Intelligent Automation: Enabling high availability, easy reconfiguration, and flexibility for manufacturing automation and control

PARC’s integrated planning + control platform (“Plantrol”) enables enterprises in a number of industries to build modular systems that operate intelligently for higher flexibility and availability, with shorter development and testing timeframes than traditional automation approaches.

OVERVIEW:  

**Enabling demand-driven manufacturing and packaging**

In a world of greater product variety and shorter lifecycles, companies are moving to a short-run, demand-driven mode of manufacturing. Yet most production, packaging, and distribution processes have been automated with little or no reconfigurability. This makes it difficult for companies to adapt their plants and processes to changes in market demand.

**Creating reconfigurable systems through intelligent software and modular hardware**

Based on a decade of research by a world-class scientific team at PARC, Plantrol combines online planning and distributed control to enable a manufacturing or packaging line to respond quickly to changes (such as equipment failure) by using alternative production paths. This online capability also gives the system flexibility to change plans in real-time so it can respond to changes in orders, distribution, or in the supply chain. Plantrol also provides an efficient framework for state estimation, where the system can examine fault signals, and use reasoning to suppress false alarms and to pinpoint the root cause accurately.
Benefits

- Higher system flexibility due to modular design and control
- Higher system availability due to automated state estimation and exception handling
- Faster system development and modification due to a model-based approach
- Real-time response to unexpected changes in dependent enterprise systems, such as supply chain, order management, or distribution

Contact Us

Plantrol is available for licensing and customization for manufacturing, packaging, and warehouse automation applications.

More Information

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