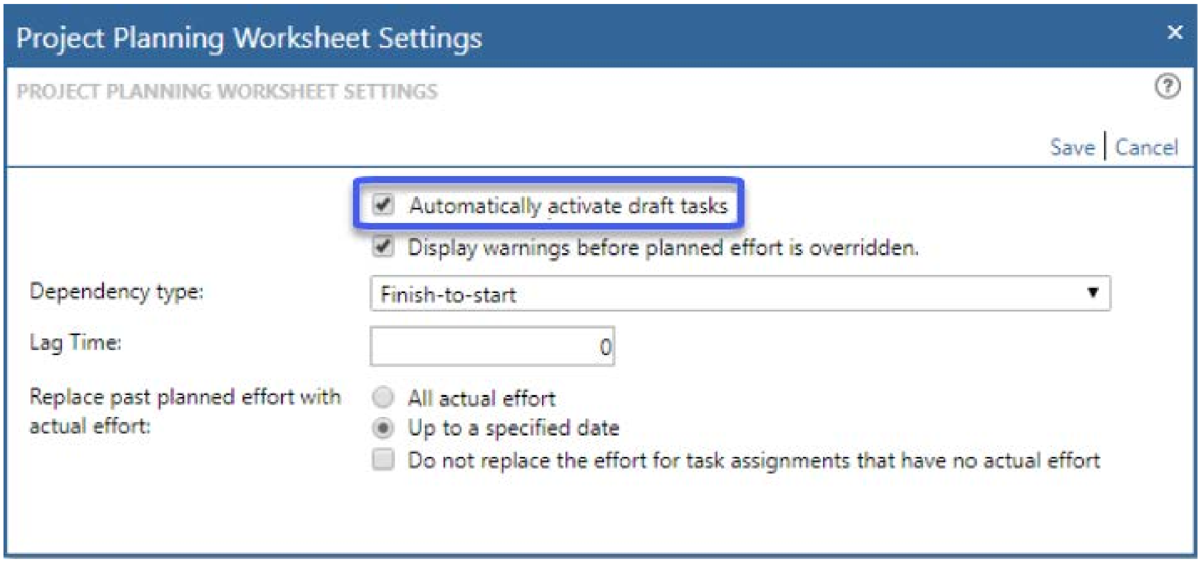
Keyboard capabilities are also available.

- Ctrl +F or F3 opens the search dialog
- Enter activates the search
- F3 takes you to the next result row
- Shift F3 takes you to the previous result row
- ESC closes the search dialog

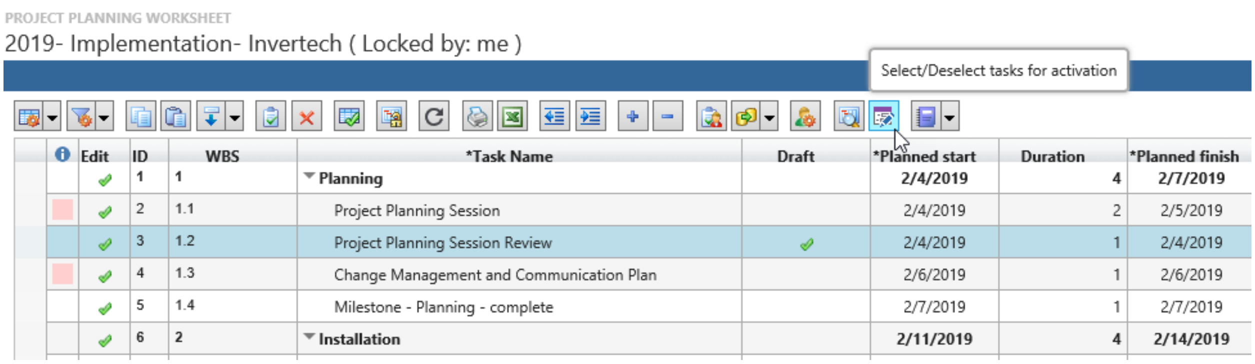
PPW setting per user to automatically activate draft tasks

**Released 2017 SP2 – February 2019*

In PPW, some users do not need draft tasks. This option removes the manual step of marking all draft tasks for activation. Each user can now choose whether new tasks are automatically marked for activation or alternatively, the setting can remain set to not automatically mark draft tasks for activation. The setting can be different for each user depending on how each user chooses to configure their own PPW settings.

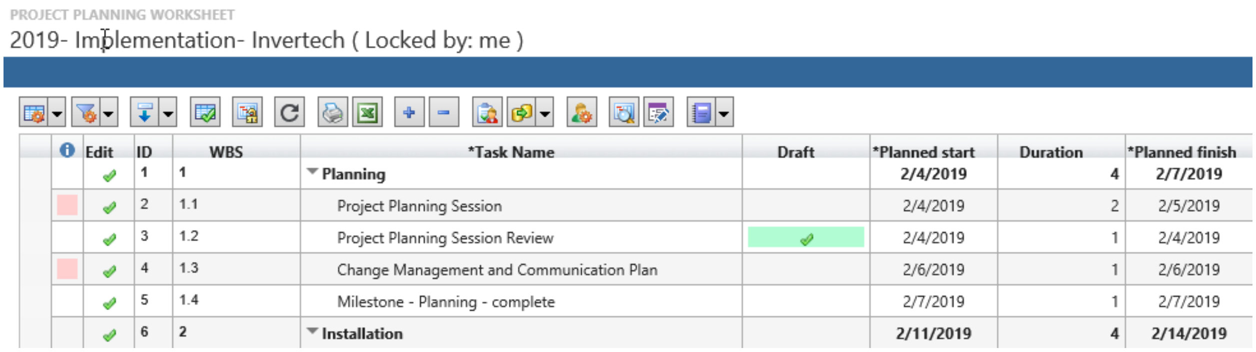


PPW Settings- Automatically activate draft tasks option



PPW - Manual process to activate draft tasks. Highlight and click the 'Select/Deselect tasks for activation' icon

When the new option is checked, all draft tasks are automatically highlighted to be activated upon the next **Save**.



