Introduction

Integrated information systems in firms using discrete manufacturing practices have been in use for quite some time. In the logistics chain, this spans a range of applications going from sales processing up to automated production plants.

In process industry plants, however, this degree of integration has not yet been reached. Instead, higher-level planning systems exist, which however are not used conjointly with the lower-level process-related control systems. Integration is usually achieved if customers individually program interfaces between the higher and lower levels, but hardly any standard software solutions exist on the market.

For this reason, SAP is carrying out an EC-supported project with the goal of developing an integrated PPC system for the process industry. Computer Architecture for Production Information Systems in a Competitive Environment (CAPISCE) is the written-out name of this project, which is described on the next page.

In order to develop the software as closely as possible to actual manufacturing practice, a consortium was formed in which the know-how from the development of business and logistics applications is linked with the expert knowledge of process control and control systems. Digital Equipment Corp., IDS Professor Scheer CAM GmbH, Institut für Wirtschaftswissenschaften IWi (Institute for Information Systems) of the University of the Saar, SAP AG and ZENECA PLC form the CAPISCE consortium. ZENECA has the important role of industrial partner and pilot customer, in whose production plants CAPISCE is already proving its efficiency. The requirements defined by these pilot sites range from the representation of individual synthesis and formulation problems to entire single and multi-way plants or single and multi-product processes. Some are largely automated, using process control systems, whereas others are run largely manually. All have vendor and buyer relationships with each other, meaning that the intra-plant coordination forms part of the planning process.

In parallel to the project work, contact with further potential customers was made during the course of seminars, workshops, talks and presentations. In this way, the members of the consortium were able to obtain feedback and impulses from firms coming from various lines of industry.

Furthermore, a group of pilot customers was selected in mid-1994 to test and verify the functionality developed until then. These are pilot sites coming from various lines of industry in Europe and America. The functionality of the first version of PP-PI (Release 3.0) was greatly influenced by these firms.

Integrated Information Processing

CAPISCE Project

The CAPISCE Consortium

Pilot sites

This way of proceeding had the decisive advantage of having the functionality tested by seven large firms before its release, as well as providing important input for the further development of PP-PI.

From the beginning, the development of standard software was the goal of the project. With the delivery of the R/3 System's Release 3.0, IDS and SAP will be offering a common product with the name PP-PI (Production Planning for the Process Industries), which has been developed from the CAPISCE module SPINE (Strategic Production INformation in a Competitive Environment).

This brochure contains an overview of the functions in the application PP-PI.

The requirements placed on an integrated batch processing system that has links to all levels of a company also affect other R/3 modules. The modules whose development was most affected were materials management and material requirements planning. With PP and PP-PI, the R/3 System will be supporting our customers in industrial plants using discrete manufacturing as well as those carrying out process manufacturing.

CAPISCE Project Overview

CAPISCE EP 6168 (Computer Architecture for Production Information Systems in a Competitive Environment)

Project

SPINE (Strategic Production Information Environment, SAP/IDS), **PDAS** (Process Data Acquisition System, DIGITAL)

Modules

April 1992 - March 1995

Time Period

ZENECA PLC (Coordinating Contractor) Definition of software requirements and implementation at pilot sites.

Consortium

SAP AG (Contractor) Design and implementation of SPINE as an R/3 System.

IDS Prof. Scheer CAM GmbH (Associated Contractor) Design and implementation of SPINE as an R/3 System.

IWi (Institute for Information Systems, Associated Contractor) Methods consulting and software design.

DIGITAL Equipment (Subcontractor) Design and implementation of PDAS. Hardware for pilot sites.

The functions delivered within the framework of the SPINE module of CAPISCE will be released for delivery in the R/3 System Release 3.0 under the application name PP-PI.