



# Performance Metric Calculations

## Changepoint Reference Guide

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# Contents

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<b>Chapter 1 • Performance Metric Calculations .....</b>	<b>5</b>
About metric calculations .....	5
Adoption metric type calculations .....	5
Approval Lag – Expenses.....	6
Approval Lag – Cross Charges.....	6
Approval Lag – Time .....	7
Approval Lag – Requests .....	8
Task Status Compliance .....	8
Task status compliance example.....	9
Time Submission Conformance .....	10
Time submission conformance example.....	11
User-Entered Calculation (Actual) .....	12
User-Entered Calculation (Average) .....	12
User-Entered Calculation (Sum) .....	13
Results metric type calculations.....	14
Candidate Approved Result.....	14
Candidate Approved Result (Floating Target) .....	15
Utilization Percent (Chargeable, by Hour/Day) .....	16
Utilization Percent (Chargeable, by Period Hours).....	17
Utilization Percent (by Hour/Day) .....	18
Utilization Percent (by Period Hours) .....	19
Client satisfaction calculations.....	20
Project Satisfaction by Client .....	20
Resource Satisfaction by Client.....	20
Peer Feedback calculations .....	21
Project Satisfaction by Resource .....	21
Resource Satisfaction by Peer .....	21
Project calculations .....	22
Project Portfolio Metric - Budgeted Charge.....	23
Project Portfolio Metric - Budgeted Charge vs. Estimate-to-Completion Charge..	24
Project Portfolio Metric - Budgeted Charge vs. Estimate-to-Completion Charge (with Request Charge) .....	26
Project Portfolio Metric - Budgeted Cross Charge Amount vs. Recognized Revenue ...	29
Project Portfolio Metric - Budgeted Cost.....	30
Project Portfolio Metric - Budgeted Cost (with Request Cost) .....	31
Project Portfolio Metric - Budgeted Capital Cost .....	32

Project Portfolio Metric - Budgeted Non-Capital Cost .....	32
Project Portfolio Metric - Budgeted Effort.....	33
Project Portfolio Metric - Budgeted Effort (with Request Effort) .....	33
Project Portfolio Metric - Budgeted Schedule.....	34
Project Portfolio Metric - Budgeted vs. Estimate-to-Completion Cost.....	34
Project Portfolio Metric - Budgeted vs. Estimate-to-Completion Effort .....	35
Project Portfolio Metric - Planned Charge .....	35
Project Portfolio Metric - Planned Cross Charging vs. Estimate-to-Completion Cross Charging .....	36
Project Portfolio Metric - Planned Charge vs. Estimate-to-Completion Charge (with Request Charge) .....	37
Project Portfolio Metric - Planned Charge vs. Recognized Revenue.....	40
Project Portfolio Metric - Planned Cost .....	41
Project Portfolio Metric - Planned Cost (with Request Cost) .....	41
Project Portfolio Metric - Planned Effort .....	42
Project Portfolio Metric - Planned Effort (with Request Effort).....	42
Project Portfolio Metric - Planned Schedule.....	42
Project Portfolio Metric - Planned vs. Estimate-to-Completion Cost .....	43
Project Portfolio Metric - Planned vs. Estimate-to-Completion Effort.....	43
Project User-Entered (Actual, Average and Sum) .....	44

# CHAPTER 1

## Performance Metric Calculations

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### About metric calculations

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**WARNING:** The information about performance metric calculations is provided for reference purposes only. Metric calculations are not supported within the terms of your Changepoint support agreement. If you require assistance, contact your Service Delivery Group representative or client manager to arrange for consulting services.

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Changepoint metric templates contain predefined formulas to calculate individual and team performance (IPM) and project performance (portfolio). For more information, see:

- “Adoption metric type calculations” on page 5
- “Results metric type calculations” on page 14
- “Client satisfaction calculations” on page 20
- “Peer Feedback calculations” on page 21
- “Project calculations” on page 22

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**WARNING:** Metric calculations widely impact Changepoint reports and tools. Access to these calculations should be limited to knowledgeable resources within your organization.

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### Adoption metric type calculations

- “Approval Lag – Expenses” on page 6
- “Approval Lag – Cross Charges” on page 6
- “Approval Lag – Time” on page 7
- “Approval Lag – Requests” on page 8
- “Task Status Compliance” on page 8
- “Time Submission Conformance” on page 10
- “User-Entered Calculation (Actual)” on page 12
- “User-Entered Calculation (Average)” on page 12
- “User-Entered Calculation (Sum)” on page 13

## Approval Lag – Expenses

<b>Description</b>	Calculates the expense approval lag (manager's approval lag and the finance resource's approval lag) for individual and team metrics. The calculation is based on the current IPM period.
<b>Code</b>	EAL
<b>Raw Data</b>	<ul style="list-style-type: none"> <li>EAL = EMAD – ESD or EAL = EFAD – EMAD</li> <li>EMAD: Expense report manager approval date</li> <li>EFAD: Expense report finance approval date</li> <li>ESD: Expense report submission date</li> </ul>
<b>Rule</b>	<ul style="list-style-type: none"> <li>The expense must be submitted and approved by the manager and/or the finance resource.</li> <li>The manager approval date or finance resource approval date must be within the IPM period.</li> <li>The approval date must be between the last run calculation date and time and the current date and time.</li> </ul>
<b>Individual</b>	Calculates the average value for each individual.
<b>Formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(EAL) / Count</li> <li>EAL: Expense approval lag value from raw data</li> <li>Count: Count value from raw data</li> </ul>
<b>Team</b>	Calculates the sum, average and weighted average value for each team.
<b>Sum formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(EAL)</li> <li>EAL: Expense approval lag value from data</li> </ul>
<b>Average formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(EAL) / Count</li> <li>EAL: Expense approval lag value from data</li> <li>Count: Count value of input individual who has data</li> </ul>
<b>Weighted average formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(EAL) / Count</li> <li>EAL: Expense approval lag value from raw data</li> <li>Count: Count value from raw data</li> </ul>

## Approval Lag – Cross Charges

<b>Description</b>	Calculates the cross charge approval lag (first level approval and second-level approval) for individual and team metrics. The calculation is based on the current IPM period.
<b>Code</b>	IAL
<b>Raw Data</b>	<ul style="list-style-type: none"> <li>IAL = AD – PAD (Total time elapsed from pending approval to approval)</li> <li>IAL = AD – P2AD (Time elapsed from pending second-level approval to second-level approval)</li> <li>IAL = P2AD – PAD (Time elapsed from pending approval to pending second-level approval)</li> <li>AD: Cross charge approval date</li> <li>P2AD: Cross charge pending second-level approval status date</li> <li>PAD: Cross charge pending approval status date</li> </ul>

<b>Rule</b>	<ul style="list-style-type: none"> <li>The cross charge status must be A or P2A</li> <li>The cross charge status change to A or P2A must have occurred within the IPM period.</li> <li>The approval date must be between the last run calculation date and time and the current date and time.</li> </ul>
<b>Individual</b>	Calculates the average value for each individual.
<b>Formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(IAL) / Count</li> <li>IAL: Cross charge approval lag value from raw data</li> <li>Count: Count value from raw data</li> </ul>
<b>Team</b>	Calculates the sum, average and weighted average value for each team.
<b>Sum formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(IAL)</li> <li>IAL: Cross charge approval lag value from data</li> </ul>
<b>Average formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(IAL) / Count</li> <li>IAL: Cross charge approval lag average value from data</li> <li>Count: Count value of input individual who has data</li> </ul>
<b>Weighted average formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(IAL) / Count</li> <li>IAL: Cross charge approval lag value from raw data</li> <li>Count: Count value from raw data</li> </ul>

## Approval Lag – Time

<b>Description</b>	Calculates the time approval lag for individual and team metrics. The calculation is based on the current IPM period.
<b>Code</b>	TAL
<b>Raw Data</b>	<ul style="list-style-type: none"> <li>TAL = TAD – TSD</li> <li>TAD: Time record approval date</li> <li>TSD: Time record submission date</li> </ul>
<b>Rule</b>	<ul style="list-style-type: none"> <li>Time must be approved.</li> <li>The approval date must be within the IPM period.</li> <li>The approval date must be between the last run calculation date and time and the current date and time.</li> </ul>
<b>Individual</b>	Calculates the average value for each individual.
<b>Formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(TAL) / Count</li> <li>TAL: Time approval lag value from raw data</li> <li>Count: Count value from raw data</li> </ul>
<b>Team</b>	Calculate the sum, average and weight average value for each team.
<b>Sum formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(TAL)</li> <li>TAL: Time approval lag value from raw data</li> </ul>
<b>Average formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(TAL) / Count</li> <li>TAL: Time approval lag value from data</li> <li>Count: Count value of input individual who has data</li> </ul>
<b>Weighted average formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(TAL) / Count</li> <li>TAL: Time approval lag value from raw data</li> <li>Count: Count value from raw data</li> </ul>

## Approval Lag – Requests

<b>Description</b>	Calculates the request approval lag for individual and team metrics. The approval date must be within the IPM period.
<b>Code</b>	RAL
<b>Raw Data</b>	<ul style="list-style-type: none"> <li>• <math>RAL = RAD - RSD</math></li> <li>• RAL: Approval step was approved or rejected</li> <li>• RSD: Approval step was assigned</li> </ul>
<b>Rule</b>	<ul style="list-style-type: none"> <li>• The request must be approved or rejected.</li> <li>• The approval or rejection date must be within the IPM period.</li> <li>• The approval or rejection date must be between the last run calculation date and time and the current date and time.</li> </ul>
<b>Individual</b>	Calculates the average value for each individual.
<b>Formula</b>	<ul style="list-style-type: none"> <li>• <math>Result = Sum(RAL) / Count</math></li> <li>• RAL: Request approval lag value from raw data</li> <li>• Count: Count value from raw data</li> </ul>
<b>Team</b>	Calculate the sum, average and weight average value for each team.
<b>Sum formula</b>	<ul style="list-style-type: none"> <li>• <math>Result = Sum(RAL)</math></li> <li>• RAL: Request approval lag value from raw data</li> </ul>
<b>Average formula</b>	<ul style="list-style-type: none"> <li>• <math>Result = Sum(RAL) / Count</math></li> <li>• RAL: Request approval lag value from data</li> <li>• Count: Count value of input individual who has data</li> </ul>
<b>Weighted average formula</b>	<ul style="list-style-type: none"> <li>• <math>Result = Sum(RAL) / Count</math></li> <li>• RAL: Request approval lag value from raw data</li> <li>• Count: Count value from raw data</li> </ul>

