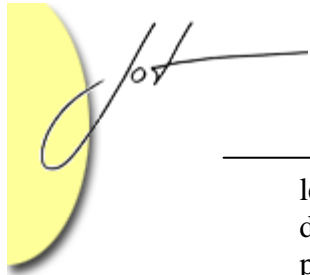


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Pay me now or pay me more later	7
<i>By John McGregor</i>	
<p>Many of the advances in maturing practices such as software architecture definition are gradual changes in understanding that eventually require significant changes in methods. Often some event, like feedback from customers, triggers the change to the new technique. No practice is isolated from the other elements of the software development method. When we decide to change the ripples are difficult to contain.</p>	
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I Resign! Resigning Jar Files with Initium.	19
<i>By Douglas Lyon</i>	
<p>Every year the number of Jar files that we have to deploy grows. Some of the Jar files are primary containers of applications (with a <i>main</i> method). Other Jar files are containers of commonly used libraries. Still other Jar files are containers of native methods. Regenerating the Jar files, with a new certificate, is what we term <i>resigning the Jars</i>.</p>	
The OOP Scene	
Enabling Application Agility - Software as A Service, Cloud Computing and Dynamic Languages	29
<i>By Dave Thomas</i>	
<p>The good news is that application developers are on the verge of being liberated from the tyranny of middleware. Next Generation IT will</p>	



leverage a new computing platform which makes the development and deliver of applications significantly easier than it is today. This new platform consists of Cloud Computing, Software As A Service and Dynamic Languages. Cloud Computing [1] offers mainframe or better infrastructure through a small set of services delivered globally over the Internet.

Cyber Databases

On Having Search Engines Deliver Hierarchies of Web Pages 33

By Ok-Ran Jeong, Jiawei Han, Won Kim, Eunseok Lee

Web pages are structured in a hierarchy, and each Web page consists of content and links. There are three types of link; namely, incoming (inlink), outgoing (outlink), and co-citation (colink). An inlink is a gateway into a page (document); an outlink is a link through which one can exit the page, and colinks are connected with each other [Lim et al 1999]. The content provides the crucial classification data based on the importance and frequency of its elements.

Business Objects

The Architecture of Business 43

By Mahesh Dodani

Designing solutions with a business focus links business requirements and the IT development process at the enterprise level. Defining SOA as the key enabling architecture provides the foundation platform for enterprise solution development. This realization of SOA as a core enterprise solution approach lets requirements be defined and scoped based on the core business competencies of the organization.

Guest Column

First Person Shooter Game 51

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

3D game development is an exciting activity for many students. But getting a handle on 3D game development for novices may be a daunting task. We take this opportunity to present a quick introduction to 3D game development through a few tutorials. For the next few columns a set of tutorials for a 3D first person shooter game developed by graduate and undergraduate students under the guidance of a faculty member from the University of West Florida will be presented.



Book review

- Adrenaline Junkies and Template Zombies: Understanding Patterns of Project Behavior** 65
Reviewed by Charles Ashbacher

The authors are big advocates of creatively goofing off, arguing forcefully that the most productive teams are those that do things together that are anything but work related. Eating together, attending a movie, playing together in a band and a regular poker night are suggested ways to build cohesion and a sense of respect between the members of the development team.

REFEREED ARTICLES

- Panda: a Pattern-based Programming System for Automatic Code Generation** 67
By Daniele Mazzeranghi

A Panda pattern may be classified as functional or procedural. A functional pattern generates an instance of a code model that can be used as input to another functional pattern or may be modified by a procedural pattern, thereby providing an unlimited capability of composition.

- An enhanced form of dynamic untyped object-based inheritance** 101
By Anthony Savidis

Dynamic class-based languages like Python and Ruby are very popular today, probably more popular than in the past. Usually this situation is attributed to both the lack of static type checking and to the unconventional inheritance programming models offered in comparison to class-based languages.

- Security and Protection in Timor Programs** 123
By J. Leslie Keedy, Klaus Espenlaub, Christian Heinlein and Gisela Menger

A key issue in any persistent system is the protection from misuse of information stored in persistent objects. This is especially true for Timor, as one purpose of the language is to provide an environment which allows database systems to be supported in an object oriented and component oriented manner. Hence Timor provides a number of protection mechanisms which are not present in other programming language designs.

Using Multiple Servers in Concurrent Garbage Collector 139

By Dr. Ali Ebrahim El Desokey, Dr. Amany Sarhan, Eng. Seham Moawed

Memory management in real-time and embedded systems is handled using automatic memory management (i.e. Garbage Collection or GC for short) which enables the programmers to overcome the potential danger of manual memory management, such as memory leaks, dangling pointers, fragmentation, and so on. The garbage collector distinguishes the memory objects that are no longer in use (garbage) from the live objects and reclaims the garbage for future use

A (TRUSTAD) Component Nomenclature 159

By Sivamuni Kalaimagal and Rengaramanujam Srinivasan

Component based engineering is gaining substantial interest in the market today. This is because software components offer us the advantage of lesser developmental costs and shorter life cycles. With the continuing rise in the demand for software component based products, the terms - component, in-house component, COTS and reusable components have become overloaded and rather conflicting over the past years.

OUTLOOK

A brief outlook to the next issue 174