

## Earned Value Management

### Project Budget:

The most basic cost control technique is to develop a project budget and then track spending against it . On a small project, this can be as simple as having a target cost goal for the total project . You could monitor project costs and sound the alarm if the percent of dollars spent exceeds the percent completion estimated for the project. You could also prepare a time-phased budget, as shown in the figure below, breaking the overall budget goal into intervals of weeks, months, quarters or years. This can provide a budget baseline for tracking actual costs against periodic budget targets . When the cumulative budget of estimated project costs are plotted graphically over time, they usually result in the shape illustrated, which is sometimes called an "S" curve, since it looks like an inclined "S."

### Budget Spend Plan Tracking:

A simple technique for tracking project costs is to develop a weekly or monthly cumulative budget spend plan and then track actual costs against the plan. The slope of the spend plan indicates the project expenditure rate, sometimes called the "burn rate." By plotting actual costs against the budget spend plan, you can see differences between actual spending and the spend plan . This technique provides a simple, top-level view of project financial performance that can be useful for executive briefings , especially where you want to match expenditures to a funding stream .

### Budget Spend Plan

The spend plan can be generated using a project management software tool . If you are using Microsoft Project, you can copy the hours from the Resource Usage table into MS EXCEL , apply labor rates to each resource type, and then sum costs by week to provide an accurate resource loading profile and spend plan. This can also be used to establish a performance measurement baseline of the Budgeted Cost of Work Scheduled. (See sections below on Earned Value Management Systems.)

If the project is on schedule, the spend plan method provides the needed budget status information . If the project shown were behind schedule, the project manager would no longer be able to understand project status from this graph. The budget picture would be worse than it looks, but it would be impossible to quantify.

When a project is sufficiently large or complex that it is unclear which project elements are contributing to deviations from the budget plan, a more rigorous approach to cost and schedule tracking should be employed. This following method links cost and schedule performance together and presents them in a form that facilitates management analysis and presentation.

### Earned Value Management System (EVMS):