# What's new

## Axtension® Project Management & Axtension® Project Controlling

2024 H2

Axtension®

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# Axtension® Project Management

## Calculate “Progress” based on “Effort” or on “Performance”

The “Activity planning method” calculates the “Task effort to complete” and the “Task effort at complete” values on a task. For the “Activity planning method” two configuration options are available:

- Effort based
- Performance based

### Calculate based on Effort

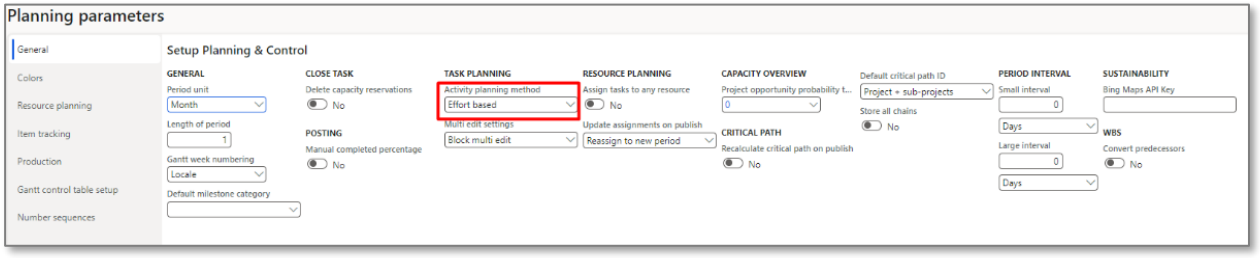
This method calculates the progress based on effort. This can be the preferred method for organizations that want to know what the impact is going to be on the “Task effort at complete” based on the “Task effort to complete” in combination with the “Posted hours”.

### Calculate based on Performance

This method calculates the progress based on performance. This can be the preferred method for organizations that want to know what the impact is going to be on the “Task effort at complete” based on the “Reported progress” in combination with the “Posted hours”.

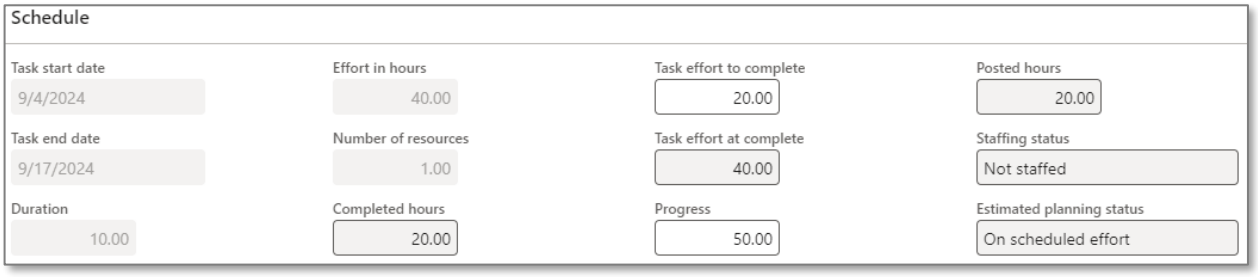
### Configuration of the “Activity planning method”

The “Activity planning method” can be configured per legal entity in the module Project management and accounting -> Setup -> Planning & Control -> Planning parameters.



## Introduction to the “Activity planning method”

When creating the task planning for a project the following fields are available on a task from a scheduling perspective.




In the table below a description for each of the fields is added:

| Field Name | Description |
|---|---|
| Effort in hours | Scheduled hours |
| Progress | Progress percentage on the task |
| Posted hours | Posted hours via an hour journal |
| Completed hours | Completed hours based on the progress and effort |
| Task effort to complete | Remaining hours to complete the task |
| Task effort at complete | Total hours based at completion of the task |

In the table below the formula’s for the “Activity planning method” are described:

| Field Name | Formula (Effort based) | Formula (Performance based) |
|---|---|---|
| Effort in hours | The configured effort in hours on the task | The configured effort in hours on the task |
| Posted hours | Posted hours on the task | Posted hours on the task |
| Progress (%) | (Posted hours / Effort in hours) * 100<br>*Can be adjusted manually | (Posted hours / Effort in hours) * 100<br>*Can be adjusted manually |
| Completed hours | (Effort in hours * Progress) /100 | (Effort in hours * Progress) /100 |
| Task effort to complete | Effort in hours – Completed hours<br>*Can be adjusted manually | Task effort at complete – Posted hours<br>*Can be adjusted manually |
| Task effort at complete | Posted hours + Task effort to complete | (Posted hours / Progress) |

## Scenario: Effort based

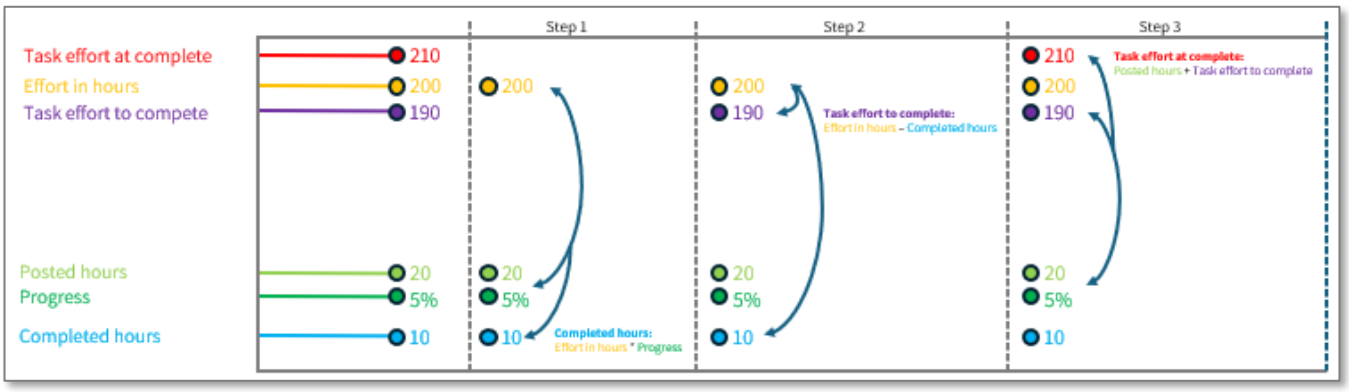
Scenario 1:

| Field Name | Numbers | Formula (Effort based) | Formula (Effort based) |
|---|---|---|---|
| Effort in hours | 200 | | |
| Posted hours | 20 | | |
| Progress | 5% | | |
| Completed hours | 10 | Progress * Effort in hours | 5% * 200 |
| Task effort to complete | 190 | Effort in hours – Completed hours | 200 – 10 |
| Task effort at complete | 210 | Task effort to complete + Posted hours | 190 + 20 |

Scenario 2

| Field Name | Numbers | Formula (Effort based) | Formula (Effort based) |
|---|---|---|---|
| Effort in hours | 150 | | |
| Posted hours | 30 | | |
| Progress | 50% | | |
| Completed hours | 75 | Progress * Effort in hours | 50% * 150 |
| Task effort to complete | 75 | Effort in hours – Completed hours | 150 – 75 |
| Task effort at complete | 105 | Task effort to complete + Posted hours | 75 + 30 |

Below a visualization that shows what is calculated when “Effort based” is used as the “Activity planning method”. Per step is shown what is calculated and what values are used.



