DELTA software technology

NEWSLETTER

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1 RDW Modernizes IT with Delta – SCOUT² Brings Platform Freedom to Dutch Vehicle Licensing

RDW has decided to mode

SCOUT² Brings Platform Freedom to Dutch Centre for Vehicle Technology, Approval and Information

RDW

RDW, the Centre for vehicle technology, approval and information in The Netherlands has decided to modernize their complete application architecture. There are currently more than 13,000 application modules deployed on a Unisys mainframe running OS 2200.

As the first step in the new strategy, RDW has now successfully implemented the SCOUT² Development Platform from Delta Software Technology for their multi-platform development, off-loading application development from the mainframe onto PCs.

SCOUT² ends the "fight against the infrastructure." The flexible and extensible development platform offers RDW a consistent, seamlessly integrated platform-independent view of their diverse portfolio of platform-specific development, test and deployment systems and technologies.

RDW

RDW maintains details of the 7 million vehicles registered in the Netherlands, as well as all drivers' licenses. Around 1 million vehicles and 1.7 million licenses are added or changed each year. Hence, most of the 16 million Dutch residents come into regular contact with RDW.

„At RDW we have sensitive applications and very personal data. The security and quality of our development processes are our highest priority. SCOUT² not only allows us to support our mainframe and PC-based development processes, but it also fully embraces our special security and quality management processes."
Gerard Doll Manager RDW ICT

Development Processes

RDW has responsibility for technical standards, vehicle approval, annual vehicle inspections, safety and environmental monitoring, and so must quickly respond to changes in the rapidly evolving Dutch and EU legal frameworks.

„We need a new software architecture to exploit opportunities in the dynamic European market. We work with the IT Infrastructure Library (ITIL) standard. It is therefore critical for us that all new software tools fit seamlessly into our overall IT Governance strategy."
Hans van Santen
Board member responsible for IT RDW

The extensive SCOUT² scripting language allowed RDW to quickly and reliably implement their processes. SCOUT² processes are platform independent, transparently supporting the move from the mainframe to a new platform. The 45 developers at RDW ICT are now free to focus on business requirements and do not have to worry about the technical issues of the deployment platform.

SCOUT² is the ideal tool for development teams that need a consistent approach to developing, integrating and supporting a range of different platforms, technologies, custom and standard application solutions.

Delta worked closely with RDW to analyse the existing development processes and to configure SCOUT² to support RDW's unique requirements.

"RDW works within a demanding legal framework and it was a challenge to support all of their development processes. The SCOUT² Development Platform was always up to the job. We defined all the processes. It was never necessary to bend RDW's existing processes to fit the tool."
Dirk Meyer Manager Professional Services Delta

Next Steps

As a long-term user of Delta's COBOL application generator ADSplus, RDW is ideally positioned to move to a new architecture. RDW ICT and Delta are already working on the next step, using Delta's generative transformation tools to remove any platform-specific logic that has crept into the applications over the years. RDW will then be in the happy position of having total freedom to choose their new platform and architecture.

„With the successful migration of our development environment we have taken the decisive first step to modernizing our application portfolio. The co-operation with Delta has been convincing. We are pleased to now be working with Delta on the next steps."
Gerard Doll Manager RDW ICT

Further Information

If you would like to know more about the SCOUT² Development Platform then you will find comprehensive information in the Product area of our Web site. Alternatively please contact your local sales representative.

Who is RDW?

Since 1949, RDW (www.rdw.nl) has ensured that road transport in the Netherlands is as safe, clean, economical and orderly as possible. In this regard, RDW implements diverse legislative tasks commissioned by various ministries. In its provision of services, RDW follows the entire lifecycle of vehicles: from the development of vehicle categories to end-of-life disassembly.

The products and services of RDW arise primarily from four related core tasks: Admission, supervision and control, registration and information provision, document issue.

As an independent governing body (IGB), RDW is a non-profit authority governed by public law. In general terms, RDW is accountable to the Minister of Transport, Public Works and Water Management for its functioning. However, RDW bears sole responsibility for the implementation of its tasks. For this reason, RDW also finds it important that it is accountable to the wider public in general and to its

direct clients in particular for its chosen working method.

