MONITORING AND CONTROL

- After the work schedules have been finalized and the project is under way, concentration must be focused on ensuring progress.
- This requires monitoring of what is happening, comparison of actual achievement against the schedule and, when necessary, revision of plans and schedules to bring the project as far as possible back on target.

CREATING FRAMEWORK

- Exercising control over a project and ensuring that targets are met is a matter of regular monitoring, finding out what is happening, and comparing it with current targets.
- If there is a mismatch between the planned outcomes and the actual one then either re-planning is needed to bring the project back on target or the target will have to be revised.
- The initial project plan has been published, project control a continual process of monitoring progress against that plan and, where necessary revising the plan to take account of deviations.
- The important steps that must be taken after completion of the project so that the experience gained in anyone project can feed into the planning stages of future projects, thus allowing us to learn from past mistakes.
- we are normally concerned with departures from the plan in four dimensions delays in meeting target dates, shortfalls in quality, inadequate functionality, and costs going over target.

Responsibility:

- The overall responsibility for ensuring adequate progress on a project is often the role of the project-steering committee or Project Board.
- Day-to-day responsibility will be with the project manager and, in all but the smallest of projects; aspects of this can be delegated to team leaders.
- With small projects employing less number of staff individual team members usually report directly to the project manager.
- But in most cases team leaders will collate reports on their section's progress and forward summaries to the project manager.
- These, in turn, will be incorporated into project-level reports for the steering committee and, via them or directly, progress reports for the client.

Assessing the Progress:

- Progress assessment will be made on the basis of information collected and collated at regular intervals or when specific events occur.

- Wherever possible, this information will be objective and tangible - whether or not a particular report has been delivered.

- Progress assessment will have to rely on the judgment of the team members who are carrying out the project activities.

Report Types	Examples	comments
Oral formal regular	Weekly or monthly progress meeting	While reports may be oral. formal written minutes should be kept.
Oral formal adhoc	End of stage review meeting	While largely oral, likely to receive and generate written reports.
Written formal regular	Job sheets, progress report	Normally weekly using forms
Written formal adhoc	Exception reports, change reports.	
Oral informal adhoc	Canteen discussion ,social interaction	Often provides early warning, must be back end up by formal reporting.

Setting Checkpoints:

- A series of checkpoints in the initial activity plan need to be set.

- Checkpoints maybe:
  - ❖ Regular (Daily, for example)
  - ❖ Tied to specific events such as the production of a report or other deliverable.

Taking Snapshots:

- The frequency with which a manager needs to receive information about progress will depend upon the size and degree of risk of the project or that part of the project under their control.

- Team leaders, for example, need to assess progress daily whereas project managers may find weekly or monthly reporting appropriate.

- In general, the higher the level, the less frequent and less detailed the reporting needs to be.

- A formal weekly collection of information from staff carrying out activities is favored

COST MONITORING

- Expenditure monitoring is a vital component of project control because it provides an indication of the effort that has gone into a project.

- A project might be on time but only because more money has been spent on activities than originally budgeted.

- A cumulative expenditure chart such as that shown in Figure provides a simple method of comparing actual and planned expenditure.

- The current status of the project activities has to be taken into account before attempting to interpret the meaning of recorded expenditure.

- Cost charts become useful if we add projected future costs calculated by adding the estimated costs of uncompleted work to the costs already incurred.

- Where a computer based planning tool is used, revision of cost schedules is generally provided automatically once actual expenditure has been recorded.

PRIORITIZING MONITORING

The priority that must be applied in deciding the levels of monitoring is discussed below:

Critical Path Activities:

- Any delay in an activity on the critical path will cause a delay in the completion date for the project.

- Critical path activities are therefore likely to (have a very high priority) for close monitoring.

Activities with No Free Float*:*

- Free float is the amount of time an activity may be delayed without affecting any subsequent activity.

- A delay in any activity with no free float will delay at least some subsequent activities even though, if the delay is less than the total float, it might not delay the project completion date.

- These subsequent delays can have serious effects on our resource schedule as a delay in a subsequent activity could mean that the resources for that activity will become unavailable before that activity is completed because they are committed elsewhere.

Activities with less than a Specified Float:

- If any activity has very little float it might use up this float before the regular activity monitoring brings the problem to the project manager 's attention.

- It is common practice to monitor closely those activities with less than one-week free float

High Risk Activities:

- A set of high-risk activities should have been identified as part of the initial risk profiling exercise.
- If we are using the PERT three-estimate approach we will designate as high risk those activities that have a high estimated duration variance.
- These activities will be given close attention because they are most likely to overrun or overspend.

Activities Using Critical Resources:

- Activities can be critical because they are very expensive (as in the case of specialized contract programmers).
- Staff or other resources might be available only for a limited period, especially if they are controlled outside the project team.
- In any event, an activity that demands a critical resource requires a high level of monitoring.

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