## Scenario: Performance based

Scenario1:

| Field Name | Numbers | Formula (Performance Based) | Formula (Performance Based) |
|---|---|---|---|
| Effort in hours | 200 | | |
| Posted hours | 20 | | |
| Progress | 5% | | |
| Completed hours | 10 | Progress * Effort in hours | 10% * 200 |
| Task effort to complete | 380 | Task effort at complete – Posted hours | 400 - 20 |
| Task effort at complete | 400 | Posted hours / Progress | 20 / 5% |

Scenario 2:

| Field Name | Numbers | Formula (Performance Based) | Formula (Performance Based) |
|---|---|---|---|
| Effort in hours | 150 | | |
| Posted hours | 30 | | |
| Progress | 50% | | |
| Completed hours | 75 | Progress * Effort in hours | 50% * 150 |
| Task effort to complete | 30 | Task effort at complete – Posted hours | 60 - 30 |
| Task effort at complete | 60 | Posted hours / Progress | 30 / 50% |

Below a visualization that shows what is calculated when “Performance based” is used as the “Activity planning method”. Per step is shown what is calculated and what values are used.

**Note:**

If a task has multiple estimated cost lines of the type “hour”:

- Progress and Task effort to complete are kept in sync, changes on either field will recalculate the other
- Changed “Progress” on the activity is copied over to the individual estimated lines
- Changed “Task effort to complete” is calculated per individual estimated lines to ratio of each line
- Changed “Progress” on an individual estimated line will be rolled up to the activity
- Changed “Task effort to complete” on an individual estimated line will be rolled up to the activity
- Hours posted on a different category than estimated on an activity will only update the Posted hours value of the activity and not affect the Posted hours of individual estimated lines
- Changes in “Posted hours” and reported “Progress” on a published plan are kept in sync with any existing drafts on the project plan.

## Comparing the “Activity planning methods”:

Scenario 1:
When using “Effort based” for the “Activity planning method”, the “Task effort at complete” value is calculated based on the “Effort in hours” and “Completed hours”. Based on the “Effort in hours” minus the “Completed hours”, the “Task effort to complete” is calculated. Where the “Task effort at complete” is calculated based on the "Posted hours” plus the “Task effort to complete”.

When using “Performance based” for the “Activity planning method”, the “Task effort at complete” value is calculated based on the “Posted hours” and “Progress”. In other words, in 20 hours, 5% of the work is completed. If this progress trend continues the task will need 400 hours to be completed. The “Task effort to complete” is calculated based on the “Task effort at complete” minus the “Posted hours”.

| Field Name | Numbers (Effort based) | Numbers (Performance based) |
|---|---|---|
| Effort in hours | 200 | 200 |
| Posted hours | 20 | 20 |
| Progress | 5% | 5% |
| Completed hours | 10 | 10 |
| Task effort to complete | 190 | 380 |
| Task effort at complete | 210 | 400 |

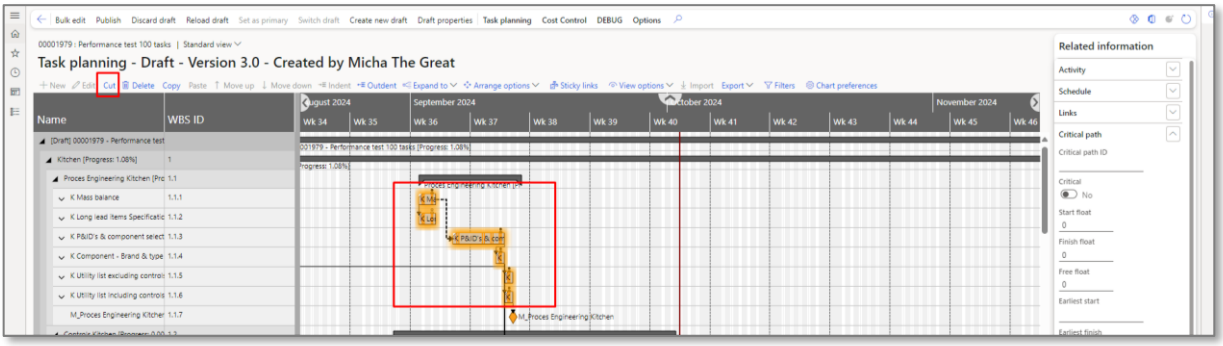
Scenario 2:
When using “Effort based” for the “Activity planning method”, the “Task effort at complete” value is calculated based on the “Effort in hours” and “Completed hours”. Based on the “Effort in hours” minus the “Completed hours”, the “Task effort to complete” is calculated. Where the “Task effort at complete” is calculated based on the "Posted hours” plus the “Task effort to complete”.

When using “Performance based” for the “Activity planning method”, the “Task effort at complete” value is calculated based on the “Posted hours” and “Progress”. In other words, in 30 hours, 50% of the work is completed. If this progress trend continues the task will need 60 hours to be completed. The “Task effort to complete” is calculated based on the “Task effort at complete” minus the “Posted hours”.

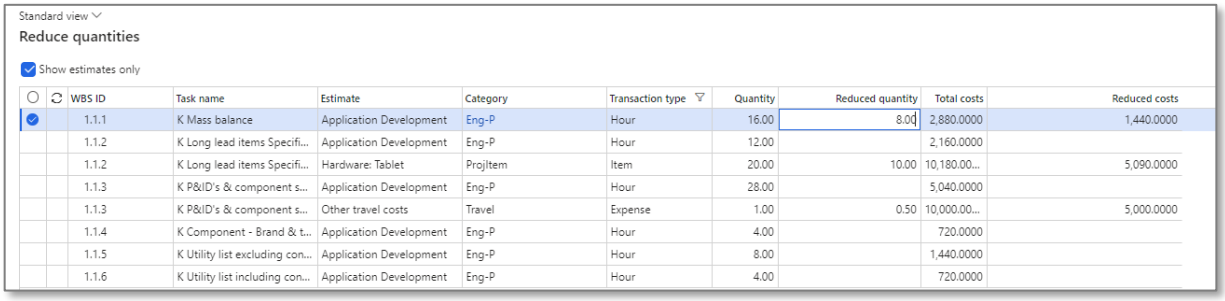
| Field Name | Numbers (Effort based) | Numbers (Performance based) |
|---|---|---|
| Effort in hours | 150 | 150 |
| Posted hours | 30 | 30 |
| Progress | 50% | 50% |
| Completed hours | 75 | 75 |
| Task effort to complete | 75 | 30 |
| Task effort at complete | 105 | 60 |

## Use “Cut” to split activities

Hours, items and expenses can be deducted from one or multiple selected tasks and pasted into another task by using the “Cut” and “Paste” actions.




After selecting one or more multiple tasks the “Cut” option will show the “Reduce quantities” form with the estimated cost lines per WBS ID (task). In this form it is possible to reduce the amounts of hours and items, but also to reduce the costs e.g. for expenses by entering the amount or quantity in the “Reduced quantity” column.



