Development of a Document Management System (DMS) using IBM VisualAge Smalltalk 6.x
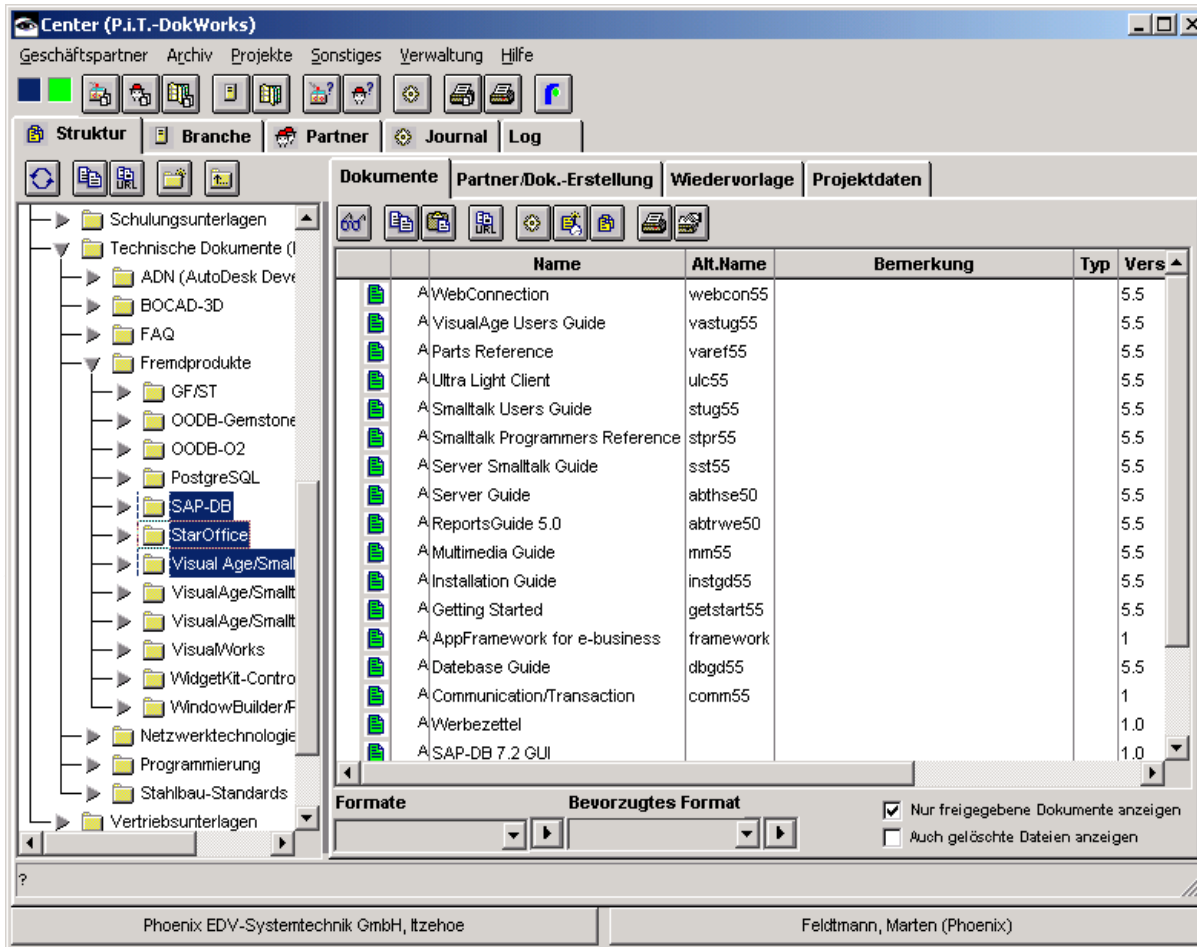# and StarOffice + OpenOffice.org

OpenOffice.org
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- Dokworks – project orientated DMS
  - Definition of Document Management System (DMS)
  - Structural Overview
  - Technical Overview

