

XML in Communication Systems

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May I introduce myself

Informatik · CAU Kiel

Studies

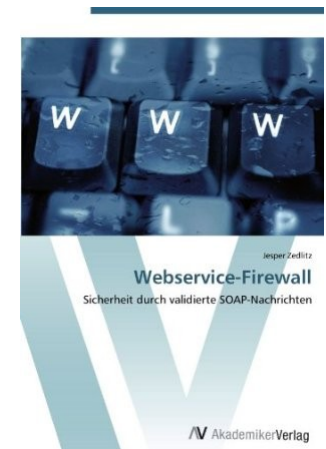
1999-2005 University Kiel

Subject

Computer Science (Dipl.-Inf.)

- Thesis

Spezifikation und Implementierung
eines Application Level Gateways
für Webservices



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2005-2007

software development
process automation



2007-2011

Department of Computer Science
RG for Communication Systems

Oceanographic research data
and sensors

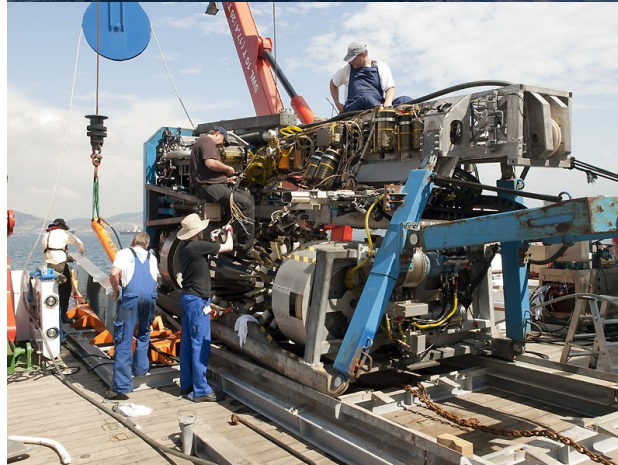


IEEE 1451.2 expert group



May I introduce myself

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Photos: V. Diekamp

Expedition in the
Mediterranean

June/July 2010

Controlling the
"MeBo"

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2011-2013

Management of scientific research data

- Dissertation
 - „Konzeptuelle Modellierung mit UML und OWL – Untersuchung der Gemeinsamkeiten und Unterschiede mit Hilfe von Modelltransformationen“

What is XML?



What is XML?

- Your answers?
- Mike Wesch's answer
 - Associate Professor of Cultural Anthropology, Kansas State University
- My answers
 - XML is a formal notation.
 - XML is a formal notation for tree-structures, i.e. "documents".
 - XML is a formal notation for message bodies.
 - XML is a formal notation for modeling languages.



Your Lecture Goals

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YOUR GOALS

YOUR NON-GOALS

My Lecture Goals

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- to make you familiar with XML language technology
- to enable you to design XML-based services and protocols
- to enable an informed decision on applications
- to guide you in XML-based modeling
- to provide some working knowledge
- to give some good examples

MY GOALS

- to cover all technical details
- to give a comprehensive tutorial
- to lecture entire specifications
- to learn & practice several new X-languages

MY NON-GOALS

- Introduction
 - Introduction to XML
- Grammars for XML documents
 - XML information set
 - Document Type Definition
 - W3C XML Schema, Part 1
 - W3C XML Schema, Part 2

- XML processing
 - Tree processing
 - Stream processing
- XML navigation, transformation
 - Xpath
 - XML Stylesheet Language Transformations (XSLT)
 - Grammar again: Schematron

- Web Services
 - Introduction
 - SOAP
 - Web Service Description Language (WSDL)
- Web Service security
 - Introduction to Digital Signatures
 - WS security
 - WS security policy
 - DoS attacks against Web Services

- XML-based Modeling
 - Resource Description Framework (RDF)
 - Geography Markup Language (GML)

Please ...

I appreciate any comments,
questions, remarks.

Please, interact!

