

SAE in Manufacturing

Lean Manufacturing begins with Lean Program Management

*The Emerging Design Chain*An interview with **John M. Cachat**, President and Founder of IQS

What do you mean by Lean Program Management?

A lean manufacturing system is one that meets high throughput or service demands with very little inventory. Everyone in automotive knows that Advanced Product Quality Planning (APQP) is one of the most complex, labor intensive, poorly executed processes in the industry. Very few follow the AIAG standards. A lean APQP system is one that meets demands with very little human inventory - including customer and supplier resources.

How would you apply the concepts of lean manufacturing to APQP?

I started in automotive as a co-op student at the General Motors Institute. I worked every hourly and salary position in the plant. I grew up in an automotive plant. Remember the basics: in an organization, if someone handles a part several times, is waiting for information, and has a large rework area, they are a candidate for lean manufacturing. A tech center walk-through assessment for a major Tier One supplier showed their APQP process consisted of over 30 spreadsheets, all requiring redundant, non-valued added data entry. The engineers worked as power clerks during the week trying to simply update program management reports, and came in on Saturday to actually do some Engineering. Ask an engineer in any automotive tech center if they can identify and eliminate waste in the APQP process and they will answer with a resounding "YES!"

What do you mean by the Emerging Design Chain?

APQP is a critical business process and is a perfect situation to apply the concepts of lean manufacturing. APQP must enter the world of e-business with B2B transfer of APQP data, dates, and communication records. This is much more than just the emailing of files or sharing a chat room. A truly integrated B2B APQP process is a key to long-term competitiveness in the automotive industry.

What is the major issue with collaboration?

Manufacturers are not ready to share and share alike. However, sharing information with customers and suppliers is required if you want them to help you. Sharing information does not mean open access to everything. Also, chat rooms and engineering shared viewing programs labeled as the ultimate collaboration tools fall short. After the on-line meetings, who publishes the meeting minutes? Who assigns and follows up on the action items? Who records the discussed design changes? All of these must be logged into a design chain business system, not just hidden away in emails and word files.

What should e-business solutions have learned from ERP mistakes?

To be successful, solutions must narrow the scope and define the integration needed. They must plan for slower implementations of global rollouts and the required languages and support issues. Bigger is not better. Small providers can respond faster and provide far better service than a 500-pound gorilla.

What is the critical success factor to making B2B APQP a reality?

This is the automotive industry; people should not be forced to use software services. Costs should not be passed down the supply chain. There are 3 key components: (1) The OEM View - paid for and used by the OEMs; (2) Document authoring tools - to actually create the APQP documents and assignments, and actually execute the APQP process (paid for and used by the Supply Chain); (3) the B2B XML transfer from the Document Authoring Execution tools to the OEM view (this is a significant elimination of waste compared to re-entering information into every OEM home page by hand - and would be paid for by the supply chain).

Do you have any advice for the E-Business Executive?

Get with the program or get out. Do not leave people in power positions who are not actively supporting e-business efforts. Get the e-business team off-site. Get them away from day-to-day operations and let them think out of the box. Take an active role in OESA e-Business Councils.

John M. Cachat is recognized world wide as an expert in global enterprise wide QS-9000 business systems. John often provides strategic consulting direction in the Board Rooms of major automotive companies. John founded IQS (www.iqs.com) and has pioneered QS-9000 ASP services (www.iqsasp.com) and web based APQP (<http://www.iqs.com/SmartFormDemolnstr.htm>) with IBM Global Automotive Services. Contact IQS, Inc. at sales@iqs.com, (440) 333-1344 and Fax (440) 333-3752.

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