



## Chapter XV

# Software Systems for Project Management

*You miss 100% of the shots you don't take.*

(Wayne Gretzky)

A vast amount of project management software is available today in a wide variety of capabilities, applicability, platform requirements, and prices. These software products significantly enhance the PM's job of managing a project in almost all aspects, including selection, planning, scheduling, execution, control, risk, and communications. PMs should therefore be aware of the types of tools available and the features and applicability of those tools. In this chapter, types of software products and some specific products are identified and discussed.

## Spreadsheets

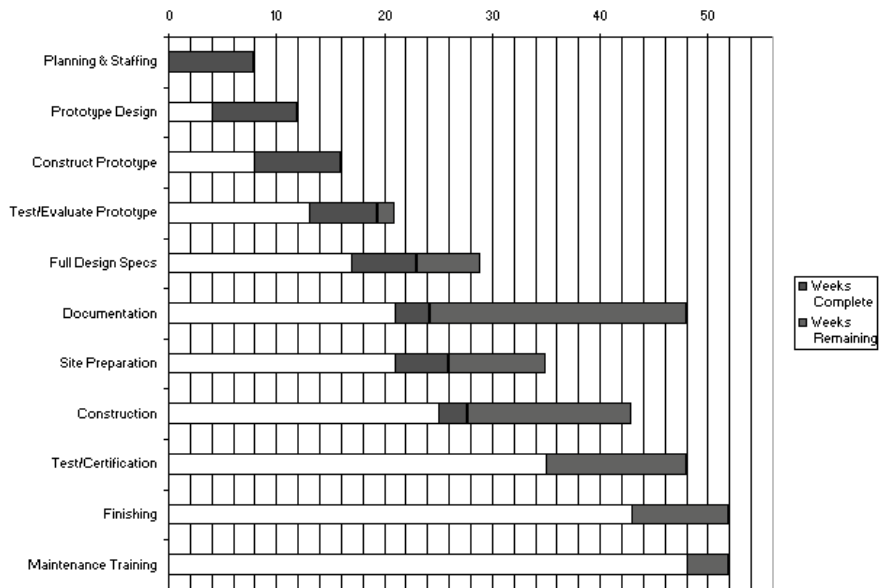
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Spreadsheet programs are the most commonly used computer software programs for project management (and business in general). Spreadsheets are easy to learn, easy to use, inexpensive, generally available, and adaptable to most project management tasks. Consider the project planning and progress information shown in the spreadsheet of Figure 15.1; the last two columns are calculated columns. A graphical representation in the form of a classical Gantt chart can also be created from the spreadsheet data in the first three columns using the charting capability in most modern spreadsheet programs (such as Microsoft Excel). In addition, one can also use the columns for weeks completed and weeks remaining to draw a Gantt chart showing progress, as illustrated in Figure 15.2.

Figure 15.1. Project plan and progress

Project Plan and Progress - Week 30					
Task	Start Week	Weeks	% Complete	Weeks Complete	Weeks Remaining
Planning & Staffing	0	8	100	8	0
Prototype Design	4	8	100	8	0
Construct Prototype	8	8	100	8	0
Test/Evaluate Prototype	13	8	80	6.4	1.6
Full Design Specs	17	12	50	6	6
Documentation	21	27	12	3.24	23.76
Site Preparation	21	14	36	5.04	8.96
Construction	25	18	15	2.7	15.3
Test/Certification	35	13	0	0	13
Finishing	43	9	0	0	9
Maintenance Training	48	4	0	0	4

Figure 15.2. Gantt chart



The Excel chart wizard was used to create Figure 15.2 with the columns for task, start week, weeks complete, and weeks remaining; the first part of each bar was made the same color as the chart background (the chart is shown in black and white here, but the completed and remaining parts of each bar are different in color). There are also spreadsheet templates available from a number of sources to facilitate Gantt-chart creation.

A cost-based Gantt chart is shown in Figure 15.3. The bars are represented as a series of cost numbers for each time period of each task. This provides for a nonlinear distribution of cost (and resources) across the time span for the task and allows one to quickly see at a glance both the time for a task and the cost distribution (cash flow).

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