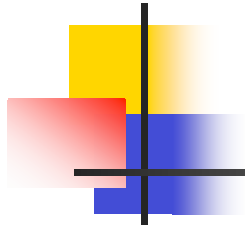




Chapter 9

Project Management



Project is ...

- Guide to the Project Management Body of Knowledge (PMBOK) defines a "project" to be

a temporary endeavour undertaken to create a unique product or service



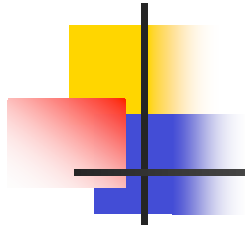
Project Constraints

- Time: elapsed calendar time,
 - Project schedule, or
 - Target delivery date
 - Resource: required to carry out the project
 - People, equipment, material and their associated cost
 - Work: amount of work which must be done during a project in order to produce and deliver the product.
 - Software development phases, or
 - Feature set (or requirements) to be contained in the system
- ... must be managed by project manager



Project Planning

- Project planning requires:
 - Defining the goals of the project
 - Defining the iterations of the project
 - Specifying software development process phases
 - Associating deliverables with each phase to verify progress
 - Defining measure of success of the project

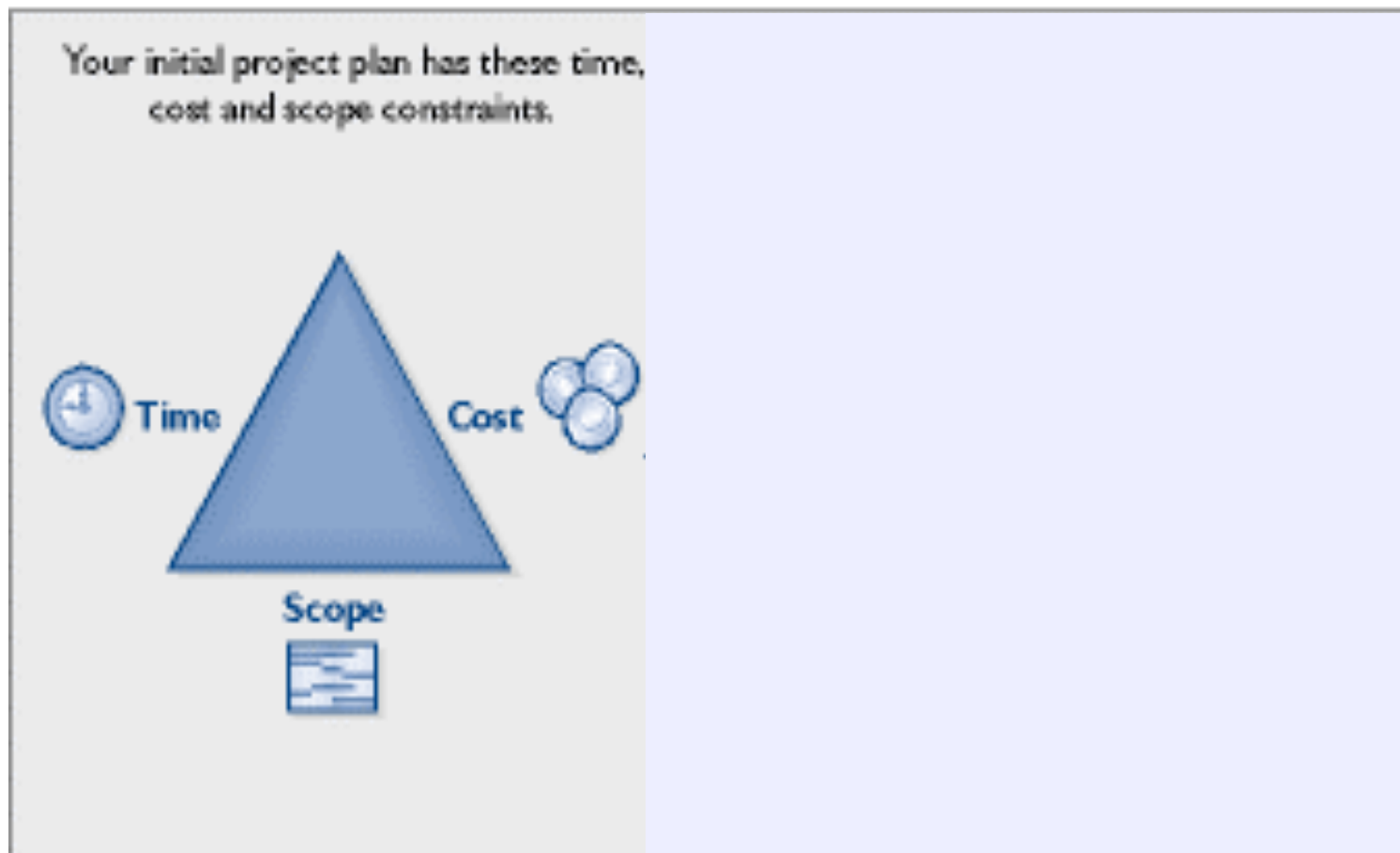


Project Scheduling

- Project scheduling requires:
 - Scheduling iterations and phases of the project taking into consideration:
 - Time constraints: start date, end date, milestones (significant events with 0 duration)
 - Resources: people, equipment
 - Cost of the resources
 - Identifying phases that can be done in parallel (minimizing project duration)

