

# Capturing Domain-Imposed Requirements Based on Basic Research Findings

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**Abstract.** The current means of obtaining domain-imposed requirements through users or domain experts are often suboptimal especially for the relatively new area of interest. This paper suggests the use of basic research findings as the more objective source and proposes an approach that translates research findings into a UML model based on which the domain-imposed requirements can be extracted. By using business project management as the domain of interest, it outlines the steps in the said approach and describes the use of the resulting domain model during the requirement specification for a Project Management Information System that caters specially to the needs of business projects. Theoretically, the same method can be applied to the other areas of management and an enterprise domain model could be developed in a similar way. Given equity access to all software developers, it is envisaged that meeting standard domain-imposed requirements would become a pre-requisite for competing enterprise systems in the future.

**Keywords:** Domain modeling, Knowledge specification, Unified modelling language, Requirement specifications.

## 1 Introduction

System requirements may be divided into two sub-types namely user-defined requirements which reflect the wishes of users on how the system should be used; and domain-imposed requirements which are facts and laws of the real-world domain [36]. Thus while user-defined requirements are most accurately gathered from the users, domain-imposed requirements could be obtained from various sources. One of the most common approaches is to draw them out of the domain