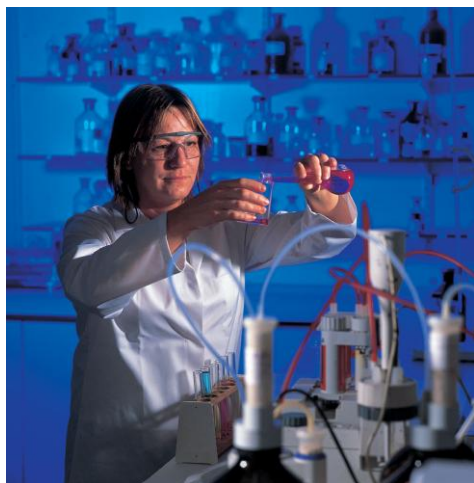


Preactor delivers the perfect planning remedy for UPL

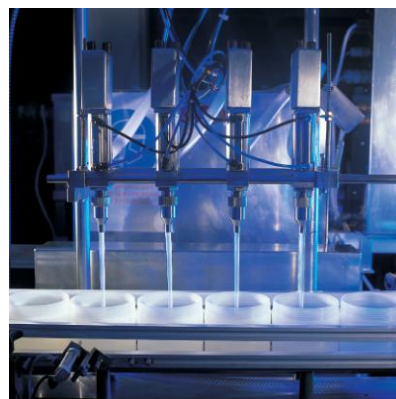


Universal Products (Lytham) Manufacturing Ltd (UPL) is a leading contract manufacturer serving the pharmaceutical and personal care industries. Founded in 1976, the privately-owned £27m turnover company employs approximately 230 staff to provide a flexible and expedient solution for a speedy route to market; covering a significant range of products including liquids, creams, lotions, ointments and gels.

When the company's growing success put pressure on its existing planning and scheduling capabilities, it knew the best remedy was not to throw more resource at planning but to plan more intelligently. UPL found the perfect solution to be Preactor, implemented by SL-ECT Ltd.

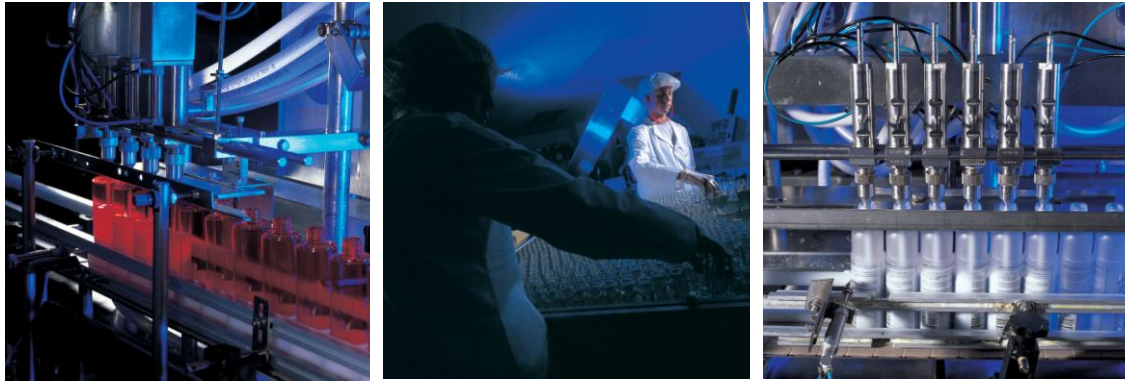
Operating on a 100% Make to Order (MTO) basis, UPL produces in the region of 40-45 million units per year with order sizes ranging from 1000 to 1,000,000. Each of the company's 500+ products comprises two essential components – raw materials and packaging. However while the lead times for raw materials are normally between 1 to 4 weeks, packaging lead times, which may include design and printing can extend out to 18 weeks depending on what is specified. To complicate matters further, some customers choose to supply their own packaging which needs to be available before the product can begin to be made.

Alison Walmsley has been with UPL for 10 years and is the company's planner. She explains why the relationship between packaging and filling is so important. "Clearly we can't fill a product if we don't have anything to fill into but it's more complicated than this. Many of our products have to be mixed in very exact ways, in dedicated tanks at specific temperatures. Some have to be stored at a certain temperatures and also kept at the specific temperatures required by the filling machine that is needed to fill the tubes, jars or bottles in question.



Each of our mixing, storage and filling resources are therefore a potential bottleneck and we cannot begin a job and keep it on hold while we wait for the packaging to arrive."