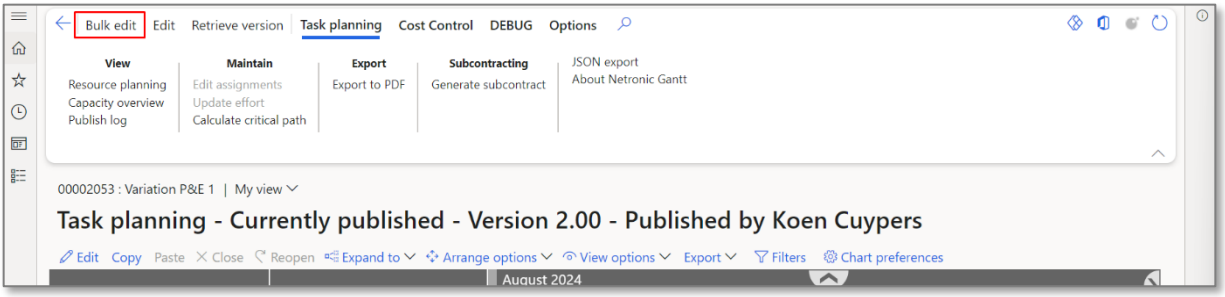

| WBS ID | Task name | Estimate | Category | Transaction type | Quantity | Reduced quantity | Total costs | Reduced costs |
|---|---|---|---|---|---|---|---|---|
| 1.1.1 | K Mass balance | Application Development | Eng-P | Hour | 16.00 | 8.00 | 2,880.0000 | 1,440.0000 |
| 1.1.2 | K Long lead items Specifi... | Application Development | Eng-P | Hour | 12.00 | | 2,160.0000 | |
| 1.1.2 | K Long lead items Specifi... | Hardware: Tablet | ProjItem | Item | 20.00 | 10.00 | 10,180.00... | 5,090.0000 |
| 1.1.3 | K P&ID's & component s... | Application Development | Eng-P | Hour | 28.00 | | 5,040.0000 | |
| 1.1.3 | K P&ID's & component s... | Other travel costs | Travel | Expense | 1.00 | 0.50 | 10,000.00... | 5,000.0000 |
| 1.1.4 | K Component - Brand & t... | Application Development | Eng-P | Hour | 4.00 | | 720.0000 | |
| 1.1.5 | K Utility list excluding con... | Application Development | Eng-P | Hour | 8.00 | | 1,440.0000 | |
| 1.1.6 | K Utility list including con... | Application Development | Eng-P | Hour | 4.00 | | 720.0000 | |

After confirming the reduced quantities by using the “OK” action, the estimated cost lines are directly reduced accordingly to the entered values in the “Reduce quantities” form.
It is possible to use the “Paste” action to create new activities in the current project or any other project with the reduced quantities from the “Reduce quantities” form.
The pasted activities will have:

- Same name
- Same duration
- Same role
- Estimated cost lines with the reduced amounts.
- Same resource assignment
- Same CBS ID (as longs as that the CBS exists in either the Cost Control Budget or CBS Template of the target project).

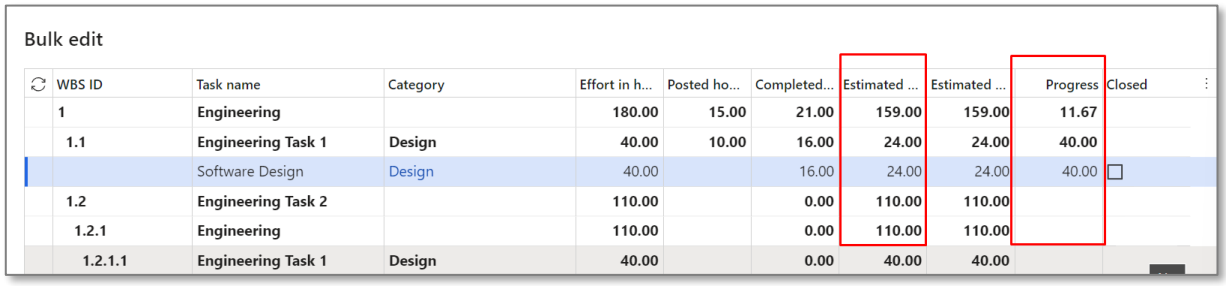
## Bulk edit Progress and Estimated hours remain

A “Bulk edit” action is available for published project plans, to update the “Progress” and “Estimated hours remain” for activities in the progress and estimate data set.




In the Bulk edit form the following columns can be adjusted:

- Estimated hours remain
- Progress.

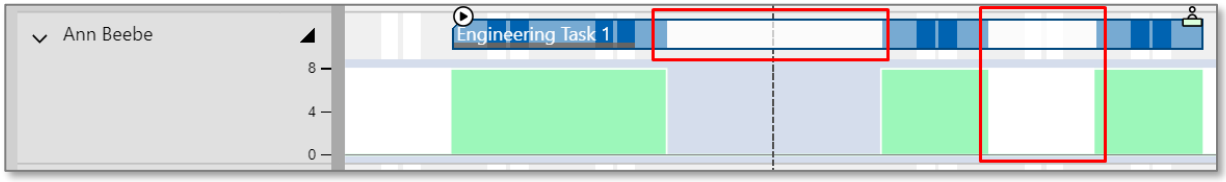



| WBS ID | Task name | Category | Effort in h... | Posted ho... | Completed... | Estimated ... | Estimated ... | Progress | Closed |
|---|---|---|---|---|---|---|---|---|---|
| **1** | **Engineering** | | **180.00** | **15.00** | **21.00** | **159.00** | **159.00** | **11.67** | |
| **1.1** | **Engineering Task 1** | **Design** | **40.00** | **10.00** | **16.00** | **24.00** | **24.00** | **40.00** | |
| | Software Design | Design | 40.00 | | 16.00 | 24.00 | 24.00 | 40.00 | ☐ |
| **1.2** | **Engineering Task 2** | | **110.00** | | **0.00** | **110.00** | **110.00** | | |
| **1.2.1** | **Engineering** | | **110.00** | | **0.00** | **110.00** | **110.00** | | |
| **1.2.1.1** | **Engineering Task 1** | **Design** | **40.00** | | **0.00** | **40.00** | **40.00** | | |

This allows project members to easily update activities based on insights and progress.

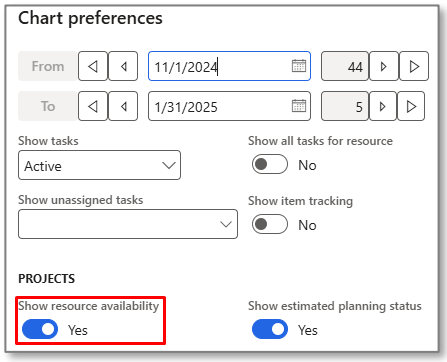
## Show allocated effort on assignments in resource planning

In the resource planning it's easy to see if a resource is assigned within the duration of an assignment. Days on which a resource is not assigned are shown in white. If a task is assigned, these days are shown with a green or red color depending on the resource utilization.



