



# How technology maximizes uniform rental profitability

*Operators who are willing to commit to inventory control and identify their garment populations through bar coding or radio frequency ID are most likely to satisfy customers over the long haul, our author contends*

**By Chad Keith, Jr.**

**W**hat do you call a uniform rental plant operation that can query their computerized system and find a record of every garment in the company's inventory? A very rare, but most probably, a very successful uniform rental business.

To some degree, the nature of uniform rental creates many obstacles to gathering and compiling such detailed information. You create personal wardrobes that only their wearers can know intimately. You may not think that there is not a strong financial incentive to track every single garment your company owns. You can develop complacency from bulk count processing numbers that indicate that you are benefiting from underwash, as in-service garments don't pass through your plant as often as your customer contract allows.

As competitive pressure in the marketplace continues to build, however, we at Softrol believe that this will change. Each day the need for better inventory management and control increases. The only way to achieve these: identify the garment population of an inventory, and know how this inventory is being deployed and used (and possibly abused) by various customers as well as your own processing conditions.

This garment identification (bar code or RFID) and inventory process is the key to creating a tracking system that will provide extremely valuable and timely information, including all data on each garment purchased and commis-



**Softrol's Chad Keith, this article's author, gives one of his many presentations to UTSA's Plant Operations Committee.**

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*Chad Keith, Jr. is CEO, Softrol Systems, Inc., Acworth, Ga. Its precursor, Keith Associates, Inc., a chemical, water, and wastewater consultancy, served textile manufacturing and laundry operations starting in 1976.*

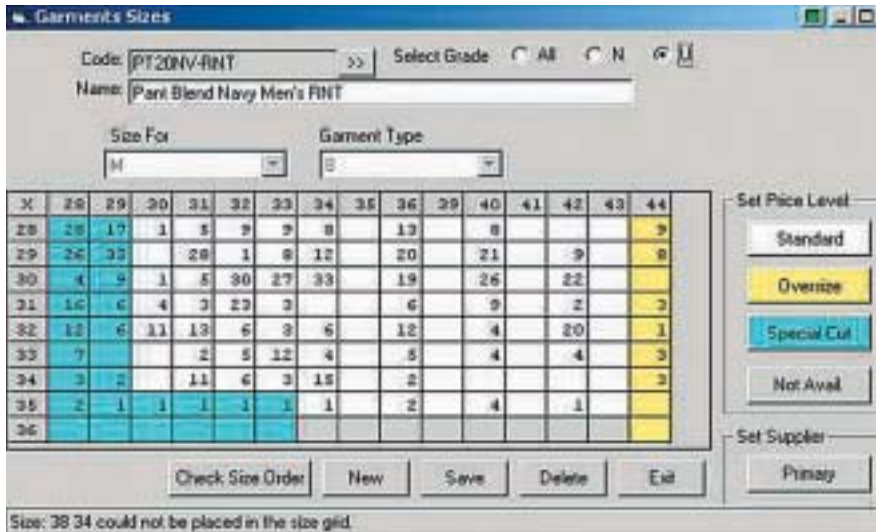
*In solving water treatment problems, the company gained exposure to textile and laundry processing equipment and recognized the need for more effective control systems, greater automation, and better information technology. Thus, Keith incorporated Softrol, initially to create controls not only for machinery, but for the chemical injection systems that fed them, and capturing management data from both.*

*In addition to serving textile service companies directly, Softrol developed systems for equipment manufacturers. For most of the late '80s and early '90s, textile manufacturing represented the vast majority of the company's business, but Softrol diversified and developed more new products, and today most customers are from the uniform rental and linen supply industries.*

sioned. This includes time and date for each wash, mending costs, garment replacement detail, alteration activity, and garment retirement.

Operators can immediately know whether they are about to over-issue garments to a customer. By tracking repair and replacement, they know which wearers tend to abuse them. In a handful of cases, they may decide that easier maintained customers are such efficient users of their service that they can price their service to these customers at lower rates.

We are now even beginning to see uniform service operators using handheld computers to capture this data. Some can



**Garment tracking software, like Softról's SofTrak, is the hub system in the vendor's approach to plant enterprise management.**

issue receipts on their routes to their customers, showing exactly how many and which garments they pick up and deliver for each wearer. They can download this information to their plants to enable other processing activities and analysis.

In any event, the tracking database can then be used to automatically process and produce summary reports by wearer and account. This way, when it's time to renew a customer's contract, they will be able to generate the critical reports necessary to decide whether they can profitably offer the account the same rates again.

