Chapter III
Details about IDM Web Application Design Methodology

INTRODUCTION

Chapter II analyzes some Web application design methodology that is well-known in the international scientific community. The idea that links together these methodologies is the centrality of the user and the ability to separate logically the information, navigation and publishing design aspects. In this way, at one time the designer focuses on a specific kind of user and takes into consideration the information, navigation and publishing aspects.

Now, we have to choose between the various analyzed methodologies able to model the complex Web information system.

The selected methodology is IDM (Perrone, Bolchini, & Paolini, 2005; Bolchini & Paolini, 2006; Paolini, Mainetti & Bolchini 2006). The dialogue metaphors proposed by IDM in particular adapt to allow the designer to focus on the communication between the user and the application instead of thinking about the graphical and transactional aspects.

IDM provides also a good organization of pages with PIDM that, producing different views, allows focusing on different design aspects. IDM inherits several aspects by W2000 (Baresi, Garzotto, Mainetti, & Paolini, 2002) such as the sepa-
ration of different contents in topic (called in W2000 entity) and the separation of topic in dialogue acts (the components in W2000).

To well understand the proposed methodology, in this book, several detailed examples are presented using W2000 and IDM methodology.

The design is always in-the-large, but some guidelines in order to lead the designer to carefully design the pages are introduced in the last chapter.

**IDM**

The IDM methodology is structured in three levels:

- **C-IDM** in which an in-the-large design of information contents of application is made
- **L-IDM** in which a more detailed design of the contents and of the access structures is made
- **P-IDM** in which a detailed project of Web pages that shows the information contents is made.

A short description of the three design levels is shown below. In L-IDM, a first PageDesign in which simple guidelines are presented in order to translate in pages the conceptual ideas made in IDM is present. These guidelines are useful in order to model the PIDM that is the real application model.

**C-IDM (Conceptual IDM)**

The starting point for IDM methodology is the conceptual model (C-IDM). The C-IDM allows describing the application dialogue strategies before describing in detail the technological choice. In C-IDM, all of the dialogue elements (topic), the relevant relationships (relevant relation) and the argument group are defined.

In fact, an interactive application must be focused on specific arguments, but it must allow the dialogue changes choosing in a set of arguments. In the detail:

- **Topic** is the dialogue subject, in other words the interesting argument of a dialogue between user and application. Considering that the contents are the core elements of an interactive application, a lot of topics have to be designed in a single project. Thus, the entire project choice is based on contents. In some cases, the explanation of some content is the most important requirement of the application; the other contents are less important but all together