

Achieving Both Reliability and Agility in Production

One-Day workshop with Eli Schragenheim – The Goldratt Schools

Outline of the workshop

- Production shop floor: Combining complexity with considerable uncertainty.
 - How can you be reliable in such an environment?
- Experiencing the problem: a semi-complex virtual production simulation. Dealing with the challenge of delivering the same shipments every month.
- Between Planning and Execution:
 - Are the decision rules the same?
 - What decisions should be included in the planning?
 - What decisions should be left for the execution phase?
- A major insight: the shop-floor performance is dominated by one work center that is the weakest link.
 - Is it always true?
 - What happens when we have interactive resources with very limited excess capacity?
 - Suppose it is true, how does that insight affect the planning? How does it affect the execution?
- The five focusing steps.
 - Should we subordinate to the market? Or to the efficiency of the weakest link? Or to both?
 - Back to the virtual case. Analysis based on the new insights.
 - Running the case based on the analysis.
- Stating the planning rules of S-DBR
 - The definition of the time buffer.
 - The planned load.
- The criticality of choking the release.
- The Red-Line Control: a simple Buffer Management method to manage the execution.
- Running the virtual case under full S-DBR.
- Progressing ahead: defining the “safe-dates” based on the planned load.
 - The rationale of the planned load to offer safe dates – the ability to smooth the load.
 - Tying the Rope to the planned load
 - Thus decreasing the WIP
 - The difference between the Production Buffer and the Lead-Time to the client

- Understanding the capacity issues as presented by the planned-load
- **Becoming Agile:** being able to respond very quickly.
 - What really impacts the production lead-time?
 - How to offer rapid response when most orders have longer lead times and need to maintain reliability?
 - The planned load for the short-term and long-term.
- Buffer of topics: interactive constraints and how to handle them, dependent setups, market buffer.