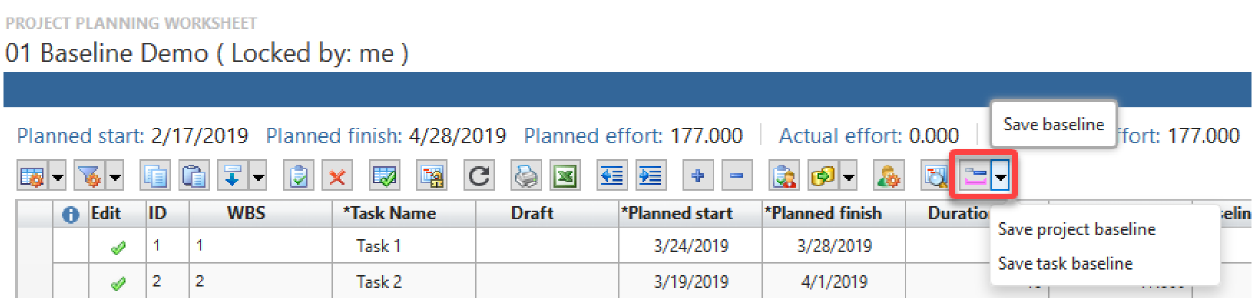
PPW – Draft task selected for activation is highlighted.

Important note: By default, this setting is unchecked, which means draft tasks are not automatically activated. When the new option is selected, users will receive a message indicating that any existing projects containing draft tasks will have all draft tasks activated the next time each project is saved.

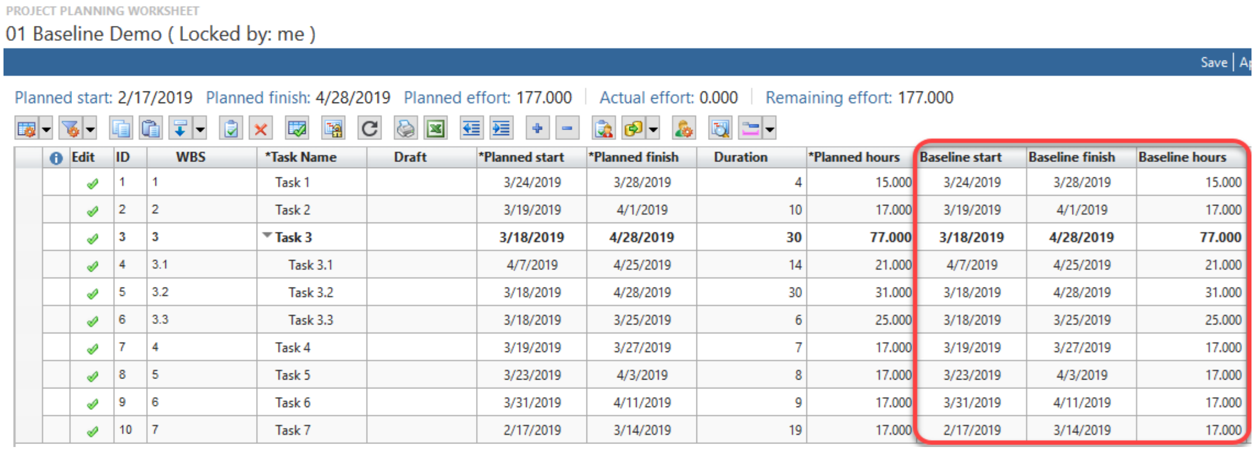
Save a baseline from PPW

**Released 2017 SP2 – February 2019*

Setting a baseline for projects, summary tasks and tasks within PPW is needed in order to have a point of reference from which change can be measured. From PPW, users will be able to set a baseline for the whole project, or by selecting a task or summary task.

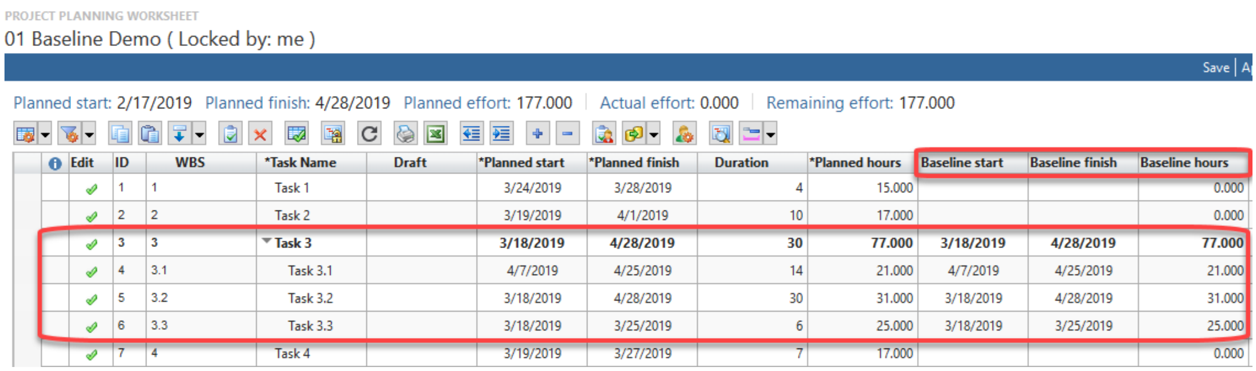


PPW – Save baseline- project or task level


PROJECT PLANNING WORKSHEET
01 Baseline Demo (Locked by: me)
Save | A
Planned start: 2/17/2019 Planned finish: 4/28/2019 Planned effort: 177.000 Actual effort: 0.000 Remaining effort: 177.000

Edit	ID	WBS	*Task Name	Draft	*Planned start	*Planned finish	Duration	*Planned hours	Baseline start	Baseline finish	Baseline hours
✓	1	1	Task 1		3/24/2019	3/28/2019	4	15.000	3/24/2019	3/28/2019	15.000
✓	2	2	Task 2		3/19/2019	4/1/2019	10	17.000	3/19/2019	4/1/2019	17.000
✓	3	3	**Task 3**		**3/18/2019**	**4/28/2019**	**30**	**77.000**	**3/18/2019**	**4/28/2019**	**77.000**
✓	4	3.1	Task 3.1		4/7/2019	4/25/2019	14	21.000	4/7/2019	4/25/2019	21.000
✓	5	3.2	Task 3.2		3/18/2019	4/28/2019	30	31.000	3/18/2019	4/28/2019	31.000
✓	6	3.3	Task 3.3		3/18/2019	3/25/2019	6	25.000	3/18/2019	3/25/2019	25.000
✓	7	4	Task 4		3/19/2019	3/27/2019	7	17.000	3/19/2019	3/27/2019	17.000
✓	8	5	Task 5		3/23/2019	4/3/2019	8	17.000	3/23/2019	4/3/2019	17.000
✓	9	6	Task 6		3/31/2019	4/11/2019	9	17.000	3/31/2019	4/11/2019	17.000
✓	10	7	Task 7		2/17/2019	3/14/2019	19	17.000	2/17/2019	3/14/2019	17.000