## Task Status Compliance

<b>Description</b>	<p>Evaluates if resources update the status of their tasks at the required frequency. The calculation can be set up for both individual and team metrics.</p> <p><b>Example:</b> See the “Task status compliance example” section on page 9.</p>
<b>Code</b>	<p>The results are tabulated for each task assignment. The actual number of status updates is compared to the required number of status updates and the overall compliance result is presented as a percentage.</p> <p>The status update is considered to be in conformance when the status update is done on or before the status due date, and within the status frequency.</p> <p><b>Example:</b> If a status update is due on Friday for a weekly status frequency, a resource can update the status any time during the week ending on the Friday (from the previous Saturday to the current Friday).</p>



<b>Raw Data</b>	<ul style="list-style-type: none"> <li>• TSK = IPIRaw_TaskStatusMetric</li> <li>• TSK = NTS/NTR * 100</li> <li>• NTS = Number of times missed statusing</li> <li>• NTR = Number of times required statusing</li> </ul> <p>IPI detects all the tasks for which the status update is required as of the day it runs.</p> <p>Calculates the sum of the number of statuses missed for each task assignment using the task assignment created on date to determine the status frequencies.</p> <p>For each task assignment, the sum of the number of status updates is divided by the number of status periods and then the results are added. The result is a number between 0 and 1, where 0 records that everything is statused on time and 1 records that no tasks have been statused. This is stored as today's result.</p>
<b>Rule</b>	The task and the task assignment are active and the status is required for the task assignment.
<b>Individual</b>	Calculates the average value for each individual.
<b>Formula</b>	Result = Sum (TSK) / Count <ul style="list-style-type: none"> <li>• TSK = IPICalc_TaskStatusMetric</li> </ul>
<b>Team</b>	Based on calculation type It can calculate the average and weighted average value for team
<b>Average formula</b>	Result = Sum (TSK) / Count <ul style="list-style-type: none"> <li>• TSK: Time submission conformance average value from data</li> <li>• Count: Count value from data</li> </ul>
<b>Weighted average formula</b>	Result = Sum (TSK) / Count <ul style="list-style-type: none"> <li>• TSK: Time submission conformance average value from data</li> <li>• Count: Count value from data</li> </ul>

### Task status compliance example

John Smith is asked to update his task status weekly and his tasks cover an 8-week period. John's manager wants to know if he has updated his status at least once within that 7-day period for those 8 weeks. If John has updated his status 3 times within the 7 days, it will be treated no differently than if he had done it once within the required 7 days. All his manager wants to know if that the minimum was met and whether he is in compliance or not. In the following example, John was in compliance for 6 weeks out of 8.  $(6/8) = 75\%$ .

	M	T	W	Th	F	Sa	Su	Compliance
Week 1		✓		✓	✓			Yes
Week 2			✓					Yes
Week 3		✓						Yes
Week 4								No
Week 5	✓							Yes
Week 6								No
Week 7	✓				✓			Yes
Week 8	✓							Yes

The calculation takes into account the following tasks:

- Tasks assigned to resources and for which a status update is required as of the day the job is run.

- Tasks for active projects
- Tasks for completed or inactive projects if the project was updated during the IPM period. Tasks for completed projects are only included during the IPM period for which the project was updated and will not be included in the next IPM period

Projects that were active during the IPM period but were edited and the status changed to other than **Active**.

- Task assignments with remaining hours greater than zero
- Tasks that have remaining hours of zero but where the last status date was within the IPM period (this will take into account tasks that were active for part of the IPM period and were completed during the IPM period).

The calculation determines how often the status of a task should have been updated based on the later of the project's first status date, the task's planned start or the task's creation date versus the date the scheduled job was run.

For example: If the planned start date of a task was 8 weeks ago and the project requires weekly status updates, the task must be updated eight times.

However, if the task's planned start date was two months ago but the task was created last week, then the task should have been updated only once, because the resource should not be penalized for not doing status updates when the task did not exist.

## Time Submission Conformance

<b>Description</b>	<p>The formula calculates time submission conformance for individual and team metrics. Time includes project time, request time and non-project time.</p> <p>The calculation is based on the current IPM period or previous period.</p> <p>This metric only considers time that is approved, but uses the time submission date to determine the submission lag time. Each submission due date is calculated from the first payroll end date and the pay schedule (specified in the <b>User Setup</b> dialog box of the resource). The submissions are then compared to those due dates to see what the difference is between the submission date and the due date. This difference is called the submission time lag.</p> <p><b>Example:</b> See the "Time submission conformance example" section on page 11.</p> <p><b>Note:</b> The submission due date does not use the submission cycle specified in the <b>User Setup</b> dialog box, but uses the pay schedule. This means that if you have a bi-weekly pay schedule and a weekly submission cycle, your calculation is based on bi-weekly. If you are using this metric, make your pay schedule the same as your submission cycle.</p>
<b>Code</b>	TSC

<b>Raw Data</b>	<ul style="list-style-type: none"> <li>• <math>TSCR = TSD - EPD</math></li> <li>• <math>TSC = \text{Sum}(TSCR) / \text{Count}</math></li> <li>• TSD: Time record submission date</li> <li>• EPD: End of the payroll date of the time record</li> <li>• TSCR: Time submission conformance on each time record</li> <li>• Count: Time records' count on one day</li> <li>• TSC: Time submission conformance on each day</li> </ul>
<b>Rule</b>	<ul style="list-style-type: none"> <li>• Time must be submitted and approved.</li> <li>• The approval date must be between the last run calculation date and time and the current date and time.</li> <li>• If raw data for a day already exists, then all of the new approved time records that are entered on that day will not be calculated. This avoids problems with resubmission of rejected time, which penalizes the resource who submitted time.</li> <li>• If the time is entered in a previous period, it recalculates the end date value of the previous period for all of the time submission conformance metrics for the resource that entered the time. It also recalculates all of the end date values of the previous period for the team metric assignments that used the resource as an input.</li> </ul>
<b>Individual</b>	Calculates the average value for each individual.
<b>Formula</b>	<ul style="list-style-type: none"> <li>• <math>\text{Result} = \text{Sum}(TSC) / \text{Count}</math></li> <li>• TSC: Time submission conformance value from raw data</li> <li>• Count: Count value from raw data</li> </ul>
<b>Team</b>	Based on calculation type It can calculate the average and weighted average value for team.
<b>Average formula</b>	<ul style="list-style-type: none"> <li>• <math>\text{Result} = \text{Sum}(TSC) / \text{Count}</math></li> <li>• TSC: Time submission conformance average value from data</li> <li>• Count: Count value from data</li> </ul>
<b>Weighted average formula</b>	<ul style="list-style-type: none"> <li>• <math>\text{Result} = \text{Sum}(TSC) / \text{Count}</math></li> <li>• TSC: Time submission conformance value from raw data</li> <li>• Count: Count value from raw data</li> </ul>

### Time submission conformance example

The first payroll end date is Saturday, February 14. The pay schedule is weekly. The submission due dates are as follows:

- February 21
- February 28
- March 7
- March 14
- March 21

Time between February 14 and February 21 will be compared to the February 21 submission due date. Time between February 21 and February 28 will be compared to the February 28 due date.

If a resource enters time in the week ending February 21 and submits this time on February 25, the submission lag time is 3 days.

If the resource does not submit this time until March 5, the submission lag time is 9 days.

If the resource submits the time on February 20, the submission time lag is 0 days because the time is submitted ahead of when it is supposed to be submitted.

### User-Entered Calculation (Actual)

<b>Description</b>	Calculates user-entered metric results for individuals and teams. The calculation is based on current IPM period.
<b>Code</b>	0
<b>Metric</b>	User-entered data is identified by the MetricId
<b>Raw Data</b>	The raw data is user-entered.
<b>Rule</b>	<ul style="list-style-type: none"> <li>• Data (refDate) must be in the current or last period. Data entered in the future (next period) will be calculated in the next period.</li> <li>• If the data's refDate is in the previous period, then the individual and input MetricData end date value of the previous period is recalculated for the specific resource and metric.</li> <li>• The team end data value of the previous period, for the specific metric, is also recalculated.</li> </ul>
<b>Individual</b>	Retrieves the latest value (only one value) from raw data into the metric data. Information that was previously entered is superseded by the latest entry.
<b>Formula</b>	<ul style="list-style-type: none"> <li>• Result = UValue</li> <li>• UValue: Latest user-entered value (by refdate) from raw data in the period</li> </ul>
<b>Team</b>	Calculates the sum, average and weighted average value for the team
<b>Sum formula</b>	<ul style="list-style-type: none"> <li>• Result = Sum(UValue)</li> <li>• UValue: Value from data</li> </ul>
<b>Average formula</b>	<ul style="list-style-type: none"> <li>• Result = Sum(UValue) / Count</li> <li>• UValue: Value from data</li> <li>• Count: Count value from data</li> </ul>
<b>Weighted average formula</b>	<ul style="list-style-type: none"> <li>• Result = Sum(UValue) / Count</li> <li>• UValue: Value from data</li> <li>• Count: Count value from data</li> </ul>

### User-Entered Calculation (Average)

<b>Description</b>	Calculates individual and team metric results that are entered by the user. The calculation is based on the current IPM period.
<b>Code</b>	0
<b>Metric</b>	User-entered data is identified by the MetricId
<b>Raw Data</b>	Data is user-entered.

<b>Rule</b>	<ul style="list-style-type: none"> <li>• Data (refDate) must be in the current or last period. Data entered in the future (next period) will be calculated in the next period.</li> <li>• If the data's refDate is in the previous period, then the individual and input MetricData end date value of the previous period is recalculated for the specific resource and metric.</li> <li>• The end date value of the previous period for the team metrics that uses the resource as an input is also recalculated.</li> </ul>
<b>Individual</b>	Calculates the average value for each individual.
<b>Formula</b>	<ul style="list-style-type: none"> <li>• Result = Sum(UValue) / Count</li> <li>• UValue: User-entered value from raw data</li> <li>• Count: Count value from raw data by the MetricId</li> </ul>
<b>Team</b>	Calculates the sum, average and weighted average value for the team.
<b>Sum formula</b>	<ul style="list-style-type: none"> <li>• Result = Sum(UValue)</li> <li>• UValue: Value from data</li> </ul>
<b>Average formula</b>	<ul style="list-style-type: none"> <li>• Result = Sum(UValue) / Count</li> <li>• UValue: Value from data</li> <li>• Count: Count value from data</li> </ul>
<b>Weighted average formula</b>	<ul style="list-style-type: none"> <li>• Result = Sum(UValue) / Count</li> <li>• UValue: Value from raw data</li> <li>• Count: Count value from raw data</li> </ul>

