Planning a Project Using a Work Breakdown Structure and Logic Network

~ By Duncan Haughey

Projects don't just happen they need planning. Involve the whole project team in developing the plan, not just the project manager. This approach ensures team members' experience gets considered, and each person has a commitment to and ownership of the plan.

A good project plan provides the following:

- A roadmap (including clear milestones) everyone in the team can follow
- A realistic project timescale
- Details of resource requirements
- Validation of the estimated cost
- Identification of task slippage
- Early warning of problems

It pays to use previous experience and lessons learned from similar projects:

- How long did it take?
- How much did it cost?
- What were the problem areas?
- What were the successful areas?

Running a project without a plan is foolish. Working without knowing where you are going is likely to lead to problems and possible failure. Running a project without a plan, is like trying to find your way in a strange city without a map. You'll be wandering around not knowing where you are.

Next, let's look at what's involved in planning a project with your team.

Work Breakdown Structure (WBS)

It is useful to create a Work Breakdown Structure to identify and break down the deliverables in the project. A WBS is the foundation of project planning. Get the team together and brainstorm all the deliverables in the
project, in no particular order. Write them down on sticky notes and put them on a whiteboard. Once everyone has thought of as many deliverables as they can, break each deliverable down into successively smaller chunks of work. Break down the deliverables to a point where the project manager can easily manage them. Once completed, arrange the sticky notes into groups under the major areas of activity. Add, change, remove and shuffle the sticky notes until your WBS is accurate, complete and logical. The purpose of a WBS is to decompose the project deliverables into easily manageable work packages.

Logic Network (Time Chart)

A Logic Network shows the sequence of activities in a project across time. It indicates which activity logically precedes or follows another. Create a Start (left) and End (right) sticky note and put them on a whiteboard. Arrange the WBS sticky notes in the logical sequence of activities from left to right. Join the notes with an arrow in and out; some may have more than one arrow. All connecting lines on a network enter at the left (beginning) of the activity box (sticky note) and exit at the right (ending). Lines do not enter the top or exit the bottom of the activity box. Unconnected lines are not allowed. All activities must connect to another activity or the start or end of the project. Write the time every activity will take on each sticky note to calculate the project duration. Once completed, you have created a Logic Network that will help you understand the dependencies in your project, timescale, and its workflow. This technique can reveal valuable information that might otherwise get overlooked.

Milestones

Look for milestones in your Logic Network. A natural milestone may occur any time a series of parallel activities come together to a point. Control the project by defining a concrete deliverable for each milestone. A concrete deliverable is something you can see or touch, such as a design specification, prototype, model or software module.

Using Project Management Software

The information from your WBS and Logic Network can be input into a software package, such as Microsoft Project to provide a detailed plan. Enter the tasks, predecessors, resources and time estimates into the software. Once entered, the software will create the charts and graphs automatically. Don't expect the software to plan or manage the project; it's just a tool.

Checklist

Here is a checklist to help you create a well thought out, detailed project plan while building a committed high performing team:

1. Define what needs to be done using a Work Breakdown Structure.
2. Discover the best approach to getting everything done by developing a Logic Network.
3. Develop work and duration estimates of how long each team member needs for each work package.
4. Calculate how long the project will take to complete its critical path and milestone schedule using the Logic Network.
5. Calculate and chart the number of people needed and the percentage of each team member's time for each phase of the project.
6. Adjust and refine the project plan to level individual workloads and smooth out the number of people...
needed for the project.

7. Creatively optimise trade-offs to deliver the best results in the shortest time.

8. Use the joint planning process to intensify team members’ commitment and ownership.

By working through this process, you will have increased your chances of success by creating an accurate and realistic plan, while gaining the commitment of your team to deliver a successful project.