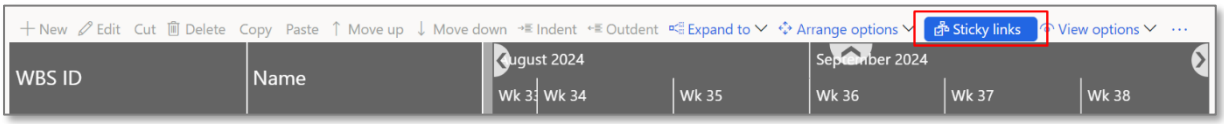

As seen in the above example the non-working days of the resource are shown as white, but also the day on which the resource is not scheduled for the assignment.

This visualization can be used by enabling the "Show resource availability" in the chart preferences.



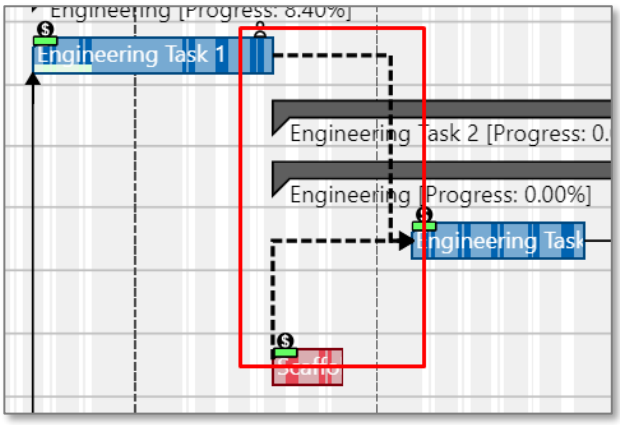
## Sticky links

With the “Sticky links” activities will stick to each other based on the links when one of the activities is being rescheduled.



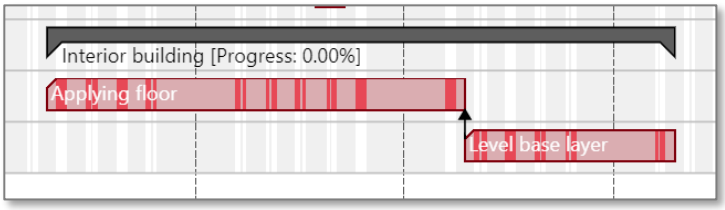

When the action “Sticky links” is enabled, moving an activity either to an earlier or later moment, will also move any of the linked activities throughout the project. When sticky links is enabled, the other activities (predecessors and successors) will be rescheduled in relation to the rescheduled activity, while reapplying all the links and respecting the delay configured on the links.

If the “Sticky links” action is not enabled, moving an activity to a later moment will not reschedule any of the predecessors with it. Links which have a longer duration than is configured as the delay will show as a dotted line in the task planning. This dotted line can be used to identify links which have a longer duration than might be needed.




## Start to Finish links

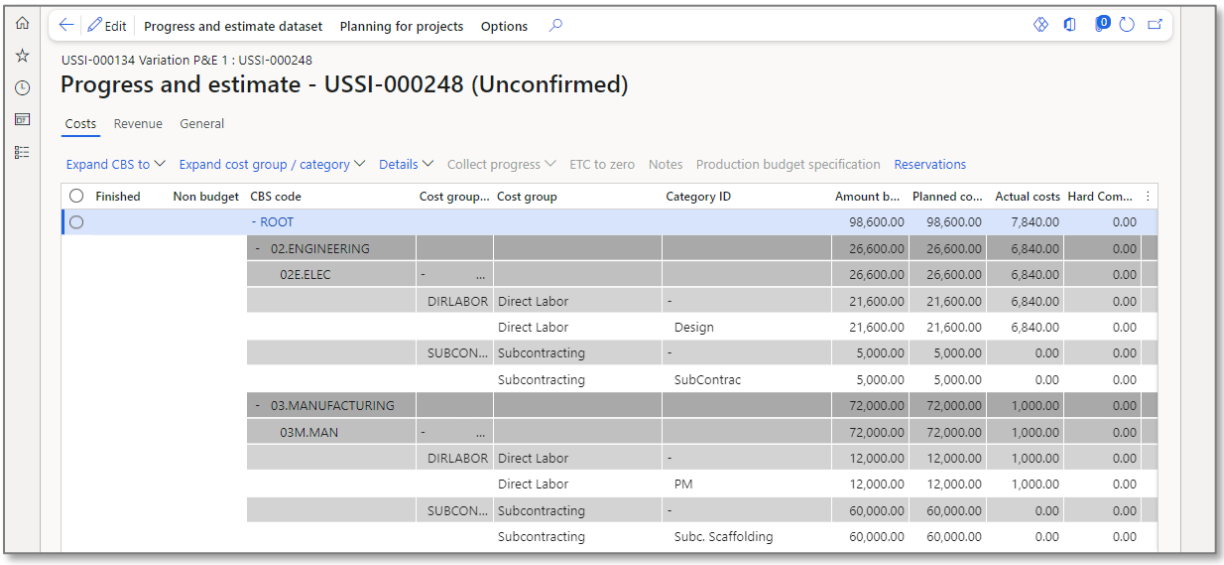
A start to finish link can be created between activities. The start date of the predecessor is driving the finish date of the successor as shown in the image below.



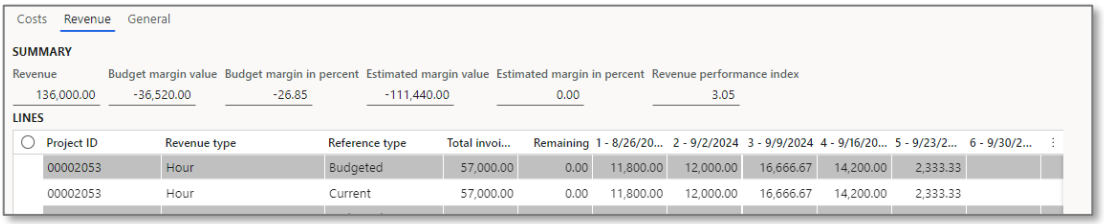
# Axtension® Project Controlling

## Simplified progress and estimate dataset

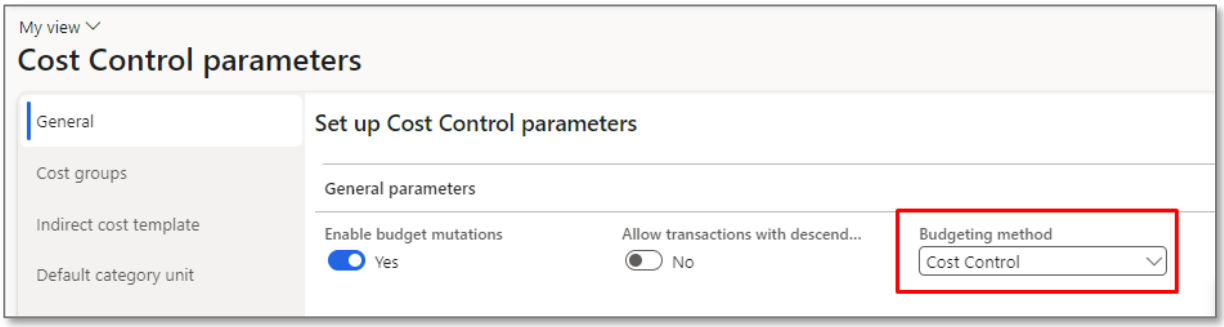
This version of Axtension® Project Controlling introduces a simplified progress and estimate dataset.
The simplified progress and estimate dataset will show the CBS codes with budget lines in one overview. This is similar to the “Reporting data” view.