PPW – After saving a project baseline


PROJECT PLANNING WORKSHEET
01 Baseline Demo (Locked by: me)
Save | A
Planned start: 2/17/2019 Planned finish: 4/28/2019 Planned effort: 177.000 Actual effort: 0.000 Remaining effort: 177.000

Edit	ID	WBS	*Task Name	Draft	*Planned start	*Planned finish	Duration	*Planned hours	Baseline start	Baseline finish	Baseline hours
✓	1	1	Task 1		3/24/2019	3/28/2019	4	15.000			0.000
✓	2	2	Task 2		3/19/2019	4/1/2019	10	17.000			0.000
✓	3	3	**Task 3**		**3/18/2019**	**4/28/2019**	**30**	**77.000**	**3/18/2019**	**4/28/2019**	**77.000**
✓	4	3.1	Task 3.1		4/7/2019	4/25/2019	14	21.000	4/7/2019	4/25/2019	21.000
✓	5	3.2	Task 3.2		3/18/2019	4/28/2019	30	31.000	3/18/2019	4/28/2019	31.000
✓	6	3.3	Task 3.3		3/18/2019	3/25/2019	6	25.000	3/18/2019	3/25/2019	25.000
✓	7	4	Task 4		3/19/2019	3/27/2019	7	17.000			0.000

PPW – After saving a task baseline

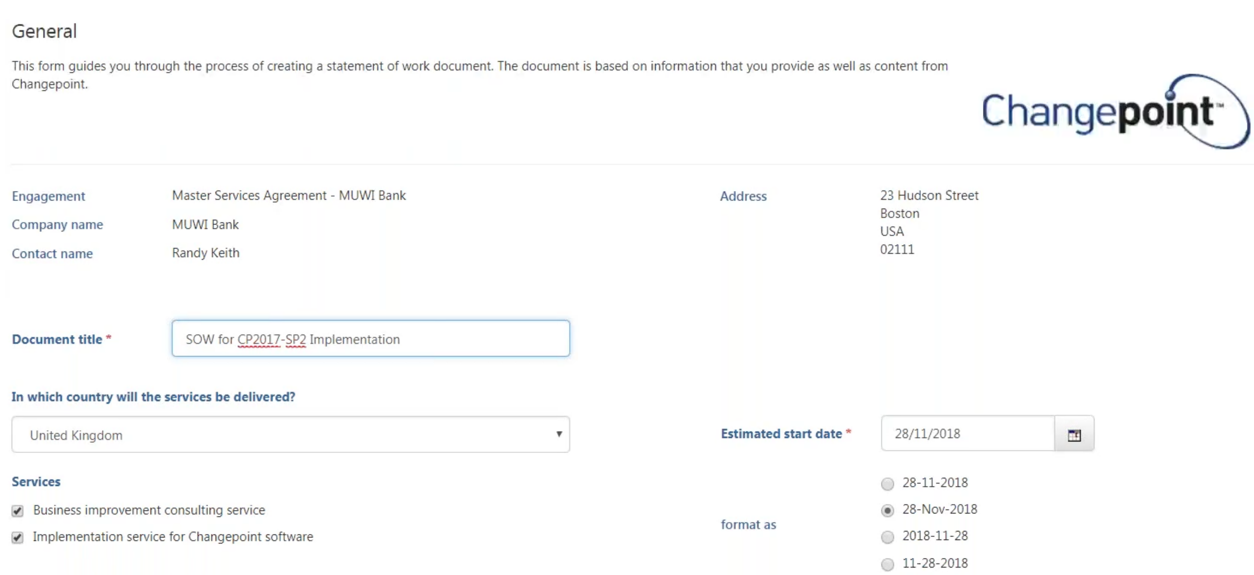
Intelligent Forms - 2017 Enhancements

Changepoint Intelligent Forms capabilities, first released in a version 2014 SP2 feature pack, enable organizations to increase operational efficiency by simplifying complex business processes, and enabling interactive and intelligent guided experiences.

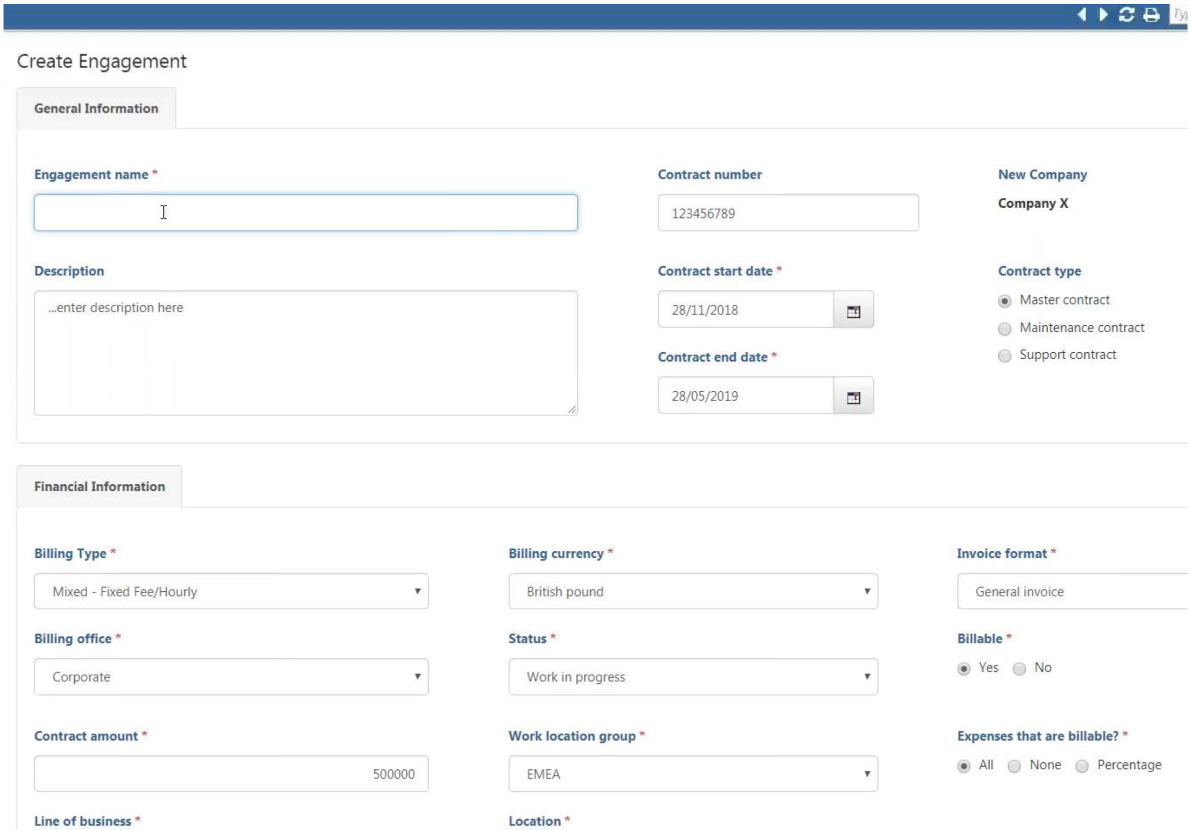
Changepoint continues to uphold its commitment to provide its customers with the most intuitive and user-friendly PSA/PPM solution on the market today.

