Object-oriented Development : Knowledge Base Support for Design

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Abstract: The research is conducted in the area of Software Engineering, with emphasis on the design phase of the Software Development Life Cycle (SDLC). The object-oriented paradigm is the point of departure. The investigation deals with the problem of creating support for the design phase of object-oriented system development. This support must be able to guide the system designer through the design process, according to a sound design method, highlight opportunities for prototyping and point out where to re-iterate a design step, for example. A solution is proposed in the form of a knowledge-based support system. In the prototype this support guides a designer partially through the first step of the System Design task for object-oriented design. The intention is that the knowledge-based system should capture the know-how of an expert system designer and assist an inexperienced system designer to create good designs.

Keywords: Object-oriented Design; Knowledge-based Support System; Design methodology; Object-orientation; Software Engineering; Software Development Life Cycle; Design Cycle; Object-oriented System Development; System Designer; Expert System.

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