## User-Entered Calculation (Sum)

<b>Description</b>	Calculates individual and team metric results that were entered by the user. The calculation is based on the current IPM period.
<b>Code</b>	0
<b>Metric</b>	User-entered data is identified by the MetricId
<b>Raw Data</b>	Data is user-entered.
<b>Rule</b>	<ul style="list-style-type: none"> <li>• Data (refDate) must be in the current or last period. Data entered in the future (next period) will be calculated in the next period.</li> <li>• If the data's refDate is in the previous period, then the individual and input MetricData end date value of the previous period is recalculated for the specific resource and metric.</li> <li>• The end date value of the previous period for the team metrics that uses the resource as an input is also recalculated.</li> </ul>
<b>Individual</b>	Calculates the sum value for each individual.
<b>Formula</b>	<ul style="list-style-type: none"> <li>• Result = Sum(UValue) UValue: user-entered value from raw data</li> </ul>
<b>Team</b>	Calculates the sum, average and weighted average value for the team.
<b>Sum formula</b>	<ul style="list-style-type: none"> <li>• Result = Sum(UValue)</li> <li>• UValue: Value from data</li> </ul>

<b>Average formula</b>	<ul style="list-style-type: none"> <li>• Result = Sum(UValue) / Count</li> <li>• UValue: Value from data</li> <li>• Count: Count value from data</li> </ul>
<b>Weighted average formula</b>	<ul style="list-style-type: none"> <li>• Result = Sum(UValue) / Count</li> <li>• UValue: Value from raw data</li> <li>• Count: Count value from raw data</li> </ul>

## Results metric type calculations

- “Candidate Approved Result” on page 14
- “Candidate Approved Result (Floating Target)” on page 15
- “Utilization Percent (Chargeable, by Hour/Day)” on page 16
- “Utilization Percent (Chargeable, by Period Hours)” on page 17
- “Utilization Percent (by Hour/Day)” on page 18
- “Utilization Percent (by Period Hours)” on page 19

To use these calculations, the following information must be configured in ChangePoint:

- The daily capacity for a resource (specified in the **User Setup** dialog box of the resource)
- The number of annual target hours (specified in the **User Setup** dialog box of the resource)
- The approval lag that determines how late time can be entered (related to resource utilization calculations.)

## Candidate Approved Result

<b>Description</b>	Calculates the monetary value of approved candidates for both individual and team metrics. The calculation is based on the current IPM period.
<b>Code</b>	OWV
<b>Raw Data</b>	OWV = Budget total of the candidate.  <b>Note:</b> Make sure to first update the budget amounts of the candidate so that they reflect the most current non-labor item and service budgeted totals.

<b>Rules</b>	<ul style="list-style-type: none"> <li>• Candidate must be approved.</li> <li>• The actual start date of the candidate must be within the previous or the current period.</li> <li>• The candidate must have been created or updated between the last run time of the calculation engine to the current time.</li> <li>• If data already exists for the candidate in IPIMetricRawData table, delete the old data in this table.</li> <li>• If the actual start date of the candidate is in the previous period, the system recalculates the individual and input MetricData end date value of the previous period for <b>Candidate Approved Result</b> and <b>Candidate Approved Result (Floating Target)</b> for the resource. The team end date values of the previous period for <b>Candidate Approved Result</b> and <b>Candidate Approved Result (Floating Target)</b> which uses the resource as an input is also recalculated.</li> </ul>
<b>Individual</b>	Calculates the average value for each individual.
<b>Formula</b>	<ul style="list-style-type: none"> <li>• <math>\text{Result} = \text{Sum(OWV)} / \text{Count}</math></li> <li>• OWV: Candidate approved value from raw data</li> <li>• Count: Count value of candidate approved from raw data</li> </ul>
<b>Team</b>	Calculate the sum, average and weighted average value for the team.
<b>Sum formula</b>	<ul style="list-style-type: none"> <li>• <math>\text{Result} = \text{Sum(OWV)}</math></li> <li>• OWV: Candidate approved value from data</li> </ul>
<b>Average formula</b>	<ul style="list-style-type: none"> <li>• <math>\text{Result} = \text{Sum(OWV)} / \text{Count}</math></li> <li>• OWV: Candidate approved value from data</li> <li>• Count: Count value of the input individual who has a candidate approved</li> </ul>
<b>Weighted average formula</b>	<ul style="list-style-type: none"> <li>• <math>\text{Result} = \text{Sum(OWV)} / \text{Count}</math></li> <li>• OWV: Candidate approved value from raw data</li> <li>• Count: Count value from raw data</li> </ul>

### Candidate Approved Result (Floating Target)

<b>Description</b>	<p>The calculation is similar to the <b>Candidate Approved Result</b> calculation, except that the target value is based on a pro-rated value over the metric reporting period.</p> <p><b>Example:</b> A client manager has a quota of \$500,000 for the quarter. As of today, it is now 20 days into the reporting period and the target displays \$111,000 (20% of the total). For the candidate approved method, the results display red for most of the beginning of the reporting period, since it takes some time to accumulate the required contracts. Therefore, this method of calculation takes into account the fact that the whole target will not be achieved at the beginning of the period.</p>
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<b>Raw Data</b>	Same as for the <b>Candidate Approved Result</b> calculation.
<b>Current Target Value</b>	<p>The current target value is variable day-to-day. It is based on how many days passed from the beginning of the period.</p> <ul style="list-style-type: none"> <li>CTV = PTV * CD / PD</li> <li>PTV: Period target value</li> <li>CTV: Current target value</li> <li>CD: Days between the beginning of the period to the current date.</li> <li>PD: Days in the period</li> </ul>

### Utilization Percent (Chargeable, by Hour/Day)

<b>Description</b>	<p>Calculates the percentage of chargeable utilization of resources for individual and team metrics.</p> <p>The calculation is based on the current IPM period.</p> <p>The formula calculates the number of chargeable hours and compares it to a resource's daily capacity.</p> <p><b>Example:</b> The resource's daily capacity is 8 hours. The IPM period runs from March 1 to March 31. On March 16, the resource has submitted time for the weeks of March 3 and 10, for a total of 30 approved hours which are both chargeable and utilized. The resource's utilization is 30/ (10 working days * 8 hours).</p>
<b>Code</b>	UTP
<b>Raw Data</b>	<ol style="list-style-type: none"> <li>ElapsedDays = Number of working days for period to date (excludes weekends and system-defined holidays)</li> <li>PeriodTotalHrsToDate = ElapsedDays * ResourceHoursPerDay (daily capacity specified in the <b>User Setup</b> dialog box of the resource)</li> <li>Zero will be used if the daily capacity is not populated, therefore no results are calculated.</li> <li>UTP = <math>\text{sum}((\text{TaskTime} + \text{RequestTime} + \text{NonProjectTime}) - (\text{WriteoffTime} + \text{WriteOffRequestTime})) / (\text{PeriodTotalHrsToDate}) * 100, 0</math></li> <li>TaskTime, RequestTime, NonProjectTime: <ul style="list-style-type: none"> <li><b>Chargeable</b> = YES</li> <li><b>Utilization eligible</b> = YES</li> <li><b>Approved</b> = YES – A user could change the time after it is entered. So approved records are checked between the period start date and today. If users do not enter time during the current week, the utilization decreases.</li> </ul> </li> </ol>
<b>Individual</b>	It calculates the current value for each individual.
<b>Formula</b>	<ul style="list-style-type: none"> <li>Result = UTP</li> <li>UTP: Resource utilization percent value from raw data</li> </ul>
<b>Team</b>	Calculates the sum, average or weighted average for the team.
<b>Sum formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(UTP)</li> <li>UTP: Value of resource utilization percent from data</li> </ul>



<b>Average formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(UTP) / Count for the period.</li> <li>UTP: Value of resource utilization percent from data</li> <li>Count: Count value from data which utilization percent value is not null (based on metric data)</li> </ul>
<b>Weighted average formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(UTP) / Count for a range of dates.</li> <li>UTP: Value of resource utilization percent from data</li> <li>Count: Count value from data which utilization percent value is not null (based on metric raw data)</li> </ul>

## Utilization Percent (Chargeable, by Period Hours)

<b>Description</b>	<p>Calculates the percentage of chargeable utilization of resources for both individual and team metrics. This calculation is based on the current IPM period.</p> <p>This calculation compares actual chargeable utilized hours for a resource with the prorated target for the IPM period.</p> <p><b>Example:</b> The resource's annual target hours is 1,400. The IPM reporting period is February 1 to February 28 and the working days for the year are 248. The calculation runs on February 15, the prorated target number of hours is 10 (elapsed days) / 248 total working days * 1,400 (annual target hours) = 56.45</p> <p>The number of utilized chargeable, approved hours for the period of February 1 to February 15, is divided by the pro-rated target to reach the utilization percent. If the resource enters 45 chargeable utilized hours, the result is 79.72% for the period of February 1 to February 15.</p>
<b>Code</b>	UT3
<b>Raw Data</b>	<ol style="list-style-type: none"> <li>ElapsedDays = Number of working days for period to date (excludes weekends and system required holidays)</li> <li>TotalWorkingdays: Resource total calculated working days in the current year.</li> <li>AnnualTargetHours: Resource total target working hours per year (as specified in the <b>User Setup</b> dialog box of the resource).</li> <li>PeriodTotalHrsToDate = ElapsedDays / TotalWorkingdays * AnnualTargetHours</li> <li>UT3 = <math>\frac{\text{sum}((\text{TaskTime} + \text{RequestTime} + \text{NonProjectTime}) - (\text{WriteoffTime} + \text{WriteOffRequestTime}))}{(\text{PeriodTotalHrsToDate}) * 100}</math></li> <li>TaskTime, RequestTime, NonProjectTime: <ul style="list-style-type: none"> <li><b>Chargeable</b> = YES</li> <li><b>Utilization eligible</b> = YES</li> <li><b>Approved</b> = YES – A user could change the time after it is entered. So approved records are checked between the period start date and today. If resources do not enter time during the current week, the utilization decreases.</li> </ul> </li> </ol>
<b>Individual</b>	Calculates the current value for each individual.
<b>Formula</b>	<ul style="list-style-type: none"> <li>Result = UT3</li> <li>UT3: Resource utilization percent value from raw data.</li> </ul>

<b>Team</b>	Calculates the sum, average and weighted average value for team.
<b>Sum formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(UT3)</li> <li>UT3: Value of resource utilization percent from data.</li> </ul>
<b>Average formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(UT3) / Count for the period.</li> <li>UT3: value of resource utilization percent from data.</li> <li>Count: Count value of resources for which utilization percent value is not null (i.e. one value per resource range).</li> </ul>
<b>Weighted average formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(UT3) / Count for the range of dates.</li> <li>UT3: Value of resource utilization percent from data.</li> <li>Count: Count value of each record for which utilization percent value is not null (i.e. multiple values per resource).</li> </ul>