The simplified progress and estimate dataset contains three tabs:

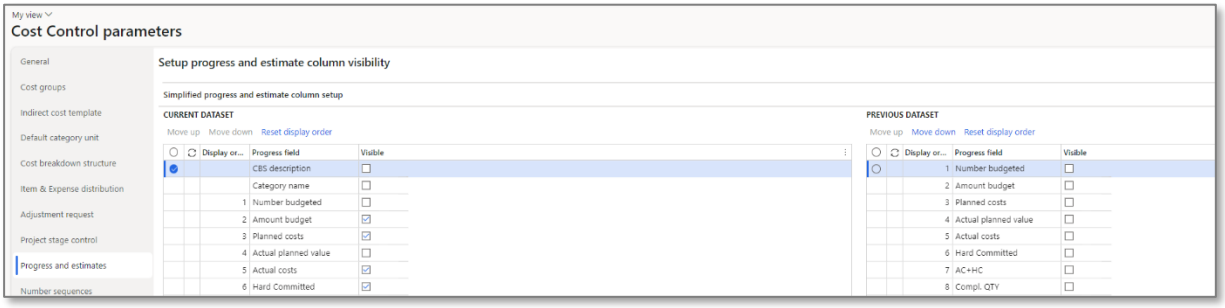
| Tab Name | Description |
|---|---|
| Costs | Overview of the CBS codes, cost groups, and categories |
| Revenue | Revenue information, including total revenue, margin and revenue period split broken down into revenue types of hour, expense and item.<br>  <br>The revenue of the reference type current can be adjusted. Note the values entered in here will not be written back in to the Cost Control budget and can only be used for reporting purposes. |
| General | General information about the progress and estimate dataset. |

Using the new simplified progress and estimate dataset or the normal progress and estimate dataset, can be set per legal entity in the Cost Control parameters with the parameter **Progress and estimate dataset**.

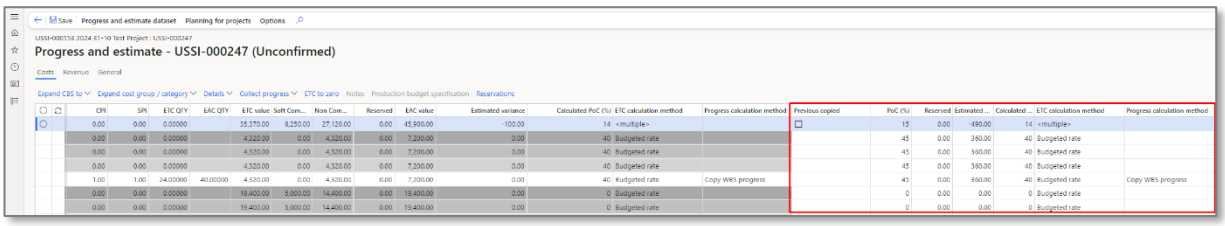



## Adjust column visibility

For simplified progress and estimate datasets, it is now possible to adjust which columns are being shown and in which order. This can be done in the “Cost Control parameters” in the section “Progress and estimates”.

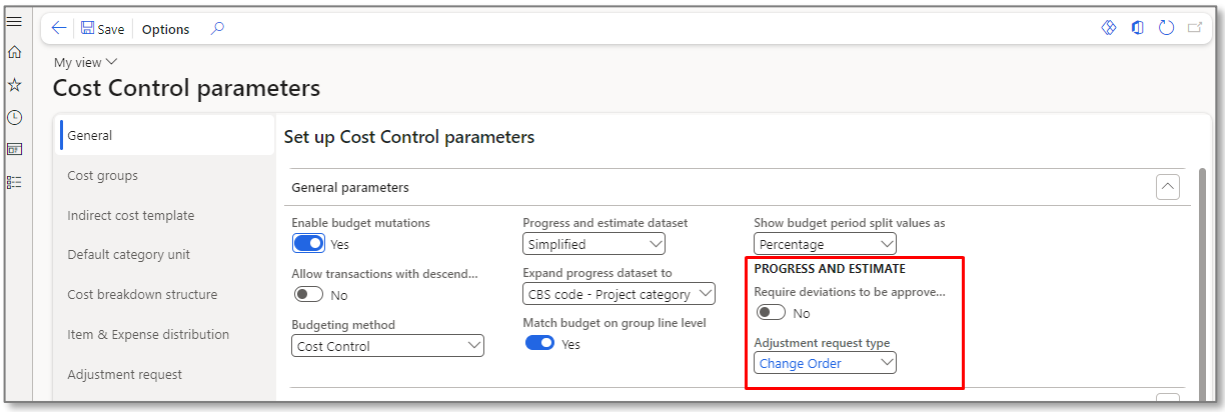



Adjusting which columns should be visible and in which order is not only possible for the actual data in the progress and estimate dataset, but also for the previous dataset should be shown. This allows user to compare the current data with a previous dataset. Data from previous datasets will be shown as white columns.

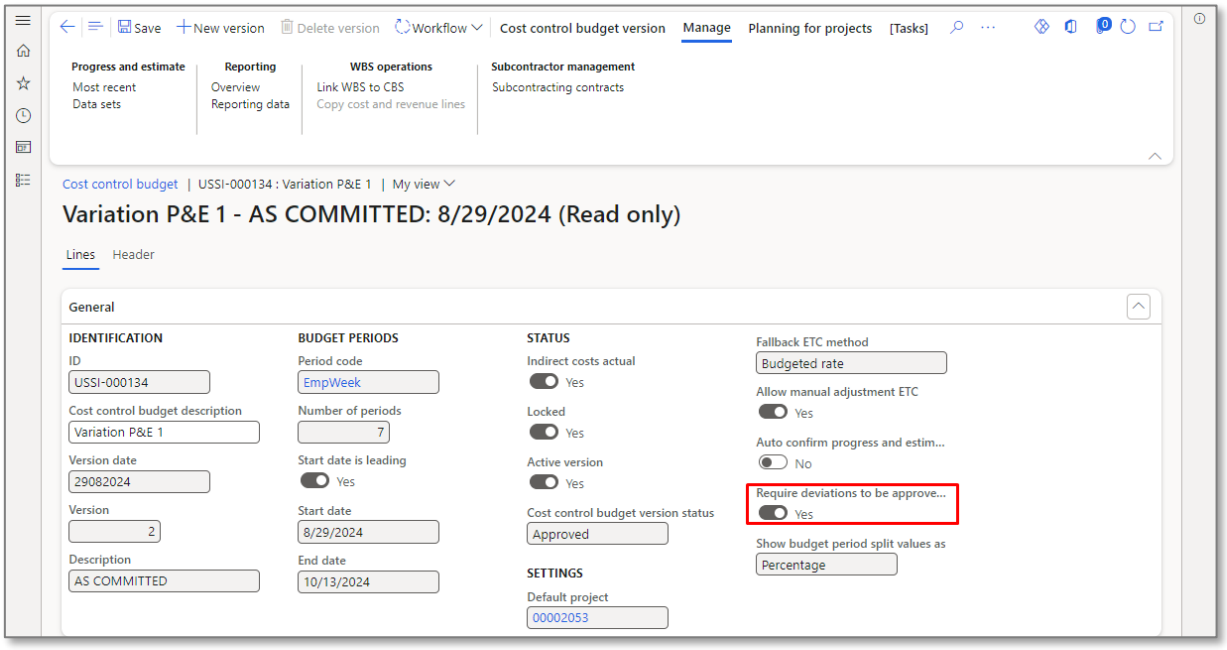


## Adjustment requests for progress and estimate deviations.

Organizations can automatically create an adjustment request when estimated variations exists on a progress and estimate dataset and the dataset is being confirmed. This feature can be enabled in the “Cost Control parameters” with the ability to select the “Adjustment request type”.




