How to Track Projects Using the Zone Method

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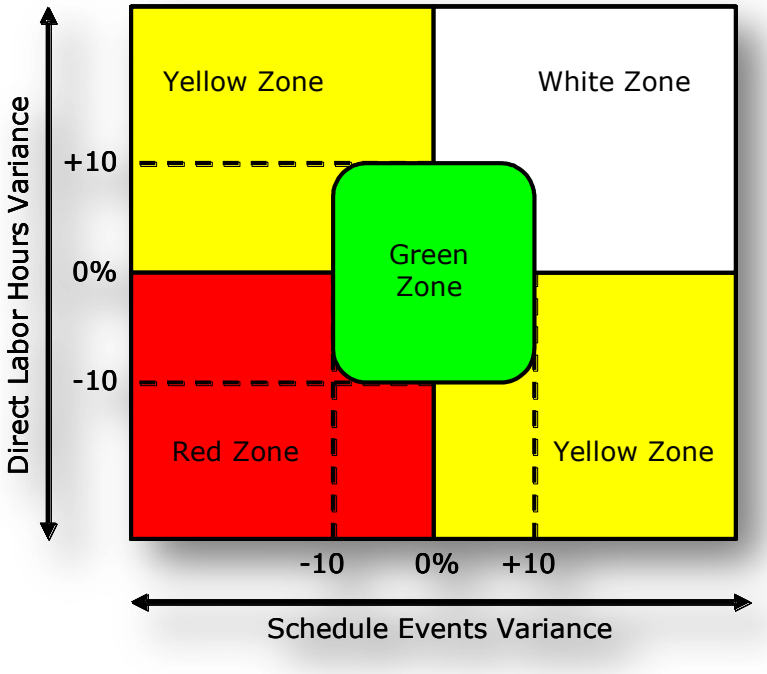
HOW TO TRACK PROJECTS USING THE ZONE METHOD

The Zone Method was developed by this author as an alternative to the Earned Value Management (EVM) when projects cannot support the administrative load of EVM.

The Zone Method uses two metrics, "schedule events" and "labor hours" to track project progress. A schedule event is defined as the measurable start or finish of a given activity. Since project costs are determined primarily by direct labor hours, most project managers find that costs can be tracked by tracking direct labor hours. These two metrics can reveal schedule and cost variances from the planned baseline.

To determine the variances from the planned baseline one must accumulate the planned versus actual schedule events within a certain period of time (weeks, quarters, months, etc.). Once the planned schedule events have been established, the actual schedule events are subtracted to determine the variance of the schedule. The same idea holds for the variance of the cost of the project. Once the total planned and actual direct labor costs are compared, the variance can be determined by examining the difference between the two.



The Zone Method received its name from its four-quadrant graph that represents a projects positive or negative direct labor hours (or costs) and its positive or negative scheduled events. Each quadrant is recognized as a different state of the project. Directly in the center, the "bulls-eye" of the graph represents the perfect project that is both on time and on cost. The "green" zone is the area around the target (bulls-eye) with a variance of ±10%. If the project falls within this variance after 15% of the project time has elapsed, then the project is usually considered within an acceptable variance. If the project slips outside of this 10% variance (in any direction) the chances of completing the project on time, or on budget, diminish greatly.

There are two yellow zones, one where the schedule variance is greater than 10% but the cost is less than 10%. The other yellow zone is a mirror image of the first, the project schedule variance is less than 10% but the cost variance is greater than 10%. If the project manager does not take action at this point it is likely that the project will migrate to the red zone where both the schedule and cost variances are greater than 10%. The red zone indicates a project which has a variance which is so large that is almost impossible to recover fully.

The top-right quadrant is the "white zone" which represents favorable schedule and cost variances. Project in this zone are ahead of schedule by 10% and underrunning costs by 10%. While this may be deemed favorable, the project manager should examine this condition carefully since it may indicate poor planning.

ZONE METHOD CONTROL CHARTS

Both metrics can be tabulated on a conventional spreadsheet as shown below. These tables show the planned versus actual schedule events and labor hours with the resulting variances. The variances can then be plotted over time to give a picture of the variance trends. By examining the trends, project managers can determine when corrective actions are required.

The Zone Method has advantages in that it is highly effective and has a very low administrative load. After converting the Gantt Chart to cumulative schedule events there is little else one has to do other than to regularly compare planned schedule events to actual schedule events. The same is done for labor hours. Because of this, and the fact that this method can be accomplished using conventional spreadsheets, it offers a viable alternative to the EVM method which may require a relatively large administrative load in light of the project budget.

Team	SCHEDULE EVENTS					
	This Week			Cum to Date		
	Planned	Actual	Variance	Planned	Actual	Variance
Team No. 1	4	4	0	35	31	-4
Team No. 2	5	1	-4	26	25	-1
Team No. 3	3	3	0	31	25	-6
Team No. 4	4	3	-1	27	25	-2
Total	16	11	-5	119	106	-13

Team	DIRECT LABOR HOURS					
	This Week			Cum to Date		
	Planned	Actual	Variance	Planned	Actual	Variance
Team No.1	120	160	-40	1,440	1,523	-83
Team No. 2	80	75	5	1,680	1,745	-65
Team No. 3	160	200	-40	2,160	2,487	-327
Team No. 4	160	210	-50	1,640	1,724	-84
Total	520	645	-125	6,920	7,479	-559