

## Gastspreekers College OO 2000

aankondiging

- 19 sept – Marco Mulder OTI (1) marco\_mulder@oti.com (abstract)
- 10 october – Elsa Berentzen Bibit elsa.berentzen@bibit.nl (abstract)
- 14 nov – Chris Laffra OTI (2) chris\_laffra@oti.com (abstract)
- 21 nov – Peter Groenewegen VU pgroene@cs.vu.nl (abstract)
- 28 nov – Arie Leeuwesteijn Microsoft Consulting Services ariele@microsoft.com (abstract)

## Developing Java Applications for Limited Devices

Spreker: Marco Mulder AMS/OTI Marco\_Mulder@oti.com

dinsdag 19 september, aanvang 15.45 (precies), zl S203 ihkv College OO

**Abstract** Devices such as mobile phones, PDAs and information systems in cars are getting more advanced and wide-spread every day. This drives a vastly growing demand for flexible embedded software that can be developed quickly. Traditionally, embedded software is developed in a platform specific, non-object oriented fashion using rather primitive development tools. Lately, a shift is made to more advanced forms of software development, using object orientation, platform independence and integrated development environments. Since Java technology is currently one of the main technologies that has these desirable properties, efforts are made by the computer industry to enable Java for embedded software development. In our presentation we will address the major issues such as having limited resources and timing constraints. To show the current state of the art, we will also give a demonstration of the development process of Java applications for the PalmOS platform using IBM's Visual Age Micro Edition.

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## Een kijkje in de keuken van een van Nederland's meest succesvolle internetbedrijven

Gastcollege door Bibit Billing Services B.V.

Sprekers:

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dinsdag 10 october, aanvang 15.45 (precies), zl S203 ihkv College OO

**Wie is Bibit?** Bibit is marktleider in Europa op het gebied van internetbetalingen. Via Bibit kunnen webmerchants in Europa beschikken over zo'n 50 internationale en nationale betaalmethoden (waaronder credit cards, direct debit,

smart cards, GSM, overboekingen, etc.). De systemen van Bibit zijn geheel zelf ontwikkeld in Java en draaien op Linux en Sun/Solaris.

#### Onderwerpen in dit gastcollege:

- Ontwikkelingen in e-commerce in Europa (en verschillen met de USA)
- Business model van Bibit
- Functionaliteit en architectuur van de Bibit systemen
- Gebruik van technologieën als OO, Java, XML, messaging, etc.
- Gelegenheid tot het stellen van vragen

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#### Components

Spreker: Chris Laffra AMS/OTI [Chris.Laffra@oti.com](mailto:Chris.Laffra@oti.com)

Lab Director, Object Technology International, Amstelveen

dinsdag 14 november, aanvang 15.45 (precies), zl S203 ihkv College OO

**Abstract** components.ppt In this talk I will discuss various component systems. I will start with a brief ontology to deal with the burdening topics of "what is a component", "component interfaces", "deployment models", and "communication models". Yearly returning workshop at conferences such as ECOOP has been solely devoted to these fundamental questions, and the overall conclusion is: there is no "one solution that fits all needs". Instead, solutions are much more tailored to the specific needs of the problem they try to solve. A component system for industrial automation may worry about safety critical issues, such as not being able to use more than 8 bit processors running at 1Mhz clock cycles having a total memory budget of 256K bytes (including the communication software and OS). Clearly, not a friendly environment for component systems like CORBA that cater to replicated servers running back-office mission-critical data in multi-language, heterogenous enterprise network environments. Other component systems focus on network-based delivery of dynamically installable services, where servers and individual devices engage in a negotiation to discuss the current configuration of the device, and selectively download the missing components to the loosely couple network of embedded devices. The various solutions address different facets in the wide spectrum of software engineering techniques. The emphasis on varying features (inter-component communication, life-cycle management, plug-and-play, minimal overhead, and others) drive the design of such component systems, and therefore the tools that support them. In the short time available in this talk, I will discuss a few representative component systems and show where they are similar, but more importantly where they differ.

