UNIT-3

Project Planning Tools

Learning Outcomes

By the end of this unit the learner will be able to:

- ✓ identify project planning tools

Unit 3

Project Planning Tools

What Really Needs To Be Done?

Beginning to Plan

One of the toughest challenges as we begin planning a project is to identify all the activities that we must do in order to see the project through to completion. Then, when we do begin listing them, we expect to be able to put them in the right order the first time through.

We can actually bog down our own project by trying to put everything in a linear row, from task number one through to the end. Don't worry about sequencing in perfect order right at the start of things. Leverage the experience and knowledge of your team and get them involved.

One idea is to use sticky notes and write every activity or task down as it comes to you. When you think you have identified every task that you believe is part of the project, start trying to put them in order. It can be a lot more fun to do it as a group rather than work on it all by yourself, and you are far more likely to have all the tasks identified.

As a way of making certain you have the tasks in the best order, start with the first activity you have identified. Ask yourself what comes right before that step, and what comes after that step.

Test your knowledge:

Preparing a Basic Schedule

Now that we have our tasks neatly laid out, it's time to schedule them to determine how long the project will last. It is very important to include all affected members in the scheduling process.

What are the advantages of creating a schedule with banner paper and self-stick notes over having a computer create a schedule using a software program?

Some items you will want to gather before starting the scheduling process include:

- Schedules of people who will be working on the project, including outsourced vendors. In particular, make sure you note times when they are very busy or may be unavailable.
- Vacation time for staff on the project.
- Other projects that team members are involved in that may conflict with this project.
- Schedules for materials and resources that will be required.

This formula is considered the standard for estimating time (T_e):

$$\frac{T_o+4T_m+T_p}{6}$$

T_m = probable time	T_o = optimistic time
T_p =pessimistic time	T_e =calculated time

To start, go through and assign an optimistic, pessimistic, and probable time to each of your tasks. These numbers will be derived from your experience and from the experience of your staff. It is crucial that you get the best estimates possible to ensure the most accurate scheduling possible.

In the example below, each number represents days. Go through the table and calculate the estimated time.

Task #	Task Name	T_o	T_p	T_m	T_e
1.	Consult architect	2	8	6	
2.	Obtain bank loan	1	10	5	
3.	Obtain building permit	5	14	10	
4.	Clear land	1	4	2	
5.	Excavate	1	4	2	
6.	Pour concrete foundation	1	4	2	
7.	Purchase materials	1	5	3	
8.	Construct frame	2	6	4	
9.	Install doors and windows	3	8	6	

Task #	Task Name	T_o	T_p	T_m	T_e
10.	Sheath house	2	5	3	
11.	Roof house	2	5	3	
12.	Install plumbing	5	10	7	
13.	Install heating	1	5	3	
14.	Install insulation	1	4	2	
15.	Install electrical wiring	2	6	4	
16.	Install floors	1	5	3	
17.	Lay-up masonry exterior	5	20	10	
18.	Put up wallboard	1	5	3	
19.	Install interior and exterior trim	3	7	5	
20.	Paint walls and trim	2	7	5	
21.	Paint doors and windows	1	4	2	
22.	Back fill foundation	1	2	1	
23.	Grade land	1	5	2	
24.	Landscape	1	5	3	

Other Scheduling Factors

Float Time

In almost every project, we have to account for Murphy's Law: "If something can go wrong, it will." Float time is the cushion you build into projects so you can accommodate the unexpected. Many projects build in a 10-15% contingency to add some float time to allow for delays. Depending on the complexity of the project, it may be more useful to just add a bit more time before the project is to be due rather than adding on to each step. One of the big problems with project planning is that you can neither see nor totally control the future. Keep in mind that anything you add will affect budget and resource costs.

Scheduling Checklist

As you are developing your project schedule, ask yourself who your readers will be:

- How much information do they need (big picture or details)?
- What form of schedule do they want or expect to see?
- Should I create customized versions of the schedule for certain audiences, or for display purposes?

Remember that a schedule is first and foremost a communication tool. Its purpose is to keep everyone aware of what should be going on. If people can't understand it, it is useless.

Test your knowledge:

What are some of your planning tool options?

No matter which planning tool we use, each version should be dated so you can relegate old versions to the project file or the wastebasket. Nothing is more confusing than having two Action Planning Worksheets or Milestone Charts for the same project with no idea which one you should be following.

Activity Scheduling

New project managers often just try to schedule activities in sequence, one after the other. However, you can save a lot of time and money by creating a plan that has several activities happening at the same time. However, if you try to get things done too quickly you may end up with confusion and bottlenecks.

Figuring out what project activities can occur simultaneously is a job for a veteran. If you must figure it out for yourself, break the tasks down into as much detail as you can to avoid unforeseen project activities or costs.

Scheduling My Project
Use the table below to schedule your tasks and project. Remember the formula:

$$\frac{T_o+4T_m+T_p}{6}$$

Task #	Task Name	T_o	T_p	T_m	T_e
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					

