Project Management Practices on Building Management Information System in IBM Global Business Service

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The outsourcing of building Management Information System (MIS) has been a mainstream in recent years. Providing efficient project management to these outsourcing projects has become an urgent issue. As the world biggest Information Technology (IT) consulting service provider, IBM Global Business Service (GBS) has successfully build numerous Management Information System for its customers. Such systems range from to, covering all aspects of MIS. During building these systems, IBM GBS has accumulated lots of experiences on project management. The poster provides some important elements of these elements. Besides, we also provide some key information on training project management staffs.

MEtaGile: An Agile Domain-Specific Modeling Environment

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The current document presents MEtaGile, a Domain-Specific modeling (DSM) environment that provides facilities for the definition and the support of evolved textual DSLs [1]. DSM is a software development methodology that promises greater gains in productivity by using DSLs as modeling language. In following this approach, a model of a system represents in the same time the design, the implementation and the documentation.

MEtaGile is integrated in the Eclipse platform as a standard plugins suite, and the DSL component is externalized and pluggable at runtime; the application developer can select the relevant DSL in the project properties window, and can work in the same time on projects of different domains. This characteristic also allows the developers of the DSL component to efficiently update and test it, without having to restart the environment.

Our approach mainly focuses on textual DSLs for edition concerns; a DSL editor is available and includes by default content-assist, errors displaying, syntax highlighting and formatting functionalities. Moreover, a hierarchical outline view and a graphical diagram view allow the developers to visualize the system model using different points of view, and to navigate efficiently in the whole model.

The definition of a DSL component (meta-model) is also supported by MEtaGile; it integrates a meta-DSL component (meta-meta-model), which is able to define itself (bootstrapping). This meta-DSL is able to define the structural and behavioral concepts of a DSL component, such as the model entities, the generation process and the editor concerns; other approaches based on MOF require an additional layer to define the behavior.

This tool is designed for supporting efficiently the Agile development processes; it provides features to address especially the successive generations of a system. The more remarkable functionality is dedicated to the redefinition of the templates by the final developers, which can include some application specificities, without having to redefine the default DSL or to merge manual modifications; some model entities can be marked and the dependent templates loaded and directly redefined in the application project.

Currently, the following domains have been addressed by MEtaGile: a DSL able to define animated 3D scenes, a DSL that supports the PHP Web-applications development, and WebLang [2], an advanced DSL that addresses J2EE Web-applications. Since three years, MEtaGile and WebLang have been successfully used by hundreds of students of the EPFL during the software engineering course.