



No-Fault Scheduling

by Doug Immel

I love some surprises — unexpected snow on Christmas Eve or old college mates calling out of the blue. But surprises on a construction site? No thanks. I hate them. Construction “unknowns” consume time, energy, and profit. And nothing is more humbling than bringing five subcontractors to a halt after spending a week coercing them to hurry up.

After years of designing and building, my partner and I realized that carpenters are only as good as their tools and general contractors are only as good as their systems. So we got serious about planning.

As my partner Marianne put it, what we needed was “a case of boredom”: a scheduling system designed to make our work brainless. We figured the more tasks we could make routine, the less energy we would need to spend remembering the 25¢ decisions that, if forgotten, can stop a \$250,000 job.

The Idiot List

To achieve this no-miss scheduling system, we looked to the fundamental teaching technique of breaking a task down to its tiniest and most discrete parts.

The first step was to make what we called the idiot list. This exhaustive list included every design decision we must make, every specification we must determine, every material order we must make, every sub we must schedule as well as what we need to tell them, and so on. Distilling the entire contracting process in this way — starting with the first client contact and ending with the champagne toast at the open house — yielded a list of “prompts” for keeping track of the process’ niggling details.

The items, or prompts, are grouped under the appropriate headings such as design, framing, or electrical. The prompts begin with such flashy verbs as *order*, *call*, *write*, *talk to* (clients, subs, inspectors), and *go to*. The list covers nine pages and is about 600 items long.

We’ve compiled this list into a computerized bookkeeping program called *Quicken* (Intuit, PO Box 3014, Menlo Park, CA 94026; 800/624-8742), a \$35 program we use for check writing, record keeping, budgeting, and financial reporting. We run the program on a Macintosh, but it is also available for IBM-compatible computers. Other similar bookkeeping programs or spreadsheet programs can work as well.

You don’t have to have a computer to make the idiot list work — it works with pen and pencil too, though you won’t be able to sort items by categories. But you can put together the

crucial checklist, and for a few dollars occasionally have a typist revise it.

Coding Nitty-Gritty

We had to adapt our bookkeeping program a bit to make it work as a scheduler. *Quicken* categorizes its “records” (each corresponding to a particular check, deposit, or withdrawal) by several pieces of information (called “fields”) such as date, amount, payee, or memo — the usual things you can enter on a check. These fields can also be used to sort or organize the various records. For instance, the program will list all the checks written to a certain supplier or on a certain date.

To use the program for our scheduling, we made each record contain in its “memo” section a single task, such as “Specify smoke detector location” (see table). Along with the task, the record contains a one-letter code indicating what phase of design or construction it is related to (such as E for electrical or D for design). Where appropriate, we also include information about what sub we will use or need to contact, and what larger component or process the task is part of. The “Specify smoke detector location” prompt, for instance, is one of several

most basic — and often most critical — elements.

Inevitably, we forgot some and had to add them later. For example, one day the electrician asked where we wanted the cable television outlets to be. Gee, we don’t know, we said, we’ll have to ask the client and get back to you. Ugh! Time loss. To avoid this, we made an entry in our steno notebook (which we have on hand at all times for this reason) to add the prompt “Ask client for cable TV outlet specs.”

In fleshing out these items, it is critical to note and specify the relationships between tasks, trades, and subs. For instance, the cable outlet specs, once obtained, need to be included in the “Notify Electrician” section. This then requires an additional prompt in the design section to enter cable television outlet specs in the “Notify Electrician” list, right after the prompt to ask the client about cable outlet locations.

Vigilance Buys Control

As the list has been refined, it has made the contracting process much smoother for us and our subs.

Using the list, we have eliminated more than half of our lost days, and have more than doubled our profit margin. Our typical projects are custom homes that cost \$100,000 and up to build. Before we developed the list, we often had jobs fall a month or two behind. On a house costing about \$150,000, that’s nearly \$1,000 a week. We were breaking even on most jobs, regardless of size. On some jobs, we made a few bucks, and on some, we

Date	Num	Description	Memo	Amount
1/1	E	NOTIFY ELECTRICIAN	verify contract signed	0
			spec smoke detector locat.	0
			spec cable outlet locat.	0
			supply lessco airtight box	0
1/5	E	ROUGH ELECTRIC DONE		-\$1,600
			sched rough inspection	0
			NOTIFY INSULATION 3 day	0
			NOTIFY DRYWALL 1 week	0
Total 1/1/91 - 1/5/91				-\$1,600
Total inflows				0
Total outflows				-\$1,600
Net total				-\$1,600

The author’s 600-item “idiot list,” written on *Quicken*, is designed to eliminate surprises. Every part of the design and construction process is broken up into its most basic elements and chronologically organized on the list. Cash flow is also tracked.

items that also include the prompt “Notify Electrician.”

Finally, items that involve spending or receiving money have a dollar figure attached to them, so that the list doubles as a detailed projection of expenses and billing. This lets you check your projected cash flow at any given point in the construction process.

Making It Work

Compiling this list hasn’t been easy, and it’s never finished. On the first try, we spent hours visualizing the process from start to finish, hoping to catch as many tasks as we could. It became a game of who could reduce a task to its

lost money. Now we’re on time and make sure profits. On our last job, we lost only a few days in a 12-week schedule, and cleared a 24% profit — typical of the improvement we’ve seen since adopting this system.

Being this organized shines your image. People in construction are used to things going so-so or even poorly — thus the frequent cries of “Murphy strikes again.” But that attitude is demoralizing, and clients don’t buy it. ■

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