Abstract

For defining a set of unambiguous and language-independent metrics and other relevant concepts, the need for definition of a formal conceptual framework of the context/environment, particularly for safety-critical environments, has earlier been recognized and emphasized. In this paper, a formal conceptual framework is proposed for defining metrics and other relevant concepts for a component-based system, in which, instead of component, assembly—a slightly modified and more general concept—is taken as a basic building block for design and development of software. The paper discusses a formal conceptual framework for the structure of context for a component-based system. In another paper, a formal conceptual framework for the dynamics/behaviour within the context of a component-based system is discussed.
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Index Terms

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