The Intelligent Forms capability includes the following enhancements as part of the Changepoint 2017 release:

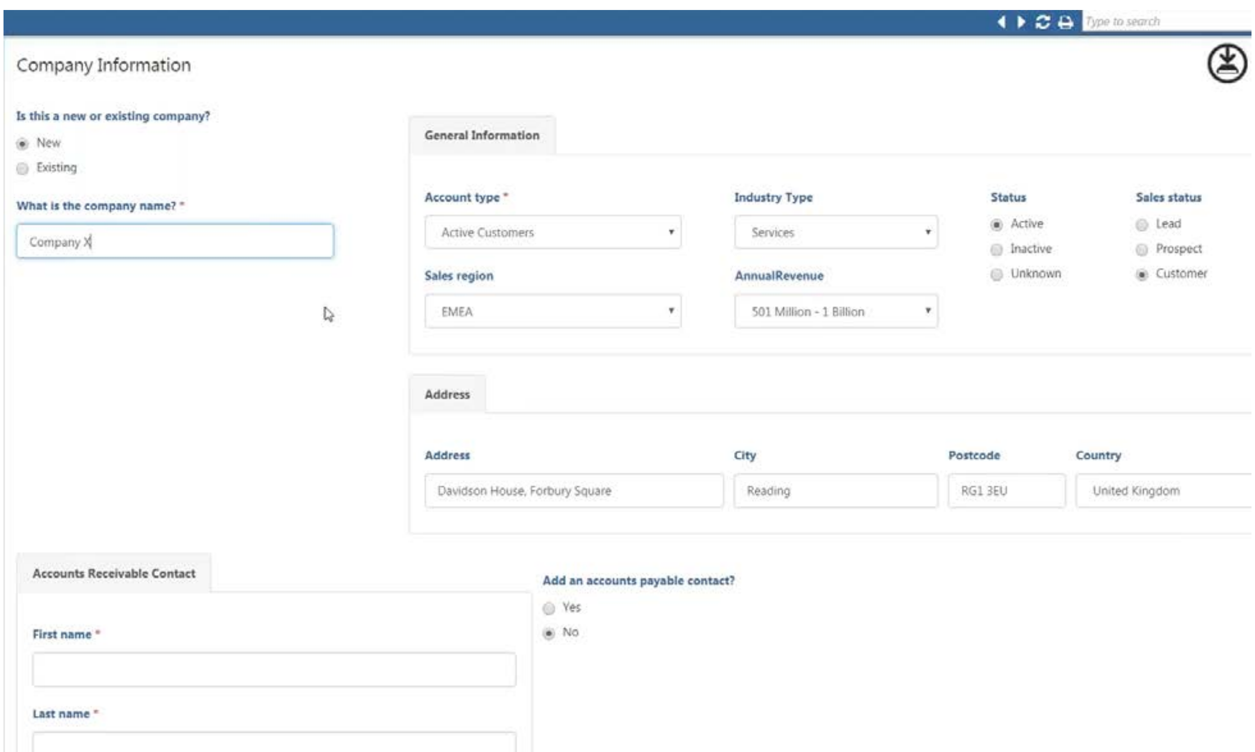
- Theme harmony – the look and feel of the standard forms is updated to match the Changepoint user interface theme. This includes the form design attributes such as the font size, font color, and font type.
- Multilingual translation – the user interfaces of the standard forms are translated into the Changepoint supported languages, which includes English, French, German, Dutch, Spanish, Italian, and Brazilian Portuguese.
- Fixed issues – the stability of the standard forms has been improved.
- Intelledox Infiniti version update – the core Intelledox application has been updated to the latest GA release (v9.6.19). This introduces a new Web designer application which is accessible from the Infiniti Manage application. It also comes with improvements in performance and stability of the Infiniti design application. For additional details on this release, please visit the following site: http://ixsupport.intelledox.com/kb/root.aspx



Intelligent Forms – Create a Statement of Work (SOW) sample form



Intelligent Forms – Create Engagement sample form



Intelligent Forms – Create Company sample form

Business Intelligence

BI - 2017

Cognos unsecured model

**Released Changepoint 2017 – April 2017*

A new unsecured version of the Changepoint package is available. First introduced in a version 2014 SP2 general patch, the unsecured package provides reporting access to users who may not have access to all the data, for example casual users, finance personnel or executives. Installation of the unsecured package is optional.

Benefits of the unsecured package:

- Ability to provide reports that include all data regardless of the user's Changepoint access
- Ability to determine which users can create reports and run reports from the unsecured package
- Quicker report execution, since the access checks are not performed

Note: Comparisons between the execution times of the secured and un-secured packages may be misleading, since the unsecured package may return much more data. If doing comparisons, ensure the same amount of data is being returned by both reports. The improvement will be more noticeable on reports that select from tables with large volumes of data and more complex access checks (for example task assignment and request), and reports which contain many configurable fields.

Cognos resource demand reporting enhancements

To allow customers more flexibility and the ability to create calendar-like reports, a new 'Resource demand all days' query subject was added. It will show a daily record for every demand item and every day, including days where there is no demand and including non-working days. Here is a comparison between 'resource demand' and 'resource demand all days':

This report is run for 2/17 to 2/25 for one demand item. The 'resource demand all days' report shows every day and can be formatted to show which days are non-working days (in this example there is a calendar non-working day for a Friday on 2017-02-17).

Resource demand

		2017-02-22
Changepoint Resource	Resource demand reporting	4

Resource demand all days

		2017-02-17	2017-02-18	2017-02-19	2017-02-20	2017-02-21	2017-02-22	2017-02-23	2017-02-24	2017-02-25
Changepoint Resource	Resource demand reporting						4			

The information is similar to 'resource demand' and includes past demand data for records that have a finish date greater than today's date minus 365 days. It also includes more task assignment information: all task assignments where the project status / hard-soft-booked combination is included as resource demand. Additional fields 'completed', 'planned finish', 'locked' and 'include in resource demand' allow more granular filtering of task assignment demand.

