

EARNED VALUE MANAGEMENT

SYNOPTIC CHART EXAMPLE

DESCRIPTION

This document presents an example of an earned value management synoptic chart, so that students can evaluate their work by comparing their chart to the one in this document.

ID	Definition	Purpose	Acronym	Formula
Earned Value Management	A tool used to integrate scope, time, and cost performance.	To determine project time and cost performance	EVM	NA
Planned Value	Describes how far along project work is supposed to be at any given point in the project schedule. It is a numeric reflection of the budgeted work that is scheduled to be	To determine the budgeted work that is	PV	NA

	performed, and it is the established baseline (also known as the performance measurement baseline, or PMB) against which the actual progress of the project is measured.	scheduled to be performed		
Actual Cost	An indication of the level of resources that have been expended to achieve the actual work performed to date (or in a given time period).	To determine the level of resources spent to achieve the actual work performed	AC	NA
Earned Value	Reflects the amount of work that has actually been accomplished to date (or in a given time period), expressed as the planned value for that work.	To determine the amount of work performed, expressed as the planned value for that work	EV	NA
Schedule Variance	The difference between the earned value and the planned value.	To determine if the project is behind or ahead of schedule	SV	$SV = EV - PV$
Cost Variance	The difference between the earned value and the actual cost.	To determine if the project is above or below budget	CV	$CV = EV - AC$
Schedule Performance Index	A measurement of the project progress compared to the plan.	To determine the project schedule performance	SPI	$SPI = EV / PV$
Cost Performance Index	A measurement of the project progress compared to the cost to achieve that progress.	To determine the project schedule performance	CPI	$CPI = EV / AC$

Fixed Formula	Fixed formula assigns a specified percentage of the budget value of the work package to the start milestone of the work packages. The remaining budget value percentage is assigned when the work package is completed.	To measure work performed for discrete effort class of work	NA	NA
Weighted Milestone	The weighted milestone technique divides the work to be completed into segments, each ending with an observable milestone; it then assigns a value to the achievement of each milestone.	To measure work performed for discrete effort class of work	NA	NA
Percent Complete	The percent complete method shows an estimate of the percentage of work that is complete at the end of each measurement period.	To measure work performed for discrete effort class of work	NA	NA
Physical Measurement	The physical measurement can be related more explicitly to the completion of the work. The measurement can include any units that can be explicitly related to the completion of the work.	To measure work performed for discrete effort class of work	NA	NA
Apportioned Effort	The apportioned effort is used for work with direct, supportive, relationships to discrete work. The value for the support task is determined based on the earned value of the referenced base activity.	To measure work performed for apportioned effort class of work	NA	NA
Level of Effort	A planned value is assigned to each level of effort tasked for each measurement period, and this planned value is credited as earned value at the end of the measurement period.	To measure work performed for level of effort class of work	NA	NA
Cost Estimate at Completion	The forecasted cost for the project.	To determine the cost at the end of the project	EAC	$EAC = BAC / CPI$ $EAC = AC + BAC - EV$
Time Estimate at	The forecasted time for the project.	To determine the time	EAC(t)	

Completion		the project will take to be completed		$EAC(t) = PD / SPI$
Advantages	A tool to effectively, efficiently, and objectively measure project time and cost performance.	NA	NA	NA