### Utilization Percent (by Hour/Day)

<b>Description</b>	<p>Calculates the percentage of resource utilization for both individual and team metrics. This calculation is based on the current IPM period.</p> <p>This calculation is the same as <b>Utilization Percent (Chargeable, by Hour/Day)</b> except that actual hours includes all utilized hours, including chargeable and unchargeable.</p>
<b>Code</b>	UT2
<b>Raw Data</b>	<ol style="list-style-type: none"> <li>ElapsedDays = Number of working days for period to date (excludes weekends and system-defined holidays)</li> <li>PeriodTotalHrsToDate = ElapsedDays * ResourceHoursPerDay (daily capacity specified in the <b>User Setup</b> dialog box of the resource).</li> <li>UT2 = <math>\frac{\text{sum}((\text{TaskTime} + \text{RequestTime} + \text{NonProjectTime}) - (\text{WriteoffTime} + \text{WriteOffRequestTime}))}{(\text{PeriodTotalHrsToDate}) * 100}</math></li> <li>TaskTime, RequestTime, NonProjectTime: <ul style="list-style-type: none"> <li><b>Chargeable</b> or <b>Unchargeable</b></li> <li><b>Utilization eligible</b> = YES</li> <li><b>Approved</b> = YES – A user could change the time after it is entered. So approved records are checked between the period start date and today. If resources do not enter time during the current week, the utilization decreases.</li> </ul> </li> </ol>
<b>Individual</b>	Calculates the current value for each individual.
<b>Formula</b>	<ul style="list-style-type: none"> <li>Result = UT2</li> <li>UT2: Resource utilization percent value from raw data.</li> </ul>
<b>Team</b>	Calculates the sum, average and weighted average value for the team.
<b>Sum formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(UT2)</li> <li>UT2: Value of resource utilization percent from data</li> </ul>

<b>Average formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(UT2) / Count for the period.</li> <li>UT2: Value of resource utilization percent from resource data</li> <li>Count: Count value from data which utilization percent value is not NULL</li> </ul>
<b>Weighted average formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(UT2) / Count for a range of dates.</li> <li>UT2: Value of resource utilization percent from row data</li> <li>Count: Count value from data which utilization percent value is not NULL</li> </ul>

## Utilization Percent (by Period Hours)

<b>Description</b>	<p>Calculates the percentage of resource utilization for both individual and team metrics. This calculation is based on the current IPM period.</p> <p>This calculation is the same as <b>Utilization Percent (Chargeable, by Period Hours)</b> except that actual hours includes all utilized hours, including chargeable and unchargeable.</p>
<b>Code</b>	UT4
<b>Raw Data</b>	<ol style="list-style-type: none"> <li>ElapsedDays = Number of working days for period to date (excludes weekends and system defined holidays)</li> <li>TotalWorkingdays: Resource total calculated working days in the current year</li> <li>AnnualTargetHours: Resource total target working hours per year</li> <li>PeriodTotalHrsToDate = ElapsedDays / TotalWorkingdays * AnnualTargetHours</li> <li>UT3 = sum((TaskTime+ RequestTime+ NonProjectTime) – (WriteoffTime+WriteOffRequestTime))/ (PeriodTotalHrsToDate) * 100)</li> <li>TaskTime, RequestTime, NonProjectTime: <ul style="list-style-type: none"> <li><b>Chargeable</b> or <b>Unchargeable</b></li> <li><b>Utilization eligible</b> = YES</li> <li><b>Approved</b> = YES – A user could change the time after it is entered. So approved records are checked between the period start date and today. If resources do not enter time during the current week, the utilization decreases.</li> </ul> </li> </ol>
<b>Individual</b>	Calculates the current value for each individual.
<b>Formula</b>	<ul style="list-style-type: none"> <li>Result = UT4</li> <li>UT4: Resource utilization percent value from raw data</li> </ul>
<b>Team</b>	Calculates the sum, average and weighted average value for team.
<b>Sum formula</b>	<ul style="list-style-type: none"> <li>Result = Sum(UT4)</li> <li>UT4: Value of resource utilization percent from data</li> </ul>

<b>Average formula</b>	<ul style="list-style-type: none"> <li>Result = <math>\text{Sum(UT4)} / \text{Count}</math> for the period</li> <li>UT4: Value of resource utilization percent from resource data</li> <li>Count: Count value from data which utilization percent value is not NULL</li> </ul>
<b>Weighted average formula</b>	<ul style="list-style-type: none"> <li>Result = <math>\text{Sum(UT4)} / \text{Count}</math> for a range of dates.</li> <li>UT4: Value of resource utilization percent from row data</li> <li>Count: Count value from data which utilization percent value is not NULL</li> </ul>

## Client satisfaction calculations

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**Note:** All satisfaction ratings are based on a scale of 1 to 5.

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- “Project Satisfaction by Client” on page 20 – used for project portfolio performance
- “Resource Satisfaction by Client” on page 20 – used for individual and team performance

These calculations use a metric that is inserted from surveys with rating questions that contain a custom tag or prompt tag.

### Project Satisfaction by Client

<b>Description</b>	Calculates the client satisfaction with the work done on a project. The calculation includes responses from contacts or respondents that were manually specified in the survey's list of recipients, and whose email address is not associated with a resource.
<b>Target</b>	Identify the target rating on the project or portfolio level.
<b>Actual</b>	Average project satisfaction rating from the surveys selected on the metric template, where the responses were provided in the specified time interval ( <b>Results from last days</b> field). All rating questions tagged against a project are included in the calculation.
<b>Formula</b>	Variance = Actual – Target
<b>Scenario</b>	<ul style="list-style-type: none"> <li>Actual project satisfaction rating: 3</li> <li>Target satisfaction rating: 4</li> </ul> <p>Calculation Variance: <math>3 - 4 = -1</math></p> <p>In this calculation, a negative number is a poor result if 1 is considered bad and 5 is considered good.</p>

### Resource Satisfaction by Client

<b>Description</b>	The formula calculates the client satisfaction rating value for both individual and team metrics. This calculation is based on the current IPM period. The calculation includes responses from contacts or respondents that were manually specified in the survey's list of recipients.
<b>Code</b>	CFS
<b>Raw Data</b>	<ul style="list-style-type: none"> <li>CFS = Rating value from survey responses by clients</li> </ul>

<b>Individual</b>	<b>Client feedback</b> Calculates the average value for each individual.
<b>Formula</b>	<ul style="list-style-type: none"> <li>Result = <math>\text{Sum}(\text{CFS}) / \text{Count}</math></li> <li>CFS: Ratings from client who responded to a survey</li> <li>Count: Number of responses against that individual</li> </ul>
<b>Team</b>	Calculates the sum, average and weighted average value for each team.
<b>Sum formula</b>	<ul style="list-style-type: none"> <li>Result = <math>\text{Sum}(\text{CFS})</math></li> <li>CFS: Rating value from data.</li> </ul>
<b>Average formula</b>	<ul style="list-style-type: none"> <li>Result = <math>\text{Sum}(\text{CFS}) / \text{Count}</math></li> <li>CFS: Client satisfaction rating value from metric data</li> <li>Count: Number of individuals who are inputs to the metric and who have an average rating</li> </ul>
<b>Weighted average formula</b>	<ul style="list-style-type: none"> <li>Result = <math>\text{Sum}(\text{CFS}) / \text{Count}</math></li> <li>CFS: Rate value from raw data</li> <li>Count: Number of rating records from the raw data</li> </ul>

## Peer Feedback calculations

- “Project Satisfaction by Resource” on page 21 – used for project portfolio performance
- “Resource Satisfaction by Peer” on page 21 – used for IPM

These calculations use a metric that is inserted from surveys that have rating questions containing a custom tag. For more information, see “prompt tags”.

## Project Satisfaction by Resource

<b>Description</b>	The formula calculates the resource satisfaction with the quality of work done on the project. The calculation includes responses from internal resources.
<b>Target</b>	Identify the target projects on the project or portfolio level.
<b>Actual</b>	Project satisfaction rating
<b>Formula</b>	Variance = Actual – Target
<b>Scenario</b>	<ul style="list-style-type: none"> <li>Actual project satisfaction rating: 3</li> <li>Target satisfaction rating: 4</li> </ul> Calculation Variance: $3 - 4 = -1$ In this calculation, a negative number is a poor result if 1 is considered bad and 5 is considered good.

## Resource Satisfaction by Peer

<b>Description</b>	Calculates the peer satisfaction rating value for both individual and team metrics. This calculation is based on the current IPM period and includes responses from internal resources.
<b>Code</b>	PFS

<b>Raw Data</b>	<ul style="list-style-type: none"> <li>PFS= Rating value from surveys responded by other resources</li> </ul>
<b>Individual</b>	<b>Peer feedback</b> Calculates the average value for each individual.
<b>Formula</b>	<ul style="list-style-type: none"> <li>Result = <math>\text{Sum(PFS)} / \text{Count}</math></li> <li>PFS: Ratings from resources who responded to a survey</li> <li>Count: Number of responses</li> </ul>
<b>Team</b>	Calculates the sum, average and weighted average value for each team.
<b>Sum formula</b>	<ul style="list-style-type: none"> <li>Result = <math>\text{Sum(PFS)}</math></li> <li>PFS: Rate value from data</li> </ul>
<b>Average formula</b>	<ul style="list-style-type: none"> <li>Result = <math>\text{Sum(PFS)} / \text{Count}</math></li> <li>PFS: Peer feedback rating value from data</li> <li>Count: Count value of input by the individual who has the average rate value from a survey responded to by a peer</li> </ul>
<b>Weighted average formula</b>	<ul style="list-style-type: none"> <li>Result = <math>\text{Sum(PFS)} / \text{Count}</math></li> <li>PFS: Rating value from raw data</li> <li>Count: Count value from raw data</li> </ul>

## Project calculations

- “Project Portfolio Metric - Budgeted Charge” on page 23
- “Project Portfolio Metric - Budgeted Charge vs. Estimate-to-Completion Charge” on page 24
- “Project Portfolio Metric - Budgeted Charge vs. Estimate-to-Completion Charge (with Request Charge)” on page 26
- “Project Portfolio Metric - Budgeted Cross Charge Amount vs. Recognized Revenue” on page 29
- “Project Portfolio Metric - Budgeted Cost” on page 30
- “Project Portfolio Metric - Budgeted Cost (with Request Cost)” on page 31
- “Project Portfolio Metric - Budgeted Capital Cost” on page 32
- “Project Portfolio Metric - Budgeted Non-Capital Cost” on page 32
- “Project Portfolio Metric - Budgeted Effort” on page 33
- “Project Portfolio Metric - Budgeted Effort (with Request Effort)” on page 33
- “Project Portfolio Metric - Budgeted Schedule” on page 34
- “Project Portfolio Metric - Budgeted vs. Estimate-to-Completion Cost” on page 34
- “Project Portfolio Metric - Budgeted vs. Estimate-to-Completion Effort” on page 35
- “Project Portfolio Metric - Planned Charge” on page 35
- “Project Portfolio Metric - Planned Cross Charging vs. Estimate-to-Completion Cross Charging” on page 36
- “Project Portfolio Metric - Planned Charge vs. Estimate-to-Completion Charge (with Request Charge)” on page 37
- “Project Portfolio Metric - Planned Charge vs. Recognized Revenue” on page 40