UPL has 6 different mixing areas, a number of which can only be used for dedicated or MHRA validated products depending on product, size, and mixing type. Depending on the nature of product these feed into a variety of storage areas before being moved to the correct filling line. As with the mixing areas, the 6 bottle and 2 tube filling lines have a strict usage policy with only certain lines being appropriate for certain products, again depending on shape, size, labelling, wrapping and filling temperature.



Once the right product is in the correct packaging, the finished product is palletised, labelled, tested then sent to the warehouse to await dispatch to the customer.

Alison sums up the overall planning and scheduling challenge as, “giving the customer what they want, when they want it.” Doing so involves overcoming a wide variety of individual difficulties beginning with providing the customer with an accurate delivery date to begin with. Not only does UPL have to be confident it can obtain the required ingredients and packaging within the stated supplier lead times, it then has to factor in all the other works orders that will be live at the time. This in turn requires a significant future planning window which itself can be influenced by the degree of internal capacity planning optimising and efficiency achieved.

As Alison notes, resource utilisation extends beyond the use of machines to ensuring that sufficient staffing levels are in place. “We run a variety of shift patterns and when demand is high we may need to run weekend shifts and take on extra people.” The non availability of people as well as unplanned maintenance also needs to be carefully managed with the company ideally needing to evaluate a number of alternative scenarios to select the most effective plan. Seeing the impact of a decision on all the existing live orders as well as those further upstream then becomes increasingly important.



Prior to investing in Preactor UPL relied on a combination of Microsoft Project, Sage MRP and Excel spreadsheets to meet its planning and scheduling challenges. Warehouse Manager Steve Snelson was the company’s Planning Manager at the time and he explains the difficulties of this approach. “We had to use 2 different MS Project documents – one for bulk liquids and one for production – and neither of these could be linked to Sage.

In addition to having to manually enter the same information into each different system, the disjointedness and lack of visibility made it very difficult to see the entire plan.” And because MRP for purchasing could only use the manufacturing lead times from the stock file, purchasing continually struggled to know when materials were actually needed which led to the company keeping higher than ideal buffer stocks.

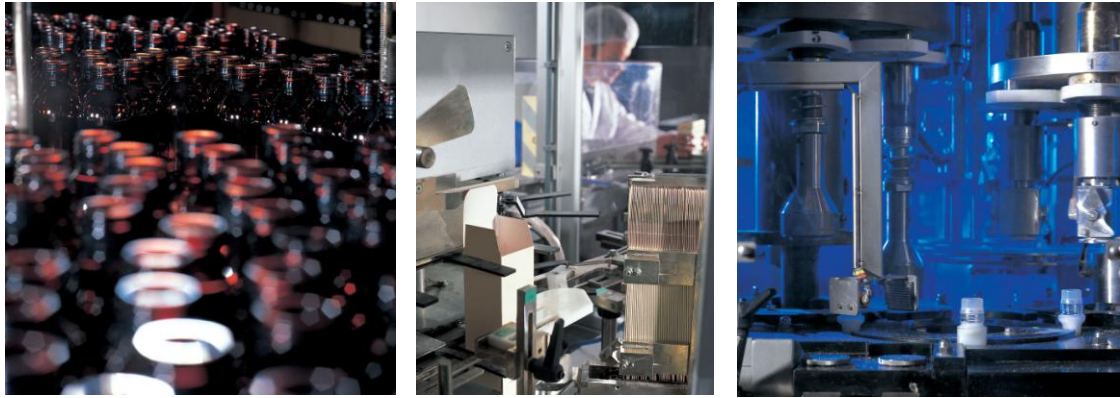
According to Steve, the biggest problem however was trying to ensure that the company had made the liquid before the plan dictated that it needed to be packaged! He outlines the weekly processes involved in trying to overcome this. “There would be a weekly meeting where new jobs were manually added to Sage and also manually added to each MS Project document. MS Project would then generate a schedule for mixing and filling which was given to the mixing and filling teams. As soon as anything changed, the schedule would be out and would remain so with any further changes simply accumulating until the following meeting.” The fact that so much data duplication was involved also invariably introduced data entry errors into the equation as well as wasting huge amounts of time.

This all impacted upon UPL’s customer response times and service levels and as the business got increasingly busier, more resource was put to trying to generate a meaningful schedule with more effort being required to simply keep on top of the data entry requirements. Customer pressure continued to grow for more accurate and timely information while increased testing requirements added further planning and scheduling considerations that pushed the level of planning complexity beyond what the system could cope with.



