

Document Construction

Lecture on

Platform-independent Publishing

„Markup Languages and Document Design“

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Goals

- Learn how to write your documents in a format that leaves YOU in control of your data
- Learn how to model your documents
- Learn how to adapt the presentation of your documents to different media e.g. the web (html), paper (pdf), braille etc.
- Learn how to automate document rendering
- Learn how to create your homepage and publish it.
- Learn how to construct your homepage automatically

Wouldn't it be nice if you could just publish your works to paper and internet without re-writing them? If you could just switch tools the way you like? And on top of it: if the whole publishing process would cost nothing?

Roadmap

- **Introduction**
 - Platform Independent Publishing
 - Markup Languages
- **Markup Languages I**
 - HTML and XML
 - Tools
- **Exercises HTML I**
 - HTML Dokumente und Werkzeuge
 - Homepage
- **Exercises HTML II**
 - Stylesheets
 - Modularization
- **Web-Publishing and Content Management**
 - Basics of Web-Publishings
 - Web Content management
- **Modeling**
 - Finding a Schema
 - Writing a DTD
- **Exercises XML 1**
 - Construction of Documents
 - Parsing and Errors
- **XML Schema**
 - DTD vs Schema
 - Schema Examples
- **Job Definition Format**
 - Overview JDF
 - JDF Modeling with XML Schema
- **Transformations**
 - XSL and XSLT
 - Transformations-Pipeline and Tools
- **Exercises XML 2**
 - XSL Use
- **Page-description language**
 - Basics of a PDL
 - XSL- Flow Objects
- **Exercises XML 3**
 - XSL-FO
- **Questions and Answers**
 - Questionnaire

Materials

Lecture notes and exercise materials can be
downloaded from
www.kriha.de/krihaorg/publishing.html

Options

1. Docbook: a schema for online documentation and print media
2. Creating some small documents using docbook
3. Automated Format conversions
4. Preparing for web-publishing: the website dtd
5. Generating web pages and bringing our documents to the web
6. Professional content-management: architecture and examples
7. Web Accessibility and usability rules: how to design proper homepages
8. PDF generation
9. Modeling of a simple job definition for print processes

And what else can we do?

- Linking on the web (about URLs, URIs and domain names)
- Web publishing basics: Internet providers, web hosting and domain name registries (how to get your homepage online)
- XML in IT: programming, processing and tools
- Use template languages, e.g. PHP to make your pages more dynamic (e.g. extract data from databases, calculate content etc.)
- want to create a collaborative work space on the web: use a WIKI-WIKI
- Try out some JDF tools from CIP4

Let me know if you have specific interests and we can include them in the lecture.

Interests

- Vorstufe Druck: Job descriptions in XML. Understand XML instances and schema of this industry standard (e.g. used by AGFA.)
- Possibly invite AGFA representative for a demo during the lecture
- Explains the rendering process: how pdf and html are generated from XML text
- Learn to use the tools. This requires support from some students for setup and tutoring.
- Use www.kriha.de as a template for students once they know how to use the tools

Demo

- Markup – How does it look?
- What is the core property of markup and why use it?
- Some HTML and XML
- Some tools like editors.
- Correct documents?

Resources (1)

- Charles Goldfarb, Paul Prescod, XML Handbook 4th edition
- XML-DEV mailing list
- Michael Kay, XSLT handbook (for transformations)
- David Pawson, XSL-FO (basics of page description language for XML)
- <http://www.editor.net/intro.htm>, explains writing for the Internet
- www.docbook.org, homepage of the docbook dtd with tutorial and download.
- <http://www.morphon.com/xmleditor/tutorials2.shtml>, good docbook tutorial
- Elliotte Rusty Harold, The XML Bible (good and easy to read. Also in German. Good for XSL-FO and most everything in XML)
- Phil Greenspun, Database backed Websites or Software Engineering of Internet Applications. Both books free on www.photo.net . The best way to learn about internet applications and how to create them.

Resources (2)

- www.selfhtml.org everything you need to learn html, xml etc. With tools.