

# Succeeding with EVM

## Why EVM?

Do you know how your program is performing? Do you know what actions to take and where program resources should be applied? Do you have enough contingency funds to mitigate risk?

Earned Value Management (EVM) is a tool that provides answers to these questions and more. Most importantly, it answers the question, “*What did you get for the money spent?*” by integrating technical, schedule, and cost performance into a single tool. EVM helps program managers (PMs) measure progress objectively by comparing the work completed against the work planned. When properly implemented, EVM provides an early warning of performance problems and provides quantitative data to make timely decisions. With true insight into program performance, PMs can take the needed actions to complete projects on time and within budget.

At an enterprise level, EVM can be used as a portfolio management tool, providing oversight and execution information across multiple programs. EVM moves the entire organization to be data-driven in its decision-making and planning. This information is crucial to focusing the organization for maximum effectiveness in today’s budget-constrained environment.

***“Earned Value Management is the ‘best tool’ for managing large, complex acquisition programs.”***

-Ashton Carter (USD, AT&L)  
26 November 2009

## Making EVM Work for You

Using EVM to manage a project does not automatically guarantee success. EVM is a sophisticated tool, and there is a cost and effort associated with implementing and maintaining the tool. It’s important that EVM be scaled and

implemented according to the size, complexity and resources of the program. Just like any tool, EVM will provide limited benefits if not used correctly or regularly. The main challenges to making EVM successful revolve around planning properly, understanding the tool, and identifying the right indices.

***Proper Planning*** – *The baseline plan is the reference point for everything.* EVM fails when upfront planning is incomplete and inadequate. Proper planning is the most critical factor because EVM tracks performance by comparing current progress against the planned work.

The Integrated Baseline Review (IBR) process is used to verify that the baseline plan includes the entire scope of work, is consistent with schedule requirements (i.e. the right work is in the right order at the right time), and the proper resources are assigned. Once the baseline plan is established and validated, EVM generates metrics that identify program areas that are not on track and that require corrective action before those problems become unmanageable.

***PM Ownership*** – Program Managers must take ownership of the tool to realize the full value of EVM. Traditionally, financial and schedule personnel are responsible for implementing EVM plans and processes. Although EVM utilizes financial and schedule information, it is not a finance tool. EVM is a *management* tool. Program managers need to understand how the work is planned, how performance is measured, and how to interpret EVM metrics correctly in order to manage the project more effectively.

***Informed Management*** – Typical EVM metrics focus on past performance, as it is easier to measure what has already occurred. And while it is important to understand “how we got here,” looking backwards is no way to move ahead. EVM is much more effective when past performance

data is combined with up-to-date knowledge of current performance and risks. Greater emphasis should be placed on forward-looking metrics in order to get ahead and mitigate problems before they become issues (for instance, identifying work that will start late rather than showing work that has already started late). This helps to forecast performance issues much earlier in a project when they are easier and cheaper to address. Think of it as fire-prevention rather than fire-fighting.

## **EVM at Its Best**

Successfully implementing EVM is more than just developing a plan, measuring performance, and forecasting completion dates and costs. Success involves understanding the right things to measure in order to manage efficiently and effectively. Management metrics need to be meaningful and relevant to avoid overburdening PMs with unnecessary reporting. The most pressing and critical problems are identified by prioritizing potential issues based on risk. Managing by exception helps reduce information overload and allows decisions-makers to focus on the most critical problems.

A metrics report alone, however, will not provide the necessary insight into program progress. Attention needs to be paid to key interdependencies or hand-offs between different teams and organizations (supplier delivery schedules as an example). Typically, these are the areas where communication breaks down and “surprises” happen.

It’s also important that program leaders take the necessary steps to create a reporting environment that encourages open and honest reporting. Aversion to bad news only compounds problems and makes it more difficult to make timely and proper course corrections. Conversely, an open environment facilitates timely course corrections required to bring the project to completion on time and within budget.

## **Sustained EVM Success**

EVM provides greater value and benefit to the PM when integrated with other management tools, such as risk management. Schedule Risk Assessments (SRA), or “what-if” scenarios, are used to quantify risk impacts to better understand schedule pressures. Understanding program risks and impacts allows the right decisions to be made on where additional program resources are required and the level of risk willing to be accepted. Since SRAs also factor the impacts of unanticipated risks, the projected completion dates are more reliable than schedule estimates based on past performance trend data alone.

At each SRA, program cost estimates need updating to incorporate the latest risk assessment and the most current program status. Updated schedule and cost projections show PMs where to apply contingency funds. This insight into program schedule and cost drivers enables PMs to balance technical, schedule, and cost performance to complete programs on time and within budget.

Success also depends on building an organic EVM capability both at the program and enterprise level to implement and maintain best-business practices. EVM toolkits, reports and metrics, as well as training materials and curriculum, need to be developed by an “EVM homeroom” business unit. Common tools and training allows standardization of management tools and techniques employed within and across programs, improving communication and visibility with key stakeholders.

## **For More Information Contact**

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