



Plugging the gap



Photo courtesy of Kaba Benzing



Manufacturers are waking up to the benefits of integrating job costing and labour tracking software into their operational planning systems says Jayne Flannery

There may have been teething problems, but enterprise resource planning (ERP) and materials resource planning (MRP) tools have led to enormous productivity gains in almost every area of manufacturing. Yet, by definition, such systems focus on planning. Traditionally, they do not address the black hole that opens up in the form of work-in-progress (WIP). Neither are they of much use when it comes to the ever finer balancing act of producing competitive, but profitable quotations.

Above
Kronos data capture terminal with fingerprint scanning option

“Every manufacturer has spent an inordinate, in some cases excessive amount of company budget on systems for payroll, planning, HR, warehousing, material control, CAD systems and so forth. Mention shop floor data capture though and you often receive a blank stare. Bill Astley, national account manager with Kaba Benzing, a specialist manufacturer of high quality terminals for shop floor data collection, time and attendance and access control, is blunt about the significance of this oversight. “When manufacturers have cut their workforce to a minimum, optimised performance, improved quality and minimised stock holdings, the only commodity they have left to play with is time. Time equates to both money and to efficiency. By maximising control of time and cross referencing it against individual performance, a competent management team will have the information essential to make further efficiency gains.”

Shop floor data capture has two key elements - job costing and labour tracking and the underlying principle is simple. “All you are trying to do is accurately record the time that each employee takes while working on different aspects of the job,” says Mike Hawkesford, managing director of Crown Computing, a software solutions provider for workforce management issues.

“The timeframes, or standard minute values



human resources



Photo courtesy of Kalos Benzling

attached to the time it takes an operative to complete a given task, combined with the machine costs, form the base from which customers are quoted," explains John Farrand, account manager with Kronos, a global leader in labour data capture systems. Job costing and labour tracking software enables a far more accurate understanding of labour costs to be developed and this in turn enables a higher degree of predictability in relation to corporate profitability - a hit with shareholders.

Improved quality is another benefit. The advantage of early identification of operatives with difficulties, along with a company's best players on the shop floor is evident. "It allows for much better traceability in terms of who did what and when. If quality is a problem, job costing records allow you to make a more informed and immediate assessment of where the problem lies," says Hawkesford.

A better understanding of human performance can also be vital in optimising the planning process. "Within many manufacturing companies that do not have good operational standards, it is because their planning processes simply do not enable them to get the best possible mix of work," he continues.

If there is no tracking or recording system in place, a huge paper chase will often be necessary to find out what is happening with WIP. All too often written documentation is illegible, incomplete and invariably too late to make a difference. "What we offer is essentially a series of measurements so that it is possible to see the actual, rather than projected

status of orders at any time. This real time view of what is happening on the shop floor makes completion and delivery predictions far more accurate and can give a clear competitive edge," says Farrand.

Driven by the need for improved performance and the desire for better control of the workforce, Thales Acoustics, part of Thomson-CSF, recently integrated Kronos' Shoptrac Pro into its existing systems. A spokesperson for Thales said: "We chose the system because it was able to cope with a bewildering array of shift patterns, and pay rules. It has clearly been developed to cope with complex production operations and processes, and can handle large numbers of operators and operations with ease."

The real advantage begins with booking on and off works orders, using the laser scanner guns to read bar codes against each operation within the works order. Originally all direct operators had to fill in a timesheet each day, detailing the jobs worked on, the time taken, quantity produced, plus any downtime. This information eventually filtered back to the cost office, where costing information would be derived from hours of laborious calculations.

The new software enables each cell leader to monitor their production unit's performance against projected targets, or for each works order, or for sub-operations within that order. Immediate calculations of efficiency are available for operators, cells or departments and from sub assemblies through to entire works orders.

Hawkesford points out that labour intensive manufacturers will reap the greatest benefits. "There is less merit in recording labour time associated with capital intensive work that is dependent on a high degree of automation and machinery. In that instance it is obviously the speed of the machine that is critical not the person who is overseeing it."

Coming up with a conclusive cost benefit case is part of the package. "Any manufacturer who believes a real time shop floor data capture system, properly implemented, cannot achieve payback in well under two years is being left further and further behind by our customers around the world. They are demonstrating improved efficiency and profitability on a daily basis," concludes Astley. ●

Centre left

Work-in-progress tracking at European component manufacturer

Centre right

Full touch screen industrial unit for shop floor monitoring and full network access