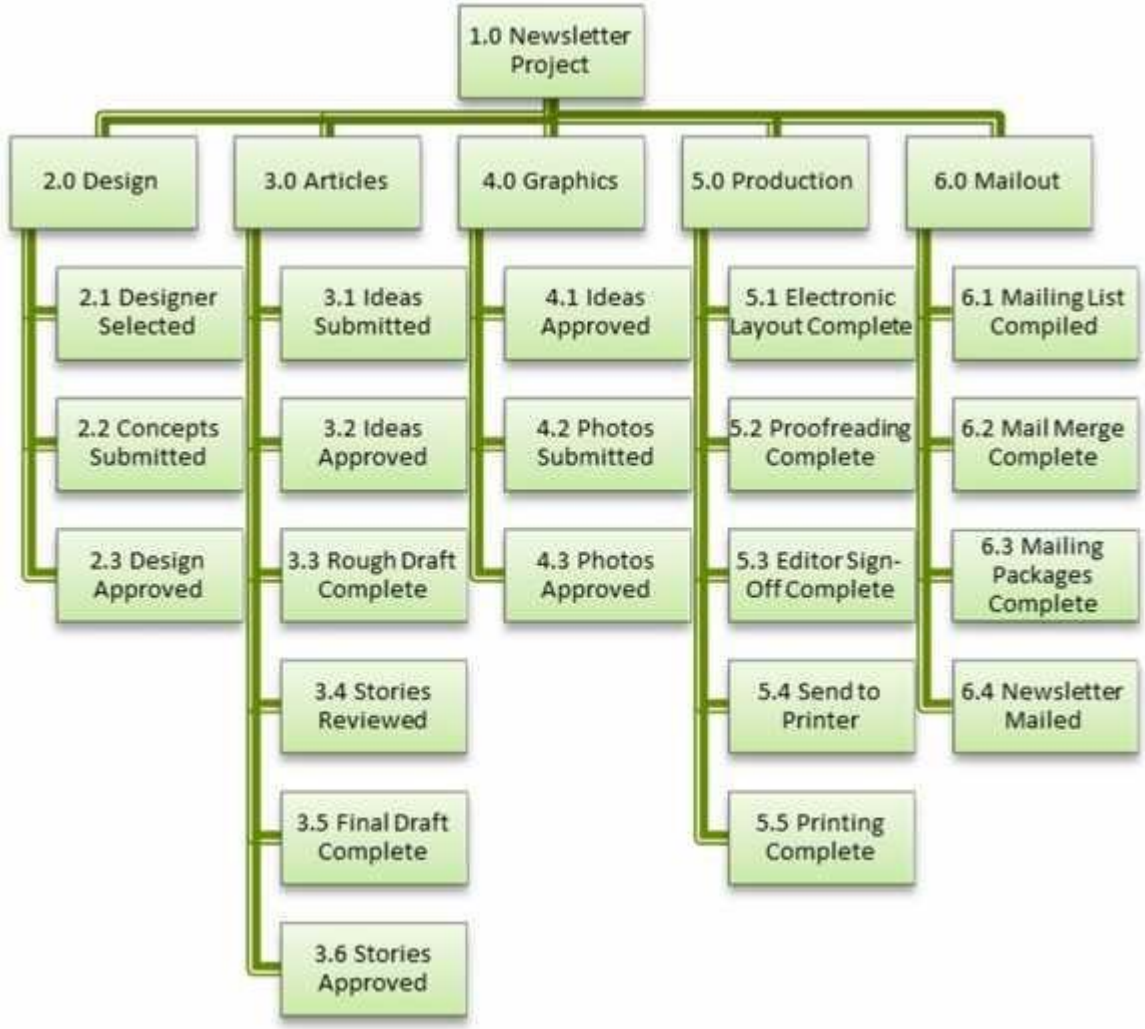
Task #	Task Name	T_o	T_p	T_m	T_e
23.					
24.					
25.					
26.					
27.					
28.					

The Work Breakdown Structure

A Work Breakdown Structure is simply taking the milestones and breaking them down into the tasks required to reach each milestone. The idea of a Work Breakdown Structure (sometimes called Product Breakdown Structure) is to break larger tasks (milestones) down into smaller tasks (activities) or individual components.

Sample WBS

Here is an example Work Breakdown Structure for a newsletter project.



Planning Tools

Two Basic Tools

We are familiar with many planning tools. We use them every day. They include:

- The clock on the wall
- The calendar in the lunch room
- The planner on our desk (or computer)
- The meetings we attend

There are several planning tools that we will only have time to touch upon briefly. Our main reason for including them is to help you become more familiar with them. There won't be time to learn how to use all of them, and most of them are used with more complex projects. However, this will give you a starting point, and some ideas.

Action Planning Worksheets

These can vary greatly in their complexity. The most basic ones show only those steps required to complete a project. Additional information, such as the beginning dates, targeted completion dates, cost estimates, and who is responsible, can be added to the basic worksheet.

Milestone Charts

Milestones signify a key accomplishment in your project. They are markers for summarizing work that has been done, not individual tasks. One advantage of a milestone chart or calendar is that it can be posted for everyone to see.

A Milestone Chart will be even more useful if you use it to chart your progress. This is usually done by drawing a line in a different color under the original line to show actual beginning and completion dates of each step, or if you are using a wall calendar, crossing off each milestone when a task is done.

PERT

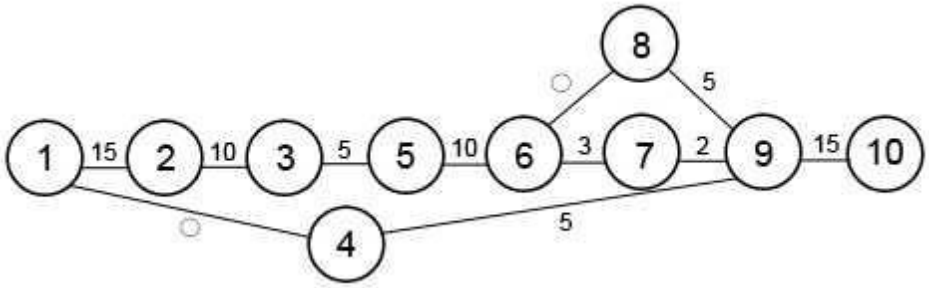
PERT stands for Program Evaluation Review Technique. A PERT diagram represents an added degree of sophistication in the planning process. To draw one, list the steps required to finish a project and estimate the time required to finish each step.

OBJECTIVE: Publish a Work Planning and Review Workbook by September 1, 20--.
Action Steps with Time Estimates:

1. Write draft	15 days	6. Proofread	3 days
2. Type draft	10 days	7. Make corrections	2 days
3. Proofread	5 days	8. Draw figures	5 days
4. Draw cover	5 days	9. Reproduce	15 days
5. Type final draft	10 days	10. Deliver books	

Steps that must be completed first are shown in order to clarify proper sequencing. Steps that can be underway at the same time are shown on different paths.

Then, draw a network of relationships among the steps. The number of the step is shown in a circle, and the time to complete the step is show on the line leading to the next circle.



