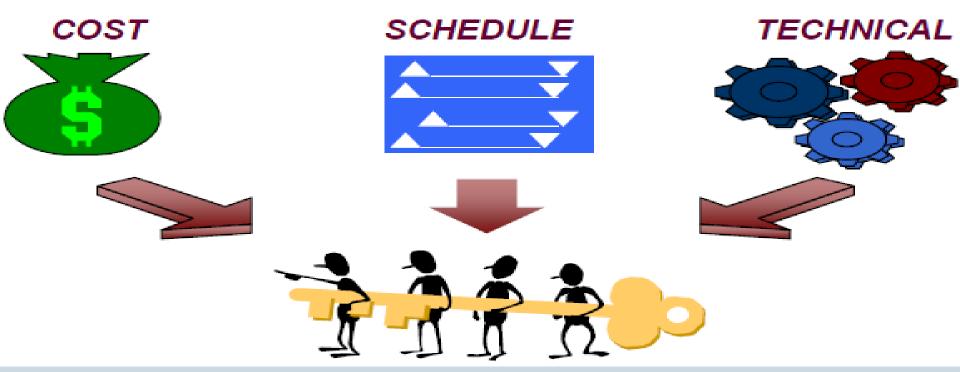
Lecture # 06

- To understand the basic terms of project Cost Control and related concepts. (PV,EV,AC, SV,CV)
- ➤ To know the benefits of EVM (Earned Value Management) for assistance in Cost Control Process.



Control Cost Process



Monitoring the status of the project to update the project costs & managing changes to the cost baseline.





Provides the means to recognize variance from the plan in order to take corrective action and minimize risk.

How to Control Project Cost

| Influencing | The factors that create changes to baseline |
|-------------|--|
| Ensuring | All change requests are acted on in a timely manner |
| Managing | The actual changes when and as they occur |
| Ensuring | That cost expenditures do not exceed the authorized funding by period, WBS, activity, in total |
| Monitoring | Cost performance to isolate and understand variances |
| Monitoring | Work performance against funds expended |
| Preventing | Unapproved changes reported or resource usage; |
| Informing | Appropriate stakeholders of all approved changes and associated cost; |
| | |

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• Expected cost overruns within acceptable limits

Bringing

Control Cost Process

Inputs

- .1 Project management plan
- .2 Project funding requirements
- .3 Work performance data
- .4 Organizational process assets

Tools & Techniques

- 1 Earned value management
- .2 Forecasting
- .3 To-complete performance index (TCPI)
- .4 Performance reviews
- .5 Project management software
- .6 Reserve analysis

Outputs

- .1 Work performance information
- .2 Cost forecasts
- .3 Change requests
- .4 Project management plan updates
- .5 Project documents updates
- Organizational process assets updates

Figure 7-10. Control Costs: Inputs, Tools & Techniques, and Outputs

Control Cost Process-Inputs



Cost baseline & Cost management plan.



Include projected expenditures plus anticipated liabilities



It includes progress information (started/finished activities, their progress), costs authorized and incurred.



Existing policies, procedures, and guidelines; Cost control tools; Monitoring and reporting methods

Elements of EVM

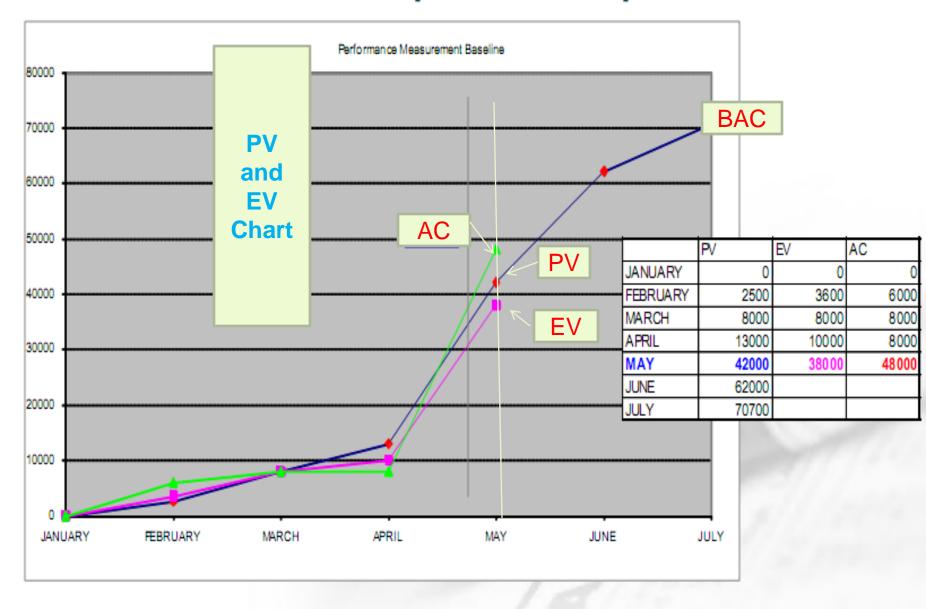
Planned value. Planned value (PV) is the authorized budget assigned to scheduled work. It is the authorized budget planned for the work to be accomplished for an activity or work breakdown structure component, not including management reserve. This budget is allocated by phase over the life of the project, but at a given moment, planned value defines the physical work that should have been accomplished. The total of the PV is sometimes referred to as the performance measurement baseline (PMB). The total planned value for the project is also known as budget at completion (BAC).

Earned value. Earned value (EV) is a measure of work performed expressed in terms of the budget authorized for that work. It is the budget associated with the authorized work that has been completed. The EV being measured needs to be related to the PMB, and the EV measured cannot be greater than the

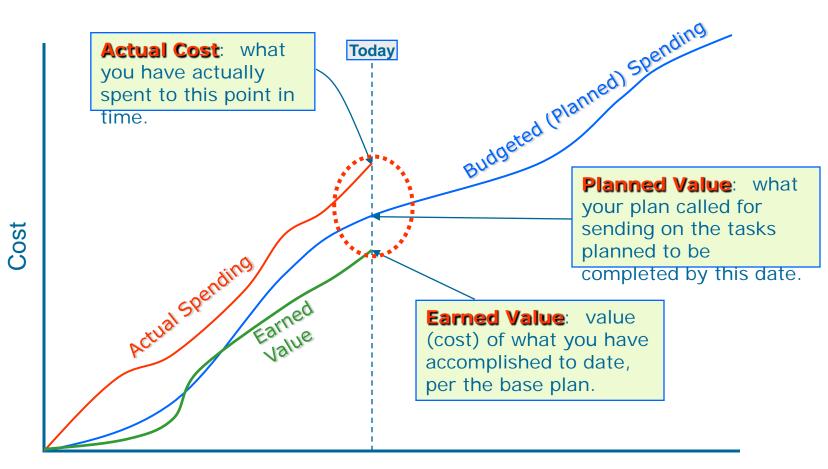
authorized PV budget for a component. The EV is often used to calculate the percent complete of a project. Progress measurement criteria should be established for each WBS component to measure work in progress. Project managers monitor EV, both incrementally to determine current status and cumulatively to determine the long-term performance trends.

Actual cost. Actual cost (AC) is the realized cost incurred for the work performed on an activity during a specific time period. It is the total cost incurred in accomplishing the work that the EV measured. The AC needs to correspond in definition to what was budgeted in the PV and measured in the EV (e.g., direct hours only, direct costs only, or all costs including indirect costs). The AC will have no upper limit; whatever is spent to achieve the EV will be measured.

Actual value of completed or in-process work



EVM Analysis



Time (Date)