



Automation at 20,000 Feet - BBB (Borrow)

Bottom Line Automation by Peter Martin

Reviewed by Nick Sands

DR Martin, of Invensys - Foxboro, presents a very high level view of trends in process control. This view, the result of decades of reviews with many professionals and executives, states that changes in process control and IT technology, quality methods, and accounting methods have converged on a new state of process automation that focuses on the bottom line. This alignment allows dynamic performance measures, enabled by technology, to drive quality and cost improvements.

The technology component, has progressively developed through three stage; technology for manufacturing, technology for technology, and technology for the bottom line. In the manufacturing phase, technology was developed to enable production. Then beginning in the 70's was a phase where technology was implemented for the sake of technology more than for the benefit of manufacturing. Finally, we are at the very beginning of the third phase, where technology is used to improve the bottom line.

Similarly, the author describes three stages in quality systems; quality for manufacturing, quality for technology, and quality for the bottom line. The first stage focused on improving products and processes with quality systems. Beginning in the 80's the focus shifted to the use of statistical methods, where at times the statistics became more important than the process. Now we are entering a new phase where quality systems are focused on the bottom line, as in the six sigma approach.

In a remarkable symmetry, there have been three stages in manufacturing accounting; cost accounting & manufacturing, cost management and manufacturing, and accounting for the bottom line. Cost accounting is focused on cost/pound metrics. Cost management or activity based costing, assigns the cost of functions to products and has been used to remove cost from many manufacturing companies. The stage we are entering is accounting for the bottom line, where dynamic performance measures are defined and used to support activity based management.

The key message is really about dynamic performance measures. Careful definition and implementation of DPMs drive improvement. The several case studies provide some examples of DPMs. One key attribute of DPMs, is that they should provide information to people that can make changes within a time frame that they can make changes. So a weekly metric is not a good choice of DPM for a shift operator. Also, recognition for implementing a successful DPM should be given to both the implementation team and continue to the people that support the ongoing implementation of the DPM. There should also be very few DPMs.

Overall, I think this book was interesting because of the higher level view of process control and for the case studies of successful DPMs. At 158 pages and \$49 (member price), and available from ISA Press, this , Bottom Line Automation is a good book to borrow (BBB).