**About Chris Laffra** Chris graduated as an average doctorandus from the Vrije Universiteit in 1988. The late Professor Jan van den Bos apparently saw something in him, and invited Chris to do a PhD-study with him. Under his guidance, Chris graduated in 1992 on the design and implementation of Procol, an object-oriented language based on C that added classes with delegation, parallelism, method resolution based on protocols and constraints. In other words, our own interpretation of a Swiss army knife of computer languages. After persuading IBM Netherlands to sponsor him, he joined IBM T.J. Watson Research Center to continue to work on language design, user interface development, and program visualization. In 1994 IBM almost went broke and Chris moved to Morgan Stanley to work on Wall Street on (again) user interfaces. With his colleagues he became one of the earliest adopters of CORBA-based products of IONA. Companies like Morgan Stanley are some of the largest consumers of state-of-the-art computational power, and receive first class attention from vendors like Sun. Therefore, Chris happened to be in a meeting with people like Guy Steele who came to visit Wall Street to preach these stock brokers that C++ was dead, and this unknown (at that time crappy) little language called Java was to crush it, and if we were willing to completely throw away our invested millions in C++ based infrastructures. Well, that didn't happen overnight, but Chris had definitely caught the Java virus. He read up as much on the topic as he could, and in spare evenings and weekends, he wrote a book that complained about pitfalls in the language. After his first son was born, and IBM managed to not go broke, he rejoined IBM Watson in 1997 to work on tools to transform Java class files. The most important result that came out of this work was Jax, a Java application extractor (basically a compression tool to shrink the size of a standard Java application). After son number 2 was born, he and his wife Carla (who graduated as a more than average doctoranda in Math at the VU), wanted to move back to the Netherlands and got in touch with OTI. One thing led to the other, and in September of 1999, the Amsterdam lab of OTI was opened with 1 employee. Currently the lab has 7 full-time software developers that contribute to the IBM VisualAge Micro Edition product. In addition to (1) being responsible for packaging technology of the product, the lab also (2) manages the PalmOS port of VAME (and represents IBM as an expert group member in Java Specification Request JSR-00075, to define class libraries for PDAs), and (3) is involved in an IST 4th Framework project with ABB, Univ. of Bern, and FZI Karlsruhe, to develop a light-weight component system for field devices. In addition to running the OTI lab, fruitlessly trying to keep his email inbox empty, learning Dutch sign language, and spending time with his family, he sometimes finds time to isolate himself from the world to do some extreme programming and hack cool software. More information: [eliens@cs.vu.nl](mailto:eliens@cs.vu.nl)  
<http://www.cs.vu.nl/~oo>

## **Introduction to XML, SOAP and Biztalk Server**

Spreker: Arie Leeuwesteijn Microsoft Consulting Services [ariele@microsoft.com](mailto:ariele@microsoft.com)  
 dinsdag 28 november, aanvang 15.45 (precies), z1 S203 ihkv College OO

**Abstract**

biztalk.ppt The Extensible Markup Language is an open test-based, markup language that provides structural and semantic information to all kind of data. Currently XML is the most exiting new development in Internet technology and forms the base for most of the new products in this area. In the first part of this session we will look at the basic syntax rules of the XML language that allows you to read and write XML documents. Because XML is not a standalone technology we will also introduce and position related technologies like XML schema's (DTD, XDR and XSD), Extensible Stylesheet Language (XSL), Document Object Model (DOM), XPATH query language and the different XML parser models. The second part of the session will focus on the use of XML in other technologies and products. The Simple Object Access Protocol (SOAP) is vendor-agnostic protocol that typically uses HTTP to transport XML-encoded information for remote method invocation on components in distributed Internet applications. Because many vendors support SOAP, it will be a key technology for the integration of applications on different platforms and from different vendors. SOAP, in the form of web services, is one of the core components of Microsoft's .NET architecture.

The Biztalk product is an example of how XML is currently used by organization for B2B e-Commerce and application integration. Biztalk is a product that is used to exchange XML documents between organizations and applications. It has functionality to handle the transport as well as bi-directional conversion of documents between different XML, EDI, X12 and Text formats. Users define the documents and related conversions with visual tools to generate the required XML and XSL documents. Biztalk also includes a workflow component that uses a visual tool to model and execute business processes. The models are stored in XLANG documents, which is a XML based language that can be executed by the Biztalk workflow engine. Biztalk.org is an organization that defining the BizTalk Framework, a set of guidelines for how to publish schemas in XML and how to use XML messages. Through organizations can use published schemas or publish schemas themselves.

**More information on XML and related technologies:****Sites:**

- <http://www.w3c.org>
- <http://msdn.microsoft.com/xml>
- [http:// <any vendor you like>](http://<any vendor you like>)

**Books:**

- Professional XML, Richard Anderson, WROX, ISBN 1861003110
- XML in action, William J.Pardi, MS-Press, ISBN 0735605629

- Essential XML, Don Box, Aaron Skonnard, Addison Wesley, ISBN 0201709147

**More information on SOAP:****Sites:**

- <http://msdn.microsoft.com/xml/general/soapspec.asp>
- [http://msdn.microsoft.com/xml/general/soap\\_webserv.asp](http://msdn.microsoft.com/xml/general/soap_webserv.asp)

**Books:**

- Understanding SOAP, Scribner & Stiver, SAMS, ISBN 0672319225

**More information on Biztalk:**

- <http://www.biztalk.org>
- <http://www.microsoft.com/biztalk>

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