The Carlos Consulting Group

Earned Value Management Terms, Definitions, and Calculations

EVM: ***The process of considering scope, schedule, and resources, measured against a project's actual performance. It compares the planned amount of work to the completed tasks, to the projects' cost, to determine if the cost, schedule, and work completed (thus far) are all in synch and in accordance with the plan. This analysis will show past performance and will estimate future efforts to complete the project (with the desired results).***

Symbol	Description	Formula	Explanation
PV (BCWS)	Planned Value		(Also known as BCWS - Budgeted Cost of Work Scheduled) The estimated value of the work planned to be done thus far.
AC (ACWP)	Actual Costs		(Also known as ACWP – Actual Cost of Work Performed)The total costs incurred to date, based on timesheets, invoices, other expenses, etc
EV (BCWP)	Earned Value	• (Sum of all tasks) of (Task Budget) * (Percent Completed)	(Also known as BCWP – Budgeted Cost of Work Planned)The estimated value of (intended) work completed thus far, as it relates to the expected deliverables
CPI	Cost Performance Index	EV/AC	CPI compares the relationship between the Earned Value and Actual Cost. *"I am (only) getting (blank) cents performance out of every $1 spent."* If CPI is greater than 1, your project is realizing more work accomplished than dollars spent (based on the budget).
SPI	Schedule Performance Index	EV/PV	SPI compares the relationship between the Earned Value and Planned Value. *"I am only progressing at (blank) % of the original plan."* If SPI is greater than 1, your project is realizing more work accomplished than originally planned (based on the budget).
BAC	Budget At Completion		The original budget for the total job
EAC	Estimate At Completion	Four options; see below.	The amount "currently expected" for the total project cost
EAC (#1)		BAC/CPI	Used if no variances from the BAC have occurred
EAC (#2)		AC + ETC	Used when original estimate is fundamentally flawed (This calculation requires that ETC be calculated using EAC#1, EAC#3, or EAC#4.
EAC (#3)		AC + BAC - EV	Used when the current variances are atypical
EAC (#4)		AC + [(BAC-EV)/CPI]	Used when current variances are typical
ETC	Estimate To Complete	EAC-AC	From this point on, how much MORE do you expect the job will cost to finish the project. For worse case scenario, use the greater of EAC#1, EAC#3, or EAC#4 for the calculation.
VAC	Variance At Completion	BAC-EAC	How much over or under budget will the project come in at
CV	Cost Variance (in dollars)	EV-AC	Negative is over budget, Positive is under budget. If CV = 0, Project within Budget If CV > 0, Project Under Budget If CV < 0, Project is Over Budget
SV	Schedule Variance (in dollars)	EV-PV	Negative is behind schedule, Positive is ahead of schedule If SV = 0, Project On Schedule If SV > 0, Project Ahead of Schedule If SV < 0, Project Behind Schedule
PE	Planned Earned	EV/BAC	Project % Complete (as it relates to time and deliverables)
PS	Percent Spent	AC/BAC	Project % Spent (as it relates to cost)
CSI	Cost Schedule Index	CPI * SPI	The overall efficiency rating. The further CSI is from 1.0, the project will have difficulties in recovering.

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