

# Preactor and Lean



## What is Preactor®?

For companies who require greater control of their operations, increased customer service while reducing costs, Preactor is a scheduling system that provides the planning process with an interactive decision support tool that balances demand and capacity. Unlike spreadsheets, wall boards and MRP software, Preactor can deal with the complexities of a wide range of application, has been installed in more than 1,600 companies in 56 countries and has provided users with a return on investment measured in weeks, not years.

## How does Preactor help Lean Initiatives?

Lean manufacturing is currently one of the buzz words in industry and quite rightly so. Most companies are under pressure to produce more products in shorter delivery times, without visibility of future demand and with fewer inventories. That's quite a feat to achieve. The question always arises as to whether there is a place for IT in lean manufacturing initiatives.



Lean manufacturing represents a cultural change at all levels of a company. Its prime objective is to eliminate waste, whatever form that takes. The most obvious examples in the production area might be excess materials in storage, work-in process, and finished product waiting for buyers, but it can also be unnecessary movement of staff and many other processes that do not 'add value' to finished items. The objective is to deliver orders on-time with minimum inventory with the shortest lead time and highest possible utilisation of resources adding value.

Most lean initiatives start with a process called Value Stream Mapping. This really is a formal way of analysing how we produce things and identifying tasks or areas where no value-add takes place. This is part of what we used to do a decade or more ago but we called it Business Process Reengineering. The process then moves onto what is termed 'lean thinking'. This is about looking at average production rates for each product (Takt Time), load levelling (Heijunka) and process redesign to attack the waste problem.

Process redesign will often use techniques such as Kanban to provide an easily understandable and visual method of controlling the movement of materials and controlled by demand order pull rather than what has been called MRP push. This type of production control is sometimes referred to as a Visual Production System or VPC. Many consultants see VPC and central to lean initiatives but, in reality, it is just one step along the road to the ultimate lean environment which is Make (or Build) to Order or MTO.



Why is this? The ultimate test of how lean you are is to ask the question – if you stopped accepting orders today and then waited until the factory stopped how much inventory would you have left? If it is none then you are truly in a MTO environment but if you relied on Kanban systems, only final assembly or dispatch are MTO. All upstream processes are Make to Stock. Kanbans are simply a better and more visual way of controlling inventory. It's not the leanest you can be and, while demand is pretty stable they work very well, but they are less well able to deal with variable demand.

Preactor represents the ultimate step to lean manufacturing. If you have MRP then get the system to make to order and turn off the make to stock features (if you can). This will generate a batch for each order you have and at each level of the Bill of Materials. Preactor can perform the dynamic aggregation of batches to minimise changeover times by sequencing these smaller batches in a way that they become the 'big batch' we want at critical process steps where resource throughput is a key element of productivity and efficiency. Often there is a trade-off between minimising changeover time and delivery performance and a 'what if' tool to see the impact of dynamic aggregation is essential to making the right decisions.

And the results speak for themselves. Taken from more than 60 documented case studies quantifiable results in eliminating waste have been achieved using Preactor:-

- **15-20%** improvement in productivity – **get more from what you already have**
- **40-50%** reduction in raw materials inventory – **synchronise purchasing with an achievable schedule**
- **40-50%** reduction in make-span time – **reduce WIP that slows down production flow**
- **50-90%** improvement in customer service – **increase on-time deliveries**

Preactor and Lean initiatives are complementary. Value Stream Mapping is used to identify issues to tackle, VPC in the form of Kanbans reduce inventory but do not eliminate it. Preactor provides a decision support tool to the planner to help eliminate non-value added activities and get deliveries on time.

## Where can I get more information?

Preactor International has a network of resellers and system implementers located around the world who provide software implementation and support. See our website [www.preactor.com](http://www.preactor.com) or Email [sales@preactor.com](mailto:sales@preactor.com) to find your nearest Preactor solution provider.

**Preactor International, Cornbrash Park, Bumpers Way, Chippenham, Wiltshire SN14 6RA, United Kingdom. Tel: +44 (0) 1249 650316**