R/3® System

SAP, Hewlett-Packard and leading controls vendors have joined forces in a winning initiative to unite the planning, control and execution levels of process industries. The integration of PP-PI with HP-RTAP enables a real-time, continuous data flow from the top down and the bottom up. The result is enhanced operational visibility and productivity.

SAP® PP-PI and HP-RTAP

Linking business from the top down and bottom up

Efficient planning and process control

SAP has joined forces with Hewlett-Packard to develop a solution that provides process manufacturers with a real-time, fully integrated data flow from the machine on the plant floor to business management at corporate headquarters. A solution that helps customers not only meet process industry challenges but also gain a competitive edge in today's business environment.
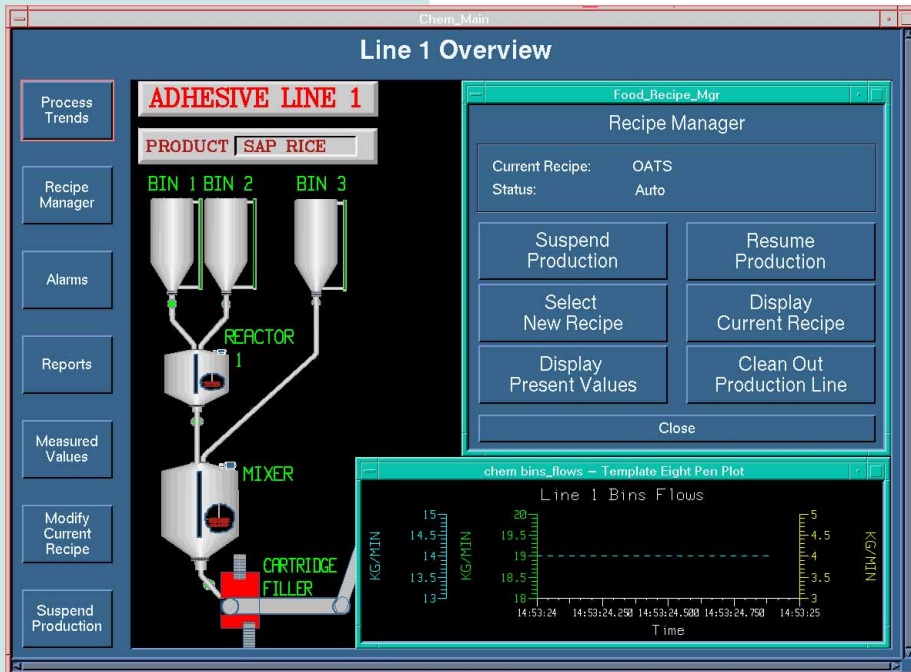
The combination of SAP's R/3 PP-PI (Production Planning - Process Industries) System and HP-RTAP (Real-Time Application Platform) unites a flexible, real-time data acquisition system with comprehensive business and process planning systems.

By integrating PP-PI with RTAP and leading controls systems, information gaps and timing inconsistencies between plant floor control, production and business planning systems are eliminated. Business and plant managers have the complete picture to achieve streamlined, cost-effective production and higher quality management. Furthermore, comprehensive collection, evaluation and documentation of both process and quality data enables improved process control and compliance with regulations.

SAP's PP-PI and HP-RTAP: Improved flow of timely information

PP-PI is an integral part of the SAP R/3 System. It provides a powerful suite of integrated planning tools comprising Resource, Recipe and Process Management, Process Planning, and Production Information Management. The open interfaces to Process Control Systems (PCSs), for example, via HP-RTAP, and Laboratory Information Management Systems (LIMS) provide you with timely and accurate information through every step of the production run.

