# Controlling The Job With Purchase Orders

by John Isaksen Jr.

This simple tool can streamline your estimating, purchasing, and job-costing — and boost your bottom line

For its first several years of business, when my remodeling company did only one job at a time, I was able to keep all relevant business data in my head. I could remember which materials had been ordered and which hadn't. And when an invoice came in from a sub or supplier, I immediately knew if the amount was right or wrong.

But about six years ago we started doing multiple projects, and it wasn't long before there were more details than I could personally keep track of. At that time, I still placed the material orders for all jobs. If a crew ran short of materials, I'd run out and buy the missing item so everyone could keep working. But when it got to the point where I was making runs to the lumberyard almost every day, I knew something had to change.

My first response was to make lead carpenters responsible for ordering missing items. This approach was only partially successful. With my
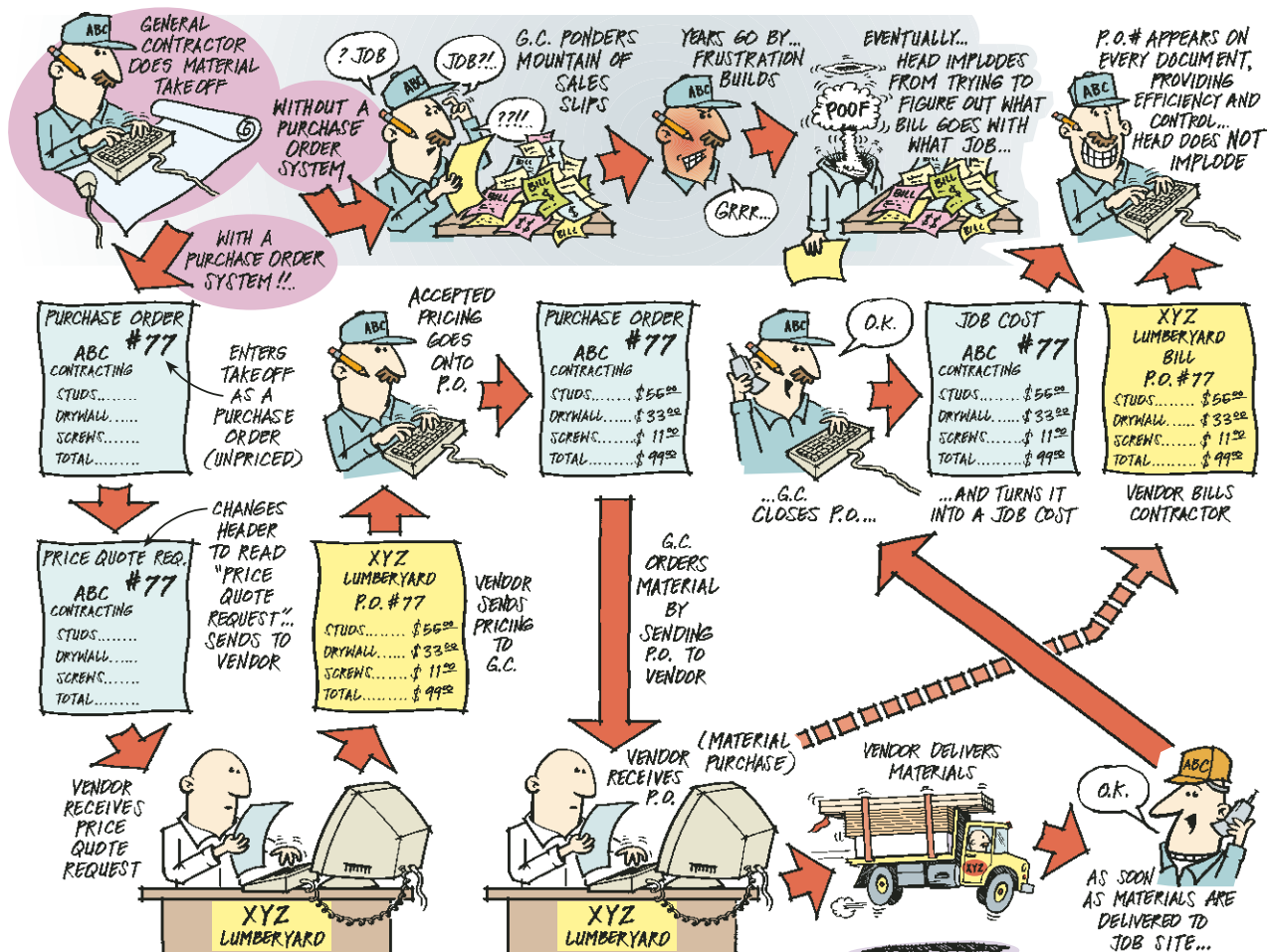
leads — rather than me — running to the lumberyard, I had more time to devote to estimating jobs and operating the business. However, when the lead left the job site, there was no one there to run the job. In addition, it was a terrible waste to spend $75 of carpentry labor to pick up $30 worth of studs. And my leads, like most carpenters, were not big on paperwork. When bills arrived at the end of the month, I had a hard time matching purchases with the proper jobs and tasks.

