Software Product Lines: Reuse That Makes Business Sense

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Abstract

Traditionally, software-intensive systems have been acquired, developed, tested, and maintained as separate products, even if these systems have a significant amount of common functionality and code. Such an approach wastes technical resources, takes longer, and costs more than necessary. A product line approach to software can reduce development cycles, improve return on software investments, improve software system integration, and give an organization more future options. Building a new product or system becomes more a matter of assembly or generation than creation, of integration rather than programming. Organizations of all types and sizes are discovering that a product line strategy, when skillfully implemented, can improve productivity, quality, and time to market. Software product lines present at long last a reuse strategy with real economic benefit.

Making the move to product lines, however, is a business and technical decision and requires considerable changes in the way organizations practice software engineering, technical management, and organizational management. This talk will explore the basic concepts of software product lines, share experience reports from companies employing the paradigm, and explore the software engineering and management practices necessary to develop a successful software product line.