For example, an organization may be interested in reporting on all demand for the last year. Alternatively, they may be interested in only reporting on demand for active tasks.

The **resource demand** query subject was extended to include past demand data for records that have a finish date greater than today's date minus 365 days. It includes only task assignments where **include in resource demand** is selected and the assignment is not marked as completed.

BI - 2017 SP1

Cognos Analytics version 11.0

**See 2017 SP1 What's New for more details*

One of the key improvements in Changepoint 2017 SP1 was Cognos Analytics 11. This new version of Cognos provides a modern, simplified interface that improves the user experience and offers enhanced capabilities to both business users and report authors. Navigation is very different than in Cognos 10.2

Some highlighted enhancements provided by Cognos version 11.0 include:

- Beautiful visualizations
- Drag-and-drop formatting
- Dashboard drill-downs - drill through from a dashboard to a report based on the filter parameters

- Save a dashboard as a PDF. This familiar and popular method of sharing information makes it easy to print or view dashboards offline on a mobile device
- Simplify access to 'Job' function to run a report. In previous releases of Cognos Analytics only a person with administrative permissions could see their jobs. Now it's easier for all users to run, schedule, or monitor all their jobs

Upgrade notes

Customers upgrading to the Cognos Analytics 11 stream should be aware of the following:

- Cognos Analytics 11 is a major release and requires a reinstall
- There is no gateway server required, only the application tier is required. The Changepoint installer will remove the gateway server installation during the upgrade
- Customers who have already deployed Cognos with Changepoint are not required to acquire any new licenses. Since there is only one reporting user interface, users with either the "Business author" or "Professional author" licenses will launch the same user interface from the "Create report" menu item in Changepoint
- The Cognos Analytics 11 user interface is quite different than the 10.2 stream. Users will need to familiarize themselves with the new interface. The same functionality and options are available, but they may be in a different location in the new interface
- Adding links from reports to Changepoint profile pages uses a different methodology for new 11.x-style, interactive reports. Refer to the Changepoint-Cognos Data Model Reference Guide for more details
- The Changepoint-Cognos Sync (Windows) Utility functions the same as in previous versions, but requires a new version to be installed
- Synchronizing reports from Changepoint Administration has not changed

BI - 2017 SP1+ Iterative Monthly Delivery (General Patches)

Option to show or hide the Cognos Toolbar

**Released 2017 SP1 GP 18.01.077.000 - June 2018*

Administrators will have an option to display or hide the Cognos toolbar for reports, portlets and portals that are created from Cognos content. Hiding the toolbar may be desired to make the display cleaner, and to reduce the confusion and availability of undesired actions for users (such as 'save a snap-shot').

The option will be available in portlet management, portal management and report setup. The option will not affect Cognos workspaces.

Note: The settings for this option is cached and therefore new settings will not be applied until the next time a user logs in to Changepoint.

BI - 2017 SP2

Cognos Analytics version 11.1

Changepoint 2017 SP2 continues to deliver on the commitment to provide users exceptional BI capabilities by ensuring the Cognos Analytics 11.1 was available. Cognos version 11.1 enables you to uncover the power of AI (Augmented Intelligence).

Discover how to be insights driven. Unearth meaningful information from existing data. Discover relationships and patterns in existing data to assist in understanding business trends and drivers from data captured within Changepoint.

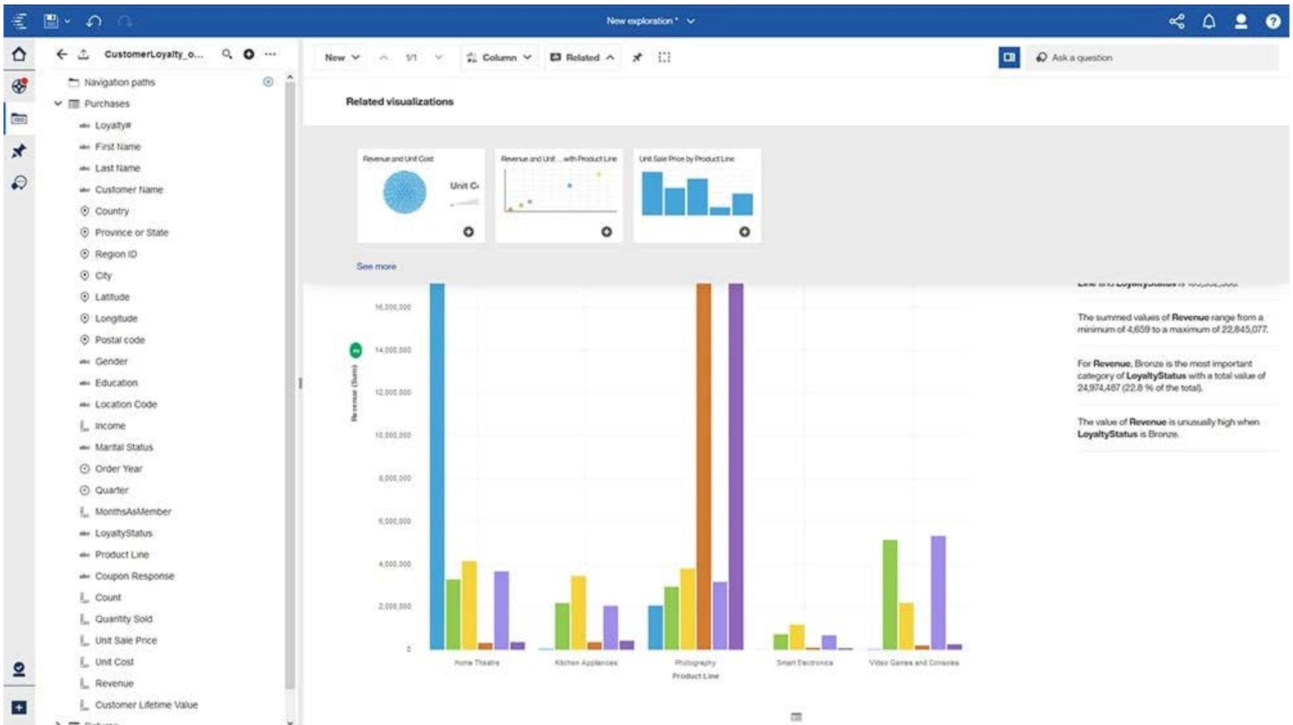
Cognos Analytics 11.1 includes smarter self-service capabilities that make it simple, clear and easy to use.

Simple visual tools allow users to create a variety of analytic intelligence without needing to know the right database commands or seek help from a data engineer.

Cognos 11.1 highlights include:

Storytelling –Easier and faster to perform analysis and share your findings. Visualization and presentation tools allow insights to be communicated in compelling ways thereby accelerating decision-making.

