The 14th International ACM SIGSOFT Symposium on Component Based Software Engineering (CBSE-2011)

June 21th - 23th, 2011 -- Boulder, Colorado, USA
http://cbse-conferences.org/2011/

Important Dates

Submission: January 21, 2011
Notification: February 28, 2011
Camera Ready: March 30, 2011

CBSE is an ACM event, part of the federated conference series CompArch, see at http://www.comparch-events.org/index/ for more info.

Goals

Component-based Software Engineering (CBSE) continues to attract interest and evolve as a discipline for the rapid assembly of flexible software systems. CBSE combines elements of software requirements engineering, architecture, design, verification, testing, configuration and deployment. The CBSE symposium has an established track record of bringing together researchers and practitioners from a variety of disciplines to promote a better understanding of CBSE from diverse perspectives, and to engage in active discussion and debate. CBSE 2011 is open to all participants from universities and industry interested in CBSE and related areas.

Scope

The CBSE symposium has emerged as the flagship research event for the component community. CBSE 2011 encompasses research (theoretical and applied) that extends the state of the art in component specification, composition, analysis, testing and verification. Experience reports, empirical studies and presentation of component-based benchmarks and case studies are also within scope. Participants from industry and academia have the opportunity to exchange ideas and experiences in a variety of sessions such as presentations, panels, and so on.

New trends in global services, distributed systems architectures, dynamic adaptable systems, and large scale software systems often cross organizational boundaries and push the limits of established component-based methods, tools and platforms. Innovative solutions from diverse paradigms (e.g., service-, aspect-, and agent-oriented) are needed to address these emerging trends. Topics of interest include, but are not limited to:

- Specification, architecture, and design of component models and component-based systems
- Software quality assurance for component-based engineering
- Verification, testing and certification of component-based systems
- Component composition, binding, and dynamic adaptation
- Component-based engineering with agents, aspects, or services
- Component-based product line engineering
- Non-functional properties (quality of service attributes) in component-based engineering
- Patterns and frameworks for component-based engineering
- Tools and methods for component-based engineering
- Industrial experience using component-based software development

Empirical studies in component-based software engineering
Teaching component-based software engineering

Special Theme: Components In and For Dynamic Environments

Fast and vibrant advances of information technology announce a soon-to-come dynamic open world, in which software increasingly pervades modern products and services, and supports their continuous interaction with the surrounding environment and with other systems. This brings unanticipated configurations of software-intensive systems, whose control is shared among several organizations and possibly also end-users. Such complex systems have to fulfil changing requirements, while facing heterogeneous and rapidly evolving technological solutions. Component-based development was born to favour reuse and flexible reconfiguration, and in the last years researchers have actively investigated open component models, adaptive components, dynamic composition and reconfiguration. Still, in view of the above trends, several challenges face developers: how can systems adapt to changes which are unpredictable and outside the application control? Can critical non-stop applications evolve, and to what extent? How can applications be made context-aware? How can non-functional properties be guaranteed and verified?

CBSE 2011 would like to stimulate progress on how (or how not) the component-based paradigm can cope with such arising challenges: we invite papers describing insights, approaches, frameworks and experiences in developing and deploying components *in* and *for* such dynamic environments. Are perhaps *services* the natural evolution of components in such world, and if so, are they capable to address all the above open issues? Or maybe components should incorporate *agent* or *aspect* concepts to help address some of these issues? What should be the *life-cycle* of components that are going to be dynamically assembled with other independent components? Of special interest, how can we *trust* components to be reliable and secure, which kind of guarantees or information should they yield?

Paper Submission

All submitted papers will be reviewed by at least three program committee members. Papers must not have been previously published or concurrently submitted elsewhere. Any duplicate submissions will be rejected without review. We invite long and short papers on leading-edge research and development in progress. Long papers must not exceed 10 pages and short papers must not exceed 5 pages, in the ACM format. Further details regarding the submission format will be published on http://cbse-conferences.org/2011/index.php?choice=cfp. The proceedings will be published by ACM. Paper submission will be processed by EasyChair.