Cell Bell
What's Ringing in Calc?

Eike Rathke (erAck)

erack@redhat.com

ROME | 13 October 2017
About the Speaker

- Eike Rathke, known on the net as erAck
- Based in Hamburg, Germany
- Worked on StarOffice from 1993 to 2000 for Star Division
- Worked on OpenOffice.org from 2000 to 2011 for Sun Microsystems and one other company
- Works on LibreOffice since 2011, employed by Red Hat, Inc.
- Areas of expertise:
  - Calc core, formula compiler and interpreter
  - number formatter/scanner
  - i18n framework, locale data
- Also mentor and knowledge spreader whenever possible
- Web site http://erack.de/
Agenda

- Bugs Fixed, Contributions
  - some numbers
- High Lights
  - shiny shiny
- New Features in 5.4
  - an overview
- To be in 6.0
  - an overview
- Export to PNG
  - an example
Bugs Fixed

- ~380 bugs fixed in the last year since 2016-10-01
  - in the range tdf#36038 to tdf#112946
    - 90 from tdf#36038 to tdf#94262
      - means reported more than two years ago
      - of which 32 were regressions
    - 51 reported between one and two years ago
      - of which 12 were regressions
  - 237 reported during the last year
    - of which 99 were regressions
      - 35 reported against 5.0.x to 5.4.x releases or rc
      - => 64 discovered early before they hit a release
Contributions in sc/

- 2379 commits
- ~110 authors, top authors:
  - Eike Rathke, general Calc development
  - Noel Grandin, conversions, loplugin:...
  - Caolán McNamara, coverity, fuzzing, use gettext, general LO dev
  - Zdeněk Crhonek, spreadsheet function test cases
  - Markus Mohrhard, general Calc development
  - Tor Lillqvist, general Calc development
  - Stephan Bergmann, general LO development
  - Kohei Yoshida, general Calc development
Preparing to multi-thread

- goal is to execute spreadsheet formula calculations in parallel
- specialised iterators for the FormulaTokenArray used by the interpreter
  - replacing the index member so an array can be iterated independently
- use of thread_local static variables where appropriate
- calculate formula groups in parallel
- ongoing work, initiated by Kohei Yoshida and Tor Lillqvist
- see previous talk on Friday *Making Calc Calculate in Parallel* by Tor Lillqvist
Pivot Tables, Pivot Charts

- Tamás Zolnai work on pivot tables, to be in 6.0
  - polishing sharp corners and rough edges, specifically import/export from/to Excel

- Tomaž Vajngerl work on pivot charts, new feature in 5.4
  - recommended blog reads (with videos) on https://tomazvajngerl.blogspot.it
    - Pivot charts in LibreOffice: Part 1
    - Pivot charts in LibreOffice: Part 2
    - Pivot charts in LibreOffice: Final part 3
  - See his talk *Pivot Charts* on Thursday
New Features in 5.4

- Calculate with **Precision as shown**, Laurent Balland-Poirier
  - fraction format, engineering notation, thousands divisors
- CSV export settings are now remembered, Bernhard Widl
- Priority of conditional formatting rules can be changed with new up/down buttons, Manfred Blume
- New cell comment commands added, Gülşah Köse
  - Toggle, Delete All Comments, Show All Comments and Hide All Comments
- Generate absolute sheet references when building formulas by clicking on another sheet's cell (range), Eike Rathke
New Features in 5.4

- Support negative year date (BCE) in cell input and date display, Eike Rathke
  - ISO 8601 -YYYY-MM-DD and locale dependent like -Y/M/D or M/D/-Y or D.M.-Y

- Cell Protection toggle command, Gülşah Köse

- Four new sheet protection options, Kohei Yoshida
  - Insert rows, Insert columns, Delete rows and Delete columns

- Standard and Percent number format buttons became toggle, Gülşah Köse

- New spreadsheet function ROUNDSIG, Winfried Donkers
  - round a value at a number of significant digits
To be in 6.0

- Command to select unprotected cells on protected or unprotected sheet, Gülşah Köse
- Pivot table interoperability fixes, Mike Kaganski, Tamás Zolnai, Bartosz Kosiorek
- (multi-threaded parallel calculation as experimental feature? Tor Lillqvist)
- Export selection (cells or graphics) to PNG or JPG, Eike Rathke
Export Selection to PNG

- Export a selected cell range to PNG
Export Selection to PNG
Export Selection to PNG

PNG Options

Size
- Width: 1.78 inches
- Height: 0.36
- Resolution: 47 pixels/cm

Compression
- Mode: Interlaced

Drawing Objects
- Save transparency

Information

The image needs about 26.8 KB of memory, the file size is 0.9 KB.
Thank you!
... for using LibreOffice!
... for supporting LibreOffice!
... for hacking LibreOffice!