International Journal of Applied Engineering Research 2016 vol.10 N24, pages 45208-45213

Model approach to interactive system software development

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Abstract

© Research India Publications 2015. This article describes the use of software engineering advanced technologies during the design and development of industrial information systems, in particular with the use of so-called model approach. This approach involves the use of the methodology from the theory of computational processes, transformational approach to the development of information systems and the theory of program schemes for the development of a software system and the modeling of interaction processes occurring in it between the components. For practical implementation of the system the points required for consistent implementation are set from the beginning of a system development, setting of goals and objectives, search for experts, the selection of tools required for software and hardware implementation, to its introduction and maintenance, the selection of tools required for software and hardware implementation. An example of the practical implementation is the model of a real software system development - an education web service for the generation of tests and examination performance. As the part of this example all stages of design and simulation system are shown, the processes of an expert review are studied, the selection of tools, the creation of a laboratory prototype and experiments, the effectiveness of a model approach is evaluated to the design of software systems

Keywords

Information and computer systems, Model approach, Software engineering