

### **NEWSLETTER**

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# SOA Expert SeminarExcellent Response for AutomatedService Development

#### Solutions for Automatic Service Enablement

#### Service Oriented Architecture: Moving from Hype to Implementation and Usage

The highest level of flexibility for the adaptation of the business processes on the continually changing market conditions is now decisive for the success of an enterprise. IT must now model new processes in ever shorter cycles and reconfigure the application portfolio as the enterprise structure evolves and grows.



The Service-Oriented Architecture approach promises to resolve the dilemma between time and budget

pressures. Even so, the introduction of a SOA presents software engineering with completely new challenges.

At the SOA Expert Seminar that took place on 8th May 2006 at the Gottlieb Duttweiler Institut (GDI) in Ruschlikon near Zurich, Switzerland, a range of respected speakers from academia and industry addressed the relevant aspects and showed potential solutions and examples from the real world.

#### Services - Where to get them? From the Legacy Automatically to Real Services

Good experience has been gained over the past few years with Model-Driven Architecture (MDA) to partially or fully automatically generate software from models and thereby improve the quality, security and speed of software development.

Martin Herbst, Chief Architect at Delta Software Technology with responsibility for the development of SCORE Adaptive Bridges, explained the problems that in particular can occur with the different application architectures from



new and existing applications, and showed how by using generative tools you can automatically obtain real services from the existing applications.



### Free Article on Automating Service Development

Would you like more information? Then read Rüdiger Schilling's article in OBJEKTspektrum "Services – Where To Get Them? Generating Is Better Than Programming". Download this free article now – no registration required:



#### **Further Information**

<u>SAXOS Informatik AG</u>, Delta's distributor in Switzerland and Liechtenstein, was represented with a stand in the exhibition area at the SOA Expert Seminar.

The seminar offered our prospects a very good insight into leading strategies and practical approaches for the implementation of service-oriented architectures. It was a good mixture of end user and vendor information", commented Norbert Nigg, CEO of SAXOS Informatik, on the seminar.

The seminar, which was awarded top marks by the delegates, will be repeated in Autumn 2006.

If you are also planning the implementation of a SOA, then please contact your local sales representative. Explain a little about your objectives and

specific requirements and profit from our experience. Learn more about how our products and services can help you in building a Service-Oriented Architecture – using generative tools for real service – enablement, seamless integration and reliable modernization of your legacy applications.

## Delta and IBM Team up with ADSplus Plugin for WD4z / Eclipse

### New Plugin Supports ADSplus for IBM and Eclipse

IBM and Delta are teaming-up to develop a plugin for IBM's <u>Web-Sphere Developer for zSeries</u> (WD4z) to support Delta's AD-Splus application generator. The goal is to have direct, integrated



support for <u>ADSplus</u>, the development tool from Delta for generative application development.

IBM WebSphere Developer for zSeries is a PC-based development workbench based on the Eclipse extensible development platform. ADSplus is Delta's widely used generator system for classic application development. It is specialised for quickly and easily creating scalable and reliable platform-independent COBOL and PL/1 applications.

Development work on the new ADSplus plugin is already underway. The first version is currently scheduled for release during Summer 2006.

### PC-Based Development for IBM System z Mainframes

Many of Delta's largest customers develop on, and



deploy for, IBM's System z mainframe, taking advantage of the scalability, reliability and security of this leading mainframe platform to deploy their mission critical ADSplus applications with their massive transactional and batch workloads.

While the IBM System z mainframe is ideal as a high-performance deployment platform for production workloads, it can however be an expensive platform to use to support application development. It is not so much the hardware that is expensive, rather the system software and development products that can drive costs through the roof.

IBM recognises this challenge and has therefore been encouraging its mainframe customers to move application development from the host to more economical PC-based solutions. IBM's standard solution for offloading development is IBM WebSphere Developer for zSeries.

IBM WebSphere Developer for zSeries is a PC-based development workbench based on the Eclipse open source extensible development platform.

IBM WebSphere Developer for zSeries extends Eclipse with integrated host communications, live parsing editors for COBOL and PL/l and a diverse range of productivity tools to cover all tasks involved with developing, maintaining, supporting and deploying System z applications.

### ADSplus Development in IBM WebSphere Developer for zSeries

The ADSplus plugin extends IBM WebSphere Developer for zSeries by adding new functionality for the ADSplus developer. The main element is an intelligent editing environment for working with AD-

Splus source code.

The planned features of the ADSplus plugin currently include:

- Chroma-coding and active parsing for macros, screens and the different program types.
- Interactive outliner showing program structures, as well as the macro call structure in generation listings.
- Highlighting of macro parameter usage.
- Code snippets (templates) for macros, processor calls and Delta SPP statements.
- Display of generation listing and documentation records.
- Calling the various ADSplus processors.
- Context sensitive help.

#### **ADS**plus Generation

The Delta Generator Engine for Microsoft Windows will be fully integrated into the IBM WebSphere Developer for zSeries process workflow so that the full "Edit – Generate – Compile" process is performed locally on the PC.

Back reference information from the generated source code automatically guides the developer to the exact point in the ADSplus source code that lead to the generation of that code. The back-references are also used to intelligently help the developer correct any compile errors.

