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.

References


- M. Goulão, F. Abreu, Formalizing metrics for COTS, Department of Informatics, Faculty of Sciences and Technology, New University of Lisbon, 2825-114 Monte de Caparica, Portugal, 2005a.
- M. Goulão, and F. Abreu, Formal Definition of Metrics upon the CORBA Component Model. First International Conference on the Quality of Software Architectures (QoSA) 2005b.


Index Terms

Computer Science
Software Engineering

Keywords
Component  Assembly  Formal Conceptual Framework.