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TECHNIQUES FOR PROJECT INITIATION

Part Five – Project Milestone Schedules

Project Milestone Schedule

The development of the WBS and other structures does not necessarily occur all at once. During the project initiation process, the WBS is initiated and developed down to some intermediate level. At that time, it is also advisable to develop a timing framework for the project.

The WBS is a framework for the definition of the project work scope. Another framework is the **Project Milestone Schedule (PMS).** The PMS is a framework for the timing of the project, and provides a structure for the project detailed schedule. Again, we face the question of where to start. And, again, we will note that the development of the schedule is an iterative process. We may initiate that process when the top levels of the WBS are developed, and continue to increase the level of detail, as we define the project in greater detail. Continuing the schedule development, we will then integrate the schedule data with expected resource constraints. Finally, we will attempt to optimize the schedule by balancing timing, resources, and other constraints, until we accept the schedule as part of a baseline plan.

The Project Milestone Schedule, as the framework and first part of this scheduling process, is a vehicle for recording the time constraints, time objectives, and other "givens" pertaining to the schedule. Therefore, the process for developing the PMS is as follows:

- Start with the key dates that you already know. These may be a given project start date, a target or contractual project end date, and interim milestone dates.
- Note any special time-based constraints: a plant shutdown, a critical design review, a company board meeting, a trade show commitment, and any contract commitment dates.
- Add any internal interim milestone dates and preliminary high-level time frames: target starts and completions for various phases, resource-based timing objectives, arbitrary time dividing elements, weather-dictated factors, known or typical time cycles for major components or effort-driven work.

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The Project Milestone Schedule provides guidance by defining the time windows into which the task scheduling will attempt to fit. Figure 1 is an example of a Project Milestone Schedule for a turnkey power plant project.

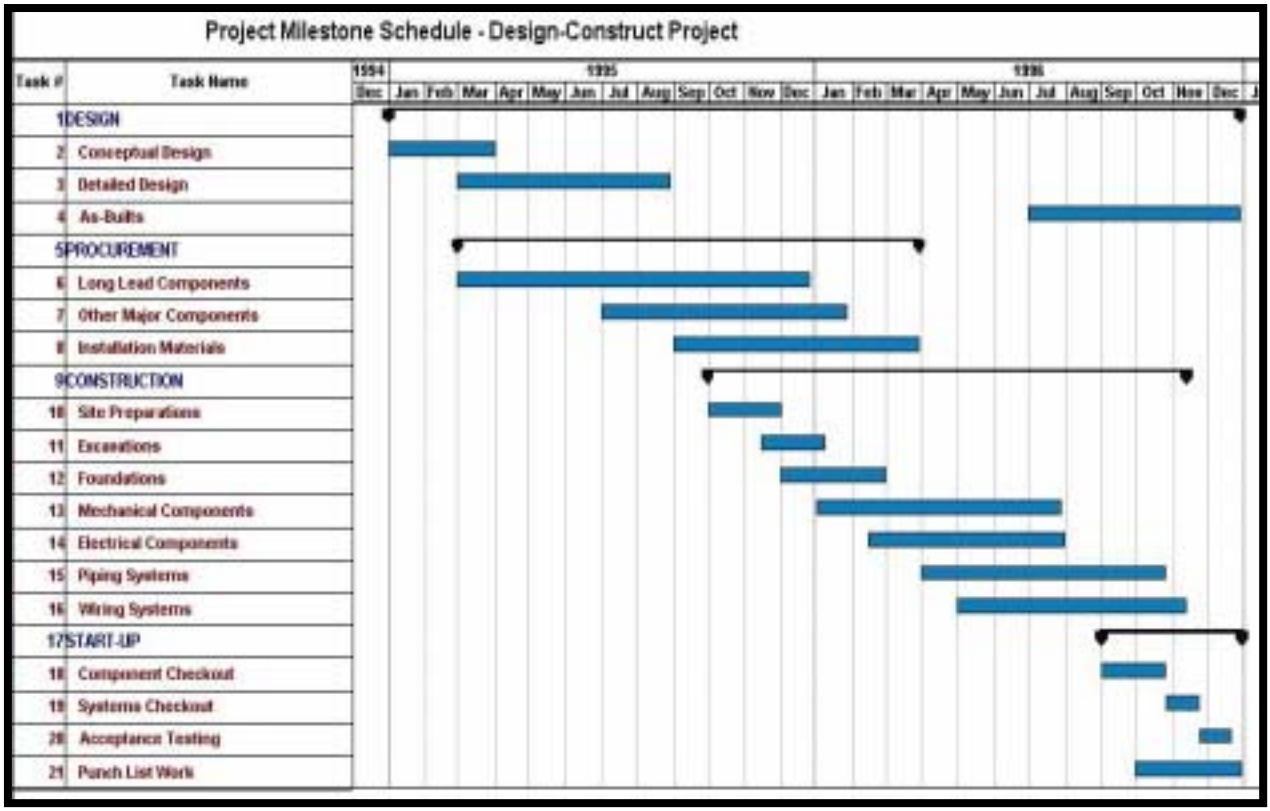

Figure 1

Figure 2 shows a project milestone schedule for the Almonds & Molasses Cereal Project. Note that there is a kinship to the WBS, but there is not a complete one-to-one relationship.

