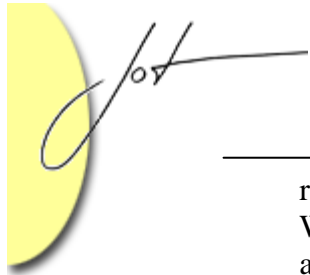


Contents

	Page
Editorial	5
<hr/>	
COLUMNS	
<hr/>	
Strategic Software Engineering	
Modeling Software	7
<i>By John McGregor</i>	
<p>There must be some well-defined mapping between the model and reality, which in our world means between the model and compilable source code. Models may be interpreted by humans who then write the code or the model interpretation may rest in patterns that are automatically applied to generate code. The ability to map the model to different “realities”, such as different platforms, is what makes modeling so powerful.</p>	
Java at Large	
INTERACTIVE Embedded FACE RECOGNITION	23
<i>By Douglas Lyon and Nishanth Vincent</i>	
<p>Face detection locates and segments face regions in cluttered images. It has numerous applications in areas like surveillance and security control systems, content-based image retrieval, video conferencing and intelligent human-computer interfaces. Some of the current face-recognition systems assume that faces are isolated in a scene. We do not make that assumption. Our system segments faces in cluttered images</p>	
Business Objects	
Keeping Enterprises’ Head Above The Clouds!	55
<i>By Mahesh Dodani</i>	
<p>While the Internet and World Wide Web may seem invisible, residing somewhere out in the ether, in fact they reside in a network of interconnected data centers, also known as server farms. These data centers usually hold thousands of computer servers, jam-packed on</p>	



racks, one on top of the other, which store and transmit the data and Web pages available on the Internet. Together, all of these servers in all of these data centers are known as "the cloud," and today more and more of what you do when you fire up your computer doesn't happen on the little hard drive under your desk, but actually happens out there in the network cloud.

Cyber Databases

Cloud Computing: Today and Tomorrow

65

By Won Kim

During the past few years, cloud computing has become a key IT buzzword. Although the definition of cloud computing is still "cloudy", the trade press and bloggers label many vendors as cloud computing vendors, and report on their services and issues. Cloud computing is in its infancy in terms of market adoption. However, it is a key IT megatrend that will take root.

Educator's Corner

A Model-View Implementation of Linked Custom Grids in C#

73

By Richard Wiener

A grade book is to be implemented in C# using a model-view approach to design. Class *GradeBookUI* is used to implement the view. Class *Gradebook* is used to implement the model -stores grades and perform computations on these grades when needed by the view and later provides the basis for linking grade book grids.

Guest Column

First Person Shooter Game

93

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

GameSpace is a 3D-modeling software package designed for game modelers. It has a good measure of tools for designing characters and other models. It is also fairly inexpensive for the full version and the "light" version is free.



Guest Column

- On the difference between analysis and design, and why it is relevant for the interpretation of models in Model Driven Engineering** 107

By Gonzalo Génova, María C. Valiente and Mónica Marrero – Guest Column

Our initial concern stems from this question: which is the characteristic difference between an analysis model and a design model? Our research on the related literature will show that there is not a unanimously accepted understanding of this difference among the community of software engineers. In other words, we think this traditional duality conveys really a triple difference that cannot be properly expressed through a single dimension, but rather requires three orthogonal dimensions. Failing to acknowledge this triple difference leads to confuse the meaning of models, which has a practical relevance for the way models are interpreted and used in real software projects.

Book review

- Best books of 2008** 129

Reviewed by Charles Ashbacher

- Perfect Software and other illusions about testing** 133

by Gerald Weinberg, Dorset House Publishing, New York, NY, 2008. 182 pp., \$23.95(paper). ISBN 978-0-932633-69-9.

Reviewed by Charles Ashbacher

REFEREED ARTICLES

- UML2.0 Profiles for Embedded Systems and Systems On a Chip (SOCs)** 135

By Fateh Boutekkouk, Benmohammed Mohammed, Sebastien Bilavarn, and Michel Auguin

The productivity gap between semiconductor technology and methodology and tool support has become one of the biggest challenges in embedded systems and SOCs design. To deal with this problem, specialists in the field have resorted to software engineering and borrowed from it many ideas to close this gap. Most of authors are agree on at least five principles that are raising the level of abstraction, hierarchy, separation of concerns, reuse, and integration.

Static Slicing of UML Architectural Models	159
<i>By Jaiprakash T. Lallchandani and R. Mall</i>	

In the context of software architectures, a slicing technique should take into account various use cases, classes and their relationships, and objects and their interactions. UML class diagrams describe various relations among classes such as aggregation, association, composition, and generalization / specialization.

Activity Diagrams : A Formal Framework to Model Business Processes and Code Generation	189
<i>By A.K. Bhattacharjee and R.K. Shyamasundar</i>	

We extend the process algebraic semantics of activity diagrams and propose a reactive formalism of Activity Diagrams of UML.

A Modern Objective-C Runtime	221
<i>By David Chisnall</i>	

The Étoilé runtime is intended to support a wide variety of object oriented languages, however its principal target is Objective-C and so much of the design reflects this to some degree. Objective-C is a set of minimal extensions to C to support Smalltalkstyle object orientation. As such, the object model for Objective-C is very similar to that of Smalltalk.

OUTLOOK

A brief outlook to the next issue	241
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