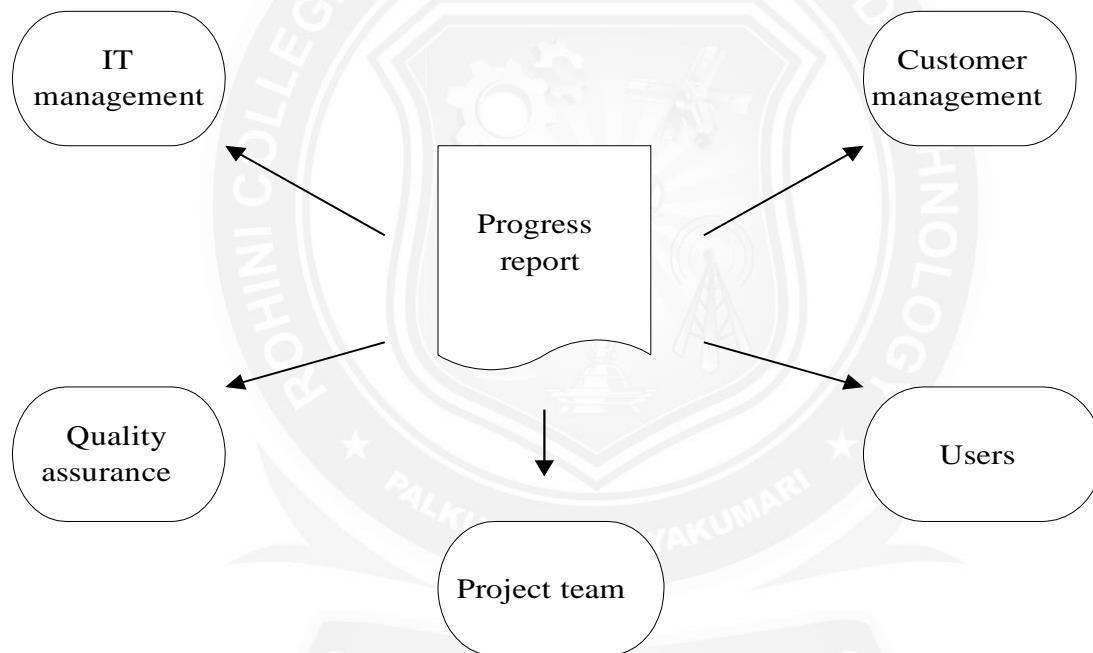


### **Prioritizing Monitoring - Getting Project Back To Target**

After completion of earned value analysis, the progress report has to be sent to the following members.

1. Project team
2. Quality assurance
3. IT management
4. Customer management
5. Users



### **Progress report should contain the following contents (typical)**

- ❖ Period covered
- ❖ Narrative summary of progress
- ❖ Milestones achieved/deliverables completed
- ❖ Problems encountered (and solutions)
- ❖ Projected completion date
- ❖ Costs to date and predicted
- ❖ Changes identified and implemented

### Prioritizing Monitoring:

- We assumed that all aspects of a project will receive equal treatment in terms of the degree of monitoring applied. The monitoring takes time and uses resources that might sometimes be put to better use.
- In this section we list the priorities we might apply in deciding levels of monitoring.
- Critical path activities
- Activities with no free float – if delayed later dependent activities are delayed
- Activities with less than a specified float
- High risk activities
- Activities using critical resource

**Critical path activities** – Any delay in an activity on the critical path will cause a delay in the completion date for the project. By definition, if these are late then the project as a whole will be delayed. Critical path activities are likely to have a very high priority for close monitoring.

**Activities with no free float** – free float was defined in Lecture/Chapter 6. A project with no free float will delay following dependent activities, although the project end date may not be directly threatened.

**Activities with less than a specified float** – projects when being executed can be very dynamic: some activities will take longer than estimated others less; this could lead to the critical shifting. Activities with small floats are the most likely to find themselves turned into activities on the critical path if their floats get eroded.

**High risk activities** – If the standard deviation for an activity is large, this indicates that there is a lot of uncertainty about how long it will actually take.

**Activities using critical resources** – some resources may only be available for a limited period and if the activities that need the resource are delayed the resource could become unavailable.

### Getting back on track

There are two main strategies to consider when drawing up plans to bring a project back on target.

1. Try to shorten activities on critical path e.g.
  - Work overtime
  - Re-allocate staff from less pressing work
  - Buy in more staff

## 2. Reconsider activity dependencies

- Over-lap the activities so that the start of one activity does not have to wait for completion of another
- Split activities

Renegotiate the deadline (optional) – if not possible then

### Shortening the critical path

The overall duration of a project is determined by the current critical path, so speeding up non-critical path activities will not bring forward a project completion date. The idea is to try to get things done more quickly by adding more staff. Some activities lend themselves to this more readily than others – it is often quite difficult to do this with software development. It also increases costs.

There are several ways in which this might be done.

1. Adding resources;
2. Increase use of current resources;
3. Reallocate staff to critical activities;
4. Reduce scope;
5. Reduce quality.

**Reconsidering activity dependencies** – allowing activities to overlap often increases the risk of quality shortfalls

**Renegotiating the deadline** – one way of doing this is to divide the deliverables into ‘tranches’ delivering the ones most valuable to the client on or before the deadline, but delaying less valuable ones.

### Project Tracking

#### **Prioritizing Monitoring**

The list of priorities defined in the level of monitoring are:

- **Critical path activities:** These denote those activities in the critical path that are delayed in project completion date.
- **Activities with no free float:** These delayed activities will have a delay in subsequent ones but still stick on target. These activities can have a serious effect on the resource schedule because the subsequent activities have to wait for its completion.
- **Activities with less than a specified float:** If there is a very little float in the activity say

less than one week, these activities must be monitored very closely.

- **High risk activities:** These high risks are identified in the risk management plan itself and these results in over spending.
- **Activities using critical resources:** Critical activities are very expensive and are available only for a limited period and require high level of monitoring.

### Getting back Project on Target

- Projects are subjected to delays and unexpected events.
- The project manager must ensure that the project scheduled end dates are unaffected at any circumstances.
- To maintain the project within the completed time, duration of some activity of the project can be delayed or shorten to fit into the time limit.
- The strategies involved in getting back the project to target are;
  - Critical path shortening
  - Reconsidering precedence requirements

### Critical Path Shortening

- Delayed projects can often be brought back on track by shortening activity times on the critical path.
- Critical path is determined by the overall duration of the project.
- By increasing the resources for the critical path activities results in completion of the activity before time and the resources can be prolonged for a longer duration.
- At the same time, the resources used must be effectively allocated to all the activities so that no resources are idle at any point of time.
- Swapping of critical and non- critical activities can also be used to shorten the time limit and bring the project back to target.
- One disadvantage of shortening critical path is that, it produces many more paths while shortening which can become critical.

### Reconsidering Precedence Requirements

- The project can be brought back to target by defining constraints to certain activities that affect the other activities for its completion.

- A precedence constraint activity can be sub-divided into a component that can start immediately.
- Altering these constraints would have a major impact on the quality factors, the risk involved, which can cause a delay in carrying out the activities.

