



## CONSTRAINTS BASED SCHEDULER REVEALS PROCESS BOTTLENECK FOR COBA PLASTICS

**Coba Plastics, an interior trim automotive supplier, is set to reap rewards following the successful implementation of a more versatile business management system based on IFS Applications.**

Success in the manufacture of plastic components requires forward thinking and substantial investment in the expertise and resources for computer design, tool-making and manufacturing.

This strategy is exemplified by Coba Plastics, a growing business serving a broad, demanding customer base and employing around 165 people at its premises in Fleckney near Leicester.

Continuing investment includes the implementation of a modern business management IT system based on IFS Applications. The new system is intended to drive improvements at all levels; in particular by achieving greater efficiencies in financial, sales and manufacturing management. With 50 users, the system went live in March 2004 following a successful first phase implementation at the company's UK headquarters.

### RETURN ON INVESTMENT

"We are looking for payback in various forms such as more effective use of working capital, stock availability, improving customer service and increasing productivity," explains IT Manager, Mark Goodwin.

As part of the implementation, Coba Plastics set up a full scale pilot of IFS Master Scheduling across all production lines. To optimise and balance Planning recommendations, Coba uses IFS Constraint Based Scheduler (CBS) taking into account: order priorities, economic production runs, costs and available capacity.

Manufacturing lines comprise of sophisticated extrusion machines, feeding, haul-off and cutter units. Secondary processes include camera inspection systems and semi-automated packaging systems.

Says Mark Goodwin: "The pilot study immediately identified bottlenecks in some of the ancillary operations. By using the IFS tools we were able to analyse the flow of material through each of the production stages. As well as highlighting bottlenecks, this facility allowed us to look at ways in which we could improve throughput by increasing capacity within the follow up operations.

"So even before the system went live it was producing the sort of reports we were looking for.

"There is still some way to go with this but the pilot has demonstrated that by using IFS and CBS we can identify potential bottleneck areas much more easily and the software provides the evidence we need to justify the capital investment to the board," says Mark Goodwin.

### ABOUT COBA PLASTICS

Coba Plastics specialises in manufacturing thermoplastic extrusions in accordance with QS 9000 standards. Much of Coba's output is supplied to the automotive industry. As a key supplier, Coba manufactures the largest selection of trim retainers in Europe. Other products include a range of standard and bespoke components used for seating, sealing systems, airbags and windscreen-wiper mechanisms.



### IMPROVED QUALITY OF INFORMATION

In fact most of the immediate benefits of the new IFS system are from improvements in the quality of information used to support strategic decisions.

Another example is the introduction of a more structured costing system drawing on the IFS database. Again this is a far more sophisticated facility than the former 'spreadsheet' method.

"Previously our costing model was fairly crude and traditional - IFS has allowed us to put in place a very good costing model with a breakdown showing every element of cost, even down to the amount of electricity consumed in the manufacture of the product. Using this analysis we can assess the true manufacturing cost of any particular product."

As a key supplier, Cobra is often under pressure to agree the pricing demands of large customers. The improved costing capability means that Cobra can now offer competitive pricing while safeguarding its profit margins.

"We are now better equipped to enter negotiations with a clear understanding of our bottom line. And, more importantly, we have the information needed to justify our pricing to any customer," adds Mark Goodwin.

### BALANCING AVAILABILITY FROM STOCK

As far as the main objectives are concerned, it is still too early to report any specific measures to show return on investment. Cobra products are typically high volume, low value standard items. The aim is to achieve a better balance between manufacturing and stockholding and this is going to take some time to work through.

Mainstream production is largely make-to-order with deliveries against customers' just-in-time schedules. These, however, are likely to change and very often at short notice, reflecting the volatility of the upstream demand. An order for just a thousand clips can equate to only a couple of minutes running time on an extrusion machine which can take up to three hours to set up. By using the costing and pricing model they are now able to negotiate on the basis of economic batch quantities, which take account of production set-ups against various make-quantity scenarios.

If necessary, the company would stop the extrusion process in order to meet an urgent requirement. This can obviously impact the manufacturing efficiency. IFS provides the functionality to manage these situations more efficiently, thus minimising the disruption to the planned production runs. Supplying components at tier-2 and -3 levels is highly competitive with very tight margins for profitability.

The emphasis is also very much on customer service and, consequently, the balance between manufacturing and maintaining stock availability is crucial.

