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

Excel 2010

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

Buy with Office
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-intense
  - 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
• 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