

Scheduling with QuickGantt Plus

by Scott Shelley

In my early days as a carpenter, I worked on many job sites that were in chaos. The hvac, plumbing, and electrical subs were tripping over each other, and the drywall contractor pulled up ready to hang rock before the building inspector had signed off on the project. This "show up when you can" form of construction management was frustrating for everyone on the job. When I became responsible for project schedules, I learned from the mistakes of my previous employers and looked for ways to avoid these problems.

I started to think about the project schedule in the same way I think about the estimate. There is no way to give a client a cost estimate without sitting down and figuring it out, and scheduling is no different. It amazes me when contractors who are asked how long a project will take blurt out "Eight weeks, no problem," with no thought or work behind their guess. I know from my own experience that one of the most frustrating things for the people who are having their house built or remodeled is having

the job take longer than the contractor said it would. Besides the nuisance factor, a mismanaged schedule costs the homeowner real dollars in delays and loss of quality control.

You don't have to spend a fortune for high-end software to get a handle on your projects. A simple program will often do the job, as I discovered recently when I had a chance to use QuickGantt Plus for Windows (\$249 from Ballantine and Company, Inc., One River Road, Carlisle, MA 01741; 978/369-1772). Installation was simple and took all of five minutes, complete with a shortcut on my desktop. The manual is clear and easy to understand, and I was able to read through most of it in about 15 minutes.

Building the Schedule

QuickGantt Plus is set up so you can switch quickly between three different tabbed "file folder" views. The first view is the "worksheet," the area in which you enter all of the project information (see Figure 1). This view is set up like a spread-

sheet, so to create a schedule you simply fill out each "cell," beginning with the "Activities" column. Each activity is assigned a letter-code, such as "P" for "planned time," "A" for "actual time," or "M" for "milestone." (These codes are built-in to a drop-down list, and cannot be changed or added to.) You can then assign a resource — such as a particular subcontractor, by typing in the name (no drop-down list is available). If you need to add a new resource, you can do so without having to change to a different screen, but you are limited to one resource for each activity. This means you can't assign more than one worker or subcontractor to a given activity as you can in more expensive programs such as Microsoft Project. The workaround is to create a "header" (code "H") for each major stage, such as "Design" or "Project Management," and fill in the individual activities underneath.

You can either enter the finish date manually or enter the elapsed time (the number of hours, days, weeks, or months to complete the task) and let the program compute the finish date. I found this feature helpful, since I typically use the man-hours from my estimate to build the schedule. For example, if I estimate that it will take 48 man-hours to install all the windows on a job and there will be 3 carpenters working, I would enter an elapsed time of 2 days (3 men x 2 days @ 8 hrs. per day). Another nice feature is a pop-up calendar from which you can click on a start or end date with your mouse. This is a much faster way to enter dates, and it prevents typos.

QuickGantt Plus provides some rudi-

Figure 1. Setting up a schedule in QuickGantt Plus begins in the Worksheet, which, along with Gantt Chart and Notes, is one of three tabbed "views." Activities are entered as on a spreadsheet, and can be assigned resources, costs, and planned start and completion dates.

Link	Chain	Order	Activity	Code	Who	Start Date	End Date	Elapsed Time	Units	Unit Cost
BUILD	1	1	Site Work	P	SAP	10/31/98	12/12/98	264.000	150.00	\$85.00
BUILD	2	1	Foundation	P	Concrete Inc.	12/15/98	12/21/98	40.000	1.00	\$6,000.00
LINK	2	2	Framing	P	Fischer	12/28/98	3/26/99	520.000	480.00	\$25.00
BUILD	3	1	Electrical	P	EPSE	3/17/99	4/13/99	160.000	120.00	\$125.00
LINK	3	2	Plumbing	P	PPL, Inc.	4/13/99	4/26/99	80.000	80.00	\$75.00
			Building materials	E	Lumber co				1.00	\$40,000.00
BUILD	4	1	Project Completion	M		5/6/99	5/6/99			
			Subtotal	S						
				P					1.00	\$40,000.00

Summary: Total Time: 886 days, Total Cost: \$153,750

mentary cost analysis. Units and unit pricing can be entered with each activity. Additionally, there is a special category called "Expenses" (code E) where you can enter costs for items not associated with a scheduled time, such as "Plumbing Fixtures." All of the expenses are totaled on the worksheet, and also appear in the onscreen document window. Additionally, QuickGantt Plus can import Microsoft Excel files, complete with date formats and cost data.