The company recognised that instead of throwing more resource at the problem it had to fundamentally look to more efficient and effective way of managing its planning and scheduling. Because UPL already used Sage, any dedicated solution had to work seamlessly with Sage which reduced the possible list of solutions considerably. After evaluating the claims of 3 systems, a number of site visits were undertaken after which it was clear that Preactor was the best way forward. “Not only did it do everything better, it was extremely visual which was exactly what we needed” comments Steve before adding, “It was also competitive on cost.” Sage and Preactor reseller SL-ECT Ltd was chosen for the implementation based on UPL’s existing extremely positive relationship with SL-ECT’s Steve Littlewood.

His in-depth knowledge of UPL’s business combined with his considerable experience of Preactor and Sage helped ensure that the implementation went smoothly and successfully. A key element to this lay in working closely with Production Associate Director, Ian DeHavilland and systemising all of the Bills of Material (BOM) routings and associated information that resided in Ian’s head. For example, if an order of a given size could be manufactured in more than one mixing tank, what rules determined which was used, when and why. UPL and Steve Littlewood also made the strategic decision to only concentrate on the key data required to get Preactor up and running and then to add additional data one job at a time. So successful was this approach that Steve states there was no impact on productivity at all. “Yes people had to put in some extra effort but not a single day or even hour of productivity was lost during the entire implementation.” Further proof of this approach came when less than 3 weeks into running Preactor in tandem with the existing system over a projected month trial, Steve stopped using MS Project completely.



While this ease of transition to Preactor was the first benefit UPL experienced, the greatest has been establishing the correct relationship between manufacturing and mixing Works Orders which meant that UPL finally had a coherent united production plan. Not only that, it was one that could be easily understood as Steve explains. “For the first time we could actually see jobs as they really existed across the entire company, at every process stage. Not only could you see right away where any problems were, you could see what needed to be done to fix them.” “And because the planning rules were built into the system”, adds Alison, “it has stopped us making avoidable planning mistakes like trying to fill a liquid before the liquid is made.”



The removal of data duplication not only removed at a stroke any data entry errors but saved a significant amount of time, “the best part of a day, each day” according to Steve Snelson. This is time that can now be used to take a much more strategic approach to planning and scheduling in general and looking for further efficiency savings. When it comes to efficiency savings, Preactor has also been a major contributing factor to UPL implementing its Lean Manufacturing strategy.

“It would have been much more difficult to implement Lean without Preactor not just because of the time Preactor freed up but because we can use it to look at ways of improving our overall planning and scheduling efficiency,” comments Alison.

Preactor has also brought much greater flexibility and agility to UPL, not least the ability to soft allocate resource against Works Orders which can then be hard allocated as and when the planner requires. The ability to update the plan as and when required and the ability to push the updated plan via ODBC to everyone in the company means that everyone now only ever works to the same, very latest, up-to-date plan. UPL can now react much quicker to unexpected changes in customer orders, supplier problems and unplanned maintenance situations and in the case of larger disruptions, perform numerous ‘what if’ scenarios. Thanks to Preactor, UPL can now also respond instantly to customer requests for information. Alison again, “With the old system, if a customer rang on Wednesday wanting information on an order, we’d have to wait until the following Monday to update the plan. Now we can give the information immediately.” So much so that customers can now see the latest

expected Sales Order dates via a dedicated section of the UPL website that is kept up to date with information from Preactor.



Steve adds one final area where Preactor has proved extremely useful – extending the long term planning window. “By forward scheduling we can see how long we can keep any or all machines running based on the supply of items from previous operations or works orders. We can also use this to work out our staffing requirements and whether we need to add an extra shift or take on additional people.” Depending on orders, UPL can now comfortably extend this planning window to 6 months and senior management regularly make use of the business intelligence this generates for wider strategic business-wide decisions. Looking forward as a whole, UPL is contemplating the use of Shop Floor Data Capture (SFDC) as a means to close the planning loop and have access to real-time information of where the plan is currently. It is also anticipating expanding its use of Preactor to take into account a range of secondary constraints.

Alison and Steve are extremely positive about not only the impact Preactor has had on the company but also the role of Steve Littlewood and SL:ECT. “Steve Littlewood rocks” says Alison before going to explain why. “The service from SL:ECT has been exemplary and Steve’s personal knowledge of our business, combined with his enthusiasm for helping us get the best from Preactor has helped deliver a solution that has enabled UPL to provide greater efficiency and customer service even as the business has become busier and more complex.” The last word however goes to Alison. “We simply couldn’t do what we need to do now to be successful, without Preactor.”