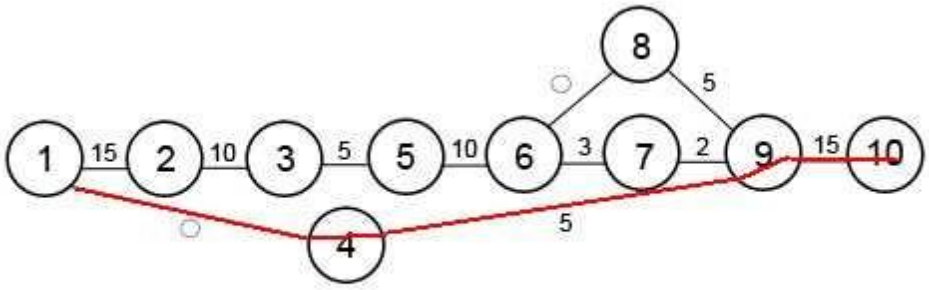
(The PERT Diagram can be made clearer by coloring each step as it is completed. Actual time may be written over the estimated time to maintain a running tally of actual versus planned time along the critical path.)

Along the Critical Path

A PERT diagram not only shows the relationship among various steps in a project, it also serves as an easy way to calculate the critical path.

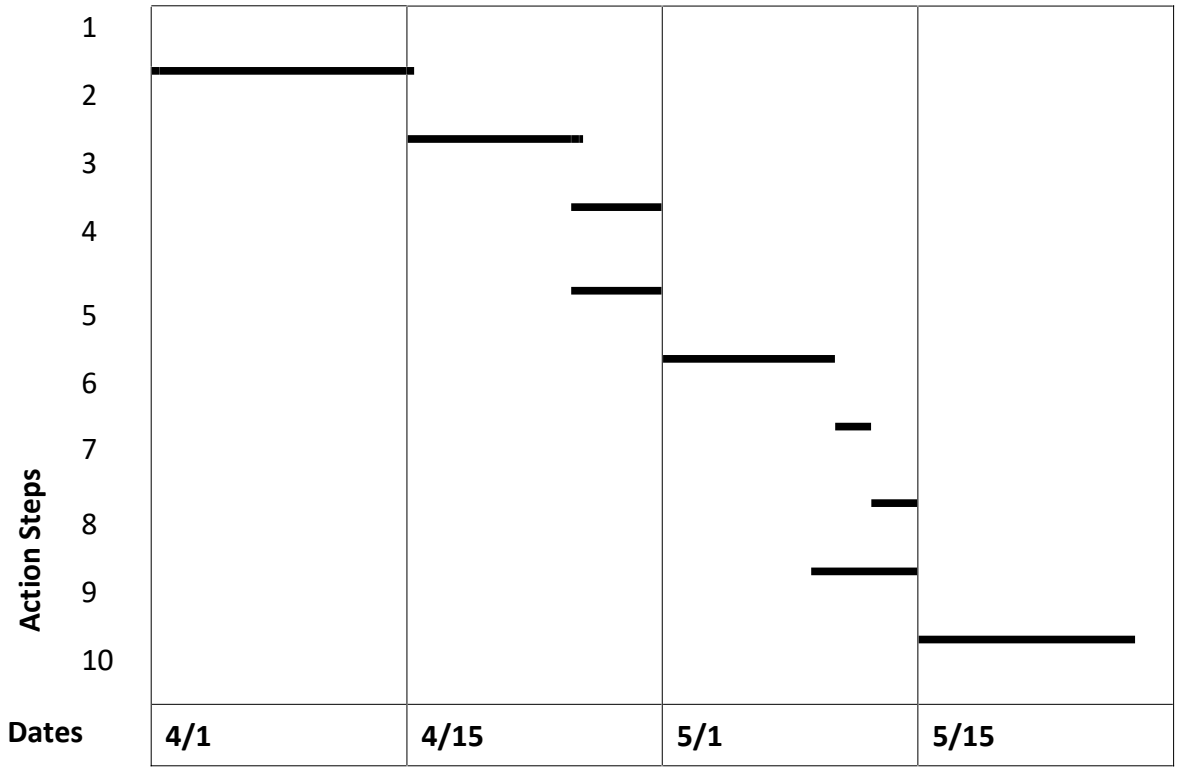
The PERT diagram and the CPM (Critical Path Method) are very similar, and they are the most common forms of showing networks, or interrelationships among tasks. They just display information differently. They are sometimes called the PERT/CPM activities.

The critical path shows the shortest amount of time needed to complete a project.

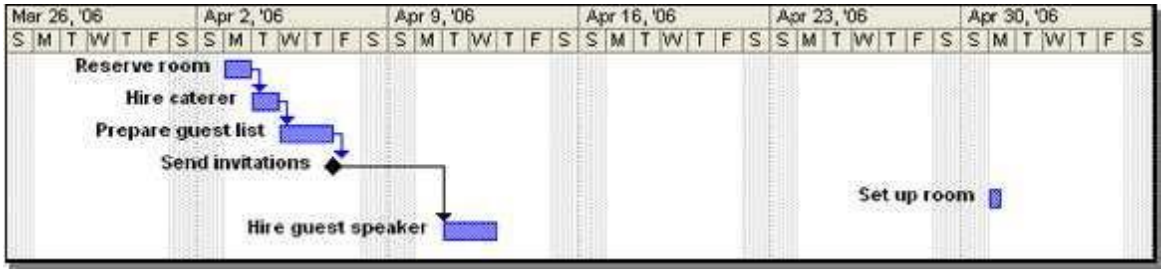


Gantt Charts

Gantt charts are bar charts that show activities as blocks of time. These are extremely useful; once you have calculated the estimated duration for your project, you should fill in one of these.



Here is a computer-created Gantt chart.