These techniques seem to be the only way to forecast if the margin on an account will sufficiently meet your expectations upon contract renewal. When you realize that you must raise prices to be profitable, and the customer doesn't accept your higher price, it could be an advantage for you. If a competitor whose costs are the same or higher than yours takes the business, it's a loss for them, which is a gain for you.

You may also find customers who want even exchange contracts that would effectively eliminate the possibility of underwash. They may expect you to offer your service more like their other types of vendors. Granted, in the uniform rental service industry, this sort of thing is currently the exception, but there are signs that it could become a more com-

mon market reality.

On the other hand, maybe you want to be more proactive in managing the customer's expectations. Suppose a customer contracts with you for five changes per wearer per week, and most wearers leave you only three sets per week for pickup. Will you track the occurrence of each wearer's use of your service? And if you do, will you provide the customer with this information?

Perhaps not, but what if a customer's wearers begin to complain en masse that you have started to "short" them? Historically, you may have felt that you could economically deal with such difficulties as they arose. If you needed to provide extra garments to keep the customer happy, you didn't care. You didn't think it happened very often, and you still were thinking that you were profitable on the account.

With today's thinner margins, profiting from this practice is increasingly difficult. We see an increase in more operators trying to get the best of both worlds. They can make information available to the customer about their wearers' turn-in practices. That way, these operators have a documented data trail to refute "shortage" contentions, document mends, and they continue to charge for five changes per week without having to provide excess inventory.

In these cases, the customer understands that underwash is factored into the price, and that any newly issued garments would be charged as losses.

For the most part, though, this information exchange is nonexistent in the textile service industry. We estimate that less than 5 percent of uniform service companies have inventory programs in which operators can track every garment they have in stock or service. As a vendor, this is difficult for us to understand, because in other industries such as textile manufacturing, the operations can document their inventory to the last yard, by style, fabric, color, etc.

In this industry we see millions of dollars worth of garments in stockrooms, yet individual plant operators usually don't know how much of this is available to them, or the cumulative value. Perhaps this is due to the division in operations between sales, customer service and production, or to the often used rule of thumb that if your garment purchases as a percent of sales is lower than your competitors', you're doing fine.

It also seems to boil down to the underwash factor being so positive to the bottom line that it can exceed the profit margin in many other industries.

## Need for inventory management

At Softról, we are committed to helping textile service operators protect and improve their margins through better automation technology. Inventory management is a newer focus for us. We're probably better known for our computerized control technology: Our MicroPulse, ChemPulse, and PulseNet brands are our traditional products.

Our AutoPulse line was a breakthrough, enabling the automation of all material handling, data transfer, and machinery control between all components of a washer-extractor based washroom. We're also now very entrenched in automated garment sorting with our SoftSort autosortation systems, which we introduced in 1998.

We recognized from these efforts that we were devoting ourselves only to

process automation on the production floor. To better meet textile service operations' needs, we would need to expand our vision of the enterprise. Thus, in 1999, we started developing our SofTrak Enterprise Software System for garment tracking and route accounting management, which we released last year.

We see ourselves in the business of supporting and supplying plant enterprise management. Other companies who do the same have based their efforts on their route accounting systems; these were the initial platforms and focus of their software systems. We feel that we are somewhat unique in that we designed our SofTrak system with garment tracking at its heart and with route accounting as one of the integrated activity modules. Garment tracking is the core; route accounting is subservient.

Our product appeals to companies who are willing to commit to inventory control and identify their garment populations through bar coding or radio frequency ID. In contrast to man readable labels, these are the only currently viable methods for identifying garments which then can allow the automated capturing of information about a garment and its useful life: everything about it from the day you buy it to the day you retire it.

With our system, every time you run a summary report on an account, you can review all costs on an individual activity basis. This is the only way to truly begin to determine profitability by account. Most other methods we have seen rely on statistical means and making a lot of assumptions. These are not activity-based methods.

SofTrak integrates garment tracking with other modules such as invoicing, stockroom management, purchasing and customer service to help assure that everyone in the enterprise makes the best management decisions. You'll never unknowingly generate an over-issue, for example, and if you had done so in the past, the software will alert your production system to pull any extra garments out of



**Bar coding or RFID really pays off when you use them with automated sorting systems, such as Softrol's Softsort.**

service if so chosen.

But we can drive many other plant functions for the operators who choose our systems. Our software all has been written using the latest Microsoft platform and utilizes their Windows server operating systems and SQL server (or any ODBC compliant database). Thus, if you're already on another database system, but you want to use the information more effectively to manage your inventory, SofTrak can integrate to provide you with all of its functionality.

