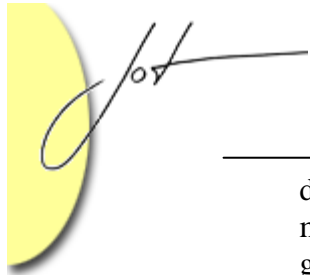


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It depends on what you mean by “working”s	7
<i>By John McGregor</i>	
<p>A recent American president, while under interrogation, responded to one question by saying his answer depended on “what you mean by ‘is’.” I feel the same way when I hear people claim that their development process is working even when delivery is late or excessive defects are reaching the customer. I want to ask how they know it is working or more exactly what they mean by that term. They typically fail to critically analyze the problems or to recognize that conditions they have come to accept can be improved.</p>	
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<i>By Douglas Lyon</i>	
<p>Web-based data is generally available in an HTML format. Given a web-based source of an HTML formatted database, we would like to find a way to create an underlying data structure that is type-safe and well formulated, in response to a given query. Basically, we want POJOs (Plain Old Java Objects), extracted from HTML.</p>	
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<p>The development of business applications using OO middleware has reached unparalleled complexity. In spite of greatly improved tools and</p>	



development practices, more and more of the IT budget is wasted in maintenance versus adding business value. The pressures for next generation applications are demanding alternative approaches to achieve increased business agility. We take a speculative look at the emerging aspects of Next Generation IT, which holds the promise to finally transition from captive hierarchical data centers and complex middleware to Cloud Computing and Agile Application Development

Business Objects

The Year of the Globally Integrated Enterprise

35

By Mahesh Dodani

[Thomas Friedman](#) postulates the creation of a flat earth – “a global, web-enabled platform for multiple forms of sharing knowledge and work, irrespective of time, distance, geography and increasingly, language.” However, several pundits have pointed out that the concept of the “flat earth” and globalization have been overly exaggerated – “despite talk of a new, wired world where information, ideas, money, and people can move around the planet faster than ever before, just a fraction of what we consider globalization actually exists”

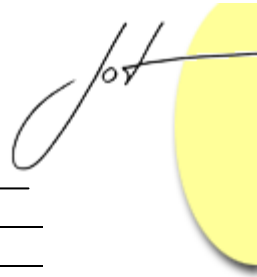
Guest Column

First Person Shooter Game

43

By Rex Cason II, Erik Larson, Jonathan Robertson, Jonathan Frisch, George Trice III and Dr. Lakshmi Prayaga

Importing a Model is easy and fun! Models can include your **character**, **non-player characters**, **level objects**, **weapons**, **health supplies**, etc. To make a working entity in GameStudio, you must first import a 3D model and then assign **functions**, or **behaviors**, to the model. *These functions give models unique properties.*



REFEREED ARTICLES

Applying Model Checking to Concurrent UML Models

59

By Patrice Gagnon, Farid Mokhati, Mourad Badri

The formal and object-oriented language Maude, based on rewriting logic, supports formal specification and programming of concurrent systems, as well as model checking. We focus on UML class, state and communication diagrams. The major motivations of this work are: (1) translating concurrent UML diagrams into a Maude formal specification and (2) applying model checking to the generated specifications. The approach is illustrated using a concrete case study.

UML and Object Oriented Drama

85

By Luca Vetti Tagliati, Carlo Caloro

Daily interdisciplinary tests and hybridisations occur among the different contemporary arts; theatre meets new technologies more and more frequently and it turns out to be a fascinating and complex meeting. As a consequence, the problem of identifying new tools that the dramatist and/or director can use to analyze a text arises. Among these tools, it is important to select which is to be used in order to facilitate the sharing of the project among the different participants (director, dramatist, actors, etc.). The discipline of computer science can provide us with a valid solution to this problem, where comparable problems are, typically, solved by means of UML.

JAPROSIM: A Java framework for Process Interaction Discrete Event Simulation.

103

By Bourouis Abdelhabib, Belattar Brahim

The opportunity to extend features of existing commercial simulation languages is limited due to the separation of the user from the base languages by offering pre-specified functionalities; thus deep access is reserved only to vendors. Separation has not eliminated the need for programming in simulation model building. In fact, successful industrial modellers are those who overcome separation by “programming” around the limitations caused by separation. Separation is also an obstruction to the long-term model development and maintenance because this programming skill is outside of the mainstream of information systems training in academia and within the enterprise.

Nominal and Structural Subtyping in Component-Based Programming	121
<i>By Klaus Ostermann</i>	

In nominal type systems, the subtype relation is between names of types, and subtype links are explicitly declared. In structural type systems, names are irrelevant; in determining type compatibility, only the structure of types is considered, and a type name is just an abbreviation for the full type. We analyze structural and different flavors of nominal subtyping from the perspective of component-based programming, where issues such as blame assignment and modular extensibility are important.

By students, for students: a production-quality multimedia library and its application to game-based teaching	147
<i>By Till Bay, Micheal Pedroni, Bertrand Meyer</i>	

Starting with the very first CS course, introductory programming, our teaching fundamentally relies on games, especially game projects, to introduce software concepts and let students apply them to large examples. As a key component of this strategy we have developed a state-of-the-art multimedia library, EiffelMedia.

OUTLOOK

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