

Study Finds CDAS Systems Define Future Factory Automation

Most companies today are exposed to one of the most complex and diverse business environments in manufacturing history. With a globally distributed design/build process and supply chain, a demand-driven market, and the need for real-time collaboration and response across the manufacturing enterprise, companies are facing formidable challenges. An enterprise architecture that maps a company's current and future operations in this era of globalization needs to be predicated on collaborative methods and processes enabled by standards-based interoperability.

One of the primary functions of collaborative discrete automation systems (CDAS) is to define the vision for the factory of the future and to provide an architectural roadmap based on the prevailing business drivers and emerging technologies for manufacturing, according to a study done by the ARC Advisory Group, which specializes in manufacturing, logistics, and supply chain solutions.

A shift is taking place across all of the discrete industries. Information itself is becoming the engine that runs the production line. From product development engineering to factory floor production operations and extended supply chains, information from all domains must be shared across the product lifecycle and throughout the manufacturing enterprise. While the focus in recent years has been the adoption of emerging technologies and the resultant applications, many companies are re-focusing on their core competencies, outsourcing, and the optimization of their manufacturing processes in a climate of growing economy and intense competition.

"Becoming a low-cost producer has superseded the application of technology for technology's sake and unbridled growth as corporate objectives. At the same time, companies must recognize the value and necessity to develop and implement a comprehensive enterprise architecture that interprets and defines their manufacturing enterprise," according to Senior Analyst Dick Slansky, the principal author of ARC's *Collaborative Discrete Automation Systems (CDAS) Study*.

An event-driven manufacturing approach allows optimization of production processes by providing access to real-time events. Moreover, this is indicative of a more holistic view of production operations and the effect that these processes have across the extended manufacturing enterprise. An effective production to business (P2B) strategy captures event-driven information as it occurs and moves it vertically to power production management, visibility, and supply chain applications, thus exposing the heart of manufacturing operations, the production processes, to the rest of the manufacturing enterprise.

An immediate benefit of defining manufacturing operations within the context of

Study Finds CDAS Systems Define Future Factory Automation

Published on Industrial Maintenance & Plant Operation (<http://www.impomag.com>)

collaborative factory architecture is the flattening out of the tiered hierarchical architecture. The CDAS functional model addresses this through by defining the relationship between domains and the concept of service-based architecture.

Source URL (retrieved on 10/30/2014 - 12:10pm):

<http://www.impomag.com/articles/2005/11/study-finds-cdas-systems-define-future-factory-automation>