- “Project Portfolio Metric - Planned Cost” on page 41
- “Project Portfolio Metric - Planned Cost (with Request Cost)” on page 41
- “Project Portfolio Metric - Planned Effort” on page 42
- “Project Portfolio Metric - Planned Effort (with Request Effort)” on page 42
- “Project Portfolio Metric - Planned Schedule” on page 42
- “Project Portfolio Metric - Planned vs. Estimate-to-Completion Cost” on page 43
- “Project Portfolio Metric - Planned vs. Estimate-to-Completion Effort” on page 43
- “Project User-Entered (Actual, Average and Sum)” on page 44

## Project Portfolio Metric - Budgeted Charge

<b>Description</b>	Calculates how closely the actual project cross charge amount compares to the budgeted project cross charge amount. This calculation uses monetary amounts in the portfolio currency.
<b>Code</b>	BBA
<b>Target</b>	<p><b>Budgeted Cross Charge Amount</b></p> <ol style="list-style-type: none"> <li>1. Finds the total budgeted cross charge amount for the project, including services, fixed fees, expenses and non-labor items.</li> <li>2. If there are budget revisions, the latest budget revision for each budget is used. If a revision type is selected on the metric template, then the latest budget revision for that revision type is used.</li> </ol> <p>For target amounts, data from the budget is used as follows:</p> <ul style="list-style-type: none"> <li>• <b>Budget services:</b> Budgeted hours * Budgeted net cross charge rate</li> <li>• <b>Budget fixed fees:</b> Budgeted fixed fee amount</li> <li>• <b>Budget Non-labor costs:</b> Budgeted non-labor cost quantity * Budgeted gross non-labor cost * Budgeted non-labor cost percentage * Budgeted non-labor cost discount * Budgeted cross charge non-labor costs (set to either 1 or 0).</li> <li>• <b>Budget non-labor items:</b> Budgeted non-labor item quantity * Budgeted net non-labor item charge amount.</li> </ul>

<b>Actual</b>	<p><b>Actual cross charge amounts</b></p> <p>The calculation totals the actual cross charge amounts for the project. Only cross charged amounts are included as follows:</p> <ul style="list-style-type: none"> <li>• <b>Cross charged time:</b> Cross charged amount for all time records of the project.</li> <li>• <b>Cross charged fixed fees:</b> Cross charged fixed fee amount, pro-rated to each project based on the tasks associated with the project and the tasks' ratio of actual hours versus the total actual hours. Example: if project A has a task associated to the fixed fee and has 40 hours out of the total 400 hours from all tasks associated with the fixed fee, it receives 10% of the cross charged fixed fee amount.</li> <li>• <b>Cross charged expenses:</b> Cross charged amount for all expenses of the project.</li> <li>• <b>Cross charged non-labor items:</b> Cross charged amount for initiative non-labor items associated with the project.</li> </ul> <p>The fiscal period amounts are based on the cross charge date of the time records, expenses, fixed fees or non-labor items.</p>
<b>Formula</b>	<p><b>Variance = Actual – Target</b></p> <p>The <b>PF_BudgetvsActual</b> stored procedure provides all budgeted cross charge amounts and actual cross charge information for the project.</p>
<b>Scenario</b>	<ul style="list-style-type: none"> <li>• Actual cross charge amount (Actual) is 10</li> <li>• Budgeted cross charge amount (Target) is 12</li> </ul> <p>Calculation  <math>10 - 12 = -2</math></p>

## Project Portfolio Metric - Budgeted Charge vs. Estimate-to-Completion Charge

<b>Description</b>	<p>Determines if the project cross charge amount is what the team expected.</p> <p>This calculation uses monetary amounts in the portfolio currency.</p>
<b>Code</b>	BBE
<b>Target</b>	<p><b>Budgeted Cross Charge Amount</b></p> <ol style="list-style-type: none"> <li>1. Find the total budgeted cross charge amount on the project, including services, expenses and non-labor items.</li> <li>2. If there are budget revisions, the latest budget revision for each budget is used. If a revision type is selected on the metric template, then the latest budget revision for that revision type is used.</li> </ol> <p>For target amounts, data from the budget will be used as follows:</p> <ul style="list-style-type: none"> <li>• <b>Budget services:</b> Budgeted hours * Budgeted net cross charge rate.</li> <li>• <b>Budget fixed fees:</b> Budgeted fixed fee amount.</li> <li>• <b>Budget Non-labor costs:</b> Budgeted non-labor cost quantity * Budgeted gross non-labor cost * Budgeted non-labor cost percentage * Budgeted non-labor cost discount * Budgeted cross charge non-labor costs (set to either 1 or 0).</li> <li>• <b>Budget non-labor items:</b> Budgeted non-labor item quantity * Budgeted net non-labor item charge amount.</li> </ul>



<b>Actual</b>	<p><b>cross charge amount + Uncharged cross charge total</b></p> <p>The calculation sums up the actual cross charge amounts for the project. The remaining total of the uncharged cross charge amount is added.</p> <p><b>Actual Cross Charge Amounts</b></p> <ul style="list-style-type: none"> <li>• <b>Cross charged time:</b> Cross charged amount for all time records of the project.</li> <li>• <b>Cross charged fixed fees:</b> Cross charged fixed fee amount, pro-rated to each project based on the tasks associated with the project and the tasks' ratio of actual hours versus the total actual hours. Example: if project A has a task associated to the fixed fee and has 40 hours out of the total 400 hours from all tasks associated with the fixed fee, it receives 10% of the cross charged fixed fee amount.</li> <li>• <b>Cross charged expenses:</b> Cross charged amount for all expenses of the project.</li> <li>• <b>Cross charged non-labor items:</b> Cross charged amount for initiative non-labor items associated with the project.</li> </ul> <p>The fiscal period amounts are based on the charge date of the time records, expenses, fixed fees or non-labor items.</p>
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	<p>Uncharged cross charge and forecast amounts</p> <ul style="list-style-type: none"> <li>• <b>Services:</b> Cross charged amounts + Uncharged hours * Cross charge rate + Resource forecast remaining hours * Cross charge rate (as calculated based on the effective-dated cross charge rate). Cross charged and uncharged amounts are put into fiscal periods based on the cross charge date for cross charged amounts and the current date (such as the date the job runs) for uncharged amounts. The forecast remaining hours are spread between the start and end dates and the cross charge rates are assigned based on the effective rate corresponding to the fiscal period's date.</li> <li>• <b>Fixed fees:</b> Cross charged fixed fee amount + Uncharged fixed fee amount (only includes fixed fee amounts not marked as do not cross charge), pro-rated based on the project's hours that are associated with the fixed fee versus the total hours associated with the fixed fee. Cross charged and uncharged amounts are put into fiscal periods based on the cross charge date for cross charged amounts or on the fixed fee cross charge date for those that are uncharged.</li> <li>• <b>Expenses:</b> Cross charged expense amount + uncharged expense amount (expense cost * expense quantity * expense multiplier * Chargeable flag (1 or 0)). Cross charged and uncharged amounts are put into fiscal periods based on the cross charge date for cross charged amounts and the current date (such as the date the job runs) for uncharged amounts.</li> <li>• <b>Non-labor item:</b> Cross charged non-labor item amount + Uncharged non-labor item amount (quantity * charge amount for initiative non-labor items for which the <b>Do not charge</b> check box is cleared) for initiative non-labor items associated with the project. Cross charged and uncharged amounts are put into fiscal periods based on the cross charge date for cross charged amounts or on the cross charge date for those that are uncharged.</li> </ul>
<b>Formula</b>	<p><b>Variance = Actual – Target</b></p> <ul style="list-style-type: none"> <li>• The PF_BudgetvsActual stored procedure will provide all budget cross charge amount and actual cross charge amount information for the project.</li> <li>• The PFUnInvoicedAmount stored procedure calculates the uncharged cross charge amount.</li> </ul>

### Project Portfolio Metric - Budgeted Charge vs. Estimate-to-Completion Charge (with Request Charge)

<b>Description</b>	<p>Determines if the project cross charge amount is what the team expected. This calculation uses monetary amounts in the portfolio currency.</p>
<b>Code</b>	BBR

<b>Target</b>	<p><b>Budgeted cross charge amount</b></p> <ol style="list-style-type: none"> <li>1. Find the total budgeted cross charge amount on the project, including services, expenses and non-labor items.</li> <li>2. If there are budget revisions, the latest budget revision for each budget is used. If a revision type is selected on the metric template, then the latest budget revision for that revision type is used.</li> </ol> <p>For target amounts, data from the budget will be used as follows:</p> <ul style="list-style-type: none"> <li>• <b>Budget services:</b> Budgeted hours * Budgeted net cross charge rate.</li> <li>• <b>Budget fixed fees:</b> Budgeted fixed fee amount.</li> <li>• <b>Budget Non-labor costs:</b> Budgeted non-labor cost quantity * Budgeted gross non-labor cost * Budgeted non-labor cost percentage * Budgeted non-labor cost discount * Budgeted cross charge non-labor costs (set to either 1 or 0).</li> <li>• <b>Budget Non-labor items:</b> Budgeted non-labor item quantity * Budgeted net non-labor item charge amount.</li> </ul>
<b>Actual</b>	<p><b>Actual cross charge amount + Uncharged cross charge amount + Request time cross charge amount</b></p> <p>The calculation sums up the actual cross charge amounts for the project. The remaining total of the uncharged charge amount is added. The cross charge amounts of request time entered against requests for the selected project is also added.</p> <p><b>Actual Cross Charge Amounts</b></p> <ul style="list-style-type: none"> <li>• <b>Cross charged time:</b> Cross charged amount for all time records of the project.</li> <li>• <b>Cross charged fixed fees:</b> Cross charged fixed fee amount, pro-rated to each project based on the tasks associated with the project and the tasks' ratio of actual hours versus the total actual hours. For example: if project A has a task associated with a fixed fee and has 40 hours out of the total 400 hours from all tasks associated with the fixed fee, it receives 10% of the cross charged fixed fee amount).</li> <li>• <b>Cross charged expenses:</b> Cross charged amount for all expenses of the project.</li> <li>• <b>Cross charged non-labor items:</b> Cross charged amount for initiative non-labor items associated with the project.</li> </ul> <p>The fiscal period amounts are based on the cross charge date of the time records, expenses, fixed fees or non-labor items.</p>