Through consultation and cooperation with all the parties involved (the public, industry and government), the RDW aims to continuously optimise its service provision and, if possible, align these services to the wishes of both public and private parties.

2 Model-Driven Generator Development – The Foundation of Delta's Successful Software Generator Products

The Foundation of Delta's Successful Software Generator Products

Delta Software Technology is a leader in advanced software generators. Apart from pure automation, generators are especially useful to implement different levels of abstraction. For this reason the implementation of software product lines and domain-oriented interfaces is definitely a subject at the centre of current discussions. In practice, there is no alternative to a model-based approach to achieving more economic software development.

Delta has a 30-year track record of successfully delivering advanced software generator technology to Europe's leading organisations. Building on this experience, Cord Giese and Rüdiger Schilling have written an article called "Model-Driven Generator Development" that provides a comprehensive overview of the subject.

The article is published in the 03/2005 issue of the German-language professional journal OBJEKTspektrum. As a real-world example for the support of model-driven generator development, it presents the HyperSenses technology developed by Delta.

But first things first – what exactly is the motivation for the model-driven development of generators?

Why Model-Driven Development of Generators?

Within the area of software development, generators are used to automate programming tasks and to implement higher levels of abstraction. While "automation" is the core task of any generator, it is at the implementation of higher, domain-oriented abstraction levels that the wheat is separated from the chaff!

Such generators no longer are simple filters or converters, but are adapted for an application domain or – in the ideal case – are adaptable. The increased level of adaptability is accompanied by an extension of the potential usage area – therefore, a maximum of adaptability is the goal.

Another goal is the reduction in the effort for a generator's implementation. The ideal case would to avoid entirely manual programming. Therefore, tool support is necessary, support that also provides a platform for the required domain orientation.

A clean definition of the variabilities implemented by a generator is a pre-requisite. This is usually de-

fined by variability models, which can be constructed using a range of techniques. The FODA (Feature-Oriented Domain Analysis) method or the OMG UML may be used for this task, for example.

If a variability model has been defined, it could serve as a platform for the definition of configuration elements as well as for the definition (not programming!) of fragments of source code that are to be generated. At this point it is quite important that several views for the configuration data of a generation are provided – the source code to be generated is only one, among many others. In particular, the required domain-oriented views may also be implemented.

HyperSenses™ Technology

At the centre of these concepts is the clean separation of the variability model, the configuration data and the different views on them. This approach leads to a strictly model-based process, which is outlined in detail in the article by means of an example of Delta's HyperSenses technology.

HyperSenses implements the concepts of Intentional Programming where a domain specific language is used to specify the problem to be solved. Instead of storing this program as syntax in a text file it is stored as a model in a repository. A number of different views are then available to define, maintain and understand the specification. Such views include textual, semi-graphic and graphical.

Altogether it is notable that the development of generators has become a subject area in its own right in the meantime. The appropriate techniques are continually advancing. Model-based concepts mark the summit of this trend for the present. To get more detailed information please read the article.

Download article on "Model-Driven Generator Development" (PDF)

The implementation of software product lines and domain-oriented interfaces is definitely a subject at the centre of current discussions. In practice, there is no alternative to a model-based approach to achieving more economic software development.

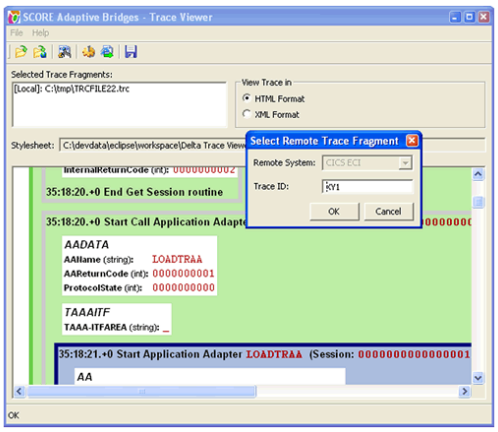
Further Information

You will find in-depth information about our advanced generator technology, HyperSenses and related Generative Programming research on our dedicated Delta GP Website.

