

Requirements Management In a Product Line Scenario

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Abstract

The product line approach is a major reuse concept that has shown concrete commercial results over the past years. Product lines achieve reuse in the functionality and solution space, and thus improve quality, cycle time and cost. They are specifically promising in cases where many variants are produced almost simultaneously, such as in telecommunication systems. Though appealing, the concept is difficult to introduce specifically into an existing development environment. All too often the impacts on requirements management are not considered globally enough. The opposite of a product line concept is

to allow every variant of a product to implement its own requirements only loosely coupled to the base product. This article describes the introduction of a product line approach in Alcatel's S12 Switching System Business Unit. Success factors are described related to the interface with marketing, requirements definition, roadmapping and portfolio management, requirements reuse, planning and prioritization, incremental development, and configuration management are explained. Practical impacts are described as well as tricks and traps.