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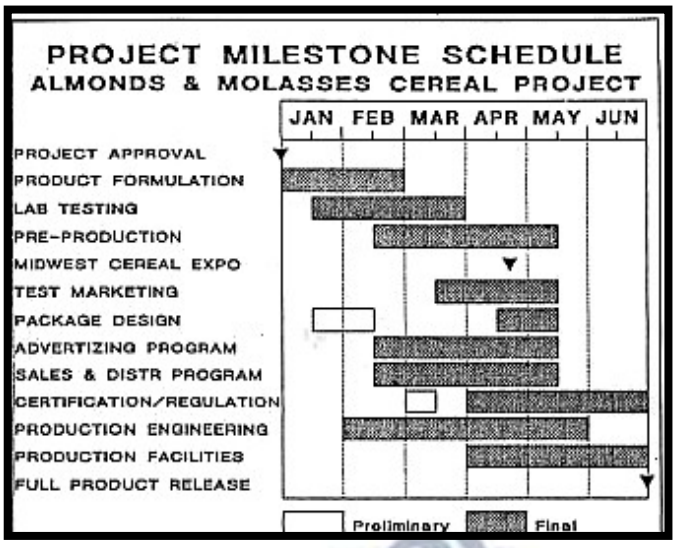

Figure 2

Resource and Cost Frameworks

Up to this point, we have been talking about work scope and timing structures for activities. In a project management database, each activity may have one or more resource or cost elements associated with it. There will be people associated with the project that will be more interested in an aggregation of resource and cost information, than in the activity view. This is achieved by assigning resource codes to each resource (or each task) and defining a cost account structure to the system. If possible, you will wish to set up a resource hierarchy, so that resources can be put into groups. Fortunately, most of the commercial project management software programs now support this feature, as well as some kind of cost account numbering system.

If you intend to use any performance measurement procedures, you will need to establish a structured basis for subdividing the project into collective elements that are meaningful to those people who are interested in the project performance results. Most programs provide at least one data field that can be used to define a code of accounts to the system.

Integration Impediments

Effective cost management, through the utilization of project management software systems, is an elusive objective. The integration of work measurement (schedule progress) and cost measurement, the main ingredients required for project performance

measurement and control, is built into most project management software products. Yet, the system users do not often achieve that potential. There are three significant causes of this failure:

- Difficulty in synchronizing the timing for the progress measurements and the cost measurements.
- Linking of the project management systems to the accounting systems.
- The tendency to set up different measurement categories for the progress and the cost.

The latter two items can be addressed when we develop the activity and cost structures for our project. It is imperative that you identify and recognize the way that cost data will be collected for your project. If the project database is set up to one structure, and the cost data is being collected to a different structure, the integration of the two is obstructed. Useful project performance measurement requires the integration of the progress and cost data, which mandates the establishment of a common set of pigeonholes into which to funnel the experience data.

Effective Project Initiation:

A Key Factor in Project Success

Getting started may be the hardest part of the project planning process. But the diligence applied at the initiation stage will almost certainly pay large dividends at the conclusion of the project. This is where we build the foundation for the project:

- We look at organization and culture and establish plans to work within the existing environment and the overall business strategy.
- We identify the project stakeholders and look at how they will measure success.
- We develop a project strategy that is fully consistent with the business and the stakeholders; and addresses the opportunities, risks, and issues associated with the project.

These front-end activities are essential to the initiation of a project, regardless of the automated project management tools employed, if any.

- We develop a set of structures so that there is a framework for the project database.

- We use these structures as an aid to identifying the project work scope and in developing the baseline schedule and budget.
- Assuming that some kind of project management software is being used, we then use these same structures (the WBS, OBS, Project Milestone Schedule, Code of Accounts, etc.) to sort the data, to select sections of the data, to group the data, and to roll up activity, resource, and cost data to various summary levels.

No project is ever easy to manage, and no project management software system is a panacea. But we can be pretty certain that the application of automated project management tools will fail to deliver its potential without a decent framework. Without a proper foundation, of strategic thinking and organized structures, the project will crumble to the ground.

Article Series Segments

- Part One: Getting Started
- Part Two: Project Strategies
- Part Three: Stakeholders & Organizations
- Part Four: Project Frameworks
- *Part Five: Project Milestone Schedules*

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He has implemented or enhanced the project management capabilities of numerous firms, often combined with the selection or implementation of computerized project management tools. Mr. Levine is considered the leading consultant to the project management software industry and is recognized as the leading expert in tools for project management.

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Mr. Levine is a past president of the Project Management Institute and the recipient of *PMI's 1989 Distinguished Contribution to Project Management* award. Recently, he was recently elected as a *Fellow of PMI*.

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