	<p><b>Uncharged cross charge and forecast amounts</b></p> <ul style="list-style-type: none"> <li>• <b>Services:</b> Cross charged amounts + Uncharged hours * the cross charge rate + the resource forecast remaining hours * the cross charge rate (as calculated based on the effective-dated cross charge rate). Cross charged and uncharged amounts are put into fiscal periods based on the charge date for cross charged amounts and the current date (such as the date the job runs) for uncharged amounts. The forecast remaining hours are spread between the start and end dates and the cross charge rates are assigned based on the effective rate corresponding to the fiscal period's date.</li> <li>• <b>Fixed fees:</b> Cross charged fixed fee amount + Uncharged fixed fee amount (only includes fixed fee amounts not marked as do not cross charge), pro-rated based on the project's hours that are associated with the fixed fee versus the total hours associated with the fixed fee. Cross charged and uncharged amounts are put into fiscal periods based on the charge date for cross charged amounts or on the fixed fee cross charge date for those that are uncharged.</li> <li>• <b>Expenses:</b> Cross charged expense amount + Uncharged expense amount (expense cost * expense quantity * expense multiplier * Chargeable flag (1 or 0)). Cross charged and uncharged amounts are put into fiscal periods based on the cross charge date for cross charged amounts and the current date (such as the date the job runs) for uncharged amounts.</li> <li>• <b>Non-labor item:</b> Cross charged non-labor item amount + Uncharged non-labor item amount (quantity * non-labor item charge amount of initiatives for which the <b>Do not charge</b> check box is cleared) for initiative non-labor items associated with the project. Cross charged and uncharged amounts are put into fiscal periods based on the cross charge date for cross charged amounts or on the cross charge date for those that are uncharged.</li> </ul>
	<p><b>Request time cross charge amount</b></p> <p><b>Requests:</b> Cross charge amount of requests logged against the project (Request time * Cross charge rate as stored in the RequestTime table, for both cross charged and uncharged request time). The initiative request actuals total on the portfolio summary page will show the cross charge amount for all request time for requests not associated to projects (same as the cost metrics do currently).</p>
<b>Formula</b>	<p><b>Variance = Actual – Target</b></p> <ul style="list-style-type: none"> <li>• The BU_BudgetvsActual stored procedure provides all budget cross charge amount and actual cross charge amount information for the project.</li> <li>• The PFUnInvoicedAmount calculates the uncharged cross charge amount.</li> <li>• The PFRequestBillingAmt stored procedure provides the request time cross charge amount</li> </ul>

## Project Portfolio Metric - Budgeted Cross Charge Amount vs. Recognized Revenue

<b>Description</b>	Compares recognized revenue with the budgeted cross charge amount of projects. This calculation uses monetary amounts in the portfolio currency.
<b>Code</b>	BRV
<b>Target</b>	<p><b>Budgeted cross charge amount</b></p> <ol style="list-style-type: none"> <li>1. Finds the total budgeted cross charge amount on the project, including services, fixed fees, expenses and non-labor items. The PF_BudgetvsActual stored procedure will provide all budgeted cross charge amounts and actual cross charge information for the project.</li> <li>2. If there are budget revisions, the latest budget revision for each budget is used. If a revision type is selected on the metric template, then the latest budget revision for that revision type is used.</li> </ol> <p>For target amounts, data from the budget will be used as follows:</p> <ul style="list-style-type: none"> <li>• <b>Budget services:</b> Budgeted hours * Budgeted net cross charge rate.</li> <li>• <b>Budget fixed fees:</b> Budgeted fixed fee amount.</li> <li>• <b>Budget Non-labor costs:</b> Budgeted non-labor cost quantity * Gross non-labor cost * Non-labor cost percentage * Non-labor cost discount * Cross charged non-labor costs (set to either 1 or 0).</li> <li>• <b>Budget Non-labor item:</b> Non-labor item quantity * Non-labor item charge amount net.</li> </ul>

<b>Actual</b>	<p><b>Actual Recognized Revenue Amount</b></p> <p>The calculation totals recognized revenue actuals for the project, including all time entered (chargeable, unchargeable and fixed fee), expenses, and non-labor items including materials.</p> <p>The calculation takes all rows from the RevenueDetails table for the given project, where the fixed fee ID and the initiative non-labor item ID have a NULL value and rows that contain an initiative non-labor item ID, where the initiative ID is the same as the project.</p> <p>The revenue amount (which is converted to the portfolio currency) will be included in the appropriate fiscal period based on the posting date associated with the revenue amount. This includes revenue adjustments for initiative non-labor items.</p> <p>For rows in the RevenueDetails table, where there is a fixed fee ID, the initiative ID is the same as the project, and the revenue method on the fixed fee is effort expended; the calculation takes the sum of the recognized amounts from the Time table for the project ID and fixed fee ID (using the RevFixedFeeID field in the Time table).</p> <p>If the revenue method on the fixed fee is <b>Physical percent complete, \$X recognized</b> or <b>X% recognized</b>, the calculation takes the sum of the planned hours for tasks associated with the fixed fee for that project, divided by the sum of planned hours for all tasks associated with the fixed fee, multiplied by the revenue recognized amount from the RevenueDetails table.</p> <p>For revenue adjustments, the calculation takes the sum of planned hours for tasks associated with the fixed fee for that project, divided by the sum of planned hours for all tasks associated with the fixed fee, multiplied by the revenue adjustment amount from the RevenueDetails table.</p>
<b>Formula</b>	<p><b>Variance = Actual – Target</b></p> <ul style="list-style-type: none"> <li>• The PFRevRecAmount stored procedure will determine recognized revenue actual amount</li> <li>• The PF_BudgetVsActual stored procedure determines the budgeted cross charge amount</li> </ul>
<b>Scenario</b>	<ul style="list-style-type: none"> <li>• Recognized revenue (Actual) is 10</li> <li>• Budgeted cross charge amount (Target) is 12</li> </ul> <p>Calculation 10 – 12= -2</p>

### Project Portfolio Metric - Budgeted Cost

<b>Description</b>	<p>The formula evaluates if the project cost is what the team expected.</p> <p>This calculation uses monetary amounts in the portfolio currency.</p>
<b>Code</b>	PCT

<b>Target</b>	<p><b>If budgeting is used:</b></p> <ol style="list-style-type: none"> <li>1. The calculation determines the total budgeted cost for the project, including services, expenses and non-labor items. The PF_BudgetvsActual stored procedure provides all budgeted cost and actual cost information for the project.</li> <li>2. If the budget was revised, the latest revision of a budget is used. If a revision type is selected on the metric template, then the latest budget revision for that revision type is used.</li> </ol> <p><b>If budgeting is not used:</b></p> <p>The calculation uses the sum of the amounts in the project budget fields and converts the amount from the initiative currency in the portfolio currency.</p> <p><b>Note:</b> For budgeted services, the portfolio cost calculation uses either resource-based or staffing level-based cost rates, as defined for the cost structure.</p>
<b>Actual</b>	<p>The calculation totals the actual costs for project time (including chargeable, unchargeable and fixed fee), expenses, and non-labor items (including material costs).</p> <p>Existing stored procedure: PF_BudgetvsActual rolled up subproject</p>
<b>Formula</b>	Variance = Actual – Target
<b>Scenario</b>	<ul style="list-style-type: none"> <li>• Actual Cost is 10</li> <li>• Target is 12</li> </ul> <p>Calculation 10 – 12= -2</p>

### Project Portfolio Metric - Budgeted Cost (with Request Cost)

<b>Description</b>	<p>Determines if the project cost is what the team expected. This calculation uses monetary amounts in the portfolio currency.</p>
<b>Code</b>	CBR
<b>Target</b>	<p><b>If budgeting is used:</b></p> <ol style="list-style-type: none"> <li>1. The calculation determines the total budgeted cost for the project, including services, expenses and non-labor items. The PF_BudgetvsActual stored procedure provides all budgeted cost and actual cost information for the project.</li> <li>2. If the budget was revised, the latest budget revision for the budget is used. If a revision type is selected on the metric template, then the latest budget revision for that revision type is used.</li> </ol> <p><b>If budgeting is not used:</b></p> <p>The calculation uses the sum of the amounts in the project budget fields and converts the amount from the initiative currency in the portfolio currency.</p> <p><b>Note:</b> For budgeted services, the portfolio cost calculation uses either resource-based or staffing level-based cost rates, as defined for the cost structure.</p>

<b>Actual</b>	The calculation totals the actual cost for the project time (including chargeable, unchargeable and fixed fee), expenses, and non-labor items (including material costs). The cost of the time entered for requests is added. Existing stored procedure: PF_BudgetvsActual rolled up subproject
<b>Formula</b>	Variance = Actual – Target

## Project Portfolio Metric - Budgeted Capital Cost

<b>Description</b>	This calculation determines if the project cost is what the team expected. This calculation uses monetary amounts in the portfolio currency.
<b>Code</b>	CBC
<b>Target</b>	The calculation includes budgeted items that are marked as a capital cost. If budgeting is used, the cost target is set to 0. If no budgeting is used, and there is no cost target specified, the cost target is set to 0.  <b>Note:</b> For budgeted services, cost rates are either resource-based or staffing level-based, as defined for the cost structure.
<b>Actual</b>	The calculation totals the actual cost for the project time (including chargeable, unchargeable and fixed fee), expenses, and non-labor items (including material costs). The calculation only includes amounts that are marked as a capital cost. If the <b>Consider request time as a capital cost</b> check box is selected in the initiative, the cost of the time entered for the request is included in the calculation. Existing stored procedure: PF_BudgetvsActual rolled up subproject.
<b>Formula</b>	Variance = Actual – Target

## Project Portfolio Metric - Budgeted Non-Capital Cost

<b>Description</b>	Determines if the project cost is what the team expected. This calculation uses monetary amounts in the portfolio currency.
<b>Code</b>	CBN
<b>Target</b>	The calculation includes budgeted items that are <i>not</i> marked as a capital cost. If no budgeting is used, the cost target is set to 0. If budgeting is used, but no value for the cost target, the cost target is set to 0.  <b>Note:</b> For budgeted services, cost rates are either resource-based or staffing level-based, as defined for the cost structure.