The Network Diagram

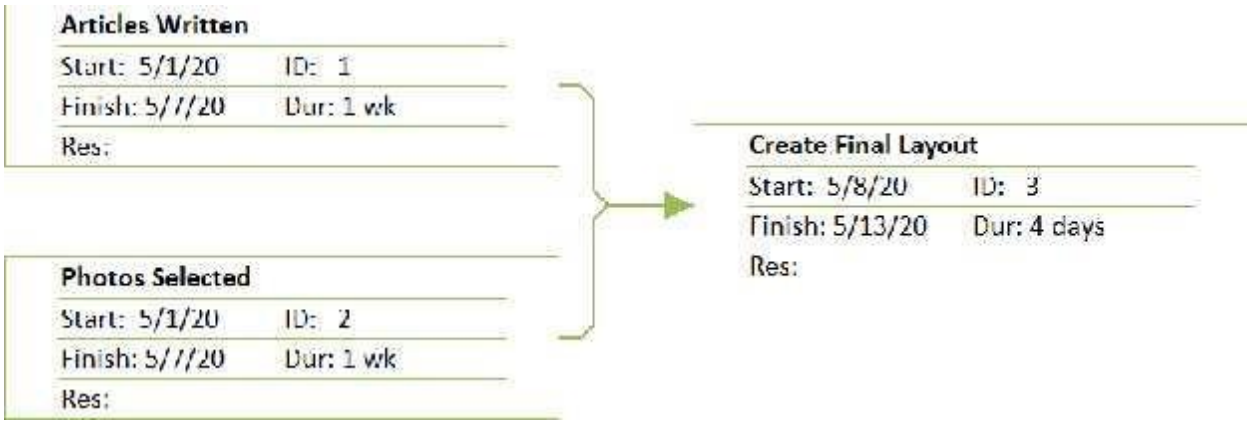
The Network Diagram is a tried and proven way to organize and sequence the steps in a project. Anything but the simplest project should have a network diagram; it's a road map for your project and you don't even need a computer to create one (but it sure helps on big projects). However, it's important to understand how to create your network diagram manually before you let your computer do your thinking for you.

The network diagram shows the path of the project, lists start and finish dates, and names the responsible party for each task. You should put your network diagram on the wall where the whole project team can see it. Then, use a bright color to mark off what has been done; this is a powerful way to communicate just where you are in a project.

If you are the only person working on your project, you will probably complete your tasks in sequence, one after the other, until the project is finished. However, if your project involves more than one person, people will be working on different tasks at the same time, and some tasks may depend on others to be completed before they can get done.

These interdependencies can be hard to figure out in your head. That's when you really need a network diagram—to help you picture how the pieces fit together.

Detailed task lists and a work breakdown schedule are a good start, but they don't draw the complete picture. They aren't very effective when it comes to coordinating tasks and resources. Network diagrams reveal the workflow, not just the work.

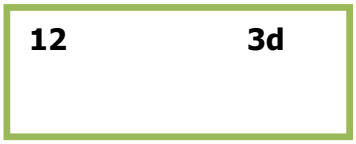


Five Steps to Create a Network Diagram

1. List the tasks using your task list or your WBS (Work Breakdown Structure).
2. Establish the interrelationships between tasks.
   - What precedes this task? What other tasks must be completed before this one can get started?
   - What tasks follow this task? What tasks can't be started until this task is done?
   - What tasks can take place concurrently with this one? What tasks can be worked on while this is being completed?
3. Identify milestones. Milestones signify a key accomplishment. They are markers for summarizing work that has been done, not tasks. If the project is small, you can even leave out the milestones.
4. Lay out the tasks and milestones as a network. Some experienced project managers start at the end point, the last task in a project, and work backward. However, there are many good arguments for starting at the first task and moving forward. Your approach is a matter of preference.
5. Review the logic of the network. The network review process lets you see whether tasks are being done in a logical sequence. Ask yourself:
   - Are the tasks properly sequenced?
   - Are all preceding tasks identified?
   - Are all the tasks necessary?
   - Are any tasks missing?
   - Do these tasks represent all that needs to be done in order to meet the project goals specified?

Other Things to Know about Network Diagramming

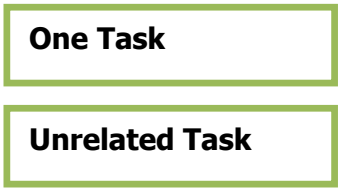
A rectangular box indicates a task. The number in the top right is the duration of the task. The number at the left is the task number used for tracking.



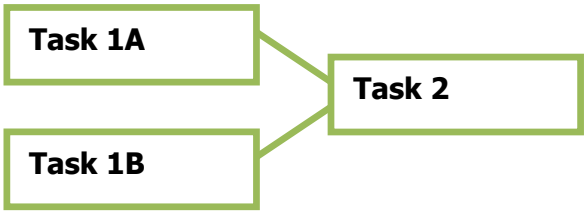
A box with rounded corners is a milestone. Milestones do not have duration like tasks because they represent the completion of a series of tasks.

Precedence is indicated by the sequence of tasks joined with a line and an arrow.

Concurrent tasks are shown in the same vertical plane and are not connected by lines or arrows.



Two tasks that must be completed before a third can begin looks like this.



To make tasks and sequences easier to find in your network, be sure to identify each task and milestone with unique numbers or other identification labels. In computerized project management programs, tasks are always numbered and identified by task description.
The same method of identification or numbering used in the WBS is usually appropriate; however, it is common in networks to skip numbers between tasks to allow flexibility in the network when requirements for new or different tasks may become apparent later in the project.

For example, instead of numbering tasks as 1, 2, 3, and so on, it might be better to number tasks in relation to each milestone. For example, between task 10 and task 11, you can number them 10.1 and 10.2 without disturbing the logical numbering sequence of the original tasks. The numbering system should be flexible because projects almost always have changes that need to be represented in the network.

