Process Control, Supervisory Control & Data Acquisition Systems

Process Industry - Process Control System Interface (PI-PCS)

SAP's PI-PCS interface provides a solution for process manufacturers to unite SAP R/3 business and process manufacturing software with the real-time world of process control. It closes the time and information gap to provide business and plant managers with the complete picture — enabling more streamlined production and higher quality management.

PI-PCS is a standard, open interface enabling direct integration of the SAP R/3 PP-PI System (Production Planning - Process Industries) with complementary PCS (Process Control Systems), SCADA (Supervisory Control & Data Acquisition Systems), and DCS (Distributed Control Systems).

SAP's PP-PI application (Production Planning - Process Industries) provides a comprehensive suite of process planning tools to manage resource, recipe and process management, as well as process planning and production information management.

PP-PI's Process Planning and Process Management support both manual, as well as automated process manufacturing. In the case of automated manufacturing, process orders are scheduled, released for production and the corresponding control recipe automatically generated and sent asynchroneously to defined PCS, SCADA or DCS systems via the PI-PCS interface. In this way, R/3 process-relevant information required for process and quality control, (such as scheduling dates, required materials and quantities, data/event requests, as well as inspection data requests), is communicated from R/3 PP-PI to the process control level.
PP-PI is highly flexible so that the control recipe, and thus defined data exchange, can be configured to meet your specific production needs.

PCS, SCADA or DCS systems manage the production process itself. They manage real-time process data and production events, and communicate requested real-time process data, (such as actual process order status, process events, yield, resource utilization, material consumption, and quality-relevant data) back to R/3 PP-PI. Therfore, both planned and actual process data is made available to R/3 for further processing. R/3 processes, such as materials management, quality management, process costing or generation of the Electronic Batch Record are automatically updated with both planned and actual process data.

PI-PCS: Integration of R/3 PP-PI and PCS

Production Mgmt.

- Production Planning
- Inventory Control & Warehouse Mgmt
- Quality Management
- Personnel Planning
- Maintenance Management

R/3 PP-PI

- Recipe Management
- Resource Management
- Process Planning
- Process Management
- Production Information Management

PI-PCS

Process Control

- Scheduling dates
- Materials/ resources
- Inspec. data req.
- Data requests

- Batch status
- Process events
- Yield
- Resource utilization
- Quality data

PCS

- Process control

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