How a Single Source of Truth Enables Balanced PLM Programs



At a Glance:

- Product lifecycle management (PLM) enables improved productivity, accuracy, and decision-making—and ultimately increases profitability.
- Best practices in managing people, processes, and information for streamlined data collection drive successful PLM programs.
- A unified, cloud-based solution like the Plex Manufacturing Cloud is essential for effective PLM.



Consolidating and Automating the Flow of Information

Technology enables an instantaneous flow of information between departments and locations within the manufacturing enterprise, supporting accelerated program management.

However, if the enterprise lacks a well-structured product lifecycle management (PLM) program, faster information flow only speeds up confusion, duplication of effort, and poor decision-making, which ultimately drive customer dissatisfaction and increased costs. Critical to success is having the right system in place to consolidate and automate information flow while supporting PLM processes.

Many organizations emphasize one or two of these principles but neglect the others. Consider the dynamics that arise out of imbalances in the process:

- Overly detailed workflow limits the autonomy and flexibility of team members.
- Even the most well-intentioned team players can unwittingly cross over into other roles and duplicate work.
- Data is entered after the fact to simply "check the boxes," but the team flies blind on a day-to-day basis.

Apply Diligence Up Front

A successful PLM process includes a contract review, negotiations, and knowledge of the impact of any adjustments to requirements. The manufacturer must be diligent in negotiating specification and timing adjustments before final approval. All affected parties—including key advance-sourced suppliers—must agree to the final baseline requirements.

The period before the ink is dry on the contract is the optimal time to clear up potential problems. Corrections can be made at virtually no cost during this stage, while it is expensive to deal with the consequences of lack of clarity later in the program.



Create One Version of the Truth

When customer requirements are accepted, a common information base must be established as the one and only record of requirements, the "single version of the truth." This keeps all parties in the process on the same page and ensures that information feeding any processes comes from the same, single source. There is often so much pressure to dive right in and begin development, that organizations can miss this step. However, getting this right early on avoids delays, crisis management, and costs later on.

A clear understanding of specifications, timing, and costs also enables manufacturers to easily and accurately measure the costs and impacts of any changes requested by the customer later, during product, and process development.

For effective PLM, management must define an integrated and realistic development process and capture a clear picture of customer requirements in a single project site accessible to all. Team members must understand the process, including their personal responsibilities, and how to access the one controlled version of customer expectations.

Collect Data Based on Key Metrics

An effective PLM data collection system must drive sufficient detail into processes and records without overburdening team members with administrative recordkeeping. Manufacturing companies should only track those schedules, task assignments, checklists, forms, and issues that relate to critical performance indicators or key metrics.

Legacy PLM systems contain redundant layers of detailed tracking and reporting requirements with micro-instructions that were originally put in place in response to past failures. It is human nature to impose heavy reporting and approval policies to "prevent" mistakes.





A well-thought-out and balanced system, program, and change management can be simplified enough to become a smooth process:

- Program and change management becomes effective and agile, even lean.
- Smoother launches since production is more closely aligned to planned capacity.
- Reduced scrap and premium freight costs.
- On-time delivery and quality increases.

How the Plex Manufacturing Cloud Enables Successful PLM

The Plex Manufacturing Cloud is a unified ERP, Supply Chain, MES, and Analytic solution, enabling manufacturers to run their businesses on a single system of record, for real-time visibility across all facilities in any location or region. It enables complete integration of data and processes to drive comprehensive PLM programs.

Plex captures data at the point of origin and processes it in real time, providing visibility and control with up-to-the-minute accuracy. All data is maintained in a single database, and there is no need for redundant, duplicate data entry, and all data used in the PLM process comes from one source. This eliminates information silos.

Customer requirements and changes flow seamlessly into production operations and financial reporting. All team members and stakeholders have ready access to the single version of the truth so essential to PLM. Key benefits include:

- Executives can efficiently monitor team performance to PLM expectations via objective and accurate summaries and metrics.
- Team leaders can effectively manage trends in costs, resources, and timing because they are freed from most of the clerical burden of routine, after-the-fact status reporting.





- Team members become more productive because they are clear on their responsibilities and have a common place to post records and task statuses.
- Customers receive timely feedback on program results, which leads to constructive engagement and increased satisfaction.

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About Plex

Plex is the Manufacturing Cloud, delivering industry-leading ERP and manufacturing automation to more than 600 companies across process and discrete industries. Plex pioneered cloud solutions for the shop floor, connecting suppliers, machines, people, systems, and customers with capabilities that are easy to configure, deliver continuous innovation, and reduce IT costs. With insight that starts on the production line, Plex helps companies see and understand every aspect of their business ecosystems, enabling them to lead in ever-changing markets. Learn more at www.plex.com