The Flow Chart

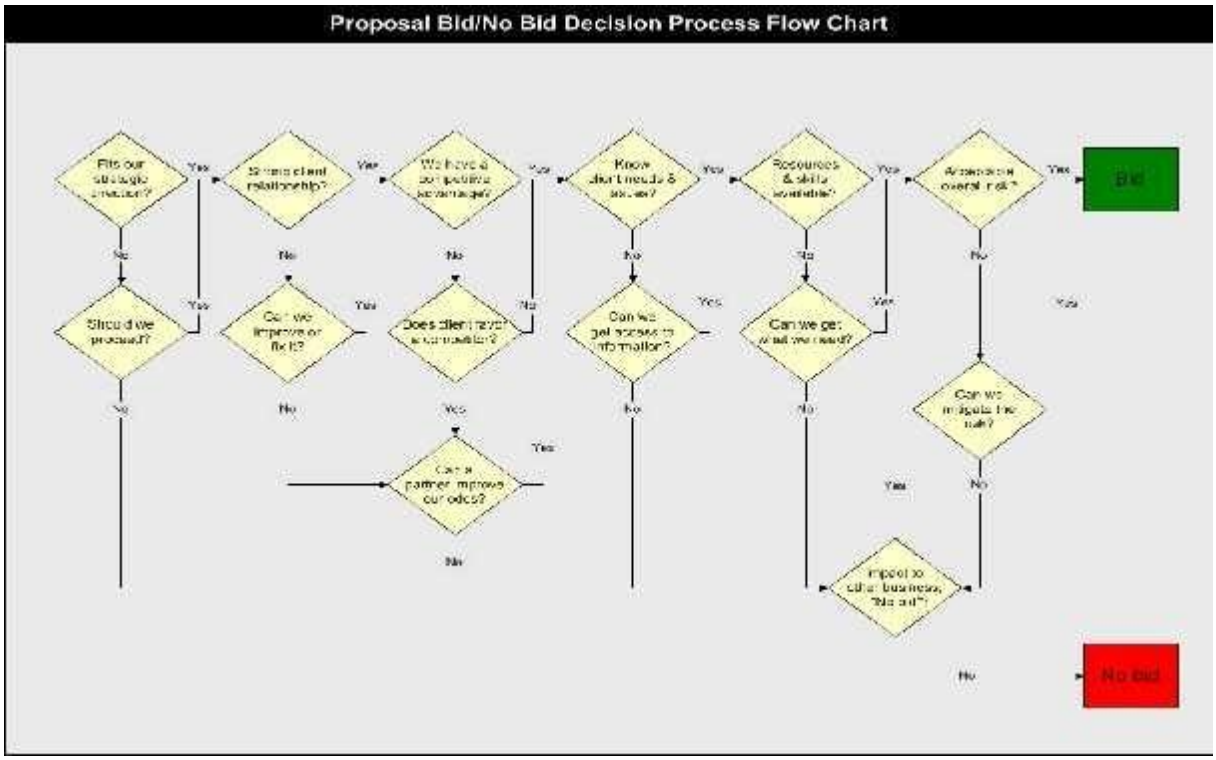
You've probably seen a flow chart. It shows the flow of information or activities based on different outcomes.

Here are the steps to making a flow chart:

1. Gather a group of people who represent the various parts of the process.
2. Decide where the process begins and ends.
3. Brainstorm the main activities and decision points in the process.

4. Arrange these activities and decision points in their proper order, using arrows to show direction of flow.
5. As needed, break down the activities to show their complexity.

Example



(Source: Visio sample provided by pcubed.com)

Budgets

Test Your Knowledge

What are some of the major components of the cost of a project?

Most projects run on tight budgets. Often, everything costs more and takes longer than you expected it to, or the budget was put together in a hurry and key tasks get left out of the process.

Ideally you will control the budget. More often than not, though, you will have the responsibility of tracking the budget, without control over how the dollars get spent.

There are two major costing methods:

- Bottom-up budget: You and your team get to build the budget by hammering out costs, item by item.
- Top-down budget: Senior managers estimate the costs and allocate that amount to you for execution.

Perhaps the best type of budget combines both methods: you're given an amount and then you build a bottom-up budget. Try to build your budget in an orderly fashion, task by task, step by step.

Test your knowledge

What are the costs associated with each task/activity in your project?

Costs are tied to project goals. Do you want to go first class all the way, or will this be the economy version?

Remember:

- Costs are tied to time frames and schedules.
- Doing things faster usually costs more money.

Costs require expert input. Don't make "guesstimates" about areas you know nothing about. Ask the people who will be doing the work what their costs will be. Get budget input from staff, outside service vendors, and other project managers who have more experience than you.

Who controls the budget? Whatever the arrangement, ask your project sponsor to sign off on the final budget and any budget changes thereafter. However, try to come to some arrangement so you can buy supplies and pay bills in a timely manner.

Remember to ask:

- Can you get some signing authority?
- Do you control petty cash?

Establishing a reliable budget is likely the most difficult task a project manager faces for political and logistical reasons. Management personnel will rarely accept your budget as reasonable; they will attempt to squeeze money from it, even if it means putting the project at risk. You'll need to document and negotiate what you really need.

Your budgeting skills will improve after successfully completing several projects. You want as much direct control of your budget as possible if you're going to be held accountable for the project outcome.

Teamwork

Why is Teamwork Important?

One of the essential ingredients of a successful project is teamwork. Members of the group must all feel that they are working toward a common goal.

Therefore, assignments should be common knowledge to all participants. Individuals should understand their areas of responsibility and know who is responsible for other facets of the project. Unless this is clear from the outset, problems will occur, involving hurt egos and/or assignments that are neglected because nobody knew who was supposed to do what.

Giving assignments to team members shouldn't be any different from giving regular departmental assignments, with one possible exception: now they are under a strict deadline.

Another challenge: on long-term projects, it can be difficult to hold the interest of all team members.

Test your knowledge

How can you keep interest high and momentum going?

Building a Winning Team

In an ideal world, when you are tackling a project that involves more than just you, you would get to select the people with the right skills and the commitment to get the job done. However, in the real world, you won't always have the advantage of being able to choose every member of your team. Sometimes people are selected because they are available, rather than because of their skill or talent.

People can often do more than you think they can. They've just been waiting for a chance to prove their ability.

Remember the self-fulfilling prophecy: if you believe they can do it, they can! Be realistic about your team's ability, but don't wear yourself and everyone else down with negative energy before the project starts.