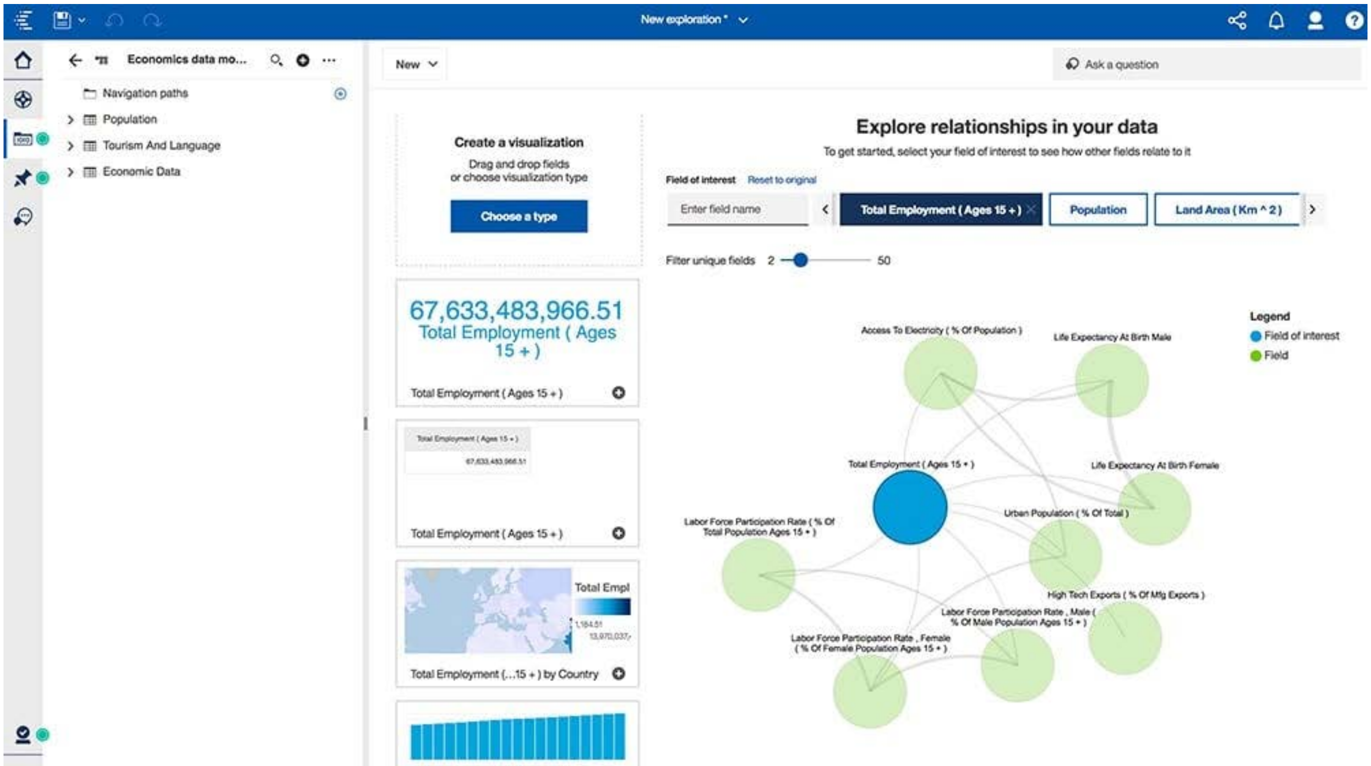
- Recommends useful visualizations for the selected data through a multi-stage recommendation system



Cognos 11.1 – Recommended visualizations

Smart exploration – designed to help users better understand what's behind the results by analyzing the selected data using machine learning and pattern detection (predictive analytics).

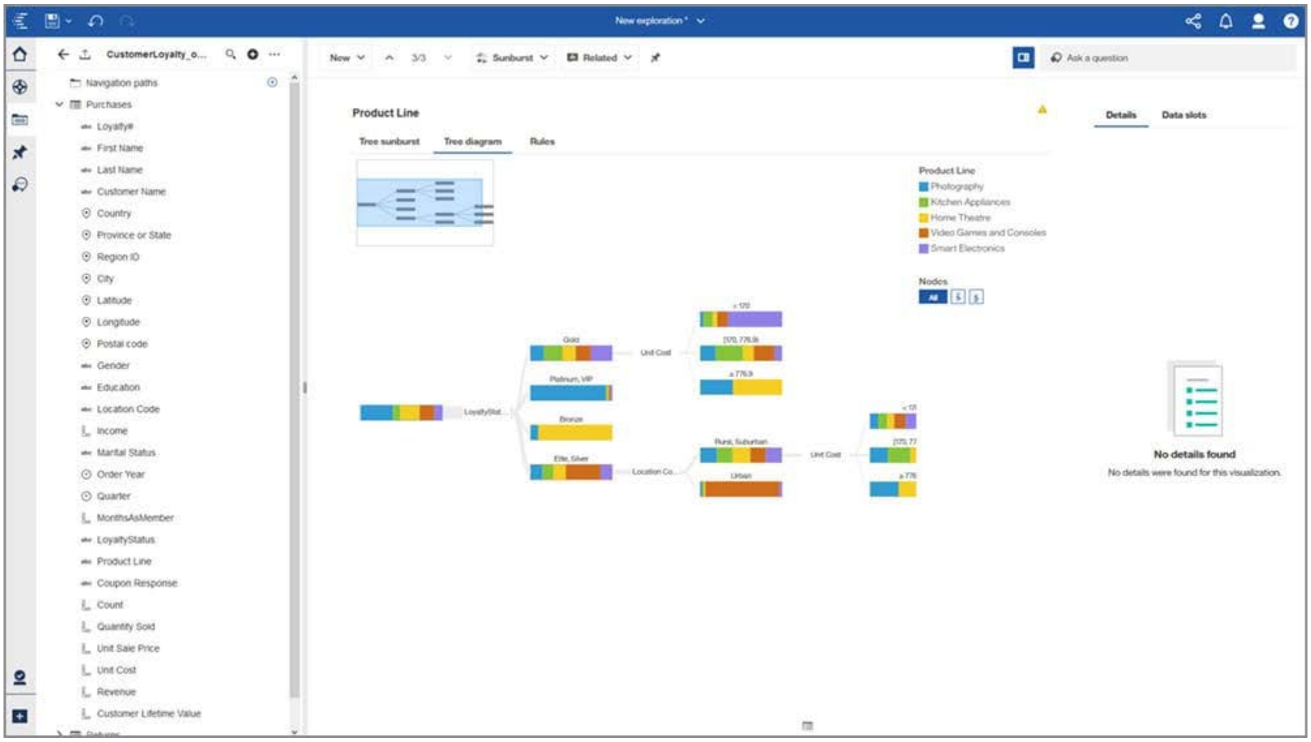
- Pattern detection automatically identifies and presents critical relationships within the data. By detecting patterns, the system also helps eliminate analysis "blind spots," or guesswork and the fruitless searching that these can lead towards



