

Specialized case tools for the development of expert systems

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Abstract

© 2018, Springer International Publishing AG, part of Springer Nature. This report presents an approach to building specialized computer-aided software engineering (CASE) tools for the development of expert systems. These tools form an integrated development environment allowing the computer aided development of different applications in the appropriate field. The integrated environment which we consider in our report represents the combination of SWI-PROLOG and Data Base Management System (DBMS) PostgreSQL tools. SWI-PROLOG provides the most appropriate tools for the solution of logical tasks in expert systems. However, SWI-PROLOG cannot manage large amounts of data. Therefore, we need to apply an appropriate data base management system to extend the capability of the knowledge base. For this purpose we used the most advanced open source PostgreSQL tools. As a result of our research we have created tools enabling the compatibility of SWI-PROLOG and DBMS PostgreSQL within the integrated development environment.

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Keywords

CASE tools, Expert system, SWI-PROLOG and PostgreSQL database management system

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