Here are some tips for building a winning team:

- Define roles. You give teams a fighting chance if all members know what their roles and responsibilities are from the outset.
- Make a list of all the skills needed to complete each task on your project.
- Do a skills inventory of the people you have to see where you stand.
- Be prepared to negotiate for the team members you need. Don't just complain; come up with alternatives and solutions.
- Do the best you can with the people you have, but make sure resulting problems are documented as they occur.
- If your team doesn't have all the skills they need, build training into the project.
- If your team isn't qualified for some tasks and training would take too long, consider hiring a contract position for that particular skill/task.
- A diverse group of people may be difficult to work with initially, but over the long term they may prove more creative and add more value to the project.

Note: In the long term, learning to work with different people on different projects, and developing your ability to bring out the best in everyone, will make you a more valuable and respected project manager.

Developing Teams

Four Issues to Address with Project Teams

There is no question that teams can unleash a tremendous energy for a project. But there are four issues that are critical to the success of that team.

Accountability

The biggest problem when forming teams and assigning projects to them is that accountability may be lost. Teams are often formed spontaneously by asking people to volunteer for assignments. They choose their own leader and then proceed with the work.

Ask yourself these questions: If the team fails miserably, or produces substandard work, would you fire the entire team? On the other hand, could you promote the entire team, as a team, if the work was outstanding?

In both cases, your answer is likely to be "No." That means you do not have team accountability. You are hoping for a happy accident to occur.

The lesson: Team members must be chosen carefully and they must be very clear about their responsibility to the team.

Experience

Teams also need a leader with more than technical expertise. Team leaders need to understand brainstorming, group dynamics, and the ability to get information from others.

Resources

Resource allocation at the appropriate managerial level is another critical factor in forming and commissioning a team. Teams should not be formed from the bottom up and have to search and beg for resources or technical expertise. The appropriate manager should ensure that these resources are provided.

Empowerment

Finally, teams formed to address strategic issues should not be formed at too low of a level. Hands-on workers can deal with operational concerns but they frequently do not have enough information to address strategic considerations.

Checklist for Success

When forming the project team, ask yourself:

- Can general experience be sufficient? Does the individual need specific experience?
- What interpersonal skills are required?

- How many of each of these skilled people will be needed?
- What level of supervision will be required?
- Not everyone is a team player. Is this important?
- Consider skills and personality. Can everyone work together? Do they have the necessary skills?
- Team Development

As early as the 1970s, researchers were discovering that groups of individuals working together go through four distinct stages of development. The most famous representation of this model is Tuckman and Jensen's Forming, Storming, Norming, and Performing model. Over time an additional stage has been added to reflect the natural end to a group: Adjourning. The stages are similar to human development: infancy, childhood, adolescence, adulthood, and old age.

One of the roles for a group leader or facilitator is to help the team grow and develop. Sometimes a team is only together for a short, specific project, and you will try to move them to a productive stage as quickly as possible.

Forming

Characteristics of this stage:

- Group members may be anxious, adopt a wait-and-see attitude, and/or be formal.
- No clear idea of goals or expectations.
- Members are unsure why they are there.
- Members need to get to know one another.

What you can do to help:

- Have the team write its own charter or mission statement and clarify their goals. Remember, goals must have personal buy-in.
- Help the team establish boundaries and determine what is expected.
- Assist team members to get to know each other doing a non-conflict laden task. This builds commitment toward one larger goal.
- Help them know what to expect; communicate and reassure.

Storming

Characteristics of this stage:

Team members eager to get going.

- Conflict can arise as people bring different ideas about how to accomplish goals and notice differences rather than similarities.
- Some members may drop out mentally or physically.

What you can do to help:

- Continue with no surprises and communicate.

- Tensions will increase; this is normal, so recognize and publicly acknowledge accomplishments.
- Keep in mind that conflict can be healthy.
- Lead/participate in meetings.
- Value diversity.
- Gather information and be supportive.
- To move to the next stage, encourage participants to put the needs of the group ahead of their personal interests.

Norming

Characteristics of this stage:

- People begin to recognize ways they are alike.
- They realize it's sink or swim; they're in this together.
- People become more social.
- Members may forget their focus in favor of having a good time.

What you can do to help:

- Recognize how they are alike.
- Help with training if applicable.
- Encourage them to feel comfortable with each other and with systems.
- Help the group stay focused on its goal.

Many groups don't make it to this stage, where there is much more cooperation and understanding than previous stages. Be observant of emerging group behaviors, encourage the team to express their differences positively, and help them stay focused on their objectives.

Performing

Characteristics of this stage:
Team members are trained and competent, able to do their own problem-solving.

- Now the leader will ask for critical self-assessment and look at ways to challenge and develop them.
- Members are mature and understand their roles and responsibilities.
- The team wants more input in processes.
- Everyone is self-motivated and self-trained.

What you can do to help:

- Recognize efforts.
- Encourage growth.
- Give new challenges.

This phase happens as a demonstration of high levels of trust. It can also be susceptible to "groupthink," so the leader must observe and ensure that individual ideas are requested and considered.

Adjourning

- Winding down and saying goodbye.
- Setting goals for future work independently and/or as part of new groups.

Groups may adjourn because they finish a defined project, because they are no longer challenged, or they may have several newcomers and that shifts the group.

In this phase, leaders can support the group by celebrating everyone's participation, describe what's going on, look for and encourage contribution from everyone as the group winds down, and encourage continued productivity.

Aspirinia

Decision Information

Introduction

You work for the Super Aeronautic Space Science Institute (SASSI for short). The group is international, but then, so is everything these days. The old concept of separate countries vying for their piece of Earth, wealth, and power has given way in the need for survival. You have been selected to be a part of a team of scientists and astronauts getting ready to leave Earth to explore Aspirinia, a moon that appears able to sustain life and currently orbits Earth with our original Moon.

Sounds like science fiction? Think again!