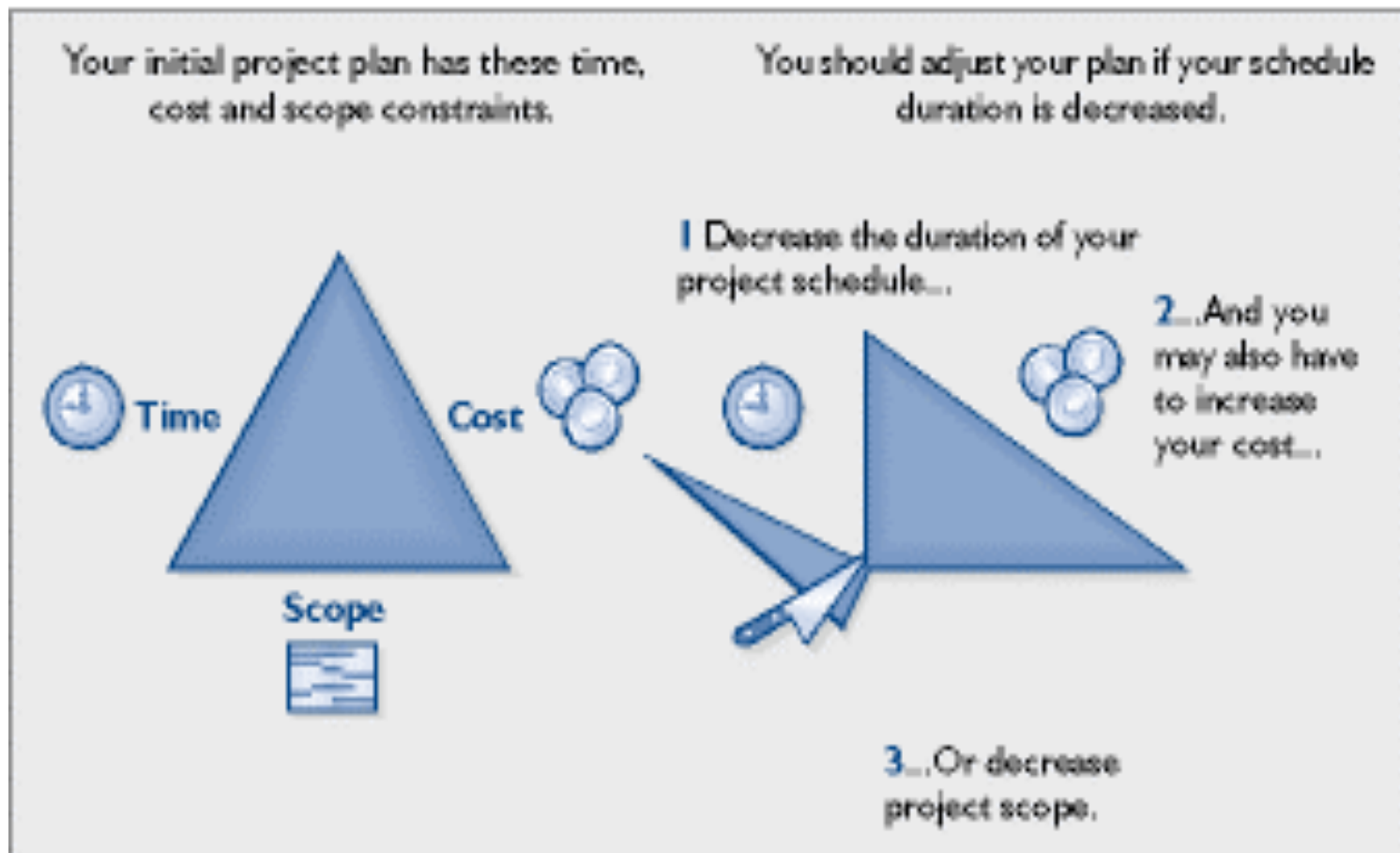
The Project Triangle

From "Microsoft® Project 2000 Step by Step" by Carl Chatfield and Tim Johnson



The Project Triangle

From "Microsoft® Project 2000 Step by Step" by Carl Chatfield and Tim Johnson





Project Monitoring

Project manager needs to receive sufficient feedback at regular intervals throughout project in order to gauge its progress

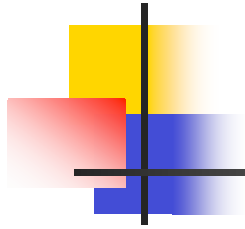
Project monitoring requires:

- Saving a copy of project schedule @ start of project

- Via regular meeting (e.g. weekly)

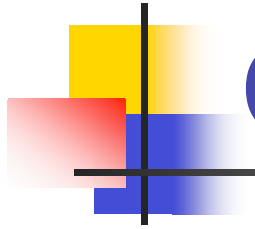
 - Receiving status report from each subteam leader

 - Verifying whether milestones have been successfully completed



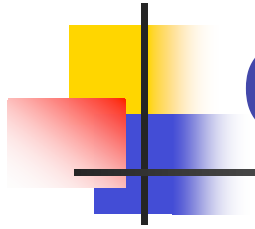
Project Monitoring

- From this feedback, project manager ...
 - Can predict delays and/or bottlenecks (risks) due to, for example, insufficient amount of resources
 - Can then can act upon these delays and/or bottlenecks (eliminate or alleviate their impact on the project) by revising project schedule:
 - Reschedule phases and milestones
 - Reallocate resource
 - etc...



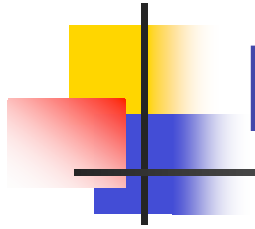
Critical Path of Project

- Definition
 - Sequence of tasks that determines the earliest completion time of a project
 - It is the longest path through the Precedence Network Diagram



Critical Path of Project (cont'd)

- Why do we bother figuring out the critical path of our project?
- Because we now know the tasks that can affect the duration of your project
- If these tasks are not performed as scheduled, the project will be late



Project Leadership

- Two of the most critical tasks of the project manager are:
- To provide leadership to the project team, and
- To resolve conflict within the team and between the team and the costumer.



