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CASE STUDY

Advancements
In Productivity and Control
Through Route Automation.

Fourth computer upgrade helps dairy keep pace with growing business demands.

Ross Swiss Dairies was an early believer in the use of automated route accounting systems. And as its business grew, this Los Angeles-based company upgraded those systems as business demands dictated.

The company began using mobile computer systems in 1984, with the first route accounting system from Norand Corporation. The system featured model 10 1 hand-helds with 64K of memory, a significant amount back then.

Due to Ross' need for more memory, those units were exchanged for model 121s when they became available.

Nine years later, the 121s were replaced by then-new model 141s featuring four megabytes of memory.

But even rugged hand-helds wear out eventually, and the company's need for more information on the route, faster communications and customized invoices created on-the-fly, drove the company to upgrade once more.

CHALLENGE

Finding a balance between computer upgrades and business expansion while maintaining excellence in distribution and customer service.

"More than a thousand times a week, Ross Swiss depended on route sales people taking hand-helds into a hostile environment and coming back with the information they needed," says a representative for Numeric Computer Systems, a Norand Value Added Reseller (VAR). So, Ross Swiss Dairies upgraded to NORAND® 4500 hand-held computers running software from Numeric Computer Systems.

Focus On Distribution, Customer Service

With annual sales of well over \$100 million, Ross Swiss Dairies keeps its focus on excellence in distribution and customer service. The company does not have its own milk plant. Rather, Ross Swiss labeled products are co-packed and brought by trailer into its mechanized central warehouse.

Along with the usual assortment of milks, yogurts, ice creams and cheeses, the dairy delivers bottled waters, fruit

drinks and a new line of deli products on its 130 daily routes. It all adds up to a dizzying swirl of product numbers, prices, quantities, discounts — and chances for errors.

Creates Extended Invoices On The Spot

"The 4500 hand-helds let us create extended invoices on the spot. That's important because we encourage our drivers to sell more products while they're at a store," says Ken Rifkind, MIS Manager. Because drivers might forget to record product add-ons to invoices and make errors in price extensions, the company could lose revenue.

"Drivers may look at product as product, but we look at product as money. If the drivers are short, it's like being short money," explains Distribution Manager Neil Brown.

Units Have Higher Throughput, Versatility

Compared to the 2400 baud rate of the model 141, the new 500 units have a significantly higher throughput, so Ross Swiss can put more information into the hand-helds in less time.

SOLUTION

Ross Swiss Dairies upgrades to NORAND® 4500 hand-held route accounting computers.

"Before, we downloaded information to the hand-helds overnight. If there was a product line addition, or a host computer failure, the hand-helds wouldn't be ready for our drivers who come in at midnight," Rifkind says.

The additional information provided by the 4500s facilitates more direct communication with the drivers and with customers. Says Brown, "We can put all sorts of information on the invoice — their wholesale and retail prices, UPC codes — whatever they want. Along with our delivery, we can supply an extended weekly statement and an extended invoice."



Ross Swiss Dairies driver enters sales information on the NORAND® hand-held 4500 computer.

Drivers can also print promotional messages on invoices, such as a discount of fruit punch. Messages to drivers about individual accounts can be loaded in the units and displayed on the 16-line-by-10-character screen.

Changes Benefit Salespeople, Too

The changes brought about by the upgrade go beyond the route drivers to the salespeople and other aspects of the company's operations. The company can now make better decisions about routes such as whether a driver has enough product for the route and is generating enough sales to be profitable, says Brown.

"The hand-held recaps all the products sold that day, any money that was picked up and the quantity of products sold."

Rather than mailing weekly statements to customers, accounts

receivable information is downloaded from the RS/6000 at company headquarters to the hand-held computers. Drivers can print a statement for the prior week's deliveries along with an invoice for the current delivery, says Rifkind. "It has saved us about \$50,000 annually in postage alone and lowered the costs of the statement and delivery cycle."

Drivers can send messages to the salespeople by way of a telecommunications package from Numeric Computer Systems and the host computer, to the sales peoples' laptop computers. "Without coming within miles of each other, the driver can alert the sales person when the customer needs something. When the sales person responds, the driver sees the response right on the hand-held unit," Rifkind says.

"Once the route drivers go out into the field, they're on their own," says Brown. "We trust that they will serve the customer in the best possible manner. This is a tool to help guide them along. It's like having another supervisor out in the field."

It's A Long Way From Pre-Automation Days

Ross Swiss Dairies has come along way from its pre-automation days when it relied on a dozen data entry operators to key invoice information, when invoice price extensions were done by hand, at times incorrectly, and

when supervisors like Brown had to rely on intuition when there were problems with a route.

When Rifkind selected the 4500 hand-helds from Norand, they had already proven themselves in other installations for a few years. Compared to the 141 models, "The 4500s have extra memory, a larger screen, faster processing and faster communications."

Rifkind says he has stayed with Norand for several reasons. A primary one is that Norand readily accommodates VARs and customers who prefer to write their own software programs. Ross Swiss Dairies purchased the source code and sent Rifkind to a Norand PL/N language course.

"The software training and the flexibility of the PL/N language allows us to react to our customers' needs. If they want something special, we can do it," he says.

OUTCOME

The NORAND route accounting system has higher throughput to handle more information quickly. It has improved communication with the drivers and customers and has saved the dairy \$50,000 annually in postage statement and delivery cycle costs.

Future Holds Even More Improvements

Looking down the road, Rifkind sees improvements. The company may move to signature capture and full-screen display, available in the hand-held PEN*KEY® 6622 pen-based computer. He also anticipates the dairy will begin offering direct exchange (DEX) of information from the hand-helds to the customers' in-store computers.

Information is downloaded from the host system to the Norand 4500 hand-helds.

"We're using electronic data interchange now to

modem information to customers after the fact," says Rifkind. "But the value added network transaction charges are several hundred dollars per month. It's time for us to start thinking about DEX."

When the time comes to make that move, he says, Ross Swiss Dairies will also become fifth-generation users of NORAND® hand-held computers.



Salesperson reviews inventory.



Information is downloaded from the host system to the Norand 4500 hand-helds.

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