The introduction of improved production planning through IFS takes into account forecast customer demand, lead time and priorities in order to achieve the most cost efficient manufacturing schedules. Achieving the correct balance of stockholding against volatile demand flows has always been a major challenge.

### BENEFITS

- Improved production planning, including the ability to manage changing production priorities more efficiently
- Master Scheduling keeps stock levels low and services more orders from stock, without increasing stock level
- Interfaces with in-house touch-screen terminals, barcode scanners and labelling systems

**"With its open architecture and advanced technology, IFS Applications provides a system which Cobra Plastics can grow into, rather than grow out of."**

Mark Goodwin  
IT Manager  
Cobra Plastics



### REDUCING LEAD TIMES AND MORE PRO-ACTIVE IN SALES

“We believe that we can now service a larger proportion of customer demand from stock, which has not always been the case without increasing the stock level. IFS is helping us to identify where the imbalance of stocks occurs. Again, it is going to take some time to get there but we are moving in the right direction to a position where we can focus on reducing overall stock levels significantly.”

Previously the company relied on a standard package augmented by bespoke routines written in-house, providing a limited capability for stock control and monitoring production. The investment in IFS brings all the management functions together under a single, integrated system which will enable Cobra staff to be more proactive in dealing with availability and supply issues.

“Having real time production data available will ensure accurate lead times can be quoted by the sales team, and customers will be able to track their orders through the production process. With modern tools such as Master Scheduling, we expect to reduce our stockholding significantly, while also satisfying a larger proportion of repeat orders ex-stock,” says Mark Goodwin.

### MANUFACTURING

Manufacturing requirements played an important role in Cobra Plastics selecting IFS. The investment complements £250,000 spent in upgrading and refurbishing manufacturing equipment. This included the procurement of five new extruder machines. The company has also installed a shop-floor data-capture system designed in-house. All key workstations are equipped with a touch-screen terminal that interfaces directly with IFS.

Machine operators use the screen to access work instructions, drawings and data sheets for set-up. Work orders are communicated via the terminal and the operator has all information relevant to his process. On completion of a task, the batch quantities and status are entered to update the system. Where appropriate, barcode readers are also used to record the movement of materials.

Developments within warehousing include a new labelling system which is linked into IFS. On entering a works order number, the system obtains all the customer delivery details and then calculates how many labels are required for that job.

### WHY IFS?

On selecting IFS, Mark Goodwin says it was generally agreed that it offered the best platform for the future development of the company. Strong points were its rich reporting functionality and easy user interface. The portals feature, allowing managers to configure their screen for specific roles also scored highly.

By comparison, the runner up – a perceived market leader – was considered too complex. The third short-listed contender was at the lower end of the market in terms of where Cobra Plastics wanted to be. The company wanted a system that was going to last for many years. Using a score sheet to rate functionality, IFS came out on top in nearly every element.



Says Mark Goodwin: “With its open architecture and advanced technology, IFS Applications provides a system which Cobra Plastics can grow into, rather than grow out of.”

In later phases Cobra will implement other modules including Human Resources and Plant Maintenance, Product Data Management (PDM) and Engineering - enabling the electronic storage of design, production process and tooling information.

### RELATED BUSINESS ACTIVITIES

Another aspect which illustrates the flexibility of IFS is the implementation of the software within Cobra Matting division, a separate business unit specialising in custom heavy duty floor mats for industrial, commercial and public leisure facilities.

The division has a broad customer base worldwide and the Internet is becoming an increasingly important marketing medium. E-commerce and handling business transactions over the Internet is an area in which IFS functionality can be further exploited.

Further down the track, Cobra Plastics is also planning to install IFS within an associate production plant in the Slovak Republic and a distribution centre in Germany.

“This does not present any problems as we have experience already in configuring IFS to suit different business types and sites as we have done this with extrusions and matting. Whilst many things are in common, specific process features can also be configured in a completely different way according to what type of functional activity is carried out on any particular site,” says Mark Goodwin. “Our legacy system was unreliable and costly to maintain and our management information was poor and off-line. A major part of our business is product development and rigorous quality control and assurance of produce – and we needed an IT system that would better support this. In addition, we had been growing steadily at a rate of 5 to 6 per cent per annum and needed a system that could help us control costs as well as aid, and even help accelerate, future growth.

“Our existing system made it difficult to access financial information in a timely manner and, as a result, we were perpetually on the back foot. We needed a system that could give us real-time cost and supply chain visibility.”