The year is 2111. A hundred years ago, there was a massive shift in space, and a catastrophic astronomical storm destroyed orbit patterns, sent moons and planets in unimaginable directions, and re-wrote the map of the universe. The storm pushed tens of thousands of pieces of rock and space junk into the asteroid belt. Many pieces burned through the outer edges of Earth's atmosphere and crashed into Earth itself. Millions of people were killed in the constant showers of rock and minerals, earthquakes, landslides, tsunamis, and severe weather. Despite celebrating the birth of the 7 billionth person in 2011, current census results indicate there are no more than 1 billion people left on the entire planet Earth.

In the destruction, many of Earth's great scientific minds were killed. Air travel, cellular technology, the Internet, and contact with other regions are all extremely limited, and very costly. Short wave radios are most commonly used and Morse code is once again the language of the airwaves. Dirty water is a constant threat. Food is scarce and rationed everywhere. There is high security around technical installations and food and water treatment and preparation facilities. The greatest threat, however, is the cooling of the Earth's core. An ice age is imminent.

As well, the moon Aspirinia that was once orbiting around Jupiter now orbits Earth with Earth's original moon, having broken away from Jupiter's orbit. Earth's own axis shifted by nine degrees, and Earth's moon shifted so that 50% of what used to be known as its dark side now faces the planet below.

One hundred years after The Shift, Earth's fractured self is still adjusting to the changes. The ground is so unstable that earthquakes can no longer be told apart from aftershocks in several regions. Areas that were at around sea level before the shift are now underwater (perhaps permanently). Survivors have relocated themselves far inland, often living in family groups and tribes in small villages and learning to survive by practicing ancient techniques of water treatment, farming, and sustainability.

The surviving members of the science community were left with access to a multitude of information, and a possibly crazy idea. Aspirinia seemed to quickly stabilize when it took up position beside Earth's original Moon, and has remained there. The question is: can it sustain life?

Before The Shift, SASSI was involved in a terra manipulation experiment on Earth's Moon. The terramanipulation was an effort to make the moon livable for humans and animals. Scientists were able to manipulate and secure the moon's gravitational pull, create thousands of hectares of farmable land, and generate drinkable water. They were in the process of completing the final touches on the ecosystem, complete with insects, birds, and farm stock, when The Shift hit and the project was abruptly ended. By the time The Shift finished its active phase, the Moon showed significant damage, with enormous craters and at least three cracks the size of Earth's Grand Canyon. The scientists and settlers on the Moon all perished when the Moon's gravitational pull returned to its pre-terramanipulation state.

Aspirinia, however, appeared to be another matter. It was significant enough to be a planet in its own right, judging by its size and composition. Positioned as the next door neighbor to Earth's Moon, scientists are confident that Aspirinia could be the savior they are looking for. At about two-thirds the size of Earth, Aspirinia shows evidence of plant growth and water on the surface at some time, and its gravity and placement have been consistent over the past 90 years or so. Could terramanipulation, once a story in science fiction tales but partially proven on Earth's old Moon, be made to work? Could Aspirinia save humanity?

Individual Action Steps

There are several things that your team will need to do before leaving for Aspirinia. Go through the list below individually and rank the tasks from 1 through 8, with 1 being the most important, and 8 the least. All tasks must be completed, and all must have a different ranking.

Individual Ranking	Task	Group Ranking
	Hire three security personnel to protect the SASSI center, including an airstrip.	
	Reassign resources (food, water, electricity, heating fuel, medical supplies, and water purification chemicals) from the local village	

	to the space team.	
	Visit the neighboring village to solicit their support for the project.	
	Make repairs to the space suits, which are now 100 years old and must be made secure against leaking. You will not know enough about the atmosphere on Aspirinia until you get there.	
	Form a team to create ration packages to last at least six months. You will be dehydrating food that is harvested by the local villagers and rationed in the village.	
	Establish your realistic launch date.	
	Send ahead two unmanned shuttles with supplies.	
	Arrange for a launch party that includes the villagers.	

Communication Tips

Project managers are the key to keeping communication flowing between their team, manager, and any external customers or agents who will be affected by this project.

Test your knowledge:

How can you let others know of changes that affect the plans?

How can you communicate progress and motivate others to continue giving their best? How can you motivate others to be as interested in the project at hand as you are?

How can you ask for information from people who have special knowledge or expertise?

How do you hold meetings and make sure your manager has the time to meet with you?

Reports will be your documentation for this project. Send reports out on a regular basis to all those who need to be kept in the loop. One final report should be prepared to close out the project.

Closing Out a Project

While you may not want to start planning for the end of a project before you start, you should have some plans for a smooth closing from the outset. For example, do you have a file for each person on the project? Someone is sure to leave before the project is done. You will want to be able to contact them should you need to, and to send them a thank you note when the project is done.

You will want files on the vendors you use, and anyone involved in the project, if only for a short time. You will want to make arrangements to:

- Return items borrowed.
- Account for leased or rented equipment.
- Clean up after a conference, party, or banquet.
- Make sure all unfinished project activities are completed.
- Pay final bills and fulfill all contracts.
- Present the finished project to stakeholders, and anyone else who needs to sign off or approve the project.
- Be prepared to conduct post-project evaluations with your team so you can learn from the past.
- Make sure all documentation ends up in the hands of those who will need it in the future.
- Meet with team members and thank them for their efforts.

- If the project was a success, celebrate!

Taking good notes for the duration of a project can benefit future projects. Documentation on research and initial planning is important. However, don't forget to gather information on what could (and did) go wrong and the solutions you developed. This information is critical to help the next team create a better plan.

Remember that part of the SPIRIT goal model is to reward yourself (P stands for Prizes!). Projects should incorporate some kind of celebration for the successes achieved. Even if the project is scrapped partway through, you can celebrate lessons learned, even if it is over a cup of coffee at a local shop

Test Your Knowledge

Team Meetings
Why are meetings held? Do you think meetings are an effective use of time?

Here is a checklist of things that should be done before a team meeting:

Individual Meetings

- Meet with team members and discuss:
- Why was this person selected?
- What are the performance expectations?
- What are their individual priorities?