The “Adjustment request type” can also be configured per Cost Control budget.




The created adjustment request type will contain new budget lines with amounts corresponding to the variances in the progress and estimate dataset. The budget lines will copy the budget period split from the originating budget line.

When an adjustment request is created for variations on a confirmed progress and estimate dataset, a new progress and estimate dataset can only be created when the adjustment request is approved or declined.

## Automatically create and confirm progress and estimate datasets

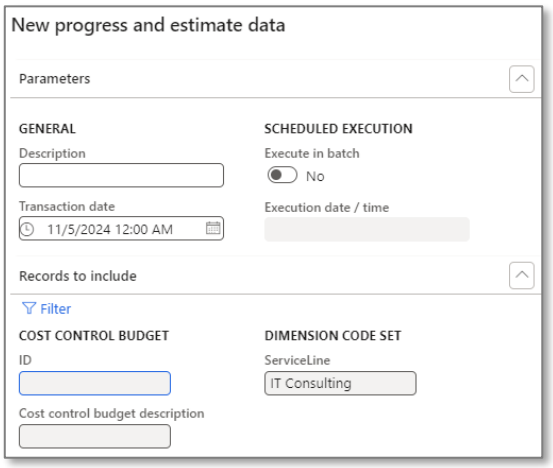
Progress and estimate datasets can be created and confirmed automatically by using a period task.

### Create progress and estimate datasets

A periodic task is available which can be scheduled to run at predefined dates. The periodic task can be found via *Project management and accounting → Periodic → Cost Control → New progress and estimate data.*

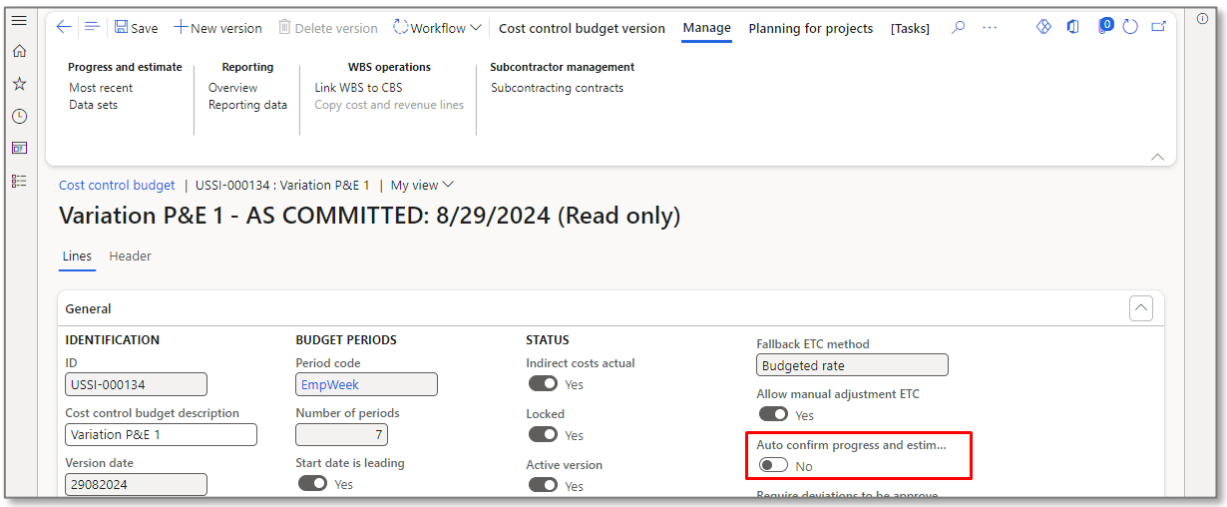
The periodic task can be created on request, but also be scheduled at a specific moment.
Note: if progress and estimate datasets need to be created at months end, make sure to schedule one periodic task per month and select the last date of the month as the transaction date.

In addition, filters can be used to select Cost Control budgets based on e.g. project financial dimension as Service Line.



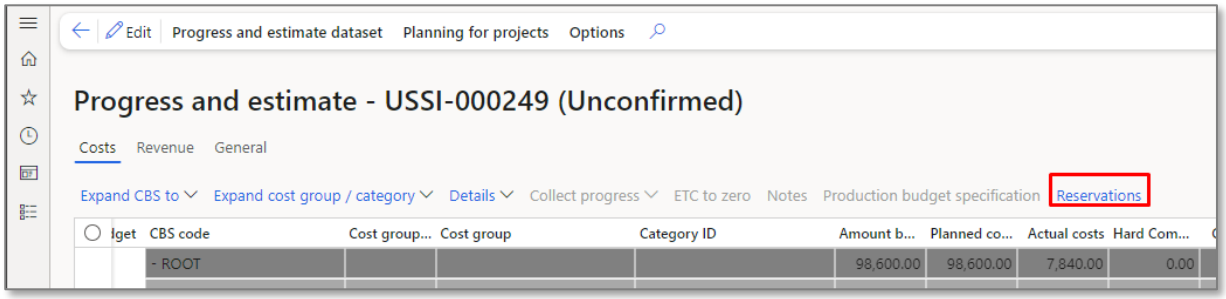

### Confirm progress and estimate datasets

Next to the automatic creation of a progress and estimate dataset, it is also possible to define if a generated progress and estimate dataset should be confirmed automatically per cost control budget.
This can be done by setting the “Auto confirm progress and estimated dataset” toggle to yes.



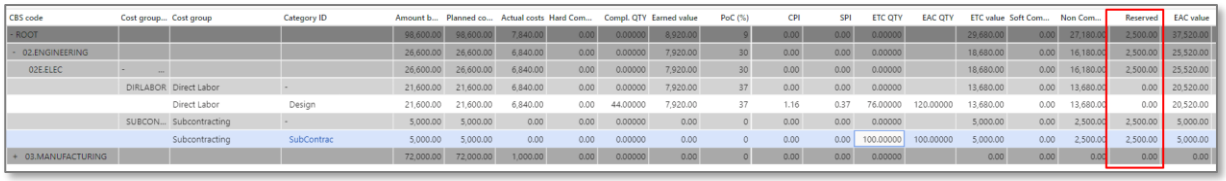
## Reserve amounts

It is possible to manually reserve budget amounts in a “Progress and estimate dataset”.
This reserved amount can be used to deduct the non-committed cost amount and shown in reporting that a part of the budget is reserved for a specific purpose.