Ultimately, we solved these and other problems by instituting a purchase-order system.

What Is a Purchase Order?

A purchase order — or PO — is a contract that records the terms and details of an agreement to purchase material or labor from a supplier or sub. The main feature of a PO system is that the PO is written and entered in the books at the moment the purchase decision is made.

Why use a PO system? A purchase-order system offers a building company many benefits. First, POs can help you control costs by providing real-time spending data that is coded to the correct budget category. This makes it easier to do accurate job-costing, allowing future estimates to be based on real numbers, not guesses.

POs also make it easier to manage cash flow. Requiring vendors to price invoices right away means you'll know in advance what each vendor is going to bill you for at the end of the month. POs can improve cash flow, too. On time-and-materials (T&M) projects, POs make it possible to bill customers earlier so you can run the project with their cash, not yours.

Finally, POs can help with logistics and scheduling. If you write all the POs for a job up-front, they can serve as a road map for how to schedule deliveries and organize the job.

Figure 1. When the author does a takeoff, he breaks the job into material orders and writes them up as POs. To price materials, he prints the PO with a header that reads "Price Quote Request" (1) and sends it to suppliers; it comes back as a materials estimate (2). When the author finds a price he likes, he changes the header back to "Purchase Order" and places the order by sending the completed PO (3, page 3) back to the vendor. Eventually, the vendor sends a bill (4, page 3). The data is entered just once, and the same materials, prices, and PO numbers appear on every document, providing efficiency and control.

Who can it help? A PO system will work with any size company. It may not be worthwhile if you're a one-man shop doing one job at a time, but using POs has been very beneficial to me as my company has grown. We're now doing about $800,000 of business per year with a staff that consists of me, a part-time office person, and two to three lead carpenters at any one time.

Accounting software. Many accounting programs can generate and manage purchase orders. The examples in this story come from QuickBooks Pro, the program we use. Accounting software can make it easier to run a PO system, but you could also run a simple version with pencil and paper. The important thing is to have a system for creating a job budget and tracking spending against it.

Even if all you track is who ordered what, how much it cost, and when it was received, you'll be well down the road toward gaining control of costs.

Tracking Purchases by Site Personnel

Since we thought it would be disruptive to institute a full-blown PO system all at once, we introduced it one step at a time. Our first priority was to track day-to-day purchases by our leads, so we updated our supplier agreements to require a job name and PO number on every purchase.

PO number required. Under the new system, if the lead wants to buy something, he first has to call the office to get a PO number. Before we give it to him, he has to tell us the first few items he's going to buy and what job and task they are for. That way, if there's a foul-up — say, the PO number gets transposed — we can identify the transaction by the first few items bought. As long as it's unique to that purchase, the actual PO number can be anything; our accounting program assigns numbers sequentially.

When the lead gets to the sales counter, he gives the PO number to the salesperson, who puts it on the sales slip. The

same PO number appears later on the bill that comes to us. The lead asks the salesperson to immediately price out the slip. We require leads to fax the sales slips to the office once a day. If the lead orders by phone, we ask the supplier to fax a priced-out copy of the sales slip to our office by the end of the day.

Back at the office. The purpose of the PO is to track a particular purchase, so there's no need to write separate POs for different budget categories. When a sales slip comes into the office, we code each line item to the correct budget category and enter it in the books. It's no different than what we'd do without a PO system; we're just doing it early instead of waiting till the end of the month. This allows us to run a report and see how much we owe our vendors at any point. Also, with PO numbers assigned to each purchase, it's much easier to sort things out when invoices arrive.