HP-RTAP is a high quality software platform supported worldwide by Hewlett Packard. The real-time database in HP-RTAP provides configurable objects enabling operational data to be managed on-line. Production processes can also be displayed in real-time by animated, graphical objects provided in HP-RTAP's human-machine interface (HMI).
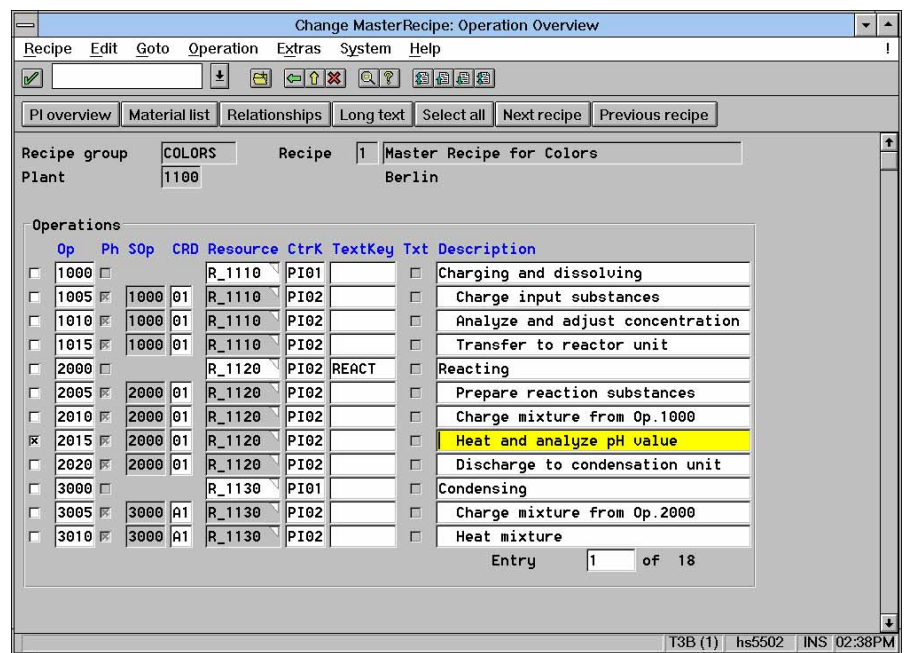
HEWLETT PACKARD

SAP®

Optimize your production facilities with real-time information

PP-PI's Recipe Management gives production planners a powerful set of tools for new product planning, scheduling, process control and documentation. They can plan the entire set of production resources, process activities, process specifications and control procedures required for the production of a batch. The master recipe not only provides for efficient by-product and waste control but is also designed to follow international standards such as SP-88, EBF and Namur.

Planned orders from the MRP level or ad hoc process orders can be easily combined with the master recipe in PP-PI and scheduled in the interactive graphical planning table. Tight integration with the broad spectrum of R/3 applications provides schedulers with up-to-the-minute, on-line information on sales forecasts and customer orders as well as the latest information on resource capacity, material availability and leadtimes.

Once resources are assigned and the materials reserved, the process order can be released for production. All process parameters vital for effective production execution and quality control are stored in process instructions from which the control recipe is derived. In the case of manual operations, interactive graphical process instruction sheets are generated in PP-PI and sent to line operators. In automated processes, the control recipe is sent asynchronously from PP-PI to HP-RTAP. HP-RTAP translates and communicates the control recipe to the appropriate Process Control Systems (PCSs) and Distributed Control Systems (DCSs).

HP-RTAP enables planners and plant operators to track the entire process on-line. It filters the

process data and sends the important messages (such as production status messages for real-time update of the production schedule, actual process data for the Electronic Batch Record (EBR), and quality data) back to PP-PI for further processing.

With its direct communication with PCSs and DCSs, HP-RTAP can provide PP-PI with actual process data and events, resource utilization, material consumption and yield. Production information is integrated with enterprise data, from the machine on the plant floor to business management at corporate headquarters.

Finally, with SAP Business Graphics and the links to MS Access and MS Excel, you can combine actual and planned process data for comprehensive data and trend analysis. Your entire process is fully documented and all recipe, quality, planned and actual process data is stored in the EBR according to Good Manufacturing Practice (GMP) guidelines.

Technology and Service

HP-RTAP is based on open standards such as X-Windows and Motif, and runs on several versions of UNIX. It communicates with all the leading process control systems, namely ABB, Allen-Bradley, Honeywell, Modicon, Moore and Siemens. Hardware requirements as well as software licensing conditions vary depending on the configuration chosen.

PP-PI is an integral part of the R/3 System and is supported by SAP's wide spectrum of services: competent requirements analysis and technical consulting for project planning and realization, specialist training programs for your employees, and 24-hour hotline support.

SAP's quality management system for software development meets the ISO 9001 standards.

Find out more. Just call or write us.