### **Converting to automated ID**

We can advise and enable operators to make the most of automated ID. We'll even help you get started. Most operators we have surveyed find this conversion intimidating; many say they like the idea but flinch at the notion of having to spend months placing bar codes or RF chips on each garment.

Also, those who recognize the value and undertake the project may not utilize and integrate the technology as intensively as they should once they've identified each garment. As an example, they may scan-in on the soil dock and scan-out as a means of proof of delivery.

While this is a large step in the right direction, they are not using the technology as well as they could. They could use the data to recognize everything they

have in inventory and then organize to react to customer needs quickly and accordingly.

When a customer wishes to add a new employee, for example, it's now possible to know if qualified used garments are available to fill the order. It's much more difficult when there is no online inventory and thousands of garments must be manually tracked, sorted and located so that the new wearer can be properly serviced. In many cases new garments are ordered simply because it is easier to accomplish and fill the order that way.

Automated garment ID really pays off with autosortation systems. These systems haven't become commonplace because they're more expensive, and many companies just aren't sold on the need for bar codes or RFID.

No one argues, though, that the investment can produce a swift and impressive return, and not just in labor savings. In one situation in which we were involved, a multi-plant company bought a smaller chain and kept one of its new plants, which had just installed our SoftSort system. The new owner decided to move the work (including bar coded garments) from one of its depots to this facility, where there was a surplus of room to handle it.

When we added the target garment population to the database to handle the

depot's work, and it began to arrive in the plant, the autosort system started sending garments at a furious pace to the return-to-stock rail. The plant's production manager figured something was wrong with our system. It turned out that nearly every garment going to RTS had been an over-issue!

When all was said and done, these goods accounted for almost 25 percent of the stock! Arguably, this was found money for the new company. Out of nowhere, they had received a windfall of inventory and stopped processing non-revenue producing garments. Its value was high enough that it made a substantial contribution to paying off that sort system.

## Using information at the right time

We might call bar codes, RFID, and automated sorting part of the "information technology" revolution in the industry. To many observers, "IT" means all the great high-tech stuff (hardware and software) that enables you to capture data.

Certainly that's part of IT's function. But if you don't use the data for maximum impact, what's the point of investing so much in the technology to capture it? Operations information is like ozone; it's only useful for its half-life, which is about thirty minutes in water. Like ozone, the older information gets, the less it's worth.

It's usually used best the moment it's generated; that's when it's most valuable. Thus, much of what Softrol has done is based on getting information effectively and putting it to use right away. The minute you recover a high-grade, over-issued garment, for example, you want to make your stockroom and order fulfillment process aware that it's available to them to fill a new order. SofTrak accomplishes this as a routine function.

Our latest product line development, our Footprints-PPS (PulseNet Productiv-



*Much of Softrol's product development history has revolved around enabling you to obtain production information effectively and put it to use right away, such as this plant information system.*

ity System), is an automated production management system that collects, calculates, summarizes, and reports productivity information necessary to manage and control textile rental production operations involving plant labor.

Although uniform rental operations have been able to automate many tasks, there's still plenty of labor deployed in soil sorting, washroom, finishing, shipping, stockroom operations and other material handling operations. We don't see many operators measuring it effectively, either because of disinterest in doing so, or because the use of paper-based systems are cumbersome and inefficient.

PPS uses workstation modules (black boxes) that gauge productivity at individual work stations. Workers insert their smart card IDs at their work stations and select their subject task on the keypad. No other effort is required on their part to track their production.

An information display and pacing lights supply immediate feedback and indicate whether they're working up to speed, or, for team tasks, a large screen LCD monitor above the work area displays each worker's productivity in real time.

We believe that a system like Footprints-PPS is the best way that you can truly control labor. You need to interact with unanticipated productivity problems and declines as they are occurring on the plant floor, not next week in a production review

meeting! With the typical manual production tracking systems, that's usually how long it takes for reports to be completed.

Automating this process also enables individuals and teams to see how well they're performing. On a continuous basis, the PPS computer can poll individual work stations modules and supply updated feedback to the workers. These workstation modules have been designed for every application, from the weighing scales at soil docks to ironers, feeders, folders, baggers, hangers, and more.

Say you want to measure tunnel finishing worker productivity. You can install one of these workstation modules for each worker location on your hanging line. Each station now can be measured for the garments hung and introduced to the conveyor. And they can be interfaced to a bar code scanner so that a worker can flag garments for mending or re-washing as they hang.

This enables you to see on your network the real time performance at each station, and it allows the performance evaluation of the worker in documenting the percentage of mends and stains that each worker flags.

