Batch or Real-time Shop Floor Control? Get the Best of Both Worlds

by Brad Mikes, Managing Partner IPE

Do you want to boost productivity, reduce costs and improve production visibility, but you aren't sure what type of production management solution is best for your business? Have you heard about next-generation shop floor control (SFC) software but aren't familiar with the distinctions between batch and real-time solutions? This article explains key differences between batch and real-time SFC and how either — or both — can meet your business needs and help you be more competitive.

Every business is different, especially in the sewn products industry. What works for one factory might not be a good fit for another. Products, people, processes, business structures and even customers influence what type of technologies are considered and how they are utilized. A SFC solution should be flexible enough to meet your current needs and help your business grow. For some companies, batch production management yields just the right benefits. For others, a real-time solution is essential. Sometimes, a hybrid approach is best.

Batch SFC Benefits

Batch SFC is a fast and affordable way to digitize your factory floor. This type of production management system frees sewn products manufacturers from relying on complicated spreadsheets to capture and process shop floor data. As many businesses know all too well, managing production and incentive payroll with spreadsheets is time-consuming, costly and difficult. It slows things down; even simple changes cause headaches.

With a batch SFC solution like IPE's IP-Batch, businesses set up bundle data and print barcoded tickets for each bundle. Then as production associates complete work, they attach these bundle tickets to gum sheets, which are scanned daily. The system batch processes this data at the end of the workday, automatically calculating incentive pay and tracking many important production variables. Batch SFC reduces risk for piece-rate incentive pay miscalculations and data-entry errors, ensuring your gross payroll will be accurate and transparent.

A batch SFC such as IP-Batch does much more than automate incentive payroll. With just a few clicks, business owners and managers get daily reports based on the prior day's production activity. For example, reports show:

» Productivity by operation, production associate, team or plant
» Absenteeism
» Excess costs
» Off-standard events such as machine downtime.

Managers are not the only ones who see helpful and timely information. Some manufacturers use batch SFC to provide production employees with daily printouts showing individual productivity

About the Author
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and earnings, so associates know exactly where they stand with compensation and performance.

In a nutshell, batch SFC is simple to manage and cost-effective to implement. There is minimal training required for production associates, reducing implementation time and potential anxiety over change. Moreover, with a modular, configurable SFC solution like IPE's IP-Batch, all data is stored in a secure MS SQL Server database, which can be shared with IP-Realtime if a company decides to migrate some or all lines to real-time SFC in the future.

Real-time SFC Benefits

There's no doubt about it: Real-time information differentiates your factory from competitors. Information is power in the quick-moving, high-pressure sewn products industry. Real-time data empowers manufacturers to offer customers an unparalleled level of responsiveness and insight on production status.

With real-time SFC, production workstations are equipped with wireless, off-the-shelf tablets dedicated to running the production management solution. Production associates see an up-to-the-minute view of how many pieces they have completed, how many remain to work on and their individual productivity rate. They also can clock in, clock out and notify supervisors of off-standard events on these tablets.

Just imagine the possibilities. For example, a customer asks if you can ship an order earlier than scheduled. They need the products sooner than expected for a promotional event. With real-time SFC, you know exactly where that order is within your factory, down to the operation. You can quickly determine whether and how to meet the new delivery date and give your customer an accurate, reliable answer. Perhaps you can ship 70 percent of the order by the new date and the balance by the original delivery date? Or, having automatically projected the overtime pay you will incur to ship the entire order earlier, you can propose a price premium to meet the customer's new requirements.

In this and other common scenarios in today's fast-paced and competitive business environment, real-time SFC provides:

- » Updates on the precise completion status of a work order
- » Visibility to which operations are underway and which are finished
- » Real-time production data on your mobile device or desktop without phone calls, texts or a physical view to the plant floor.

You can identify issues and act immediately, rectifying problems during a shift or same day. This ultimately reduces costs associated with rework, excessive off-standard time and bottlenecks. For example, a real-time SFC solution captures results of in-line quality audits so that supervisors and managers see straight to the source of quality control (QC) issues by operation. As manufacturers know, time is money, and if a QC problem can be caught early, that makes a big difference in avoiding delayed or partial shipments, customer complaints and eroded trust.

With real-time SFC, supervisors also have much stronger ability to prevent bottlenecks.

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The technology will alert them on hand-held mobile devices about potential bundle build-ups between operations, giving them an opportunity to quickly rebalance lines and keep production moving as efficiently as possible.

While real-time SFC requires more operator training than batch SFC, and additional hardware investment is required, the ROI from increased productivity and overall employee satisfaction is well worth it.

Hybrid Batch and Real-time Benefits

Both batch and real-time SFC offer compelling benefits. The good news is that sewn product manufacturers don't have to choose between one or the other. It is possible to enjoy the best of both worlds with a hybrid approach. When both batch and real-time SFC are used, in the case of IPE's SFC solutions, they share a common database, an MS SQL Server. This shared database not only simplifies and enables the hybrid model but also makes for a seamless transition from batch to real-time SFC if and when management decides such a move is best for a department, line or plant.

For example, some businesses choose to use a cost-effective batch SFC solution to manage and track sub-assembly work, such as making collars and cuffs. Real-time visibility to this production stage may not be as meaningful as visibility to final assembly and finishing. Daily updates on sub-assembly work often are sufficient.

Also, some work orders and styles do not have the same need for real-time status as others. For example, if a line is assigned to producing basics for replenishment programs, and if quality has been steady, strong and proven for a sustained period, then the visibility offered by batch SFC might be just fine. On the other hand, if there is a new style or time-sensitive delivery window, it's more crucial to:

» Monitor quality and off-standard events in real-time
» Nip problems in the bud
» Provide customers with rapid, accurate status updates.

In conclusion, for some businesses, a batch SFC solution is a strong first step to ease into factory floor digital transformation. They can digitize the factory floor, improve visibility, increase productivity and automate incentive payroll. Then as their business evolves, they might choose to invest further in real-time SFC for some or all production lines to reap even greater rewards and ROI. Other manufacturers will benefit from real-time SFC right out of the gate or opt for a hybrid approach that blends batch and real-time SFC.

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