Introduction to SAST97

It is with great pleasure that we welcome you to the Fifth in the series of International Symposia on the Assessment of Software Tools (SAST97). This symposium provides a unique forum for experienced industry practitioners and academic researchers to meet together to discuss the development, assessment, selection, and application of software tools.

This year's theme is component-based software engineering (CBSE). CBSE is an important development trend in software engineering which emphasizes the construction of application systems from a combination of existing software assets and specifically-produced items. The CBSE approach builds on and extends existing development efforts such as rapid application development, structured system design, object-oriented systems, software reuse, use of commercial off-the-shelf software (COTS), and open systems development. CBSE is seen as a guiding vision for many software development organizations, offering the promise of flexibility, reusability, and reduced software upgrade costs by taking advantage of the controlled interfaces which are the focus of component-based development approaches.

Indeed, the first viable implementations of CBSE technology are beginning to have an impact in the marketplace. The ability to rapidly assemble sophisticated enterprise-level applications from pieces developed by different organizations has been demonstrated using CBSE technology such as Microsoft's Component Object Model (COM) and the Object Management Group's Object Management Architecture (OMA).

However, many problems remain to be overcome to make the CBSE vision a reality for the majority of application developers. In particular, a number of major questions must be answered before CBSE can be considered to have lived up to its potential. These questions include:

- What are the appropriate languages and notations for describing component-based systems?
- How do existing development methods change when application systems are built primarily through component selection and assembly?
- What kinds of tool support are most appropriate for CBSE approaches?
- How are legacy systems "componentized"?

To address these questions requires a combination of practical realism, coupled with a strong theoretical underpinning. The audience for this symposium is ideally placed to discuss and debate these questions, leading to a healthy interchange of ideas, and hopefully to many fruitful and long lasting collaborations between industry and academia.

To begin to tackle these questions, we have assembled a strong program of tutorials, technical papers, panels, and keynote presentations. Each of these elements is intended to stimulate the audience to contribute fully to the discussions, leading to a more informed view of software tool issues as we reach the end of the twentieth century.

Acknowledgments

In developing the program for this symposium, and in the administration of organizing and running it, we have been fortunate to have had help from a number of people. We gratefully acknowledge their help and support.

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