- History of general development

- History of StarOffice/OpenOffice.org development

- Special Problems with StarOffice/OpenOffice.org

- Actual state of the project

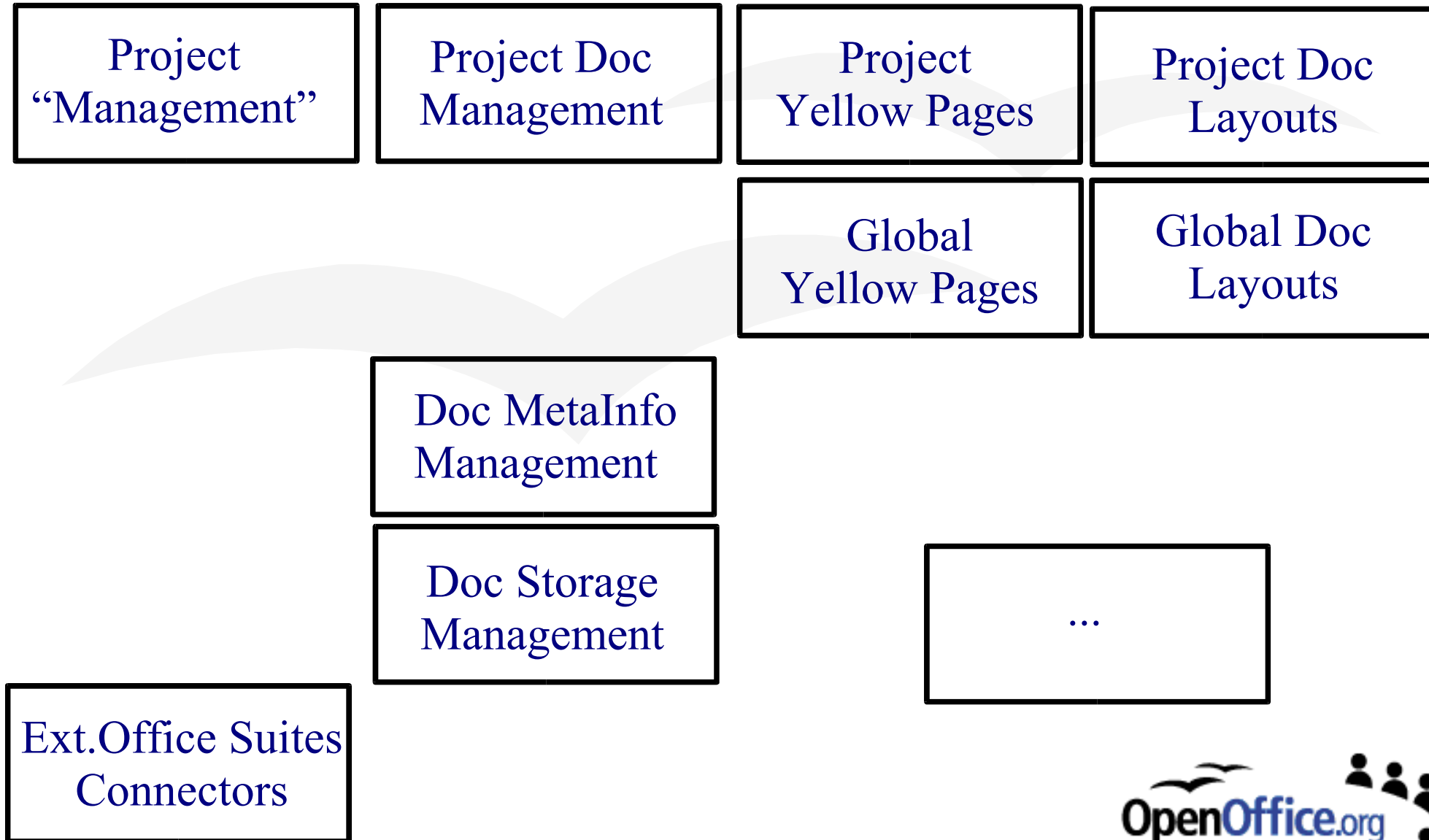- Pitfalls

- Marketing

- Conclusions

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- **Marten Feldtmann**
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- **Developer**
  - C, .NET, Smalltalk developer
  - Windows, Linux and Solaris
  - RDBMS and OODBMS experiences

- **Main developer of a DMS system "Dokworks"**

- **Working for Butzkies Stahlbau**
  - (www.butzkies.de) - feldtmann@butzkies.de