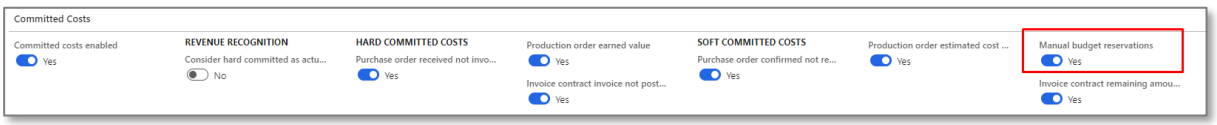

Reservations can be created from the progress and estimate dataset by using the **Reservations** action.
In the reservations form existing reservations can be shown, but new ones can be created as well.


Reservations will be shown in the progress and estimate dataset related to the CBS code and category selected on the reservation.




There is no option to link a reservation with e.g. a purchase order. If an amount is reserved for a purchase order, the reservation needs to be updated manually after the creation of the purchase order to avoid data duplicates. Adjusting a reservation can be done in the reservation form. Deleting a reservation will mark the reservation as “Ended”. The reservation will be cleared if a new budget version is created but can be copied over if needed.

The ability to create reservations can be enabled in the Cost Control parameters.



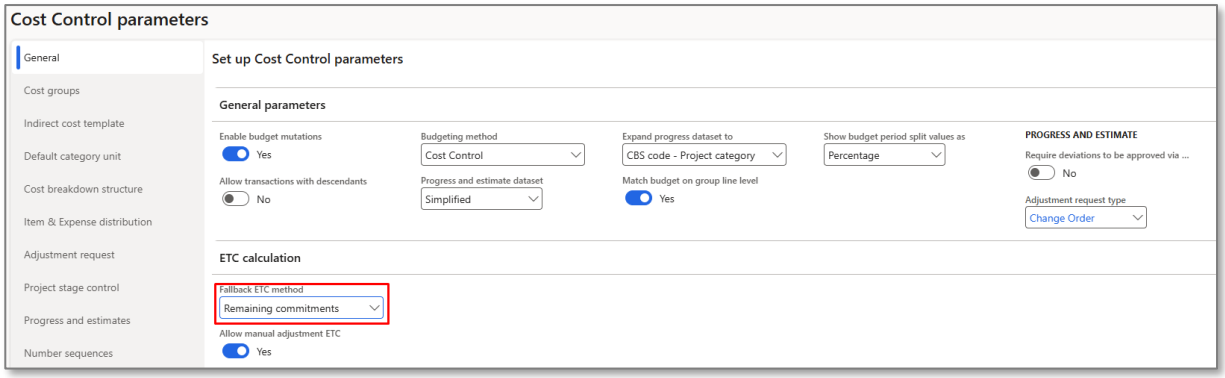
## New ETC calculation method: Remaining Commitment

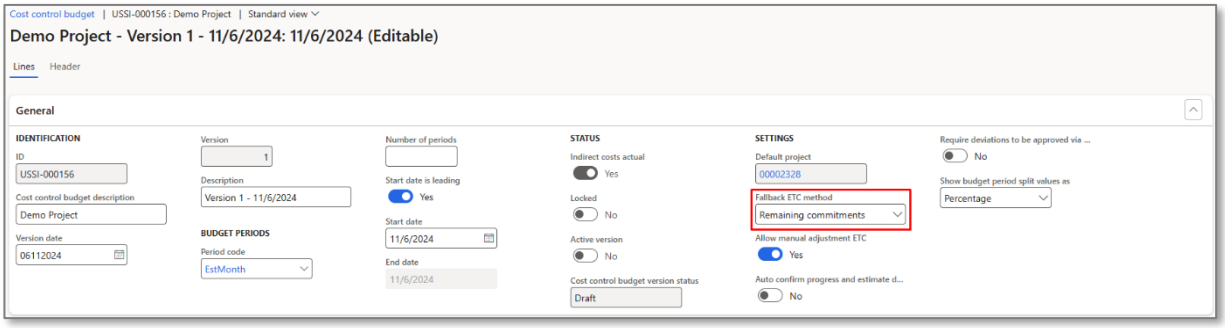
A new ETC calculation method, Remaining Commitment is introduced with this version of Axtension® Project Controlling.

ETC method Remaining Commitment is useful for categories, cost groups and CBS codes related to purchase orders or production orders. With ETC calculation Remaining Commitment method the ETC will be calculated from the sum of the soft committed amount and reserved amount.

Calculation of the EAC and variance is not changed with this new ETC calculation method.

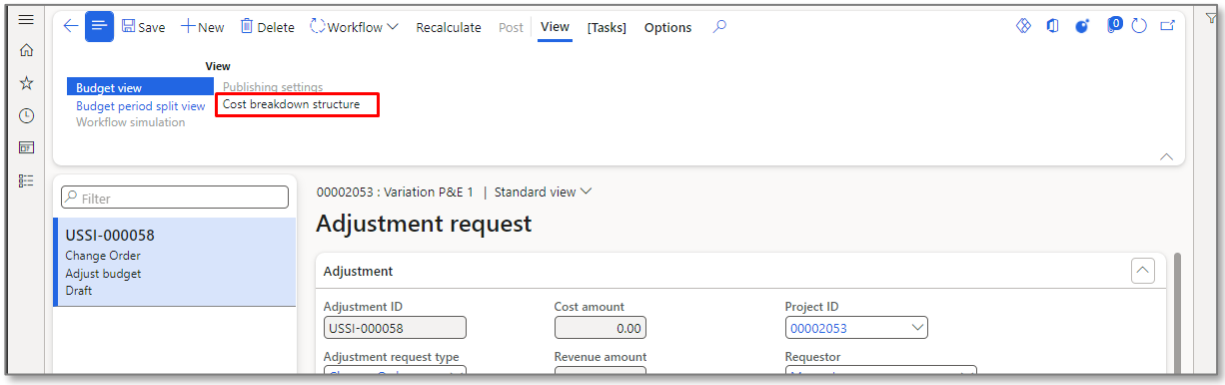
The Fallback ETC method can configured per legal entity in the “Cost control parameters or per Cost control budget.



## Change Cost Breakdown Structure via an adjustment request

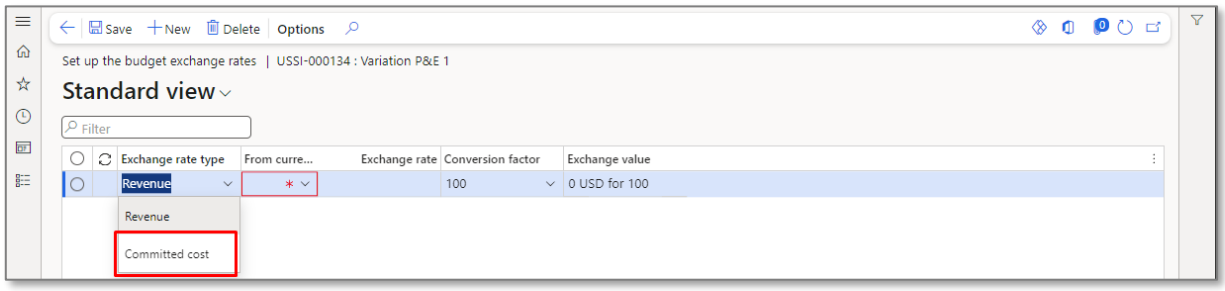
It is now possible to adjust the Cost Breakdown Structure of a Cost Control budget via an adjustment request, without creating a new budget version. In the “Adjustment request” form the Cost Breakdown structure can be viewed or edited.




