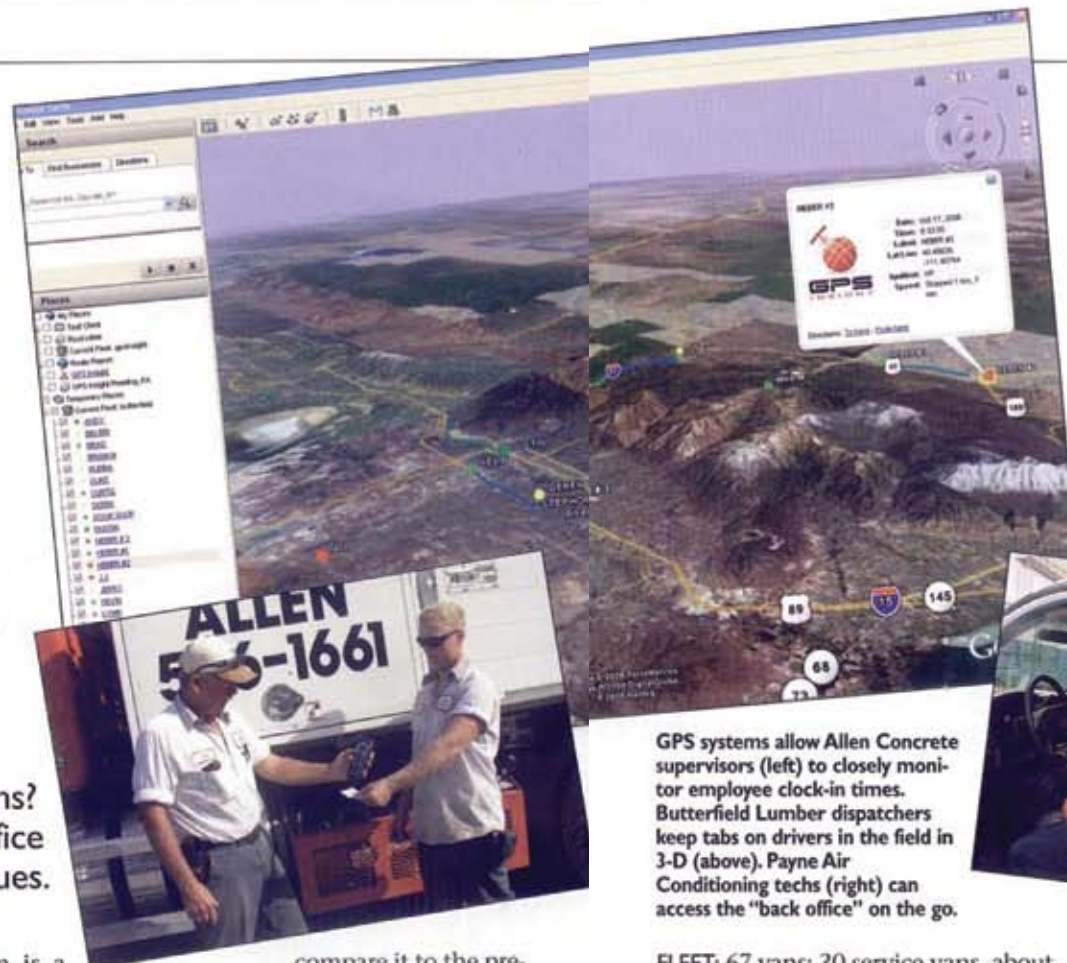


GPS SYSTEMS: THE NEXT LEVEL

What's new with GPS vehicle tracking systems? Try remote labor reporting, accessing the back office and 3-D mapping. The wireless revolution continues.



GPS systems allow Allen Concrete supervisors (left) to closely monitor employee clock-in times. Butterfield Lumber dispatchers keep tabs on drivers in the field in 3-D (above). Payne Air Conditioning techs (right) can access the "back office" on the go.

TRACK VEHICLES IN 3-D

Butterfield Lumber
Salt Lake City, Utah
BUSINESS: building materials supplier
FLEET: 24 vehicles: semis, pickups, vans
SYSTEM PROVIDER: GPS Insight
(www.gpsinsight.com)

Salt Lake City-based Butterfield Lumber installed a system from GPS Insight that uses Google Earth's 3-D satellite maps to track delivery trucks real-time.

Butterfield's dispatch center has a 50-inch plasma screen displaying a satellite map overlaid with colored dots representing the fleet. The dots change colors to represent a vehicle in transit, stopped for a short time or over an hour. The dispatcher can double-click on the dot to eyeball the truck's activity at that location.

Butterfield dispatchers can choose from three satellite views (from the top or angled down), can zoom in on a fleet vehicle and even rotate 360 degrees, for those of you still having those Superman dreams.

The Google Earth program is a download that requires a newer computer system and a broadband Internet connection. However, once installed, maneuvering to a new map or view is almost instantaneous, says Jerry Lundberg, IT manager.