- **Working for infratest-dimap**
  - (www.dimap.de) - m.feldtmann@dimap.de
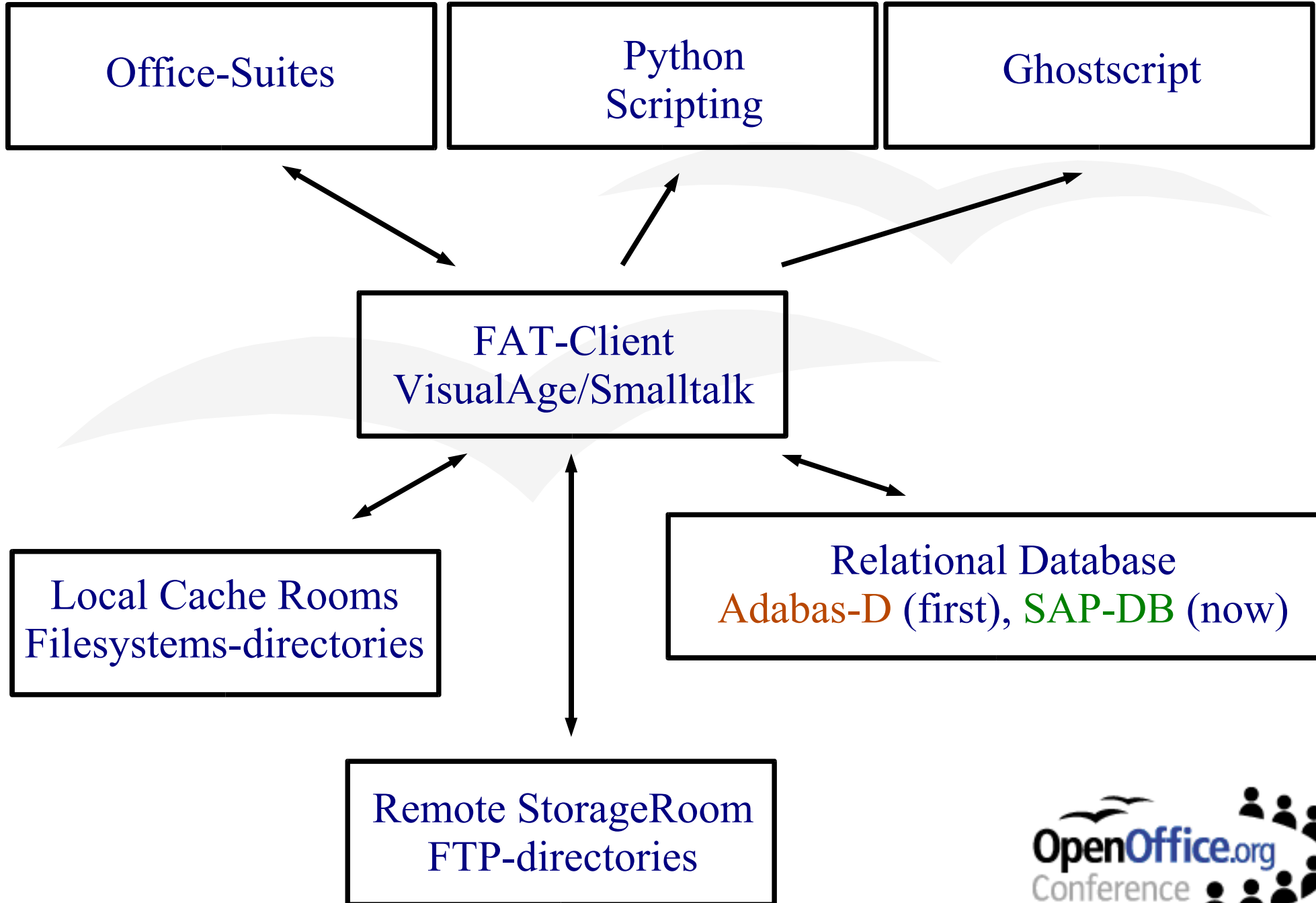
DokWorks – Project Oriented DMS

* ISO 10166
* DMS
  * Multiple renderings
  * Versioning
* Project Information
* General Yellow pages
* Project Yellow pages
* Document Creation
  * OpenOffice.org
  * StarOffice
  * MS-Office
* E-Mail Archive
* Calendar Management
* Notes Management
* Plot management

Project "Management"	Project Doc Management	Project Yellow Pages	Project Doc Layouts
		Global Yellow Pages	Global Doc Layouts

	Doc MetaInfo Management		
	Doc Storage Management		...