Biblical Essentials to Leadership and Conflict Resolution

- Do what is just and merciful
 - *And what does the Lord require of you? To act justly, and to love mercy, and to walk humbly with your God (Micah 6:8)*
- Accept responsibility for your actions and admit your wrongs
 - *First, take the plank out of your own eye, and then you will see clearly enough to remove the speck from your brother's eye (Matt. 7:5)*
- Be concerned for the interests of others
 - *Each of you should look not only to your own interests, but to the interests of others (Phil. 2:4)*



Biblical Essentials to Leadership and Conflict Resolution (cont'd)

- Listen carefully to what others say
 - *He who answers before listening, that is his folly and his shame (Prov. 18:13)*
- Overlook minor offences
 - *A man's wisdom gives him patience; it is to his glory to overlook an offence. (Prov. 19:11)*
- Confront others constructively
 - *Do not let any unwholesome talk come out of your mouths, but only what is helpful to building others up according to their needs, that it may benefit those who listen (Eph. 4:29)*



Biblical Essentials to Leadership and Conflict Resolution (cont'd)

- Be open to forgiveness and reconciliation
 - *Be kind and compassionate to one another, forgiving each other, just as in Christ God forgave you (Eph. 4:32)*
- Change harmful attitudes and behaviour
 - *He who conceals his sins does not prosper, but whoever confesses and renounces them finds mercy (Prov. 28:13)*



Project Closing

- Post Mortem

- Compare initial project schedule with final project schedule.
- Identify areas of improvement and areas of delay.
- Discuss with the team the reason of these areas of improvement and delay.
- Goal: Learn from our mistakes and successes.