

# AUTOMATIC I.D. NEWS

FOR AUTOMATED DATA CAPTURE SYSTEMS MANAGEMENT

VOLUME 7, NO. 12

NOVEMBER 1991

## A+ for MSU

### Michigan State streamlines student payroll tracking

BY JOHN JESITUS, CONTRIBUTING EDITOR

Parents know that keeping tabs on even one college student is no blow-off assignment. Imagine trying to track payroll information for 5,000 students.

Last summer Michigan State University replaced a 25-year-old payroll system in the housing department of its East Lansing campus with an automated time and attendance system.

The old system was fairly automated, but its punch cards and Hollerith reader created processing delays. Now, a network of 55 batch-terminal time clocks and 26 PCs equipped with AutoTime software has eliminated delays and cut error rates to less than one-tenth of 1%. The number of students who don't get a check when they're supposed to is less than one per pay period.

#### The student work force

Richard Sigelko, systems coordinator for university housing, says, "We have approximately 5,000 student employees, working an average of three-hour shifts part-time, seven days a week. Twenty-four hours a day, 365 days a year, we have student employees on the clock." His department also tracks time and attendance data on 800 full-time workers

The housing and food-service division includes 15 residence halls. Jobs span all food-service and hospitality functions on campus, from cafeteria aides to workers in MSU's 175-room hotel and conference center.

"We're spread out over 40 build-

ings," Sigelko says. The job of getting people paid correctly, particularly our student employees, is huge."

With 26 separate payroll offices, each one scheduling its own employees, doing a central payroll was virtually impossible. Students work in more than 100 accounts, and the old system couldn't fix mistakes or calculate things like overtime pay until well after the fact. Turnaround time for one day's information was two days.

With the new system, Sigelko says, "We're processing yesterday's information this morning." His office pays overtime promptly and bills it back to the account where it occurred. The new system also lets clerks make daily corrections on a PC for students who for-

get to punch in or out, as many do.

#### System selection

The housing division's existing system was getting so old, the school couldn't find replacement parts. So in February 1989, Sigelko's office took bids from 12 vendors. It chose a package assembled by Tracy Time Systems, a VAR in Grand Rapids, MI. The company supplied all components from badges to terminals, including the AutoTime software program, which it developed with Chase Technologies of San Jose, CA.

Sigelko said AutoTime's ability to interface with the division's existing daily payroll report was a major factor in the decision. To begin setting up the

time and attendance system, a site survey was performed to determine where to install 55 Linx model III-1 batch data terminals. These terminals, with two extras for backup, function as time clocks.

The clocks report to 26 PCs, a combination of existing IBM ATs and CompuAdd 386 SXs, each one equipped with AutoTime and located in one of the division's payroll centers. Most terminals are hardwired to the PCs, one to five per computer.

Twelve of the terminals use remote dial-up connections over phone lines. The new installation allows Sigelko's division to put clocks in



A housing and food service student employee punches out of work at an automated time and attendance terminal.

places it couldn't, like near employee entrances and at remote sites including Spartan Stadium's concession stands.

When a student comes to work, he or she picks up a reusable plastic badge from a rack next to a time clock. The student then presses the terminal's "in-punch" key and runs the badge through a bar code scanner (the application uses Code 39 symbology). The clock terminals have separate in and out keys for lunch, as well as an out-punch key for the end of a shift.

#### Reports due—no problem

The terminals store their information until the PCs poll them for it each weekday. Payroll clerks automatically receive exception reports on both full-time and part-time workers.

For full-timers, AutoTime helps clerks discover if a person punched in or out late or early, had a paid absence or earned overtime pay. For students, missed punches generate exceptions. Clerks need not look at all the punches (some units have 250 shifts over five or six accounts per day) to correct student records.

Next, clerks print daily payroll summaries the same way they did under the old system. These reports tell what each work area spent. They track account numbers, labor groups and job codes to determine who worked how many hours and at what rate. They help clerks calculate, for example, how much the cafeteria spent on cooking. Curtis Gano, president of Tracy Time Systems, says the user interface cuts training time and reduces errors.

Every Monday, Sigelko's people run a payroll, alternating part-time and full-time in two-week periods. The system picks up all punches for students and full-time workers, as well as items like vacations for full-timers. It then totals the hours each worker had under each code. From printouts of regular and overtime hours it calculates rates and gross pay.

AutoTime also helps the school pay tips, commissions and retroactive raises faster. Unlike the old system, the new one tracks these wages as they occur.

The new system also creates an electronic version of the biweekly report and sends it to an IBM System 36 minicomputer in the housing division. The division uses this version to figure out items like overtime pay for students who worked in multiple accounts. Then it sends a copy of the report from the System 36 back to each unit. The full biweekly payroll summary, in paper form, goes to MSU's payroll office.

At the same time, the system sends a master electronic file to an IBM 3090 mainframe over the school's broadband coaxial network. The mainframe sets up a file for payroll to use in handling exceptions, making corrections, and finally, printing checks.

#### Costs justified

The time and attendance installation cost \$275,000. While Sigelko's division feared it might have been hard to cost justify because its old system already was automated, the new software and hardware paid for itself in 18 months. So far it has saved MSU about \$40,000 in mainframe processing costs alone.

Moreover, the school saves \$5,000 a week through more accurate reporting of student work hours. It used to pay them to the nearest tenth of an hour. Now it pays part-timers from the minute they punch in to the minute they punch out. This saves five minutes' labor cost per student per shift.

The system's sole glitch occurred when lightning struck. It seems the remote batch terminals' electrical supplies were protected, but their phone lines were not. So when lightning hit a tree on campus, it traveled through its roots into the ground, where it got into the phone cables and resurfaced at one of the remotes. It fried a modem and

port, as well as some clock chips. MSU has since put surge protectors on all the remote sites and added phone-line and electrical protection at the PC sites.

Sigelko says the automated time and attendance system has changed the way Michigan State does business. Because of his division's success, many departments including the university's public-safety, intramural-sports and



Curt Gano (right) explains a new feature of the time and attendance system to MSU's Dick Sigelko.

physical-plant supervisors have bought the same kind of batch terminals and software. MSU's student-events center recently decided to purchase a similar system.

Michigan State's installation may change the way schools around the state and region do business. Sigelko said many neighboring universities and at least one Big Ten rival are interested in buying such automatic identification systems.

But that doesn't mean Michigan State University's many systems will work together any time soon. Sigelko says, "A university is a thousand bandit kingdoms all tied together on a common utility."

With automated time and attendance technology in its arsenal, at least each fiefdom will be able to pay its foot soldiers right. ■