Information Gathering

Obtain the who, what, where, when, why, and how for the project.

Agenda Planning

Now it's time to plan the team meeting. You will want to:

- Ensure that the proper individuals are invited
- Develop an agenda and set objectives
- Send the agenda and information requests to the team
- Book the appropriate space

During the Meeting

- Make sure the meeting starts on time

- Encourage open communication
- Take notes
- Set some ground rules
- Introduce the members of the team
- Cover one agenda item at a time
- Review the priorities for the project objectives and schedule
- Review main points of the project, including goals, budget, and completion date
- Review individual plans for getting work started
- Discuss methods and tools to be used to manage, control, and operate the project
- Establish the time and place for the next project meeting
- Agree on and reiterate any follow-up activities or action items

A major cause of frustration can be related to ineffective meetings, yet meetings are necessary to exchange information and coordinate activities. However, people at all levels of an organization need to know how to plan, conduct, and participate in meetings effectively.

Seven Ingredients for Effective Meeting Management

- Always have an agenda and be fully prepared, even if you are doing something creative like brainstorming. This lets people know what to expect, and that their time is valued by you.
- Focus on what's important to the entire group during the meeting. If side discussions come up and the topic doesn't affect the whole group, schedule them for another time.
- Take action instead of becoming a group that gets stuck in discussion, and make sure people follow through on commitments.
- Train group members in communication, problem solving, and conflict resolution so they have the skills needed to be successful.
- Hold your meetings in places that are free from interruptions and distraction.
- Encourage open communication through facilitation skills and attention to your own body language. Make sure that you listen more than you talk.
- Ask for someone to be a note-taker (or appoint someone) so that you can focus on leading the meeting instead of trying to do both.

Making Committees Work

A committee should be results-oriented and have a time frame for accomplishing results.

Small committees usually function best. Size can be determined by the expertise needed and should be representative of the larger group.

Committees function best when one member agrees to serve as leader and assumes the responsibilities of leadership. Committees then function as small groups, holding their own meetings for which they keep records and have an agenda.

Assigning Work

Sometimes you are just handed a job that has to get done. **The projects may be less of a** team effort and more an assignment to be completed by a certain deadline. Knowing how to give effective work assignments can be a powerful motivational tool that encourages employee creativity, development, and commitment; however, poorly assigned work can cause a project to come unglued.

Who will do the task?

Consider the training, experience and skill requirements and compare staff members against these needs. At the same time, include opportunities for employee development and growth.

Make sure the expected results are clear in your mind
. Have a snapshot of success that you can share with employees. Putting your vision of success in writing often helps clarify expectations in your own mind.

Before you give out the assignment, find a way to **put the employee at ease**.
Help the employee understand the bigger picture.

Make sure you have allowed for **adequate time to explain** the assignment fully and why it is being done. Communicate objectives and standards of performance expected.

Communication should be a two-way process.
Allow time for questions and clarification, and get feedback from the employee as to how they see the task getting done.

Define any limits or constraints on the employee,
such as budget constraints, time limits, or overtime concerns.

Help the employee feel comfortable asking questions and discussing concerns. If you seem rushed or look at employees like they are stupid when they ask questions, you won't get much of a response from them.

As well, **get a commitment from the employee** that they will do the task. Plan on following up on your assignment to see that the task is being completed as expected: on time and on budget.

Presentation Primer

Project Management Presentation
Each presentation will consist of the following:

- Background information: How does the project fit into the big picture?
- Project goal statement: What is to be accomplished?
- What planning tools will you use? Why did you choose these particular tools?
- Explain the allocation of resources (such as materials, labor, and equipment).

- What will you communicate? How will communication take place?
- What conflicts could arise? How will these conflicts be dealt with?

Presentation Strategies

In most business situations, the best way for you to organize a presentation is to divide your message into four parts.

- What is the problem to be solved? Why are you talking to the group? If you can state that in a few sentences you'll find it much easier to develop the rest of your material.
- What is your solution to the problem? What do you recommend? Never present all of the solutions you researched and discarded. That dilutes the forcefulness of your saying, "This is what we should do next." Then briefly tell your audience why you believe your solution is best.
- What are the benefits of the solution to both your organization and to the individuals in your audience? Be careful not to confuse features with benefits. A feature is some characteristic of the solution. A benefit is what solving the problem your way can do to help your listeners.
- What is the action step? If your listeners agree with you, what do you want them to do next? Be specific.

One problem that hampers most presentations is the lack of an action step, where you tell your audience what you expect them to do and when. The action step should be something like, "By Tuesday, I'd like any suggestions in writing because we'll start this plan rolling on Wednesday." It's then clear what you expect and why you wish others to achieve it.

Speaking with Confidence

If the mere thought of speaking in a group makes you break out in a rash, here are some tips to increase your confidence:

- Stand, don't sit. Why? Standing makes you seem more powerful and more energetic. You will project both your voice and your message better when you're on your feet.
- Make up cue cards or visual cues. Use a flip chart or slides to note the key words of the ideas you want to get across.
- Face the audience directly and focus on one person at a time. Effective eye contact means focusing for at least three full seconds at a time on each of your audience members.
- Use your hands. Movement is a critical element of every presentation (but try not to look like you are conducting an orchestra).
- Ask questions to get questions. You need questions to gauge how completely your ideas were accepted. If you ask a couple of questions, it gives the audience time to prepare their own.
- Look around when you answer a question. Look fully at the questioner as they are speaking. Then repeat the question, moving your eyes around the group. This gives you some time to think and include the whole group in your answer.
- Neutralize negative questions. It requires a bit of practice, but you can reframe most negative questions to make them more positive.

Project Presentation

Remember to include the following in your presentation:

- Background information: How does the project fit into the big picture?
- Project goal statement: What is to be accomplished?
- What planning tools will you use? Why did you choose these particular tools?
- Explain the allocation of resources (such as materials, labor, and equipment).
- What will you communicate? How will communication take place?
- What conflicts could arise? How will these conflicts be dealt with?

Further Reading: