

Georg Heeg eK
Baroper Str. 337
44227 Dortmund
Germany
Tel: +49-231-97599-0
Fax: +49-231-97599-20

Georg Heeg eK
Wallstraße 22
06366 Köthen
Germany
Tel: +49-3496-214 328
Fax: +49-3496-214 712



Georg Heeg AG
Seestraße 135
8027 Zürich
Switzerland
Tel: +41(848) 43 34 24

Email: georg@heeg.de
<http://www.heeg.de>



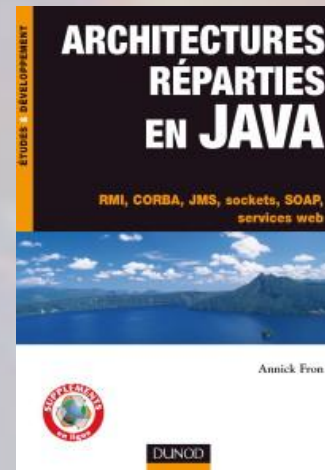
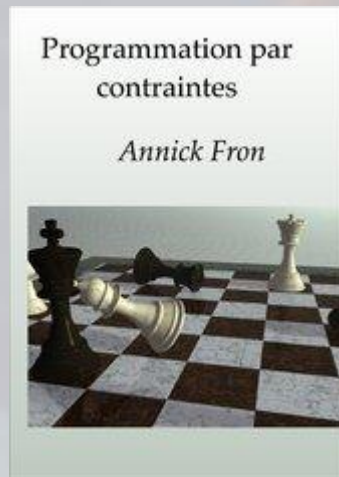
Georg Heeg
Founder and Owner of Georg Heeg eK

EXCEL Extraction

**Modeling in Smalltalk as
Converter of Excel
Spreadsheets**

Co-Speaker of the day

- Annick Fron – AFC Europe
 - Founding treasurer of ESUG
- “Smalltalk and Microsoft Word”



Georg Heeg eK

- Founded 7/7/1987 in Dortmund
 - Original Mission
 - Spread Smalltalk in Central Europe
- 1996
 - Georg Heeg AG Zurich
 - To serve the Swiss Market
- 1999
 - Subsidiary in Köthen (Anhalt)
 - To keep Family Heeg together



Main Activities

- 100% Smalltalk
 - Training
 - Consulting
 - Product development for customers
 - Own projects
 - Own products
 - Project support

Our Team

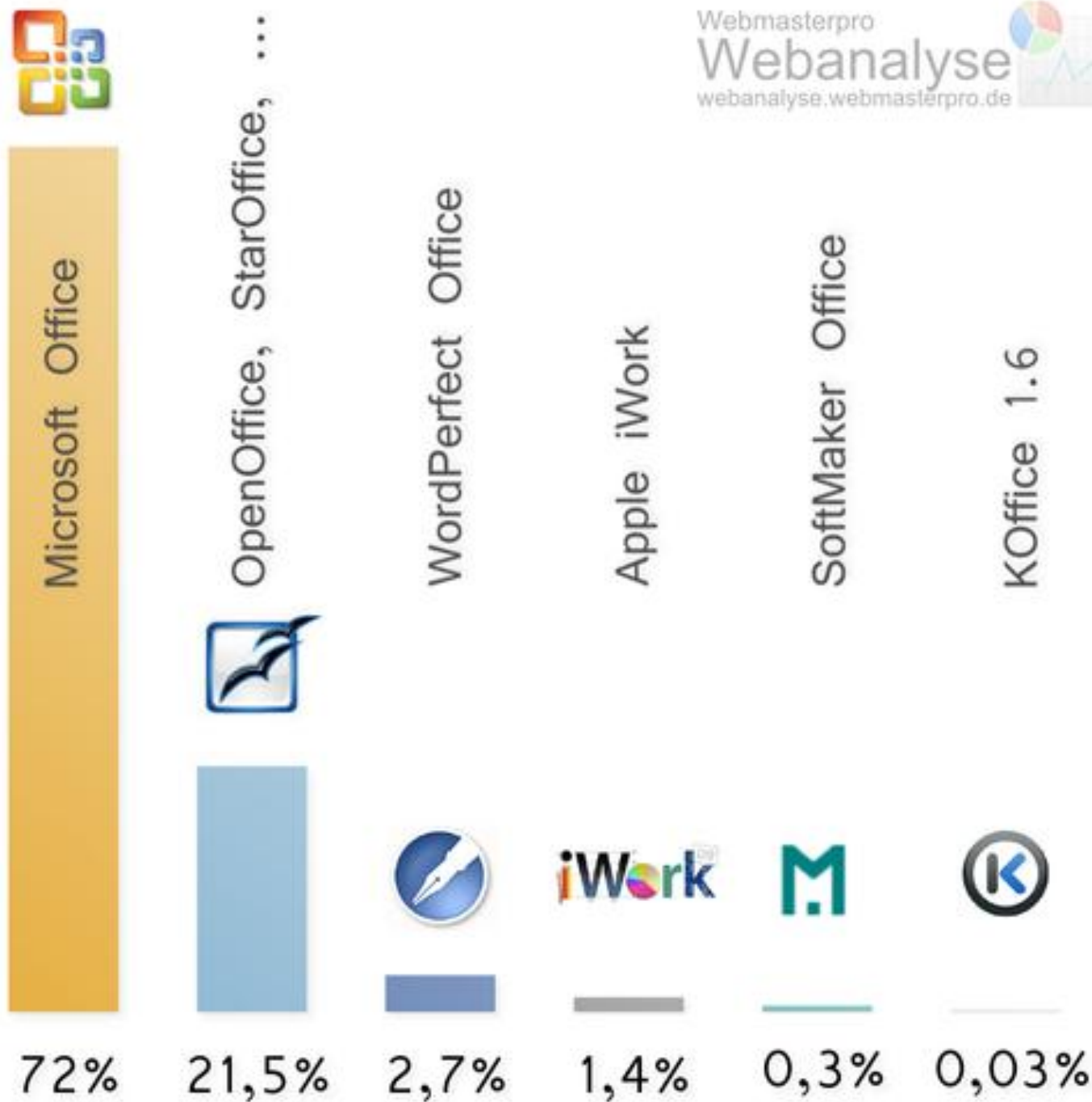
- 14 Smalltalkers
 - 4 to 25 years of Smalltalk experience
 - 6 certified Scrum Masters
- 2 Web Designers
- 4 Craftspeople
- 1 Business Administration Manager