The PO exists electronically, but we also print out hard copies for the lead carpenter's field notebook and to back up our computer data. Using PO numbers ensures that only authorized purchases are made on our accounts. I suppose someone could make up a fake PO number, but the fabrication would be obvious once the bill came in.

Creating a Framework for the Job

The next step in our company's development of the system was to start writing POs for the entire job before the project began. Since I have to do takeoffs anyway, I now use that time to decide which items need to be delivered at the same time, and group those items on the same PO. The POs contain enough detail that, when it's time to order, we can send them to vendors and get the materials we want. To avoid having everything show up at the same time, I write more than one PO per supplier. For example, on a cramped job site, I might split the lumber order into separate POs for the floor, wall, and roof drops.

Lock in pricing. To request pricing, I print out POs with the header changed to "Price Quote Request" and send them to the vendors (see Figure 1, pages 2 and 3). Because the header is just a template, it's easy to change. When a price comes in, we record it on the PO. Later, when we order that material,

Figure 2. Before a lead carpenter can buy materials, he has to call the office for a PO number, which then goes on the lumberyard sales slip (above). Because this purchase was for "extra" material, the office calls attention to it by printing it as a variance purchase order — or VPO — (page 5) and the company owner asks the carpenter to explain the added expense.

we send the same PO back to the vendor; it indicates what we want and how much the vendor agreed to sell it for.

Helping Lead Carpenters Do Better

Once the new PO system was in place, the lead carpenters began ordering all their own materials. Typically, the process works like this: At the beginning of each job, I give the lead carpenter copies of the POs I wrote when I did the takeoff. When it's time to order material, the lead sends the appropriate PO to the vendor. Our company policy is that these are the materials the lead has to work with on this job. If he thinks the quantities are wrong, he needs to tell me right away. I expect the lead to hit the budget and I don't want him using an estimating or takeoff error as an excuse for going over.

Some items are bound to be missed on the original takeoff, so the leads have to order some material on their own. When they first started ordering their own material, the leads tended not to plan very far ahead and were always running out to various suppliers. This was especially bad at the end of framing, when it seemed like we'd get a PO every other day for a dozen studs. The time wasted going to the lumberyard was killing us,

Finishing Touch Carpentry
1033 251st Av SE
Bellevue, WA 98007
555-555-2535

Variance Purchase Order

Date	P.O. No.
12/12/2005	9072

Vendor	Ship To
Stewart Lumber & Hardware: 1761 Rainier Ave. So. Seattle, WA 98144	Smith Job 1234 NW Zip Street Seattle, WA 98195

Deliver/Pick Up	Due Date	Terms	Project Lead	Lead's Phone
Deliver	12/21/2005		Harry	555-555-5555

Description	Unit	Count	Qty	Rate	Amount
2x4x8'			8	3.10	24.80
WHEN WE REMOVED THE EXTERIOR DOORS, WE FOUND THAT THE JACKS WERE ROTTED AND HAD TO BE REPLACED.					

Our PO number must appear on all invoices. Order is to be entered in accordance with prices, delivery, and specifications shown above. Please call immediately if you are unable to fulfill complete order as listed. Thank you.

Total 24.80

as were some of the mistakes that happened when the lead wasn't there to supervise the job.

Variance POs. To address this problem, we started using something called a variance PO (VPO), which differs from a regular PO only in that the lead has to note the reason for the extra order (Figure 2, pages 4 and 5). We track all nonchange-order VPOs and discuss them during the post-project review, with the goal of having fewer next time around.

The VPOs also show up in our leads' performance reviews, so each lead makes a serious effort to avoid them. I've never fired a carpenter for writing too many VPOs; I use them because they are an effective way to make the point that every extra item the lead buys cuts into profit and affects my ability to pay him well.

Using Work Orders for Subs

When we reached the point where we were using POs for all material purchases, we started using work orders for subs. A work order (WO) is the same as a PO except for some contract language that links the WO to the master trade contract we require subs to sign. The trade contract contains legal boiler-plate that would be in any contract with a sub, such as the requirement to carry insurance. Our WOs include a comprehensive description of the work and a list of plan sheets and specs where details can be found.

To request pricing, we send subs a "Bid Request" form that contains a general overview of the work and a list of terms they must agree to if they want to do the job. We also send a WO with the header temporarily changed to read "Work Quote Request" (Figure 3, pages 6 and 7). Together, these documents ensure that we get apples-to-apples bids. When the prices come back, we select a sub and award the contract by sending him a copy of the WO with his price written in.