Cognos 11.1 – Explore relationships in your data

Data preparation

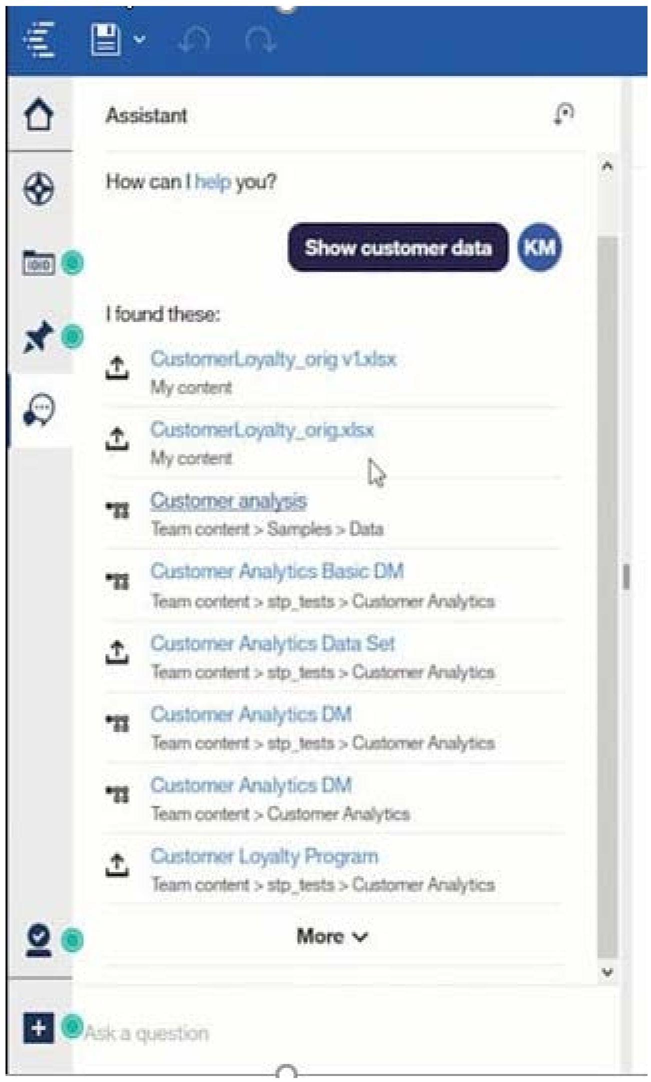
- Use built-in intelligence to cleanse and shape your data and leverage system recommendations to blend and join data all within Changepoint



Cognos 11.1 – Built-in intelligence – Leverage system recommendations to join data

AI Assistant

- Leverage the AI Assistant to ask questions about your data and receive easy-to-understand responses in natural language



Cognos 11.1 – AI Assistant

Other General Enhancements

Below are the general enhancements have been added from Changepoint 2017 to 2017 SP2.

General - 2017

Immediate saving of daily effort distribution for task assignments

**Released Changepoint 2017 – April 2017*

To support faster retrieval of demand data in PPW and other places such as reporting, a daily effort distribution is saved any time a task assignment is created or updated (whether a manual distribution is done or not). The effort values include 5 decimal places to avoid rounding issues. However, if a very small effort is entered over a very large time period, rounding issues may still occur. Effort values displayed in PPW include 3 decimal places but the full 5 decimal places are displayed when a cell is clicked for editing.

Effort distributions for task assignments are not affected if a non-working day is added

**Released Changepoint 2017 – April 2017*

In order to avoid reprocessing large amounts of data as well as respond to customer requests, the effort distribution of task assignments will not be updated if a non-working day is added to the system whether In Changepoint Administration, the calendar or user setup). The effort will remain on the non-working day until a user removes it. This includes effort that was manually or automatically distributed. Users will receive the 'Project impacted by a non-working day change' email, and effort allocated to non-working days can be reported on, to allow the affected users to take action.

General - 2017 SP1+ - Iterative Monthly Delivery (General Patches)

Create resource request from the New menu or Actions menu on entity profile

**Released 2017 SP1 GP 18.01.077.000 - June 2018*

Resource requests can now be created from the **New** menu or the **Actions** menu of the engagement, project or task profile (depending on which level resource requests are enabled at).

When the request is saved, the relevant source record will be created, depending on what level resource requests are enabled for that engagement:

- Engagement level –projected resource
- Project level – project team entry
- Task level – task assignment record

Create additional billing role-only rate when creating an engagement from an opportunity

**Released 2017 SP1 GP 18.01.077.000 - June 2018*

To ensure all demand is captured for resource management purposes, many organizations use generic or placeholder resources on opportunity services. To streamline engagement creation from the opportunity, new options are available for creating the engagement billing rates:

- Create the resource-billing role/staffing level combinations as-is from the opportunity
- Create the resource/billing role (staffing level) combinations plus an additional rate with only the billing role
- Create rates with only the billing role and no resources

Creating billing rates with a role and no resource allows the rate to be used on any task assignment, rather than only assignments for the specific resource associated with the billing rate.

Note: If there is more than one opportunity services row with the same resource and billing role combination or billing role, the one with the highest billing or cost rate will become the active rate, with the others being added to the billing rate history. Users can review the billing rate history after the engagement is created to modify the rates if necessary.

Add expense attachments after submission

**Released 2017 SP1 GP 18.01.077.000 - June 2018*

It will now be possible to add expense attachments later in the expense report process, allowing a smoother expense cycle and reducing the time to reimbursement and billing. Attachments can be added in the Changepoint user interface by the user or on behalf of the user in central expense.

