



ENDING THE PAPER CHASE: HOW PAPERLESS CONSTRUCTION MANAGEMENT BENEFITS YOUR BOTTOM LINE

by John Meibers

Historically, the construction industry has been slow to adopt new technology. But the current economic slump, and a market that's more competitive than ever, are changing the way contractors view technology. The growing need to lower overhead and gain better control over job costs are driving construction company owners and managers to consider innovative ways to achieve their objectives. And technology tools that support paperless processing are leading the way to more profitable construction management.

Ending the Paper Chase

When people hear the term "paperless office," they often assume the primary benefit is saving trees by going "green." Yet, in addition to contributing to a healthier environment, paperless processing provides construction companies with a multitude of benefits that create a healthier bottom line.

By ending the paper chase that has long been synonymous with construction, a company's office and field staff can work more efficiently. A more efficient team allows you to grow your business without adding staff—and without adding the overhead expenses associated with more

employees.

Replacing paper-based processes with electronic document and data management also allows a company to capture costs and other critical information in real-time. This gives you better control over your projects and helps you identify potential issues early, before they affect the profitability of the job.

Finally, paperless construction management is a more secure way of doing business. File cabinets filled with documents are vulnerable to misfiling. And even when locked, they are not fully secure. Furthermore, in the event of a fire, flood or other catastrophic occurrence, information could be lost forever. Storing documents electronically as part of your accounting system ensures that critical information is protected by regular back-ups. In addition, user-based security limits access to sensitive data.

Now that you have a general understanding of why paperless processing benefits your business, let's look at some specific examples of how this technology helps.

Paperless Invoice Management

Imagine that you've just closed out a job in your accounting system and are celebrating the nice profit

you made on the project. But thirty days later you receive a \$20,000 past due notice from your material supplier. After searching through stacks of paper, you find the outstanding invoice on your project manager's desk. Suddenly, that profitable job isn't so profitable.

With a paper-based invoice routing and approval system, the above scenario presents a real risk to your construction business, especially if you're not using purchase orders to track committed costs. When a paper invoice arrives, the accounts payable (AP) clerk distributes it to the appropriate project manager or purchasing agent for approval before entering it into the accounting system. In a perfect world, the approval happens quickly and the invoice is promptly returned to AP for processing. But we all know that the typical construction environment is anything but perfect. Priorities change hour-by-hour and paper piles take on a life of their own. As a result, critical invoices get buried, lost or simply forgotten.

A paperless invoice routing and approval system eliminates the risk associated with manual processing. When a paper invoice arrives, the AP clerk scans it into the accounting software and electronically routes it to the appropriate person(s) for approval. The invoice is approved within the

accounting system and AP is notified electronically when approval is complete. Invoices never get lost or buried, which eliminates costly surprises at the end of a job. Most systems offer flexible setup options that allow you to customize routing rules, create multi-person approval sequences and generate reports to monitor approval performance.

Field-to-Office Communications

While paperless invoice management has been available to contractors for several years, newer technology is emerging that leverages the tablet PC platform. In the field, tablet PCs are quickly replacing smaller PDA devices. Although PDAs are extremely portable, their small screens and keyboards limit their practical use on the jobsite. Tablets, on the other hand, are larger (about the size of a standard writing tablet) and more

powerful than their handheld predecessors. In addition to supporting keyboard entry, tablets also have the ability to convert handwritten information into electronic data. As a result, tablets offer field staff and service technicians a more user-friendly platform for electronically communicating with the home office.

Applications that streamline field-to-office operations, such as remote timesheet entry and mobile service management, increase efficiency by eliminating communication errors and duplicate data entry. Remote timesheet entry and mobile service management are two examples.

Remote Timesheet Entry

At many construction companies, daily timesheets for jobsite employees are hand written or logged in spreadsheets. At the end of each

week, paper timesheets are manually delivered to the office or completed spreadsheets are e-mailed to the payroll department. Either way, the data must be re-entered into the



accounting system. Depending on the number of field staff, this data entry step could take hours or days. And if paper timesheets are used, messy handwriting can delay the process further and even result in data entry errors.

While this manual timesheet process is time consuming, most contractors accept it as a standard part of doing business. Yet, there's a negative byproduct of delaying timesheet entry—a corresponding delay in updating labor costs in your job costing system. It's impossible to track job costs in near real-time unless timesheets are entered on a daily basis. That's where remote timesheet entry comes in.

Some tablet applications allow your field superintendents to complete timesheets and submit them to the office at the end of each day. Timesheet data is electronically transferred directly into the accounting system, which eliminates data entry delays and automatically updates job costs.

Mobile Service Management

Mobile service management is another example of the capabilities of tablet PC technology. Similar to timesheet collection, service work orders and schedules are often printed on paper and the field technicians must physically stop by the office to pick them up. An emergency or last minute schedule change might require a quick trip back to the office to get updated paperwork. Once service work is completed, handwritten notes are eventually returned to the office—often in batches—where they are entered in the accounting system. The final step (often executed days or weeks later) is billing the customer for the service performed. This paper-based process is not only inefficient,

it also has a negative impact on the contractor's cash flow.

With a tablet-based mobile service application, technicians stay connected to the office without having to stop by in person. Everything needed to complete the day's work is available at the technician's fingertips, including their dispatch schedule (with real-time updates), work order details and customer history. When a service call is completed, the technician enters the work order details on the tablet application and captures the customer's approval signature directly onto the mobile device. Then, the information is electronically transmitted to the accounting system where an invoice can be immediately generated for the customer.

The ability to electronically dispatch calls, complete work orders and immediately process service invoices delivers astounding productivity gains to your field staff while removing an unnecessary data entry burden from your accounting team. Plus, the cash flow dividends achieved by same-day service billing cannot be overstated.

What to Look for in a Technology Vendor

Although the paperless processes discussed here can transform the way you manage your business, they are just the tip of the paper-free construction iceberg. Applications that support electronic invoice management, for instance, usually give you the option to also scan, route, annotate and archive any type of construction document, from requests-for-information and submittals to corporate tax returns and HR paperwork. New field applications for the tablet PC are being developed each year, too. In fact, most paper forms can now be re-created in electronic

format, including change orders and daily job logs.

When evaluating paperless processing solutions, look for a vendor that arrived early on this technology scene. Once you've created your vendor shortlist, here are a few questions to ask:

- ▶ Did the vendor have the insight to develop paperless solutions before their customers were demanding them?
- ▶ Does the vendor regularly solicit feedback from end users—and quickly implement enhancement requests?
- ▶ Is the vendor continuously looking for new ways to improve the efficiency of their clients' construction operations?
- ▶ Does the vendor have strong support, training and implementation teams to ensure that your paperless processing technology quickly delivers a high return-on-investment (ROI)?

Even if you're not ready to take the paperless plunge today, aligning with a construction software vendor that can deliver these solutions when you're ready to end your company's paper chase is a smart strategy for long term business success. ■

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