# Systems for Documentation

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# Formats

- reStructuredText
- DocBook
- DITA
- LaTeX

# reStructuredText

- simple text documents
- lightweight markup language
- special but easy to learn syntax
- easy/naturally to read in the textform
- can easyly be processed
- especially used in the Python-surrounding
- usable with normal text editors (e.g. vim, emacs)
- syntax-highlighting for some tools available

http://en.wikipedia.org/wiki/ReStructuredText

http://docutils.sourceforge.net/rst.html

## *Licence*

Definition and most documentation is public domain

http://docutils.sourceforge.net/docs/ref/rst/restructuredtext.html

# DocBook

- **XML-Document Type Definition**
    - in new version Relax NG schema used
- designed for technical documents
- has a lots of semantic elements
- Used by a lots of companies and projects
- books are available
- conversion with special stylesheets
- hirachially ordered

http://en.wikipedia.org/wiki/DocBook

http://www.docbook.org/tdg5/en/html/docbook.html

## *Licence*

The official specifications are under a special, but open "OASIS Intellectual Property Rights Policy" http://www.docbook.org/specs/docbook-5.0-spec-os.html

Official Book: its complicated, on the official page it is written, that the licence is the GNU FDL, but in the book itself it is copyrighted http://www.docbook.org/tdg5/

# DITA

- full name: Darwin Information Typing Architecture
- developed by IBM for their own documentation
- now OASIS standard
- XML-DTD available
- **topic-orientation**

    - documents are made of pieces of topics
    - single topics are written
    - and then connected with a map files to different documents
    - single-source publishing

http://en.wikipedia.org/wiki/Darwin_Information_Typing_Architecture

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# Main differences between formats

- reStructuredText(reST) and Docbook are more document/structure orientated, DITA is topic orientated
- DocBook and DITA are both XML-Files, reST a markup language
- DITA and Docbook are both OASIS standards

# Tools

# Creation of documents

## reStructuredText

- The documents can be written by any texteditor, eg. vim, emacs, gedit, ...

## Docbook

- normal texteditors can be used (maybe uncomfortable)
- **XML-Editors can be used (for example)**

    - Syntext Serna XML editor (GPL and proprietary version available) http://www.syntext.com/products/serna-free/
    - <oXigen/> XML Editor (proprietary) http://www.oxygenxml.com/

## DITA

- normal texteditors can be used
- **XML-Editors like for Docbook can be used**

- I found no good open-source XML-Editors
- **special Autoring sytems are available**

    - I did not found an open source one
    - PTC Arbortext http://www.ptc.com/products/arbortext/
    - XMetaL Author http://na.justsystems.com/content.php?page=xmetal-author-whats-new
    - Adobe FrameMaker

# Conversion of documents in other formats

## reStructuredText

- **Sphinx http://sphinx.pocoo.org/**

    - was made for the documentation of the Python-language
    - programmed in python
    - active developement
    - converts to html, pdf, latex, QtHelp, Epub, manpages
    - can be used with hooks in git or mercurial
    - lightway and easy to use
    - theming support
    - licenced under BSD-Licence
- **docutils http://docutils.sourceforge.net/**

    - tools for converting reST to different formats
    - used by Sphinx
    - most parts are licenced under public domain, few files are 2-clause BSD oder Python licence
- **rst2pdf http://code.google.com/p/rst2pdf/**

    - converts reST directly to PDF using CSS
    - MIT Licence

## DocBook

- **officially Docbook project http://docbook.sourceforge.net/**

    - publishing using XSL Stylesheets
    - http://en.wikipedia.org/wiki/XSLT
- **dblatex**

    - http://sourceforge.net/projects/dblatex/
    - to convert DocBook over LaTeX to PDF
    - licenced under GNU GPL

## DITA

- **DITA Open Toolkit**

    - using XSL

- converts to PDF, XHTML, RTF
- http://sourceforge.net/projects/dita-ot/
- http://dita.xml.org/
- Licenced under Common Public Licence 1.0 or Apache Licence 2.0 (dual-licencing)
- Converters in commercial tools are often integrated

# Converting the files to each other

## reST to Docbook

- **only db2rst available**

  - http://code.google.com/p/db2rst/
  - small script
  - have maybe to be extended
  - licenced under 2-clause BSD licence

## Docbook to reST

- **pandoc can read reST and write Docbook**

  - http://johnmacfarlane.net/pandoc/
  - licenced under GNU GPL

# Managing the files

- All files can be managed with a Version Control System
- Because the huge amount of files using DITA-topics, a document management system might be the better way
- Maybe we could use the wiki, although the management of the document might be more difficult

# Things we have to do

- deciding which system we want to use
- maybe creating an oi-doc mailinglist
- define a workflow for documentation
- set up the software
- define a corporate-design
- write stylesheets
- **convert the OpenSolaris documentation
  http://hub.opensolaris.org/bin/view/Community+Group+documentation/**

  - SunDoc (Subset of DocBook)
  - Public Documentation Licence
  - remove Sun/Oracle trademarks
- find a person who maintains the documentation
- import the parts in the wiki
- write missing parts of the documentation

- translate the documentation