<b>Actual</b>	<p>The calculation totals the actual costs for the project time (including chargeable, unchargeable and fixed fee), expenses, and non-labor items (including material costs).</p> <p>The calculation only includes amounts that are <i>not</i> marked as a capital cost.</p> <p>If the <b>Consider request time as a capital cost</b> check box is deselected in the initiative, the cost of the time entered for the request is included in the calculation.</p> <p>Existing stored procedure: PF_BudgetvsActual rolled up subproject.</p>
<b>Formula</b>	Variance = Actual – Target

### Project Portfolio Metric - Budgeted Effort

<b>Description</b>	Determines if the project is taking more effort than originally planned.
<b>Code</b>	PEB
<b>Target</b>	The calculation uses the number of budgeted hours from the latest budgeted revision. If a revision type is selected on the metric template, then the latest budget revision for that revision type is used.
<b>Actual</b>	Actual number of hours in the project. The portfolio project rollup scheduled job calculates this value.
<b>Formula</b>	Variance = Actual – Target
<b>Scenario</b>	<ul style="list-style-type: none"> <li>Actual = 10 Actual Hours</li> <li>Target = Planned Hours = 40</li> </ul> <p>Calculation Variance = 10 – 40 = -30</p>

### Project Portfolio Metric - Budgeted Effort (with Request Effort)

<b>Description</b>	<p>The calculation determines if the project is taking more effort than originally planned.</p> <p>This calculation uses hours (or days, if planning in days is used)</p>
<b>Code</b>	EBR
<b>Target</b>	The calculation uses the number of budgeted hours from the latest budgeted revision. If a revision type is selected on the metric template, then the latest budget revision for that revision type is used. The cost of request time to actuals is added.
<b>Actual</b>	Set ActualHours to the Task.RollupActualHours plus Request Time.
<b>Formula</b>	Variance = Actual – Target

## Project Portfolio Metric - Budgeted Schedule

<b>Description</b>	Determines if the project is on schedule.
<b>Code</b>	PSB
<b>Target</b>	This calculation uses the end date (or the end date of the latest budget revision) of the project budget.
<b>Actual</b>	This calculation uses the latest forecast end date (uses actual if entered) from all task assignments. The portfolio project rollup job calculates this value.
<b>Formula</b>	Variance = Number of working days between Actual and Target Total days does not exclude weekends and any nonworking days as set up in non-project time, i.e. non-project time flagged against a specific date.
<b>Scenario</b>	<ul style="list-style-type: none"> <li>Actual: Forecast End: January 15</li> <li>Target: Planned End: January 10</li> </ul> Calculation Actual – Target = 5 days over

## Project Portfolio Metric - Budgeted vs. Estimate-to-Completion Cost

<b>Description</b>	Determines if the project cost is what the team expected. This calculation uses monetary amounts in the portfolio currency.
<b>Code</b>	CBE
<b>Target</b>	<p><b>If budgeting is used:</b></p> <ol style="list-style-type: none"> <li>The calculation determines the total budgeted cost for the project, including services, expenses and non-labor items. The PF_BudgetvsActual stored procedure provides all budgeted cost and actual cost information for the project.</li> <li>If the budget was revised, the latest revision for a budget is used. If a revision type is selected on the metric template, then the latest budget revision for that revision type is used.</li> </ol> <p><b>If budgeting is not used:</b> The calculation converts the sum of the amounts in the project budget fields from the initiative currency to the portfolio currency.</p> <p><b>Note:</b> For budgeted services, cost rates are either resource-based or staffing level-based, as defined for the cost structure.</p>
<b>Actual</b>	The calculation totals the actual costs for the project time (including chargeable, unchargeable and fixed fee), expenses, and non-labor items (including material costs). The cost of the forecast remaining hours is added. Existing stored procedure: PF_BudgetvsActual rolled up subproject.
<b>Formula</b>	Variance = Actual – Target

## Project Portfolio Metric - Budgeted vs. Estimate-to-Completion Effort

<b>Description</b>	Compares the project effort with the budgeted effort.
<b>Code</b>	EBE
<b>Target</b>	The calculation uses the number of budgeted hours from the latest budget revision. If a revision type is selected on the metric template, then the latest budget revision for that revision type is used.
<b>Actual</b>	Actual number of hours in the project. The portfolio project rollup job calculates this value. Remaining hours are added.
<b>Formula</b>	Variance = Actual – Target

## Project Portfolio Metric - Planned Charge

<b>Description</b>	Compares the planned project cross charge amounts with the actual cross charge amounts. This calculation uses monetary amounts in the portfolio currency.
<b>Code</b>	PBA
<b>Target</b>	<b>Planned cross charge amount</b> Calculation: Total planned hours for each task assignment * Resource's current cross charge rate (based on the date the process is run), converted to the portfolio currency. The total planned cross charge amount is the sum of all task assignments.
<b>Actual</b>	<b>Actual cross charge amount</b> The calculation totals the actual cross charge amount for the project. Only cross charged amounts are included as follows: <ul style="list-style-type: none"> <li>• <b>Cross charged time:</b> Cross charged cross charge amount for all time records of the project.</li> <li>• <b>Cross charged fixed fees:</b> Cross charged fixed fee amount, pro-rated to each project based on the tasks associated with the project and the tasks' ratio of actual hours versus the total actual hours. Example: if project A has a task associated to the fixed fee and has 40 hours out of the total 400 hours from all tasks associated with the fixed fee, it will receive 10% of the cross charged fixed fee amount).</li> <li>• <b>Cross charged expenses:</b> Cross charged amount for all expenses of the project.</li> <li>• <b>Cross charged non-labor items:</b> Cross charged amount for initiative non-labor items associated with the project.</li> </ul> The fiscal period amounts are based on the cross charge date of the time records, expenses, fixed fees or non-labor items.
<b>Formula</b>	<b>Variance = Actual – Target</b> <ul style="list-style-type: none"> <li>• The actual cross charge amount (actual) is calculated using the PF_BudgetvsActual stored procedure.</li> <li>• The planned cross charge amount (target) is calculated using the PFPlanningBillingAmt stored procedure.</li> </ul>

## Project Portfolio Metric - Planned Cross Charging vs. Estimate-to-Completion Cross Charging

<b>Description</b>	<p>Compares the planned project cross charge amounts with the actual cross charge amounts, plus the remaining cross charge amounts.</p> <p>This calculation uses monetary amounts in the portfolio currency.</p>
<b>Code</b>	PBE
<b>Target</b>	<p><b>Planned Cross Charge Amount</b></p> <p>Calculation: total planned hours for each task assignment * Resource's current cross charge rate (based on the date the process is run), converted to the portfolio currency.</p> <p>The total planned cross charge amount is the sum of all task assignments.</p>
<b>Actual</b>	<p><b>Actual cross charge amount + Uncharged cross charge amount</b></p> <p>The calculation totals the actual cross charge amounts for the project, as follows:</p> <ul style="list-style-type: none"> <li>• <b>Cross charged hours:</b> Cross charged cross charge amount for all time records of the project.</li> <li>• <b>Cross charged fixed fees:</b> Cross charged fixed fee amount, pro-rated to each project based on the tasks associated with the project and the tasks' ratio of actual hours versus the total actual hours. Example: if project A has a task associated to the fixed fee and has 40 hours out of the total 400 hours from all tasks associated with the fixed fee, it will receive 10% of the cross charged fixed fee amount.</li> <li>• <b>Cross charged expenses:</b> Cross charged amount for all expenses of the project.</li> <li>• <b>Cross charged non-labor items:</b> Cross charged amount for initiative non-labor items associated with the project.</li> </ul> <p>The fiscal period amounts are based on the cross charge date of time records, expenses, fixed fees or non-labor items.</p>

<b>Actual</b>	<p><b>Uncharged cross charge and forecast amounts</b></p> <ul style="list-style-type: none"> <li>• <b>Services:</b> Cross charged amounts + Uncharged hours * Cross charge rate + Resource forecast remaining hours * Cross charge rate (as calculated based on the effective-dated cross charge rate). Cross charged and uncharged amounts are put into fiscal periods based on the cross charge date for cross charged amounts and the current date (i.e. the date the job runs) for uncharged amounts. The forecast remaining hours are spread between the start and end dates and the cross charge rates are assigned based on the effective rate corresponding to the fiscal period's date.</li> <li>• <b>Fixed fees:</b> Cross charged fixed fee amount + Uncharged fixed fee amount (only includes fixed fee amounts not marked as <b>Do not cross charge</b>), pro-rated based on the project's hours that are associated with the fixed fee versus the total hours associated with the fixed fee. Cross charged and uncharged amounts are put into fiscal periods based on the cross charge date for cross charged amounts or on the fixed fee cross charge date for those that are uncharged.</li> <li>• <b>Expenses:</b> Cross charged expense amount + Uncharged expense amount (expense cost * expense quantity * expense multiplier * Chargeable flag (1 or 0)). Cross charged and uncharged amounts are put into fiscal periods based on the cross charge date for cross charged amounts and the current date (i.e. the date the job runs) for uncharged amounts.</li> <li>• <b>Non-labor item:</b> Cross charged non-labor item amount + Uncharged non-labor item amount (quantity * charge amount for initiative non-labor items not marked as "do not charge") for initiative non-labor items associated with the project. Cross charged and uncharged amounts are put into fiscal periods based on the cross charge date for cross charged amounts or on the cross charge date for those that are uncharged.</li> </ul>
<b>Formula</b>	<p><b>Variance = Actual – Target</b></p> <ul style="list-style-type: none"> <li>• The PF_BudgetvsActual stored procedure calculates the actual cross charge amount.</li> <li>• The PFUnInvoicedAmount stored procedure calculates the uncharged charge amount.</li> <li>• The PFPlanningBillingAmt stored procedure calculates the planned cross charge amount.</li> </ul>

### Project Portfolio Metric - Planned Charge vs. Estimate-to-Completion Charge (with Request Charge)

<b>Description</b>	Compares the planned project cross charge amount with the actual cross charge amount, plus the remaining cross charge amount, plus request time cross charge amount. This calculation uses monetary amounts in the portfolio currency.
<b>Code</b>	PBR

<b>Target</b>	<p><b>Planned cross charge amount</b></p> <p>Calculation: Total planned hours of each task assignment * Resource's current cross charge rate (based on the date the process is run), converted to the portfolio currency. The total planned cross charge amount is the sum of all task assignments.</p>
<b>Actual</b>	<p><b>Actual cross charge amount + Uncharged cross charge amount + Request time cross charge amount</b></p> <p>The calculation sums up the actual cross charge amounts for the project, as follows:</p> <ul style="list-style-type: none"> <li>• <b>Cross charged time:</b> Cross charged amount for all time records associated with the project.</li> <li>• <b>Cross charged fixed fees:</b> Cross charged fixed fee amount, pro-rated to each project based on the tasks associated with the project and the tasks' ratio of actual hours versus the total actual hours. For example: if project A has a task associated to the fixed fee and has 40 hours out of the total 400 hours from all tasks associated with the fixed fee, it will receive 10% of the cross charged fixed fee amount).</li> <li>• <b>Cross charged expenses:</b> Cross charged amount for all expenses of the project.</li> <li>• <b>Cross charged non-labor items:</b> Cross charged amount for initiative non-labor items of the project.</li> </ul> <p>The fiscal period amounts are based on the cross charge date of the time records, expenses, fixed fees or non-labor items.</p>

