1 Enterprise Modeler

Introduction

In BaanERP, a Business Control Model and an Enterprise Structure Model for multi-site configurations are introduced.

Figure 1-1 Enterprise Modeling

Level 1: Enterprise Structure Model

At a company level the business units should be identified and modeled in the Enterprise Structure model. Represented by icons, all players are placed on a map. The business units are called Enterprise Units. Between Enterprise Units, all kinds of relationships may exist in terms of order flows, goods flows, money flows, and information flows. These relationships must be identified in a multi-site situation and specified in the Enterprise Structure Model, since this might influence the design of internal processes within a Enterprise Unit.

The Enterprise Structure model sets the framework for defining a management level model. It determines the financial transactions that occur on a transfer of goods between Enterprise Units.
Level 2: Business Control Model

At an Enterprise Unit level, money and goods flows are planned, managed, and executed. A Business Control Model defines, on a high conceptual level, how the enterprise unit realizes the company’s objectives by managing its processes. It displays the following:

- What are the primary industrial processes?
- What are some of the logistics characteristics of these primary processes? (Which part is planning driven, and which is customer-order driven?)
- What are the management and control mechanisms in place to manage throughput time, quality, and costs?

This model serves to identify the needed process control cycles in order to guarantee the fulfillment of the company’s objective with respect to throughput times, quality, and costs. In fact, the process control cycles are themselves administrative processes, hence work flows, which are supported by BAAN’s ERP functionality and executed in the BaanERP Workflow modules.

Derived from this model, a list of main process flows is established that must be designed on the third level in the Enterprise Modeler Architecture.

Level 3: Business Functions, Processes and Organization Diagram

Identified processes are designed in detail on the third level. The work flow is defined in detail and process steps are linked to the BaanERP application. At this level, there were no major changes in BaanERP.
Enterprise Structure Model and Business Control Model

Figure 1-2: Enterprise Structure Model and Business Control Model

The primary objective of the Enterprise Structure Model is to define a multi-site managerial model from both a financial and logistic perspective. Typical questions are:

- What do we consider to be one financial unit with bottom-line responsibilities (for example, business unit)?
- How to model a centralized planning system for several other sites?

In BaanERP, multi-site concepts provide the flexibility to define financial and logistic units independently. A key element in the definition of this managerial model is the Enterprise Unit.

By definition, an Enterprise Unit belongs to one logistic and financial company and, therefore, is a building block for multi-site definitions. It represents a logical view of a company rather than a physical one. Within an Enterprise Unit, the high level money and goods flows are modeled in a Business Control model.
Enterprise Modeler

Goods Flow

Figure 1-3 Goods Flow

In BaanERP, the Enterprise Structure Model is built in an intuitive way. The managerial model is designed on a map. From a library, the user can select an icon which will represent the Enterprise Unit. The next step in the modeling process is to identify relations between the Enterprise Units. The following relations can be modeled:

- Order flow
- Goods flow
- Cash flow
- Information flow

Currently, only the goods flow is functional.
Enterprise Unit

- New in Baan ERP
- Grouping key entities of same logistic company and financial company
- Defining relationships between Enterprise Unit

*Figure 1-4 Enterprise Unit*

When the Enterprise Units are fully determined and characterized, expert rules will be evaluated which are stored in the BaanERP Enterprise Modeler Repository. The decision made in the Enterprise Structure Model will be translated into consequences for the interfacing processes within a Enterprise Unit. These consequences can be:

- Selection of processes from LOB reference model
- Configuration of these processes
- Parameter settings
 Enterprise Modeler

Application Structure Modeling in BaanERP

Once the Enterprise Structure Model is defined, the mapping on the BaanERP application architecture is complete. A structure is defined for the financial databases (called company in the BAAN Application).

Figure 1-5 Multi-Site Application Structure
A Business Control Model defines, on a high conceptual level, how the order and goods flow within an Enterprise Unit (or Logistic/Financial company) are managed and controlled.

In BaanERP, the Business Control Model forms an integral part of the reference models, and is one of the primary deliverables of a LOB Reference model development project. In principle, it models a hierarchy of process control measures for managing the primary processes (hence objectives/strategies) of a company.
So far, the emphasis of Enterprise Modeling was on process modeling rather than data modeling. This makes sense since a company’s objectives and strategies are realized by people and processes, not by data. Data is an important source for both operational and management processes. Therefore, in BaanERP, the Enterprise Modeler is extended with Entity Relationship Diagrams. These diagrams serve the following purposes:

- Documenting the logical and physical data structure of the BAAN ERP Applications
- Disclosure of the data model part that is affected by the processes and BaanERP sessions.
- Supporting the IT/EDP staff in activities like data conversion and customizations.
Description of the Entity Relationship Diagram

The primary purpose of the Entity Relationship Diagram is to document the BaanERP application databases. The module is used by BAAN developers during the design stage and might be of interest to EDP and IT end users during data conversion and customization activities. In addition, it also supports process teams during re-engineering by opening the application box for a better understanding of the application strengths.

Data models can be integrated with the process models to support data conversion and to disclose the relationship between business process activities (hence BaanERP sessions) and the logical and physical data model. This integration allows for maintaining two views on the process model:

- Logistic view: emphasis is on the workflow to be managed.
- Data view: emphasis is on the data transformation in one activity.

In BaanERP, a data model can be generated from the BaanERP database.