Chapter VII

Integrating IP-Maps with Business Process Modeling

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Abstract

This chapter takes the basic constructs of the IP-Map diagram and demonstrates how they can be combined with the event-driven process chain methodology’s family of diagrams. This extended family of diagrams can be used to more fully describe the organizational, procedural, informational, and communication structure of a business process while at the same time highlighting the manufacture of the information products used by that business process. The chapter concludes with a review of requirements for a software package that will allow analysts to model and explore their business processes with an emphasis on improving the quality of the organization’s information products.
Introduction

Traditionally information systems (IS) professionals have focused on the computer-based systems that produce the reports, charts, data extracts, invoices, and other data-based items that people use for conducting day-to-day activities or for making decisions. Within the last few years; however, there has been a growing movement among data quality researchers to view information as a product and to manage it in much the same way that a manufacturing company would manage the quality of its physical products (Wang, Lee, Pipino, & Strong, 1998). Under this view, the focus is on the information product rather than on the system that produced the product. Although the quality of the system is still important under the new paradigm, it is important for a different reason. A well designed, efficient, and effective information system is important insofar as it contributes to a higher quality information product being produced by that system.

Although there is much to be gained by using an analogy of a manufactured physical product, it should be noted that there are some notable differences between the characteristics of an information product and those of a physical product (Wang, 1998).

1. Unlike a physical product where the overall product and its quality are of interest to the consumer, for an information product it is the data items that comprise the information product and the quality of each that are of importance to the consumer. The information product must therefore be identified in terms of the data items used to manufacture it and must be specified by the final consumer of the information product. This breakdown drives the requirements of the raw information (raw data items) and the semiprocessed information (component data items) needed to manufacture the information product.

2. Raw data items and the component data items do not deplete when an information product is manufactured. While the raw data items may be stored for long periods of time, the component data items are stored temporarily until the final product is manufactured. The component items are regenerated each time an information product is needed. The same set of raw data and component data items may be used (sometimes simultaneously) in the manufacture of several different information products. The set of information products that use the same set of raw and component data items may be considered a group.

3. When describing the quality of raw data, component data, or information products, it should be noted that while some characteristics of quality apply to both physical and data-based products (e.g., completeness, availability, up-to-date, easy to use), other characteristics of information quality, such as believability, lack a counterpart in physical product manufacturing.

Another issue that adds to the complexity of managing information as a product is that information products can take several forms.

- Information products like invoices, business reports, contracts, medical prescriptions, and paychecks have a prescribed format and are produced either on demand or on a scheduled basis for usually a large number of consumers. This type of information...
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