What's in it for subs? When we started this system, we had to convince subs to use our WOs instead of their contracts. A few refused and no longer work for us, but most agreed. In addition to reducing the subs' paperwork burden, WOs allow them to get paid faster. Also, our subs no longer have to write contracts, because the WO they priced earlier is the contract.

Faster payment. Many of our subs work in the field and do not have bookkeepers. Paperwork — including the sub's invoice to us — has to be done after hours. The bulk of our work is T&M, and in this state it's legal to bill clients as soon as material or "work" is received. So, once the sub finishes his work and our lead carpenter inspects and approves it, we invoice the customer right away.

Under the old system, we couldn't invoice customers until we received bills from our subs. With WOs, we can bill our customers sooner and pay our subs sooner.

Improved Cash Flow

Better cash flow is a big advantage of POs and WOs, since we can now invoice customers as soon as material arrives on site or a sub completes a job. We already know the invoice price, so we don't have to wait for the vendor to bill us. And when the bills do come in, we don't need to re-enter the cost data, because we already entered it in the accounting system when we wrote the PO, or when the sales slip came in.

Estimating More Accurately

There's no such thing as a perfect estimate, which is why job-costing is so important. For good job-cost data, you need to know which items you bought for which job, what each item

cost, and what it was used for. This information allows you to increase the accuracy of future estimates and takeoffs. You can do accurate job-costing with or without POs, but a PO system enforces the discipline of coding expenses in a timely manner. With good job-costing, framing costs don't get mixed in with finish costs, and costs in the original scope-of-work won't get mixed in with extras.

Good job-costing helps. Accurate job-costing has proved to be helpful in some unpredictable ways.

For example, I used to think I knew how many studs it took to frame a wall. For some reason, though, my leads were always running to the lumberyard for more. So I decided to figure out just how many studs we needed per wall.

I knew how many studs were in our original lumber orders, and by using the "items list" in QuickBooks, I could tag addi-

tional purchases of studs. Then, at the end of each job, I could run a report and find out exactly how many studs we used. After doing this a number of times, I discovered that we use 1.8 studs per foot of wall. The number may sound high, but that's what it takes to tie new work into old.

I no longer underestimate studs. Now I know just how many studs (or any other item) we need to carry from the very beginning of a project.

Fast Estimates With Internal Pricing

Our next step, which we're presently in the middle of, is to use POs and WOs to generate "internal pricing." This means that our company's historical price data is good enough to get us really close on the initial estimate — without having to price every item with subs and vendors. The trades that do roofing, gutters, insulation, drywall, tile, flooring, and painting lend themselves to unit pricing, and we have convinced

Figure 3. The author gets quotes from subs by sending out a bid request (1) and a work quote request (2), which is the work order (WO) without prices. The sub on this job submitted his price by letter (3, page 6) and the author accepted it by putting the price in the WO (4, page 6) and sending it back. There is no need to write a separate subcontract because the completed WO serves as the contract.

those subs to quote us a rate for each item. Unit pricing makes it faster and easier for me to do estimates and saves our subs from having to visit every job we quote.

Scheduling With POs

We haven't done it yet, but someday I hope to use our PO system to schedule jobs. In theory, you could put "delivery" dates on POs and WOs and send them out before the job. We're a small company, so we don't have the market power to hold people to these dates. But the mere fact that our documents tell subs what the schedule is and require them to tell us how much time they need to do the work is a step in the right direction. At minimum, we have a goal.

Making It Routine

Most carpenters hate paperwork and require some incentive to get on board. I got our leads to sign on by telling them that if anything is purchased on our accounts without a PO number, I'm going to assume it's for their own personal use — and that

they'd need to settle up with the vendor. This is not a policy I've ever had to enforce, but as with the VPOs, it's a way to communicate how serious I am about our procedures.

However, getting the leads to do their part became less of an issue once they realized that all they had to do was call for a PO number, and the vendor and office would take care of the rest. There was less paperwork involved than they had imagined.

Once the information is entered in the computer (name of job, vendor, items purchased, cost code, and price) we never have to enter it again. Each document we use (price quote request, PO, WO, bill to customer) can be generated with a simple push of a button. In the office, it was just a matter of developing a procedure for collecting and recording the data. Once that happened, using POs became a routine part of every job — with a wide range of benefits for every part of the company.

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