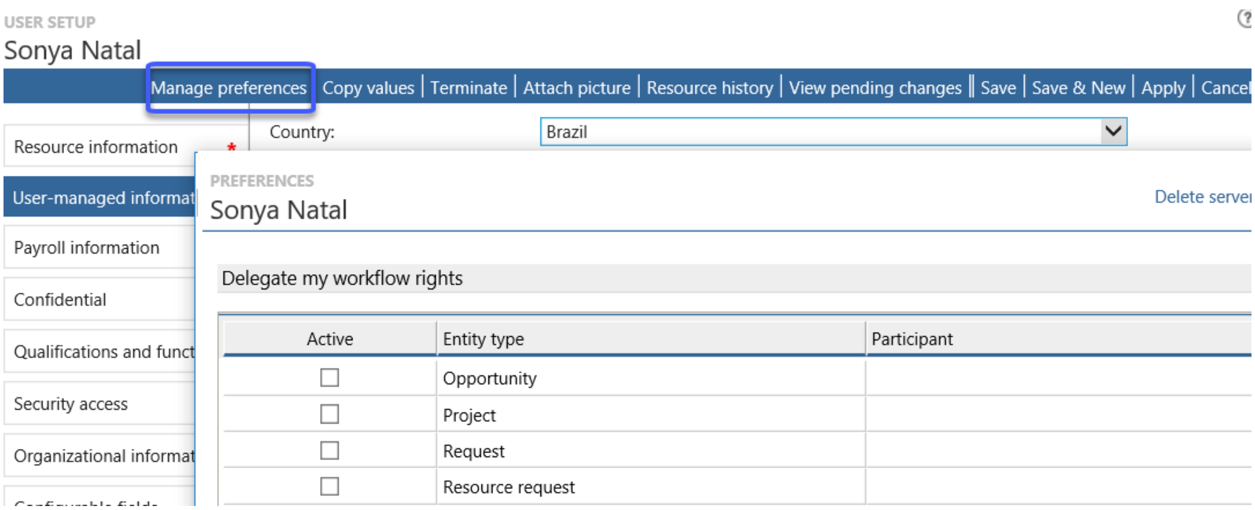
Expense reports that are at **Approved by Finance** or **Received** status cannot have any new attachments added.

Delegate approvals and update user preferences from User Setup

**Released 2017 SP1 GP 18.01.077.000 - June 2018*

Administrators have asked for a way to manage the preferences of a user such as changing delegations on behalf of a user.

For example, if a user goes away and forgets to delegate approvals, the administrator can now do the delegation on behalf of that user.



There is a new **Manage preferences** link from user setup that allows the administrator to access the resource's **Preferences** page, not including the following sections:

- Security features
- Qualifications
- Miscellaneous
- Add-in installations
- Change password

Those options are either not relevant to the administrator or are already available in user setup and are redundant. The link is available for an existing resource and is not available during creation of a resource.

New "Forgot your password?" link in Changepoint and Client Portal sign-in dialogs

**Released 2017 SP1 GP 18.01.079.000 – August 2018*

When a user—either a resource or a Client Portal user—forgets their password, they can click the **Forgot your password?** link in the Changepoint sign-in dialog box to initiate the process for resetting the password.

General - 2017 SP2

User Interface (UI) enhancements

Subtle UI enhancements have been applied throughout the solution to offer users a light, clean and modern look and feel.

2017 Product Retirement

Report Designer

In response to customer feedback, Report Designer will continue to be on limited support in the Changepoint 2017 release. No functional enhancements will be made, and only critical defects will be addressed for Report Designer. UI style enhancements in 2017 SP2 have impacted gridline displays in these reports. We reserve the right to discontinue support for Report Designer if browser technologies change such that it becomes impossible to support without significant effort.

Changepoint 2017 will be the last major release that supports Report Designer. Customers are encouraged to begin transitioning to the IBM Cognos reporting functionality that was introduced in version 2012 SP1.

The strategic partnership with IBM was undertaken to deliver best of breed business intelligence capabilities seamlessly integrated within the Changepoint solution. It will enable customers to leverage world class, sophisticated business intelligence functionality to deliver rich and dynamic reporting content to their users.

Customers can take advantage of the Cognos accelerator report packages, which contain close to 200 reports covering a wide range of data and formats, free of charge.

Contact your Changepoint Representative for more information about the Cognos reporting package and about the services packages available to assist customers in getting the best out of the Cognos solution.

ASP-based reports and portlets

The asp-based reports and portlets will be on minimum support for version 2017 and will be sunset in future releases. No functional enhancements will be made, and only critical defects will be addressed for the asp-based reports and portlets. Customers are encouraged to leverage the Cognos reporting solution as an alternative.

Most of the asp-based reports already have a Cognos equivalent, available in the 2014 SP1/SP2 streams as part of the new accelerator reports package, and available in lower versions with the assistance of Changepoint Services. Contact your Changepoint representative for a listing of the Cognos equivalents for the asp reports.

Benefits of Cognos versions:

- Easily modified (add/remove columns or calculations)
- Multiple formats, better suited to exporting or printing (e.g. Excel or PDF)
- More flexible filter selections
- Reports can be scheduled to print or email
- Available in all supported browsers

Note: Reports that contain functionality (for example the 'batch time approval' and 'contractor reconciliation' reports) will continue to be supported in some fashion. They may be re-architected in future releases to support more than the Internet Explorer browser.

Resource management worksheet (RMW)

The existing Silverlight-based resource management worksheet (RMW) will be sunset in the near future. Until then, the worksheet is available to allow customers to effectively plan to train and transition their users to the new functionality. The resource management worksheet can be hidden by customers to assist in the transition.

Project worksheet (PW)

The existing Silverlight-based project worksheet (PW) will be sunset in the near future. Until then, it is available to allow customers to effectively plan to train and transition their users to the new functionality. The project worksheet can be hidden by customers to assist in the transition.

2017 browser and server minimums

The minimum requirement for Internet Explorer will be Internet Explorer 11. This minimum is consistent with Microsoft's new support policy, which is much more aggressive in terms of supported versions.

The minimum requirement for Firefox will be ESR 45.

The minimum requirement for SQL Server will be SQL 2014.

The minimum requirement for Windows Server will be Windows 2012.

AppFabric caching mechanism

Prior to CP2017, Changepoint utilized Microsoft AppFabric 1.1 as part of its caching strategy in order to reduce calls to the database and provide a faster response to the web server and its clients. On April 2, 2016, Microsoft announced that it will be ending support for AppFabric 1.1. Because of the pending termination of AppFabric 1.1 support, Changepoint 2017 replaced AppFabric 1.1 with Redis.

Redis is an open source, in-memory data structure store, used as a database, cache and message broker. Benefits to customers:

- Ease of deployment: Redis is installed on the web server, eliminating the need for a separate application caching server. It is installed automatically as part of the Changepoint web site installation process. It can also be manually configured quickly and easily for more complex deployments such as web farms and fail-overs.
- Highly scalable and efficient: Redis is one of the most popular caching services in the world, and Changepoint customers will benefit from the reliability, scalability and high performance of Redis.