

## Get What You Inspect: Maximizing Expected Project Value

All project initiatives are susceptible to cost overruns and schedule slippage. Many projects are deemed failures due to budget overruns or when the budget is spent but the project has not delivered the value originally promised. Organizations today are addressing these issues by enhancing their project control practices.

A major concern over any project is cost.

- What is the total cost?
- How much has it cost so far?
- Have we generated the anticipated value for the current cost investment?
- Why has it cost so much?
- Is the additional cost justified?
- Can you confidently present the periodic budget review to senior management or do you hesitate over its content?

Large projects have large budgets and schedules, and typically have a complex myriad of cost inputs including:

- Fixed priced fees / incentives
- Employees costs
- Contractor/consultant fees
- Vendor license costs and fees
- Sub projects (roll-up of costs)
- Remote locations (international currency)

Due to the dynamics of larger projects there may also be several different budget measurement systems to handle and a variety of schedules to contend with.

So how do you track this? Can you make decisions quickly and effectively using the available information? How quickly does your current method of project control alert you to these issues?

Typically you have two discrete pieces of information that in isolation do not tell you much. Overspending by \$5,000 dollars means nothing unless it relates back to the baseline budget of \$50,000. We can then say we have overspent by 10%. Equally we can say that the schedule is 2 weeks late. Is this serious? Yes if there was only 3 weeks scheduled to complete the task.

Even then it's not the whole story. By consolidating and integrating the budget, costs and schedule a bigger picture begins to emerge. When used together as a variance of the project baseline they offer clarity to the current status. It identifies the cost and work schedule variances from the project baseline to the present. Put another way, it compares what you spent to what you got!

The information provided from this integrated approach can be used when writing periodic reports, measuring performance against project cost and schedule and as input to making informed decisions about your resource and productivity levels. Used correctly it will provide you with the ability to pinpoint the problem area(s) with accuracy.

The method consists of three components

- Planned Value (PV) - budgeted cost of the work you have planned.
- Actual Cost (AC) - actual cost you have spent on the project to date.
- Earned Value (EV) - budgeted cost of the work completed to date.

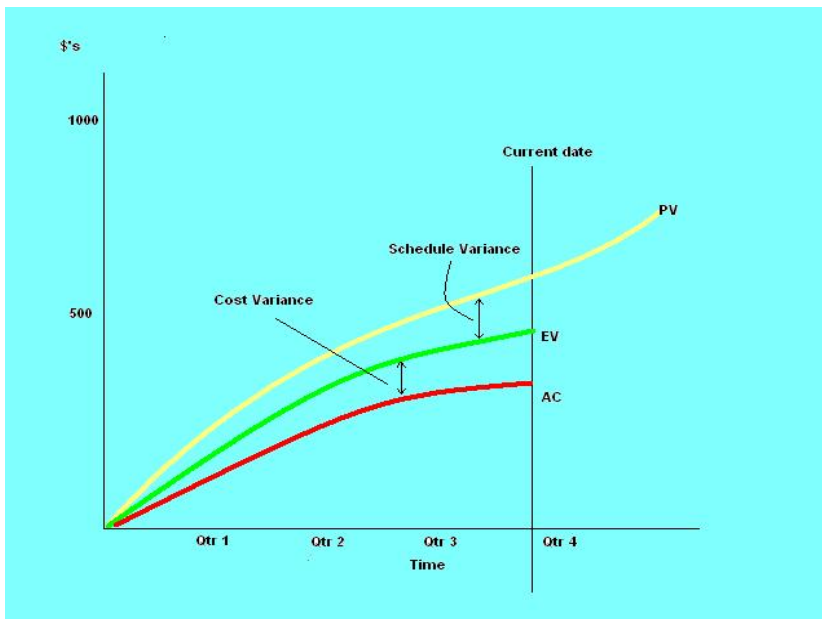
By inputting these values as parameters into various comparison formulae the results can objectively inform the manager on the performance and progress of the project. The output can be read as a cost variance (the difference between the earned value and the actual cost) or a schedule variance (the difference between the earned value and the planned value).

A different approach could be to express the Planned Value, Actual Cost and Earned Value as ratios to produce the CPI (Cost Performance Index) and SPI (Schedule Performance Index). If the result is one or greater it indicates a favorable condition. Less than one indicates that something needs immediate attention.

Does this have a name? Yes, Earned Value Management (EVM). Many have either heard of it but don't appreciate what it is, or have dismissed it as a set of complicated algebraic equations better left to the mathematically minded. Neither description is true. EVM is a powerful tool and technique that adds a quantifiable dimension to a project in the form of tangible answers.

A common error occurs when at a point-in-time the project expected to spend X but has actually spent less than X – this project is often deemed to be running smoothly. In the example below it is not until you compare what has been delivered against the budget spent that you see that something has gone wrong.

The following chart depicts a project where even though the project is currently being delivered under budget, the earned value (EV) which is the key performance indicator is lower than the planned value (PV).



In an ideal project Earned Value would be equal to or greater than Planned Value, meaning that at the measured point in time the project has completed all the tasks within or before the estimated time frame, and is at or below the estimated budget.

## **Summary**

Project control is a combination of understanding what to measure, how to effectively consolidate the information, and how to deliver the resulting knowledge in a meaningful way. Effective project control requires knowledge of the process in combination with the supporting tools. Once implemented the benefits are quickly realized.

- Project Control is critical to ensuring success of complex projects
- Analyzing project information in isolation may lead to incorrect conclusions
- Tools and process can combine for effective analysis
- EVM is a method to integrate cost and schedule information.
- EVM objectively measures project performance and progress.
- EVM uses three components
  - Planned Value (PV) - budgeted cost of planned work
  - Actual Cost (AC) - actual cost spent to-date on the project
  - Earned Value (EV) - budgeted cost of the work completed to date.

## **Need More Information?**

Please call 604-294-2292 or email [info@KLR.com](mailto:info@KLR.com)