Changes on the Cost Breakdown Structure will be applied after the approval of the adjustment request.

## Conversion rates for committed costs

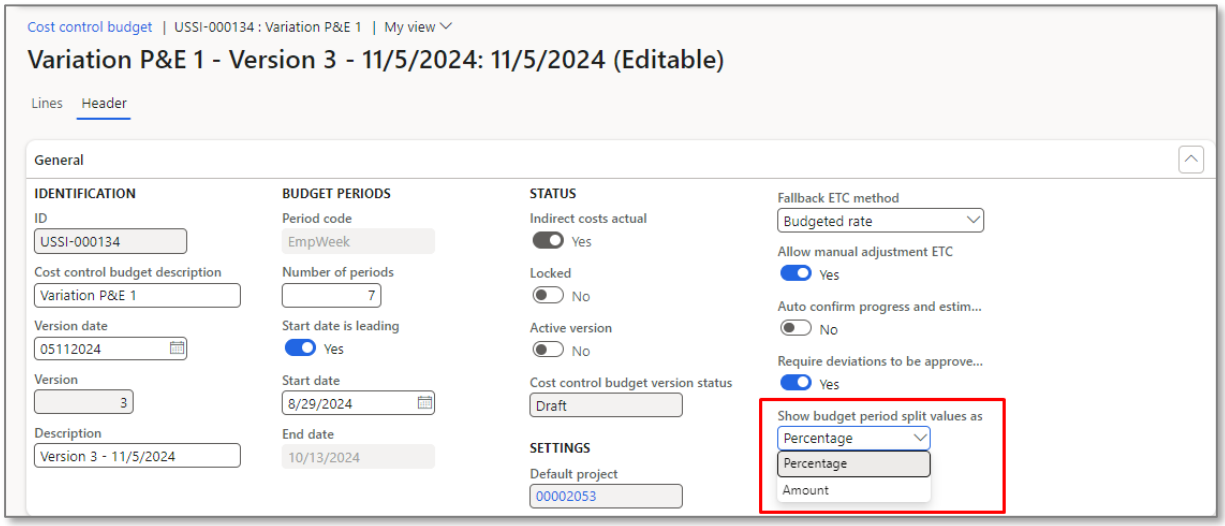
Exchange rates can be set for committed costs. In the “Set up the budget exchange rates” form, the “Committed cost” is available as the “Exchange rate type” for exchange rates destined to be used for committed costs.



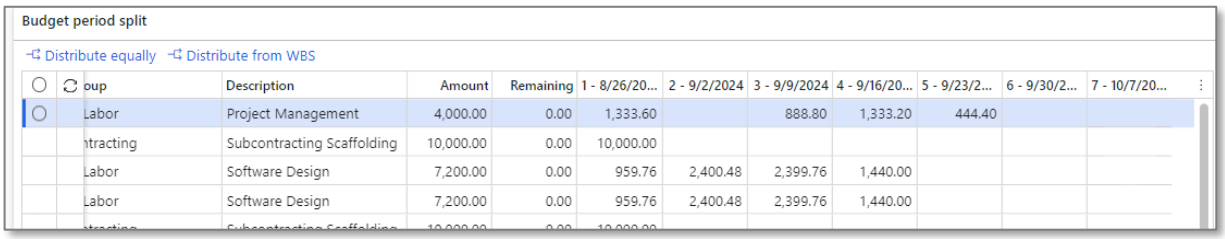

If an exchange rate is set for committed costs, any cost committed value is shown based on the exchange rate instead of the price of the purchase order and/or production order.
The exchange rate is not date controlled. When updated, all converted values for the budget will be calculated accordingly.

## Distribute budget period split based on amounts

The budget period split can be based on percentages and amounts. The “Show budget period split values as” parameter can be configured in the Cost Control budget.



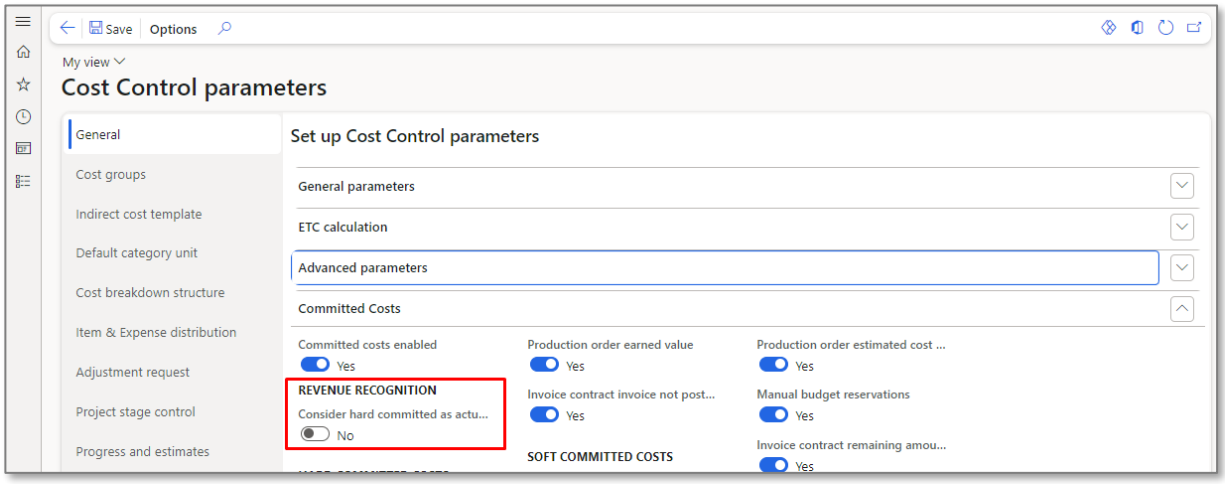

When the parameter is set to “Amount”, amounts can be used instead of percentages in the budget period split grid.




Changing the parameter to “Percentage”, will calculate the values in the budget period split grid as percentages based on the entered amounts. The same will happen when percentages are entered, and the parameter is changed to “Amount”.

## Use hard committed costs as actual costs in revenue recognition

With the parameter “Consider hard committed as actuals” in the “Cost Control parameters”, hard committed costs will be used as actual costs instead of being used to calculate the “Cost to complete” in revenue recognition.




Enabling the parameter “Consider hard committed as actuals” will use hard committed costs on a confirmed progress and estimate dataset as actual cost in revenue recognition and will calculate the percentage of completion in revenue recognition by including the hard committed costs.

**Note:**
Caution is advised when enabling this parameter. Organizations that want to calculate the revenue by including hard committed costs will have to correct ledger transactions manually to avoid balance issues.