IRM PRESS
701 E. Chocolate Avenue, Suite 200, Hershey PA 17033-1240, USA
Tel: 717/533-8845; Fax 717/533-8661; URL-http://www.irm-press.com
ITB12465

This chapter appears in the book, *Business Processes: Operational Solutions for SAP Implementation*
by **Victor Portougal** © 2006, Idea Group Inc.

Chapter VIII

Core Business Processes in Enterprise Planning: Choosing the Structure of the System

It was pointed out in Chapter VII that before implementation of an ERP system in EA Cakes Ltd., it was necessary to completely reengineer the production planning process. To change the strategy from make-to-order to make-to-stock involves not only the company's decision to invest money in accumulation and keeping stocks of finished goods. It requires a complete redesign of its production planning system, because:

- There is no forecasting for MTO, it is driven by customers' orders, so a forecasting system had to be designed and implemented.
- An inventory management system for finished goods had to be developed.
- Under MTS, it is vital that the planning system preserves continuity; the plans produced by each level should be detailed plans of the top level. Also, there must be feedback continuity: feedback of the top levels is an aggregation of bottom level feedback — for more detail see McNair and Vangermeersch (1998).

The design of a production planning and control system is unique to each production situation, and there are many considerations that will act to shape the development of an efficient system. However, just as every house built is unique in its own way, and yet is constructed out of common materials, so too are production planning systems constructed from common "building blocks." These "building blocks" will provide the robust foundation on which the uniqueness of the systems design can be constructed.

The Structural Components of a Planning System

The Starting Point

In the EA Cakes Ltd. case study, the management have decided to change the production planning system. While there is evidence that the existing system has faults, it has, nevertheless, been developed to suit the existing situation and the people who manage it. This fact raises the question of where to start when attempting to improve a planning system. It is very rare to be involved in designing the planning system right at the firm's beginnings, and more often, the planning system has evolved over a period of time, and is designed to suit some form of management goals or objectives, or to suit the existing technology and processes. We can assume, in most cases, that the existing system has been designed with the best knowledge and understanding of the existing situation. To improve the situation, therefore, needs new knowledge, or the ability to see something that was missed in the original design phase.

The discussion that follows centres on how to choose the number of levels of production planning, and how to define the production units at each level. Before considering the various factors and influences, however, it will be helpful to get familiar with the basic components of a production planning system.

The Components

To develop a concept of the planning task, we need to understand how the production planning system is built. Just as an architect designs a house with