Microsoft Excel

The screenshot shows a Windows Internet Explorer browser window displaying the Microsoft Office website. The address bar shows the URL <http://office.microsoft.com/en-us/excel/>. The browser's menu bar includes 'Datei', 'Bearbeiten', 'Ansicht', 'Favoriten', and 'Extras'. The search bar contains 'Google'. The page content features the Microsoft Office logo, a search bar, and navigation links for 'home', 'products', 'support', 'images', 'templates', and 'downloads'. The main heading is 'Excel 2010'. Below it, a list of features is provided:

- Make fast, effective comparisons from lists of data
- Get powerful analysis from your desktop
- Save time, simplify your work, and increase your productivity

A green button labeled 'Buy with Office' is positioned below the list. To the right, there is a video player with the text 'See Office 2010 in action' and a link to 'Watch the demo'. Below that, a section for 'PowerPivot for Excel 2010' is shown, with the text 'Turn huge data sets into useful information.' and a link to 'Learn more'. At the bottom right, there are sections for 'Popular downloads', 'Featured' (listing 'eBay seller add-in'), and 'Additional' (listing '2010 calendar templates' and 'Unit Converter'). The browser's status bar at the bottom indicates 'Internet | Geschützter Modus: Aktiv' and a zoom level of '100%'.



The Situation

- Business data is collected and stored in Excel tables
 - In our organization
 - And others
- Short term needs allow
 - Easy analysis
 - Easy adaptations of the tables
- From year to year tables are slightly modified

The Problem

- Trying to create analysis across years
 - These little changes are extremely annoying
- Handwork is needed
 - Labor-intensive
 - Error prone

The Problem

- Flexibility in the small
- Difficulty in the large
- Same reason: Excel Data Model
 - Data in cells
 - Addressed by row and column
- Business models
 - Human only readable in texts
 - Incomprehensible for Excel programming

Our Concept I

- Model business models in Smalltalk
 - Object oriented
- Smalltalk-Excel-Interface
 - Based upon COM Connect
 - Fills the business model with data
 - For each variant of Excel tables a variant of the filling functionality is used

Our Concept II

- Analysis is done in the business models using business rules
- Smalltalk-Excel-Interface
 - Based upon COM Connect
 - New Excel are written with an overview of the analysis results

Experiences

- Timetable management at Anhalt University
- Cost overview real estate renovation for SALEG - Sachsen-Anhaltinische Landesentwicklungsgesellschaft mbH
- In the domain of automation in the industry

Demo

- Part 1
 - Back Box Demo
 - Timetable management at Anhalt University
- Part 2
 - Let's go into the browsers
- Part 3
 - Let's look at Word

Base

- Cincom VisualWorks 7.7.1
- Com Connect
 - Reflection
 - Without mirror classes
 - Without mirror methods
 - Just objects created from the Type Library
 - Just simple



Status

- Service offering as part of Smalltalk projects we do
- Goal
 - Individual service

Summary

- Overcome Excel concept limitations
- Easy to understand analysis
- No error prone handwork
- Modeling of the business
 - Thus conceptual correctness
- Reproducible analysis
- Adaptability to changing Excel formats
- Independent of Excel version

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