3 SCORE Adaptive Bridges Version 3.1 – New Tools, Technologies and Target Platforms for Freedom of Choice

New Test Tools, New Client Technologies, New Server Platforms Deliver More Choice

The new version 3.1 of SCORE Adaptive Bridges is available with immediate effect. This update version builds on the many improvements included in version 3.0 and delivers new functions. SCORE Adaptive Bridges version 3.1 also expands support for a further range of platforms and technologies



What many developers have been waiting for: a comprehensive solution to trace and understand the flow of multi-tier applications over all platform levels. SCORE Adaptive Bridges version 3.1 now offers the new Multi-Tier Trace. This allows you to follow the complete execution flow within an application, showing the trace contents from all of the components, client platforms and server platforms that are involved.

Simple Error Analysis – Also For Multi-Tier Applications

What many developers have been waiting for: a comprehensive solution to trace and understand the flow of multi-tier applications over all platform levels. In addition to a number of small improvements and bug fixes, SCORE Adaptive Bridges version 3.1 now offers the new Multi-Tier Trace. This allows you to follow the complete execution flow within an application, showing the trace contents from all of the components, client platforms and server platforms that are involved.

The flow information is saved in XML format and can be conveniently analysed with the supplied Trace Viewer. The Trace Viewer ensures that the information collected from the different platforms is displayed in the correct sequence in an easy-to-use format. The trace information can be filtered in a flexible manner to highlight important trace events.

Secure and Bespoke Integration for All IBM CICS Applications

A large proportion of the core commercial applications running today were developed with IBM CICS. The secure integration of these mission-critical CICS applications in new business solutions is therefore particularly important.

Application servers also offer legacy integration solutions, whereby the focus of the integration is on the client side. In our view – and this is confirmed by our customers –the focus of the integration clearly belongs on the server side. It is only in this way that new services can benefit from the system management, audit and security process of the tried and trusted server platform.

If you would like to learn more about our “Server Side is Best” concept then please read our white paper “Delivering Adaptive Services with EAI/ESB Architectures”. The benefits that are presented in the white paper apply equally to all client technologies, application and server platforms.

SCORE Adaptive Bridges offers secure and in particular non-invasive integration for CICS applications. The applications can not only be efficiently connected with new clients, they are even in the position with SCORE Adaptive Bridges to make new bespoke services available for clients – without requiring any changes to the programs. SCORE Adaptive Bridges automatically generates all the integration and connectivity code that is required.

SCORE Adaptive Bridges now supports the integration of IBM CICS applications for all server platforms, including mainframes under z/OS, OS/390 and MVS, on Unix systems such as AIX and Linux and on PCs under Microsoft Windows Server 2003. The CICS applications can be integrated with any of the client technologies. The connection to the client platform can be equally well achieved using IBM WebSphere as with Oracle WebLogic, JBoss or any other application server.

Support For New Client Platforms

New Platform Adapters available with version 3.1 of SCORE Adaptive Bridges support the seamless integration of EJB clients. Both the EJB 2.1 and JCA 1.5 standards are supported. In this way it is possible, for example, to use the IBM CICS Transaction Gateway as a Resource Adapter. Support for EJB 3.0 will be added in the future.

The following J2EE application servers are supported for the integration of clients using the EJB technology:

- Oracle WebLogic
- IBM WebSphere
- JBoss Application Server

Platform Adapters for further application servers, for example SAP NetWeaver, are available on request.

Availability

The latest version of SCORE Adaptive Bridges is available immediately. You can order the new version of the SCORE Adaptive Bridges by contacting your local sales representative.

Try SCORE Adaptive Bridges for Yourself

Request your own fully-functional copy of SCORE Adaptive Bridges – Express Edition with a 30-day trial license. You will soon be learning for yourself how quickly and easily you can make your existing legacy applications available as services for your enterprise portal or similar new business initiatives. Request your copy today!

Further Information

If you would like to know more about SCORE Adaptive Bridges then you will find comprehensive information in the Product area of our Web site. Alternatively please contact your local sales representative.

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

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