<b>Actual</b>	<p><b>Uncharged cross charge and forecast amounts</b></p> <ul style="list-style-type: none"> <li>• <b>Services:</b> Cross charged amounts + Uncharged hours * Cross charge rate + Resource forecast remaining hours * Cross charge rate (as calculated based on the effective-dated cross charge rate). Cross charged and uncharged amounts are put into fiscal periods based on the cross charge date for cross charged amounts and the current date (i.e. the date the job runs) for uncharged amounts. The forecast remaining hours are spread between the start and end dates and the cross charge rates are assigned based on the effective rate corresponding to the fiscal period's date.</li> <li>• <b>Fixed fees:</b> Cross charged fixed fee amount + Uncharged fixed fee amount (only includes fixed fee amounts not marked as “do not cross charge”), pro-rated based on the project's hours that are associated with the fixed fee versus the total hours associated with the fixed fee. Cross charged and uncharged amounts are put into fiscal periods based on the cross charge date for cross charged amounts or on the fixed fee cross charge date for those that are uncharged.</li> <li>• <b>Expenses:</b> Cross charged expense amount + Uncharged expense amount (expense cost * expense quantity * Expense multiplier * Chargeable flag (1 or 0)). Cross charged and uncharged amounts are put into fiscal periods based on the cross charge date for cross charged amounts and the current date (i.e. the date the job runs) for uncharged amounts.</li> <li>• <b>Non-labor items:</b> Cross charged non-labor item amount + Uncharged non-labor item amount (Quantity * Charge amount for initiative non-labor items not marked as “do not charge”) for initiative non-labor items associated with the project. Cross charged and uncharged amounts are put into fiscal periods based on the cross charge date for cross charged amounts or on the cross charge date for those that are uncharged.</li> </ul>
<b>Actual</b>	<p><b>Request time cross charge amount</b></p> <p><b>Requests:</b> Cross charge amount of requests logged against the project (Request time * Cross charge rate as stored in the RequestTime table, for both cross charged and non-uncharged request time).</p> <p>The initiative request actuals total on the portfolio summary page will show the cross charge amount for all request time for requests not associated to projects (same as the cost metrics do currently).</p>
<b>Formula</b>	<p><b>Variance = Actual – Target</b></p> <ul style="list-style-type: none"> <li>• The PF_BudgetvsActual stored procedure calculates the actual cross charge amount.</li> <li>• The PFUnInvoicedAmount stored procedure calculates the uncharged charge amount.</li> <li>• The PFRequestBillingAmt stored procedure calculates the request time cross charge amount.</li> <li>• The PFPlanninghoursBillingAmt stored procedure calculates the planned cross charge amount.</li> </ul>

## Project Portfolio Metric - Planned Charge vs. Recognized Revenue

<b>Description</b>	<p>Compares the recognized revenue actuals with the planned project cross charge amount.</p> <p>This calculation uses monetary amounts in the portfolio currency.</p>
<b>Code</b>	PRV
<b>Target</b>	<p><b>Planned cross charge amount</b></p> <p><b>If budgeting is used:</b></p> <ol style="list-style-type: none"> <li>1. Finds the total planned cross charge amount on the project, including services, expenses and non-labor items. The PFPlanninghoursBillingAmt stored procedure will provide all planned cross charge amounts and actual cross charge information for the project.</li> <li>2. If there are budget revisions, the latest budget revision for each budget is used. If a revision type is selected on the metric template, then the latest budget revision for that revision type is used.</li> </ol> <p><b>If budgeting is not used:</b></p> <p>Take the sum of the amounts populated into the project budget fields (labor, expense, other expense) and convert the amounts to the portfolio currency from the initiative currency.</p>
<b>Actual</b>	<p><b>Actual Recognized Revenue Amount</b></p> <p>The calculation totals recognized revenue actuals for the project, including all time entered (chargeable, unchargeable and fixed fee), expenses, and non-labor items including materials.</p> <p>The calculation takes all rows from the RevenueDetails table for the given project, where the fixed fee ID and the initiative non-labor item ID have a NULL value and rows that contain an initiative non-labor item ID, where the initiative ID is the same as the project.</p> <p>The revenue amount (which is converted to the portfolio currency) will be included in the appropriate fiscal period based on the posting date associated with the revenue amount. This includes revenue adjustments for initiative non-labor items.</p> <p>For rows in the RevenueDetails table, where there is a fixed fee ID, the initiative ID is the same as the project, and the revenue method on the fixed fee is effort expended; the calculation takes the sum of the recognized amounts from the Time table for the project ID and fixed fee ID (using the RevFixedFeeId field in the Time table).</p> <p>If the revenue method on the fixed fee is PPC, \$X recognized or X% recognized, the calculation takes the sum of the planned hours for tasks associated with the fixed fee for that project, divided by the sum of planned hours for all tasks associated with the fixed fee, multiplied by the revenue recognized amount from the RevenueDetails table.</p> <p>For revenue adjustments, the calculation takes the sum of planned hours for tasks associated with the fixed fee for that project, divided by the sum of planned hours for all tasks associated with the fixed fee, multiplied by the revenue adjustment amount from the RevenueDetails table.</p>



<b>Formula</b>	<b>variance = Actual – Target</b> <ul style="list-style-type: none"> <li>The PFRevRecAmount stored procedure determines the actual recognized revenue amount.</li> <li>The PFPlanninghoursBillingAmt stored procedure determines the planned cross charge amount</li> </ul>
<b>Scenario</b>	<ul style="list-style-type: none"> <li>Recognized revenue (Actual) is 10</li> <li>Planned cross charge amount (Target) is 12</li> </ul> Calculation $10 - 12 = -2$

## Project Portfolio Metric - Planned Cost

<b>Description</b>	This calculation determines if the project cost is what the team expected. This calculation uses monetary amounts in the portfolio currency.
<b>Target</b>	<b>Planned cost calculation:</b> Total planned hours of each task assignment * Resource's current cost rate (based on the date the process is run), converted to the portfolio currency. The total planned cost is the sum of all task assignments. For planned services, cost rates are either resource-based or staffing level-based, as defined for the cost structure.
<b>Actual</b>	The calculation will total the actual costs for the project, including all time entered (chargeable, unchargeable and fixed fee), expenses, and non-labor items including material costs. Existing stored procedure: <b>PF_BudgetvsActual</b> rolled up subproject.
<b>Formula</b>	Variance = Actual – Target

## Project Portfolio Metric - Planned Cost (with Request Cost)

<b>Description</b>	This calculation determines if the project cost is what the team expected. This calculation uses monetary amounts in the portfolio currency.
<b>Code</b>	CPR
<b>Target</b>	<b>Planned cost calculation:</b> Total planned hours of each task assignment * Resource's current cost rate (based on the date the process is run), converted to the portfolio currency. The total planned cost is the sum of all task assignments. For planned services, cost rates are either resource-based or staffing level-based, as defined for the cost structure.

<b>Actual</b>	The calculation totals the actual costs for the project, including all time entered (chargeable, unchargeable and fixed fee), expenses, and non-labor items including material costs. Request time cost is added. Existing stored procedure: <b>PF_BudgetvsActual</b> rolled up subproject.
<b>Formula</b>	Variance = Actual – Target

### Project Portfolio Metric - Planned Effort

<b>Description</b>	Determines if the project is taking more effort than originally planned. This calculation is in hours (or days, if planning in days is used).
<b>Code</b>	PEF
<b>Target</b>	This calculation uses the planned hours for the sum of all tasks. For planned services, cost rates are either resource-based or staffing level-based, as defined for the cost structure.
<b>Actual</b>	Actual number of hours in the project. The portfolio project rollup job calculates this value.
<b>Formula</b>	Variance = Actual – Target
<b>Scenario</b>	<ul style="list-style-type: none"> <li>Actual = 10 Actual hours + 20 Remaining = 30</li> <li>Target = Planned hours = 40</li> </ul> Calculation = 30 – 40 = -10

### Project Portfolio Metric - Planned Effort (with Request Effort)

<b>Description</b>	This calculation determines if the project is taking more effort than originally budgeted. This calculation is in hours (or days, if planning in days is used).
<b>Code</b>	EPR
<b>Target</b>	This calculation uses the planned hours for the sum of all tasks.
<b>Actual</b>	Actual number of hours in the project. The portfolio project rollup job calculates this value. Request time hours are added.
<b>Formula</b>	Variance = Actual – Target

### Project Portfolio Metric - Planned Schedule

<b>Description</b>	Determines if the project is on schedule. This calculation uses date and duration values.
<b>Code</b>	PCH
<b>Target</b>	This calculation uses the planned end date for the project.
<b>Actual</b>	This calculation uses the latest forecast end date (use actual if entered) from all task assignments. The portfolio project rollup job calculates this value.

<b>Formula</b>	<p>Variance Percentage = The total number of days between actual and target divided by the total number of days between the target start and target finish dates.</p> <p>Total days does not exclude weekends and any nonworking days as set up in non-project time, for example, non-project time flagged against a specific date.</p>
<b>Scenario</b>	<ul style="list-style-type: none"> <li>Actual: Finish: June 15</li> <li>Target Finish: Planned End: June 10</li> </ul> <p>Target Start: Planned Start: May 1</p> <p>Calculation</p> <p>Actual – Target = 5 days over (June 15 - June 10), divided by total duration of 40 days (June 10 - May 1), or 12.5%</p> <p>In this calculation, a negative number is a good result since the actual is earlier than the target.</p>

### Project Portfolio Metric - Planned vs. Estimate-to-Completion Cost

<b>Description</b>	<p>Determines if the project cost is what the team expected.</p> <p>This calculation uses monetary amounts in the portfolio currency.</p>
<b>Code</b>	CPE
<b>Target</b>	<p>To calculate planned cost, each task assignment's total planned hours is multiplied by the resource's current cost rate (based on the date the process is run) and converted to the portfolio currency. The total planned cost is the sum of all task assignments.</p> <p>For planned services, cost rates are either resource-based or staffing level-based, as defined for the cost structure</p>
<b>Actual</b>	<p>PlannedCostActual + Remaining Hours Cost</p> <p>Retrieves PlannedCostActual using BU_BudgetvsActual</p> <p>CostActual applied time control setting.</p> <p>The values are converted to the portfolio currency.</p> <p>Although the stored procedure also returns Budgeted Cost, it is not used.</p>
<b>Formula</b>	Variance = Actual – Target

### Project Portfolio Metric - Planned vs. Estimate-to-Completion Effort

<b>Description</b>	<p>Determines if the project is taking more effort than originally budgeted.</p>
<b>Code</b>	EPE
<b>Target</b>	This calculation uses the planned hours for the sum of all tasks.
<b>Actual</b>	Actual number of hours = Task.RollupActual Hours + Remaining Hours
<b>Formula</b>	Variance = Actual – Target

## Project User-Entered (Actual, Average and Sum)

This calculation uses data entered directly by the user on the **Results Tracking** dialog box of the project and used against specific project portfolios. See the following calculations for details:

- “User-Entered Calculation (Actual)” on page 12
- “User-Entered Calculation (Average)” on page 12
- “User-Entered Calculation (Sum)” on page 13