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Specialized case tools for the development of information-calculating applications

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Abstract

© SGEM2017. All Rights Reserved. This report presents an approach to building specialized computer-aided software engineering(CASE) tools for the development of information-calculating applications including computer aided accounting, business correspondence, statistics etc. These tools form an integrated development environment allowing the computer aided development of different applications in this field. The concept of the integrated development environment is defined as a set of tools and techniques allowing the design and development of software applications. This concept, previously used in procedural programming, has more recently proved to be a very important attribute for object-oriented programming. Integrated development environments traditionally include tools for the design and implementation of software systems, different libraries of classes, programming tools and program generators. The integrated environment which we consider in our report consists of a formula interpreter, a screen form generator and a specialized library of classes. The distinguishing features of information-calculating applications are the processing of a set of tables and the making calculations which can be conveniently represented by the tools of relational database systems. The implementation of software products was carried out using the Visual FoxPro database system and has been practically tested in a series of commercial applications concerning computer aided accountancy and business correspondence.

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Keywords

Accounting applications, CASE tools, Programming technique

References

- [1] I. Jacobson. Object-Oriented Software Engineering -A Use Case Driven Approach. Addison Wesley, 1994.
- [2] Gamma E., Helm R., Johnson R., Vlissides J. Design Patterns: Elements of Reusable Object-Oriented Software. - ISBN 0-201-63442-2 Hardback, 416 p., 1995.
- [3] Anton Eliëns, Principles of object-oriented software development, Addison-Wesley, 2000.
- [4] DeLoach S.A., Hartrum T.C. A theory-based representation for object oriented domain models//IEEE Transactions on Software Engineering, Vol.26, No. 6 -2000 -P. 500-517.
- [5] Menachem Bazian, Visual FoxPro 6 -Edicion Especial, ISBN:970170343X, Prentice Hall 2000.
- [6] Tincy Rani, Manisha Sanyal, Sushil Garg, "Survey On Argo UML Tool", International Journal Of Engineering And Computer Science ISSN:2319-7242 Volume 2, Issue 3 March 2013.