Each workstation module is also Internet Protocol enabled and capable of communicating via the corporate network. Thus, a corporate headquarters could log into a plant system and watch the real time productivity on each individual workstation.

Individual productivity standards can be changed easily within the Footprints software application, and the system is capable of automatic pacing adjustment as the work shift proceeds. This allows an acceptable fatigue factor to be incorporated into the standard so that the production pace can be kept at or near the desired 100 percent of earned hours. Or, if conditions such as oppressive summer heat require a slowdown, you can reduce the standard, while still encouraging a good pace.

We have now installed three of these systems, incorporating over 100 workstations, and we have seen plant productivity improve noticeably, with gains of 10 to 12 percent. ➔

## Maximizing value of plant assets

Optimizing inventory management and maximizing productive labor are two key cogs in the wheel of improved profitability. They're not the only ones, though. Another one likely to have a significant impact in the future: more efficient use of existing plant equipment.

Few industries that invest as much in their plants as industrial laundries operate their facilities only eight hours a day. Textile manufacturers, for example, are running 24 hours a day, seven days a week, 50 weeks per year.

As a result, we think that productivity and efficiency enhancing factors like increasing shifts will play a greater role in profit generation and competition.

We have often heard some operators say that a competitor is "lowballing" the market with lower pricing, but if a competitor routinely runs second and third shifts, and you don't, they get at least twice as much productivity from their machinery and infrastructure. Why wouldn't they be able to offer lower prices and still be very profitable?

Such a competitor can choose exactly the right-size equipment and support systems and then methodically fill a plant with new volume until the capacity from a third shift is exceeded.

You can see how this might work with a chain operation that builds a new facility. As they grow, they might relocate work there from another of their plants in a nearby city to create a complete second shift. They may later acquire an independent company in the area, shut down its plant, and move the work to the new facility.

But they won't sell off the old plant. They'll just mothball it and reopen it when the new plant fills three shifts.

This is an example of the industry's new competitive equation that is being increasingly driven by multi-plant operators. What if your company can't react similarly? Or you don't foresee adding the volume to compete in this sort of game?

We believe that any operation can become more productive by filling in gaps. There are islands of information all over



**The new Footprints PPS system generates data for prompt management decision-making involving plant labor by tracking individual productivity.**

the typical uniform rental plant which are created by separate systems. If you can link them all, with or without a system like our Footprints-PPS, you can gather all that information, interact with it in real time, and maximize productivity.

One of the greatest efficiencies in laundering comes from knowing how to schedule plant work. When you can predict the volume of all items that need to be processed and when they will appear on your doorstep, scheduling becomes much easier.

Another example of this is how managing the plant on a "wash-lot" basis, as opposed to "day lots," can make a big difference in the types and sizes of equipment necessary to produce the same volume.

With the wash lot concept, there is control over which routes are washed together so that they can then be processed through the steam and pressing area together. This may be because of depot processing or to reduce storage and sortation. Typical wash lots vary in size from as small as one route to 5,000 to 10,000 pieces.

If you become competent at doing wash lots, and you can breed that into your management process, everything can be scaled more appropriately. If you know exactly when one wash lot starts and another ends, you can make decisions quickly, perhaps to close a storage rail, start a sort, or convert a washer-extractor from one classification to another.

You'll learn how to schedule work to optimize flow throughout your plant and

you'll do away with some unnecessary labor, the kind that stands around not doing anything because they can't *push* the system anymore. Every plant has its production pinch point, and the goal is to best match all production points with similar efficiencies and production volume.

## Adapting operations to new systems

New technologies are difficult to deploy because people get very comfortable with what they have and like. When you get up in the morning, you're probably used to drinking a certain type of coffee, and when somebody says you need to try a new one, you may instinctively perceive a risk.

This analogy likely applies to the way you operate your business. That's not a negative; it's a strength. Many companies have been family-developed, owned, and driven for years. Much to their credit, this has given them a degree of survivability and permanence they wouldn't have had otherwise. But it's also created a conservative attitude: "if it works, let's not change it."

Despite this, we see growing recognition in the industry of the importance of capturing and using information. Its role in competitiveness is being realized. This may be due in part to the last economic downturn and the need for increased productivity. If the world did nothing else to us in recent years, it shocked our financial sensibilities. People aren't forgetting how hard they were whacked and they're open to new ways to try to make their businesses more immune to economic and competitive jolts.

Thus, the rate of acceptance of many of our newly introduced products is much higher than ever before. Operators are seeing that they've allowed everyday information to languish until it's too late to use it and now they're ready to try that "new morning blend."

For many, a switch has flipped, and after a long period of uncertainty, we think the future looks brighter thanks to better technology. □