From Field to Office: How Innovative Tablet PC Solutions Enhance Remote Information Sharing

By John Meibers

In the construction industry, communication between the field and the office has always been a challenge. To address this longstanding issue, technology providers continually look for new ways to streamline the way construction companies share information. While personal digital assistants (PDAs) and smartphones have proven useful for some tasks, these devices are just too small to provide functional computing on the job site. With the arrival of the tablet PC, however, field personnel now have a mobile device that's powerful and practical – and a wireless method for staying connected to the home office from any remote location.

The tablet PC has a larger screen size than its handheld predecessors and is more compact than a standard laptop computer. While a keyboard can be used for data entry, the tablet's touchscreen interface allows users to quickly input information using a digital pen (stylus). Handwriting recognition technology can even convert handwritten data into typed text. These flexible data capture and entry options make the tablet PC the ideal mobile computing device for the job site.

Although many tablet PC applications increase the productivity of end users on-the-go, the emergence of innovative, construction-specific solutions for the tablet platform offers the most potential for enhancing field-to-office communication – and increasing efficiency across the entire organization.

The Inefficiencies of Paper-Based Processes

To understand how tablet technology helps, let's first look at a few common construction tasks that are managed in the field and the communication issues associated with them.

Employee timesheets. Employee hours and production quantities are most often tracked in the field on paper timesheets or in spreadsheets and delivered to the payroll department at the end of each week. The information is then re-entered into the company's payroll system. Incomplete information or handwriting that is difficult to decipher complicates data entry, which puts added pressure on the payroll staff. This process is inefficient and time consuming. But most importantly, it creates an environment where real-time job costing is impossible.

Change orders. Whether a change order is owner-directed or the result of an unforeseen issue, accurate documentation at the job site can make the different between getting paid for a change and leaving money on the table. Although a verbal go-ahead and details scribbled on a notepad may seem like enough information to move forward with a change request, especially if waiting could mean a schedule delay, it's too easy for these details to slip through the cracks and never make it back to the office for billing. Informal documentation of change orders can also generate billing disputes at closeout time.

Material purchases. To track committed costs against the job, purchase orders (POs) should be issued for all material purchases. But some construction companies don't have a purchasing program that integrates with their accounting system. And even if they do, when material is procured from the field, it's easy to bypass the PO step. Without POs, reconciling vendor invoices is very time consuming and pricing mistakes are difficult to catch. What's worse, though, is the delay in committing these costs to the job.

As these examples demonstrate, paper-based workflow initiated in the field sets the stage for delayed communication of important financial details to the office. Using these scenarios, payroll processing is labor-intense, change order management is inconsistent and job costs are rarely up-to-date. When you apply similar workflow issues to every paper-related process in the field, the combined inefficiencies become staggering.

A Better Way to Share Information

When these same field tasks are managed electronically using applications developed for the tablet PC, manual paper-based processes become automated paperless transactions. Using wireless connectivity

built into the tablet, information is easily captured and shared with a contractor's customers, suppliers and home office.

Some construction software vendors have taken tablet technology one step further by developing remote field applications that directly integrate with their accounting systems. In this case, information such as employee time is entered into tablet-based timesheets and automatically transferred to the accounting system at the end of each day. Imagine the positive impact that this instant data availability has on payroll staff productivity!

ComputerEase Construction Software was one of the earliest developers of remote field-to-office software applications. With the release of their FieldEase suite of tablet solutions, ComputerEase has introduced new tools that facilitate more effective field-to-office communication, more accurate job costing and greater efficiency on the job site – and in the office.

A Suite of Solutions for the Field

The most widely used FieldEase application is Electronic Timesheets, which allows contractors to create custom timesheet entry screens that streamline the collection and transfer of payroll data. Depending on the timesheet design, the supervisor uses a digital pen to quickly navigate through drop down lists populated with employee and job information, or simply hand writes details onto a basic form. Hours worked are logged by employee and cost code; production units and percent complete can also be handwritten on the screen. All of this information is seamlessly transferred from the tablet to the ComputerEase accounting system at the home office.

According to Jenny Jones, Jostin Concrete's purchasing and payroll manager, FieldEase has revolutionized the company's employee time collection process. "Prior to using FieldEase," she says, "all of our time was turned in manually. Our project managers wrote everything on paper and there was quite a bit of double entry. Now, everything is done electronically. With FieldEase, our data goes straight into the accounting system, streamlining the entire process."

The Electronic Purchase Orders solution delivers similar integrated functionality. In the field, a PO can be created on-the-fly, electronically delivered to the supplier for fulfillment and automatically trans-

ferred to the ComputerEase accounting program. Drop down lists and an easy-to-use item lookup function enable fast point-and-click data entry.

The newest FieldEase solution is Forms and Notes, which turns virtually any paper form into an electronic document that can quickly be completed using the tablet's handwriting recognition technology. Entering daily job logs, creating punch lists and sending e-mail notes to customers or suppliers are just a few ways this versatile application streamlines job site workflow.

With Forms and Notes, change orders initiated in the field are fully documented. And by capturing the owner's approval signature directly onto the tablet device, project changes are expedited. This eliminates work stoppages due to change order approval delays and provides an electronic paper trail of all changes to a job's original scope of work.

Innovation: a Competitive Edge

To stay profitable in the changing construction market, contractors need technology tools that increase efficiency, lower overhead and give them greater control over costs. Early adopters of solutions like FieldEase gain a competitive advantage over construction companies that lag behind in innovation – and will be better positioned for growth when the industry fully recovers.

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John Meibers is the President of ComputerEase Construction Software, a leading developer of accounting, project management and mobile field solutions for contractors. John's 20+ years of industry experience, including a decade of hands-on management at a 300-employee mechanical contracting firm, have helped ComputerEase establish a solid reputation for delivering cutting edge solutions that are also easy to use. To learn more about ComputerEase, call 800-544-2530 or visit www.construction-software.com.