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πSOD-M: Building Service-Oriented Applications in the Presence of Non-Functional Requirements

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Abstract Specifying non-functional requirements (NFRs) is a complex task, being usually dealt with on the later phases of the software process. The late inclusion of NFRs in the development may compromise the quality of the deployed application. This paper presents πSOD-M, a method and associated tools that *(i)* allows the early specification of non-functional requirements in a principled way: users are abstracted away from low level details; *(ii)* embraces the MDA philosophy, generating models (code) whenever possible. The proposed solution has been utilized in the context of an industrial and real case study.

Keywords MDA , Non-Functional Requirements, Service-based software process

1 Introduction

In Service-Oriented Computing [**?**], pre-existing services are combined to build an application business logic. The selection of services is usually guided by the *functional*[7] requirements of the application being devel-

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7.Functional properties of a computer system are characterized by the effect produced by the system when given a defined input.