The compiled object code is automatically moved to the IBM System z host from the PC by IBM Web-Sphere Developer for zSeries. Applications running



on the host can be interactively debugged from the PC.

### ADSplus Plugin for the Eclipse Development Platform

Delta is also planning to make available an ADSplus plugin for the standard <u>Eclipse</u> extensible development platform. This will build on the experiences gained from working with IBM on the ADSplus plugin for IBM WebSphere Developer for zSeries.

The ADSplus plugin for Eclipse is fully independent from the target platform and can be used to develop ADSplus applications for any target platform supported by ADSplus. It will not be dependent in any way on the installation or use of IBM System z and/or IBM WebSphere Developer for zSeries.

#### **Further Information**

If you would like further information about adding support for ADSplus development to IBM WebSphere Developer for zSeries or Eclipse then please contact your local sales representative.

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### New ADSplus Target to Generate Java

### Alliance Between Delta Software Technology and The Software Revolution, Inc.

Delta Software Technology and The Software Revolution, Inc. have formed an alliance to work together on the development of a new product component for <u>ADSplus</u>. The new AD-



Splus target should allow the generation of high performance Java code from existing ADSplus appli-

cations.

You might be asking yourself why would anyone want to regenerate an existing ADSplus application into Java rather than in standard COBOL or PL/1? The answer is simple: if you are deploying applications to an IBM System z mainframe then you can save a lot of money!

### IBM System z Application Assist Processor for Java

IBM <u>System z Application Assist Processor</u> (zAAP) are specialized processors available on IBM's more recent System z mainframes that provide a cost-efficient way of running Java applications.

A standard Java program is run by the <u>z/OS Java Virtual Machine</u> (JVM) in the usual way. The difference is that the z/OS JVM can dynamically schedule work to run on the standard processor(s) and/or one or more zAAPs. No changes at all are required in the Java code. The z/OS JVM does all the work "behind the scenes."

The current zAAP concept proposed by IBM can only be used by Java applications. COBOL and PL/1 are not supported. How can ADSplus users take advantage of this offer, without giving up the advantages of developing high performance and easy to maintain COBOL and PL/1 applications?

#### **New Target: Java for zAAP**

We want to allow our customers to take advantage of the price-performance benefits of zAAP, but only if certain absolute requirements can be met by the proposed solution:



- No changes at all to the existing ADSplus application source code.
- No changes to the existing development and maintenance processes.
- No requirement for ADSplus developers to get involved with Java or zAAP.
- Further development and maintenance of the applications will be performed at the ADSplus code level.
- Parallel generation of both Java and COBOL or PL/1 versions of the ADSplus application at all times so that there is no risk of being "locked in" to zAAP

Having looked at a number of options we are pleased to have come up with an approach that can meet all of the above requirements. The simple way to think of this is as a new target for ADSplus – one that outputs high-performance Java code rather than COBOL or PL/L.

To help us solve this challenge we have formed an alliance with The Software Revolution, Inc., who have specialised in the conversion of COBOL into Java from COBOL, and with whom we have also worked in the <u>Object Management Group</u> (OMG) on the <u>Architecture Driven Modernization</u> (ADM) task force.

#### The Software Revolution, Inc.

<u>The Software Revolution, Inc</u>. (TSRI) is based near Seattle in the USA. The produce the JANUS AI-

based software re-engineering tools. Established in 1995, TSRI's technology is based on research originally performed by the US Air Force at their famous "Rome Laboratory" near New York, and that was subsequently applied by Boeing to software reverse engineering, software re-engineering and reuse.

#### **ADSplus Target uses JANUS from TSRI**

Working with TSRI we are currently investigating the possibilities for the development of the new AD-Splus target. The starting point is an original AD-Splus application that must be generated into high performance standard Java code.

The Java code will then be deployed to the z/OS JVM and run on the zAAP processor.

Naturally the Java version must have the exact same behaviour as the original application. Further, the performance tests will be especially important as Java code (which is interpreted) is by its very nature slower as compiled COBOL or PL/1. This disadvantage can only be compensated to a certain degree by faster processors

#### **Further Development**

Work is now underway at Delta in Schmallenberg and at TSRI in Seattle to develop a proof of concept to show that the new ADSplus target can automatically generate high-performance Java for deployment on zAAP with absolutely no changes to the existing ADSplus application.

We will give an update on our progress on this exciting project in the next Delta Newsletter. In the meantime, if you are deploying your ADSplus



applications to IBM System z and would like to know more about the new ADSplus target for zAAP then please contact your <u>local sales</u> representative.

### Innovative Generator-Based Solutions from "The Generator Company"

The work that we have been doing on generating ADSplus applications to run on the IBM zAAP might seem a bit odd at first glance. However, it is an interesting verification of the value of the decision to invest in ADSplus for application develop-

ment. By keeping your application specification at a high logical level with ADSplus you are able to benefit from such innovations.

Delta is "The Generator Company", and we are continually looking for ways to come up with generator based innovations that can help you save time and money, and to get the most out of your existing and future investment in Delta's tools and technologies. Keep reading the Delta Newsletter to learn about further developments.

More newsletters and our newsletter administration can be found here: www.delta-software.com/newsletter



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