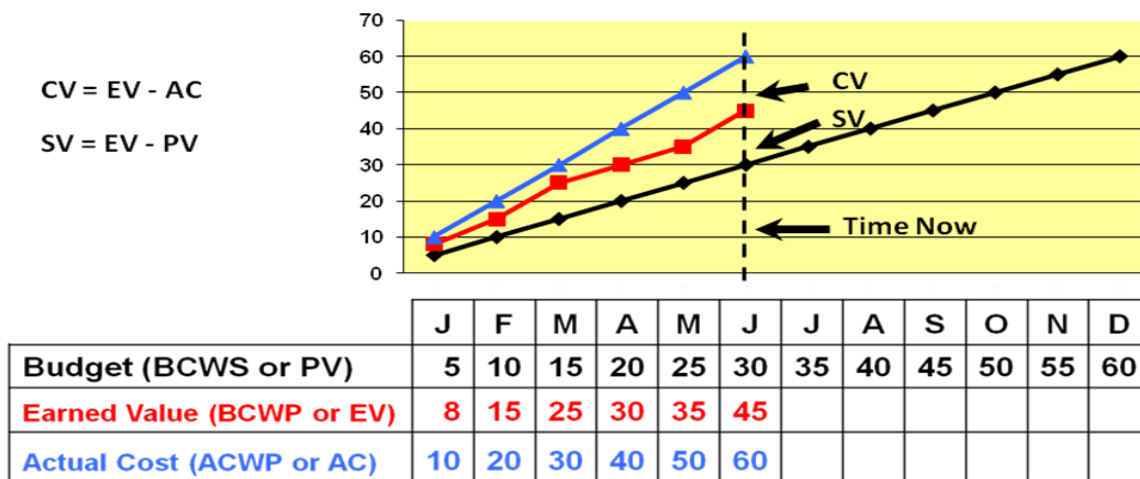


Proper execution of projects is often hampered by inadequate planning during the initiation phase, which evolves into plans which cannot be managed effectively during execution. However, even when the planning process is successful, and what is assumed to be a well derived plan is established, project management can still be ineffective. This is typically the result of not having the capability to accurately monitor and control schedule and/or cost. There are subtle inefficiencies that occur within projects that are difficult to identify even with experienced project team members. It is these inefficiencies which can be detected and monitored with Earned Value Management (EVM) when utilized effectively.

Key items to proper utilization of EVM require adequate planning during the initiation phase, establishment of budget and schedule for the entire project scope and plan, implementation of change control as early as practical, and monitoring the execution of the project against the established plan. Project management and project team members should be properly trained in the use and interpretation of EVM data, and standard reporting formats consistent with the intent of EVM concepts and principles must be adopted. The following example demonstrates the importance of these EVM items and the effectiveness when properly utilized.



The graphic above represents a look back at a project using EVM concepts to show how the end result might have been averted by comparing the original plan to the work accomplished during the time period the budget was expended. The original estimate when represented in the form of budget (BCWS), shows the project had planned to progress linearly by procuring, installing, testing, and placing in service a consistent number of valves at a constant rate (in this case, one valve per month). Daily logs and project summary reports were reviewed to determine the accomplishment (progress in the form of BCWP) achieved by the project team. Although the team was able to achieve a higher rate of productivity than planned the associated cost (ACWP) to accomplish this effort was much higher than planned, and resulted in expenditure of the entire budget while only accomplishing 75% of the scope. Had the project been planned with EVM in mind, the budget established and monitoring set in place utilizing EVM concepts and methods, the team could have identified the trend early in the project, and implemented corrective actions in time to avert the over run or performed



adequate analysis to identify the need for additional funding from the client prior to expending the entire budget. In this case, the client was notified of the additional funding requirements much too late.

In conclusion, EVM concepts and methods when utilized effectively provide project teams and clients alike with the capability to identify project issues early. Additionally, trends associated with project performance and progress can easily be analyzed, and recovery options selected in time to be effective. As with every tool in project management, utilization of EVM must be implemented in a graded approach consistent with the needs of the project team.