Lundberg says the actual satellite photographs of a landmark let the dispatcher instantly identify a location, making the process much easier and quicker than use of a traditional computerized 2-D street map. This helps the dispatcher give better directions on the fly, and allows him or her to pinpoint the exact location of a vehicle on a job site. Is that delivery truck parked at the loading dock, or at the edge of the back parking lot where the driver might be reading the paper?

"It beats the flat maps," says Jerry Lundberg, IT manager. "We hardly look at them anymore."

The visual maps come in handy for historical tracking and compliance reporting. Unlike the text spreadsheets other programs use, users can graphically trace a vehicle's actual path and

compare it to the prescribed path, and even double-click on a colored dot for stop details.

Robert Donat, president of GPS Insight, says the program can also be used for new business prospecting. Using a scheduled route for, say, a company making snack deliveries to amusement centers, users can search in Google Earth for keywords ("bowling alley") and pull up all the bowling alleys within a designated radius. The ones on the route path that are not yet clients can then be marketed to, Donat says.

GPS Insight is a "value-added solutions partner" for GPS providers such as @road, and a "master reseller" for other providers such as Networkcar. GPS Insight integrates its functionality into existing GPS systems for about \$5 to \$10 extra a month.

ACCESS THE OFFICE IN THE FIELD

Payne Air Conditioning
Central Florida
BUSINESS: residential and commercial heating and air conditioning

FLEET: 67 vans: 30 service vans, about 37 installation vans
PROVIDER: Webtech Wireless
(www.webtechwireless.com)

Payne Air Conditioning has been using Webtech Wireless's vehicle tracking system for a few years but just recently integrated handheld PDAs with GPS to automate timecards and allow technicians to access the "back office" from the field.

Payne worked with Webtech and its cellular provider to integrate the Webtech system with FACS job management software, says Pat Long, executive secretary.

To clock in upon arrival at a job site, a technician clicks a button on his PDA that sends a signal to the dispatch program in the office. The dispatch screen changes color, letting the dispatcher know the tech has arrived. When he completes the job, the tech inputs the invoice number and hits a button, which alerts the dispatcher that he's ready for the next job. The dispatcher sends the

next job details directly to his PDA.

Previously, the transaction was handled with a cell phone call, says Long. However, during busy times a finished technician would have to wait while the dispatcher cleared the other calls in her queue. With the new system this process is automated with a mouse click. This is especially helpful on days when the dispatcher is juggling route changes because of new or cancelled jobs.

Techs can also use the PDA to see if a needed part is either on his truck, in the warehouse or with another technician close by.

Not only is the entire company inventory available remotely, but customer history is as well. "Anything that is in our computer here, he can access also," says Long.

Technicians can now access customer details to prove to a client that a technician made a visit and show the exact service performed. "Customers forget and time flies," says Long. "It's pretty neat to be out in limbo-land with a little PDA in your hand and be able to call up a customer's history for the last 15 years."

COLLECT LABOR DATA ELECTRONICALLY

Allen Concrete & Masonry Inc.
Southwest Florida
BUSINESS: Concrete and masonry construction of high-rises, warehouses and large retail stores (Home Depot, Super Target, Super Wal-Mart)
FLEET: 45 pickups: mix of standard pickups and flatbed bodies pulling trailers; 3 18-wheelers; 7 pump truck semis
PROVIDER: AirClic (www.airclic.com)

Allen Concrete & Masonry uses AirClic's GPS functionality to precisely schedule and track jobs, says Ron Meschko, IT manager. Often Allen needs to schedule its contractors concurrently with a mixing company that pours the concrete. If the contractor comes too early he'll be waiting for

them to set up, too late and the concrete will have hardened.

To better track and coordinate labor, Meschko recently implemented AirClic's mobile data exchange solution. He installed GPS chips in all worker's Nextel radios and barcode scanners in supervisor's radios.

When employees enter the job site, they swipe their employee card into the supervisor's scanner. The employee I.D. and job details are transmitted immediately back to headquarters. "That allows us to make sure our people are really on the job site and not driving down the freeway," Meschko says. "We've been able to raise the level of accountability. People know we're paying attention, so there's less likelihood for them to show up late."

Losing five minutes a day in salary doesn't mean much to the employee, but it's big money to an employer with 250 employees.

Allen had been collecting the same data but without the GPS function. Supervisors uploaded the data from the scanners when they came back to the shop, which sometimes didn't happen for four or five days. Valuable data was lost and problems with erroneous scans were often not rectified in time.

In the high-pressure world of high-rise construction, managing labor precisely—and immediately—is paramount.

AirClic's mobile data program goes further to track man-hours for specific tasks or the same task on different floors, a useful tool for job costing. Allen collects and analyzes data to see if it is meeting cost projections. The fact that headquarters can use this information immediately is invaluable.

"If we get on the second floor of that building and it's costing us 20 percent more than the estimate, we know we've got problems. We don't want to get to the eighth floor and figure it out because it'll be too late."

By knowing labor costs immediately, Allen can identify and adjust procedures, labor or materials to compensate. **BF**