Ext.Office Suites Connectors

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Office-Suites	Python Scripting	Ghostscript

FAT-Client
VisualAge/Smalltalk

Local Cache Rooms
Filesystems-directories

Relational Database
Adabas-D (first), SAP-DB (now)

Remote StorageRoom
FTP-directories

2003-02-26

6

Why StarOffice / OpenOffice.org ?

- "Mother" company wished this
  - Problems with different document versions in MS-Office
  - License fee problems (reduction wanted)
  - Considering the switch to Linux

- Started therefore with StarOffice 5.x (x=0,1)
  - Therefore some own solutions had to be created (PDF)

- Actual most of the users still use SO 5.2

- Now slowly migrating to OpenOffice.org
  - Mixed versions scenario (5.2, 6.0)

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DokWorks <-> OpenOffice.org (IPC)

- **Development of "Connectoren"**
  - Three basic commands:
    - Controled loading of documents
    - Controled archiving and saving of documents
    - Document creation using lots of user bookmarks from DokWorks

- **1st generation**
  - StarOffice 5.1 and 5.2
    - "StarOffice Connector" written in StarBasic
      - Work balancing between StarOffice and DokWorks
    - Usage of DDE under Windows
      - not stable
      - slow

- **2nd generation**
  - StarOffice 5.2, OpenOffice.org 1.0 and StarOffice 6.0
    - Development of **one** base BASIC library for all dialects: "SOLib"
      - Reduction of DDE traffic (by usage of an ASCII command file)
      - Extended supports for StarCalc
      - Usage of IP under Unix/Linux (difficult- nothing is easy in OOo)

DokWorks <-> OpenOffice.org (IPC)

- ## DokWorks creates parameter file ...

[transaction]

cfgtemplate = value ="C:\DOKUME~1\fel\LOKALE~1\Temp\dkwtmp\19_03_2003_3561771_14622L____2_____2__.sxw"

cfgtitle = value ="Allgemeines Anschreiben"

...

[bookmark]

ph_commissionentry = value="002 - Test 02"

ph_writerlabel = value="Feldtmann, Marten"

ph_writergivenname = value="Marten"

ph_r_label = value="Pfaffe EDV Vertrieb,Neumünster"

- ## DokWorks tells OOo via DDE (Windows) or via command line to execute a special macro.

- ## OOo executes this macro and catches the parameter files from special locations