One advanced feature of QuickGantt Plus is the ability to link activities together so that the "critical path" adjusts automatically if something falls behind schedule. The Critical Path Method (CPM) is a technique schedulers use to find a project's shortest path from start to finish. If any activity on the critical path takes longer than planned, the end date has to move back.

For example, framing and foundation should be linked, because the framing can't start until the foundation is complete. By linking these tasks, any adjustment in the foundation completion date will automatically affect the start date for the framing. Once you understand these kinds of relationships, you can link all activities on the critical path so if one activity "slips," QuickGantt Plus will update the whole CPM schedule automatically.

Gantt Chart

The second view is the Gantt chart, which uses simple graphics to show the planned progress of your project (Figure 2). This format, which was developed by management pioneer Henry L. Gantt in 1915, is now the standard for the construction industry. You can print the Gantt chart and give it to your suppliers to make sure materials are delivered on time, and to your subcontractors to make sure that they show up when needed. Equally important, you can give a copy to your clients so they'll know what to expect.

Notes

The third view displays any notes you may have created for any of the activities (Figure 3). For example, let's say

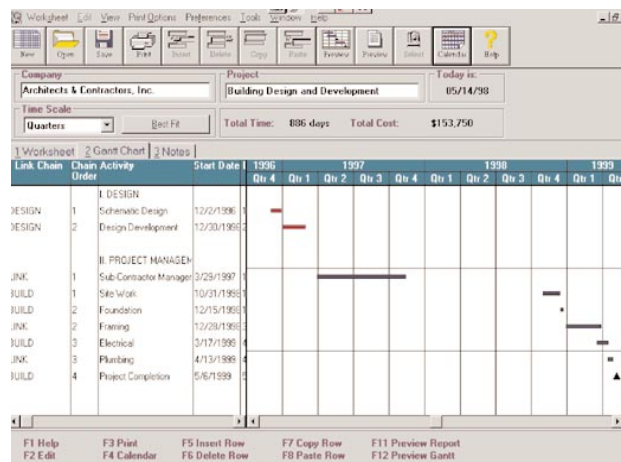


Figure 2. The second view is a Gantt Chart — a visual representation of the project timeline. Different colors and symbols are used to indicate an activity's importance to the overall job schedule.

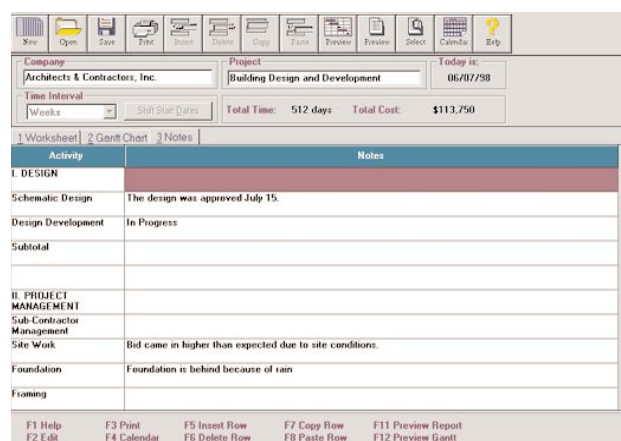


Figure 3. The third view holds all the project notes. One serious shortcoming of QuickGantt Plus is the inability to see the notes by clicking on a particular activity. Instead, you have to print out the sheet or switch to the Notes tab.

that it rains the day your foundation sub is supposed to start. You might enter a note to remind you why the schedule has slipped. Or you might write a memo summarizing the conversation you had with the concrete sub about how he plans to get back on schedule. All notes are kept on a separate worksheet, which is available as a tab at the top of the document window. Unfortunately, a rather serious shortcoming of QuickGantt Plus is the inability to link the notes directly to schedule items — in other words, there's no way to click on an item in the worksheet or Gantt Chart views and see the notes for that item.

Good, Better, Best

In addition to QuickGantt Plus, Ballantine offers QuickGantt Basic (\$99.95), which performs only the most basic manual scheduling. QuickGantt Standard (\$199) adds export options, allowing you to move the data to popu-

lar spreadsheet and word processing programs. The "Plus" version reviewed here adds data import mapping, and the ability to link activities for automatic date adjustment, a critical component in project management.

For \$249, QuickGantt Plus is roughly \$200 less expensive than market leaders Microsoft Project and Primavera SureTrak, and may be worth taking a look at as a basic scheduling program. It has enough features to satisfy the scheduling requirements of the typical small-to medium-sized contractor. The reports and charts are nice looking and can be a very useful tool in communicating with all the people involved in the construction process. With this program (and the commitment to use it), your projects could be running more smoothly and efficiently in no time.

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