

SMS Electronics' supply chain director Bob Bridges



# SYSTEMS AT THE HEART OF MANUFACTURING SUCCESS

Approach any UK contract electronics manufacturer and it goes without saying that, within reason, they should be able to place the right components, in the right positions on the PCB and solder them securely in place. So, if any manufacturer can, in theory, assemble any product, what differentiates the good from the bad? *Electronics Sourcing* discussed the subject with SMS Electronics

SMS Electronics' Supply Chain Director Bob Bridges, opened the discussion: "Since its formation in 2002, SMS Electronics has employed its 7,000m<sup>2</sup> manufacturing facility to produce electronics products destined for demanding markets including industrial, telecommunications, consumer, security, instrumentation, medical and leisure.

"One of the key secrets to this success is undoubtedly the systems approach SMS Electronics takes to managing the entire workflow, from the arrival of customer data to the test and dispatch of finished goods."

After winning a contract and receiving the customer's product engineering and BOM data it is loaded into the SMS' Agile software system. The customer's bespoke part numbers are matched to the component manufacturers' part codes. At this point, SMS has the information required to run cost reduction processes by highlighting design for manufacture opportunities and 'sameing' operations where components are assessed to identify if similar components are available at lower costs. The results of this research are presented back to the customer who can then decide whether to proceed with an engineering change request.

The same fundamental process takes place in SMS' obsolescence management program. When a component supplier issues an obsolescence notification, SMS can run the 'sameing' process to identify, if possible, an immediate solution. With all data handling retained within the Agile system the product's history is maintained via an audit trail.

Moving to the shopfloor, the Agile BOM and engineering data are used to create the surface mount placement machine programs and final build documentation.

Bob Bridges continued: "All areas of the business share the central Agile data offering total integrity across the company. Engineering change notifications are implemented in Agile and



SMS Electronics's 7,000m<sup>2</sup> facility produces products for markets ranging from industrial to medical

automatically passed to the ERP system which runs every day. This ensures all purchasing and engineering changes are updated centrally and all interested parties automatically emailed with the latest information. Naturally, confidence in our data accuracy is extremely high."

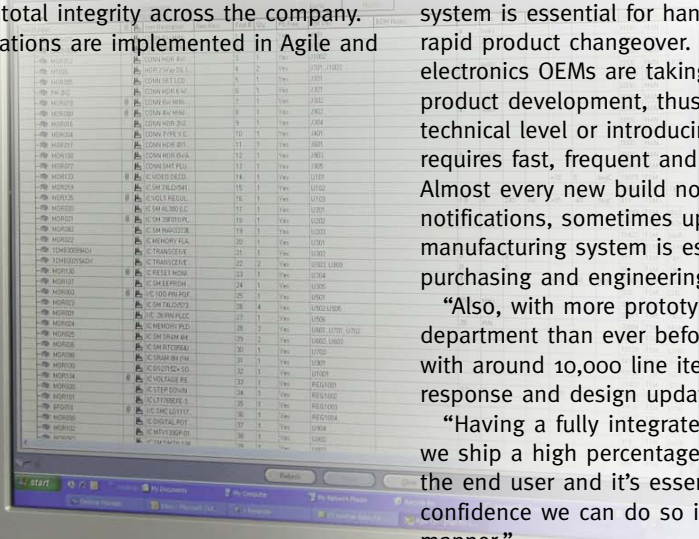
"Another software system, called Quality Manager, looks for trends during the test processes, identifies 'repeat offenders' and feeds the information back into the ERP system."

As the credit crunch continues to highlight the logistical benefits of manufacturing electronic products in the UK, CEMs must be able to articulate the true cost of ownership compared with the 'Unit' price. Here, time-to-market is the key.

Bob Bridges concluded: "A fully integrated manufacturing system is essential for handling complex product builds and rapid product changeover. In today's economic climate electronics OEMs are taking the opportunity to accelerate their product development, thus moving existing products to a new technical level or introducing completely new solutions. This requires fast, frequent and accurate engineering changes. Almost every new build now includes engineering change notifications, sometimes up to 20 per week. A fully integrated manufacturing system is essential for handling this level of purchasing and engineering complexity."

"Also, with more prototypes flowing through our prototype department than ever before, SMS' integrated system, coupled with around 10,000 line items of material allows rapid response and design updates."

"Having a fully integrated system is critical to our business, we ship a high percentage of the products we build direct to the end user and it's essential that our customers have the confidence we can do so in a repeatable and fully controlled manner."



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