- ## OOo does the works and signals DokWorks via DDE or IP, that works is done

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- State: 12/2002
- Main platform – for several years
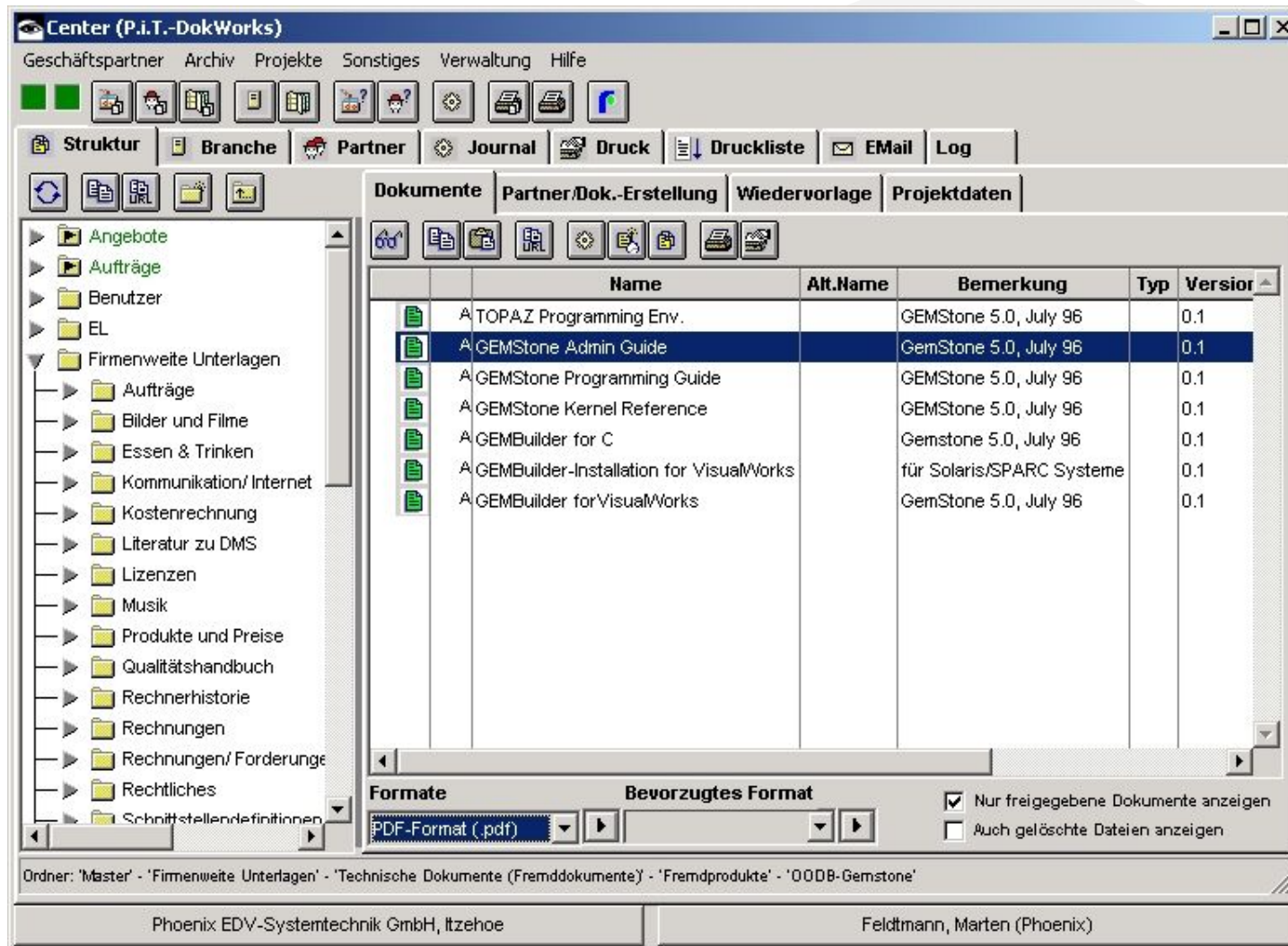
- Development: 10/2002
- Third platform (port done within seven days)
- Running in development mode
- OpenOffice.org interaction worked "more or less"
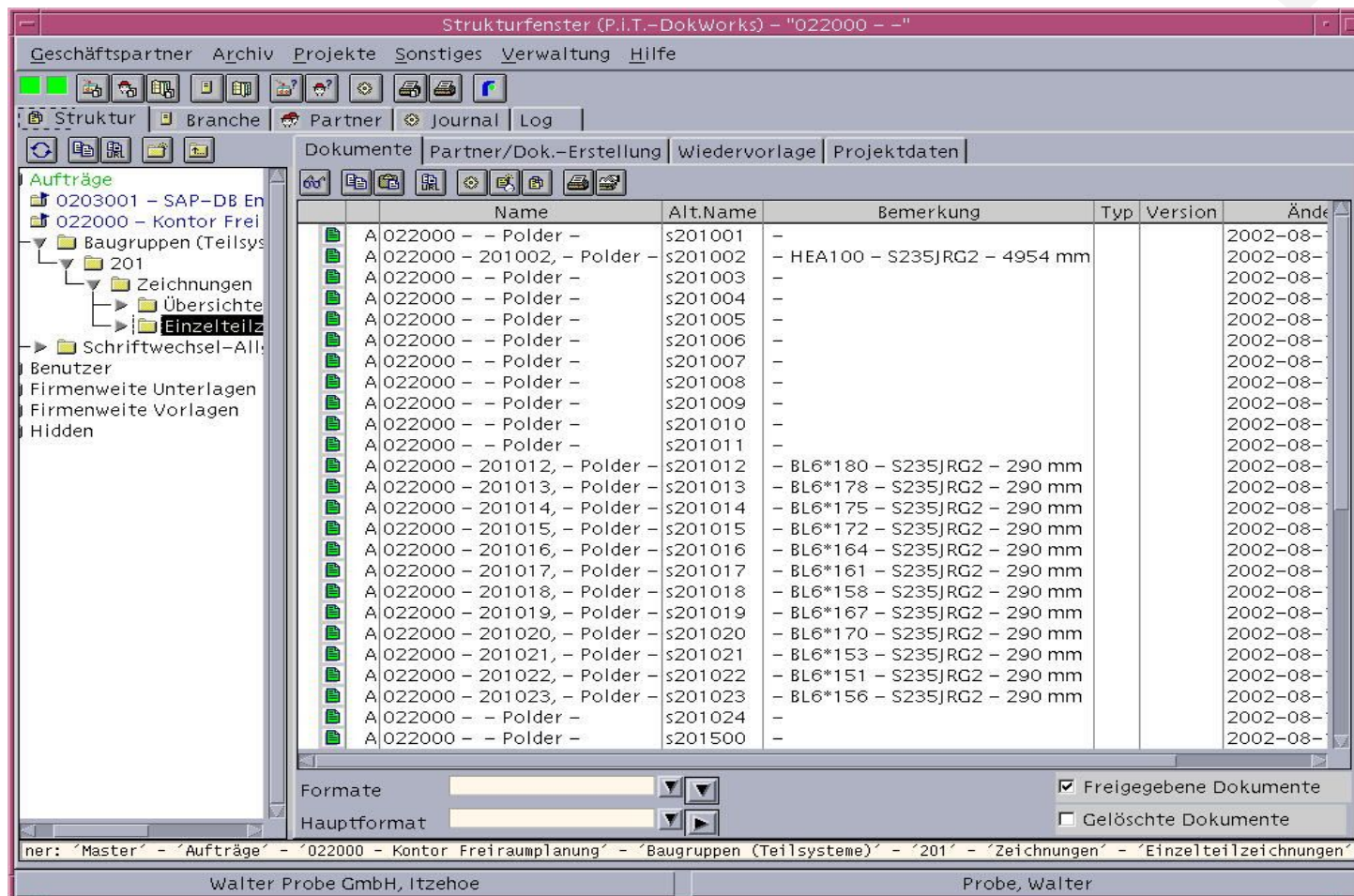
- Development: 12/2002

- Fourth platform (port done within one day)

- Running in development mode

- OpenOffice.org interaction worked "more or less"

WWW client

- Development: 2002
- Server platforms: Windows, Linux or Solaris
- No Frames, No Java, No Javascript – but CSS

- Some interests in StarOffice 5 in 1997 during the first hype of Linux – but no real customers and afraid about doing the switch from MS-Office.

- Dead end ? StarOffice 5.2 ?

- Some interests in OpenOffice.org 1.0 in 2001 (?) – but no customer with money

- Increasing interests in OpenOffice.org/StarOffice 6.0 at the end of 2002
  - Where is the money coming from ??????

- Desktop software (software in general?) does not fit well into Sun's world of computing
  - Especially when not written in Java

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Conclusion – DokWorks

- FAT Clients were the right way to go
  - Special situations could be solved by a WWW-based client
  - Comparision of network traffic: HTML <-> SQL

- Classical Client-Server technology is difficult to maintain, to install and to configure
  - Installation of additional components
  - DokWorks is in general a network based installation

- Do not use too much external software

- Three-Tier architecture will reduce several problems
  - Network traffic will be reduced
  - Configuration might be much easier
  - It's much more difficult to develop
  - OpenOffice.org not ready for server usage
  - Not usable for single user

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Conclusion – OpenOffice.org/StarOffice

- OpenOffice.org/StarOffice is good enough for most of the desktop work and more ...

- Always remember: it's free !!

- OpenOffice.org/StarOffice is not ready for the server

- OpenOffice.org/StarOffice documentation is strange
  - Reminds me when reading the first ISO standard. Abstract up to the way not to be understandable for a "normal" person.

- OpenOffice.org/StarOffice programming model is too difficult for the wide audience
  - One language approach is the wrong way
  - Everything can be done, but not in an easy way.

- StarBasic is very important for the success of OpenOffice.org
  - ... but the language (and it's IDE) has not been improved to support the new programming model since 5.2

Conclusion – OpenOffice/StarOffice

- OpenOffice.org/StarOffice is slow (especially under Unix)