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Cell Bell

What's Ringing in Calc?

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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
- Tomaz 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

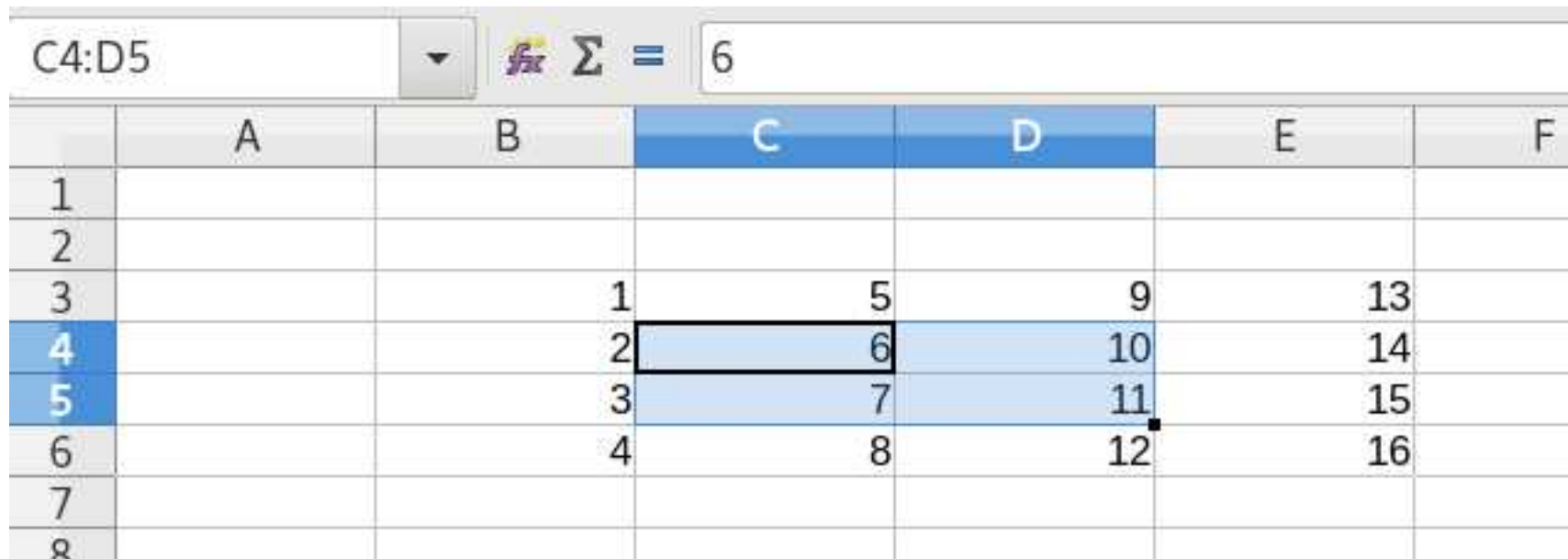
- Support negative year date (BCE) in cell input and date display, Eike Rathke
 - ISO 8601 -YYYY-MM-DD and locale dependent like -Y/M/D or M/D/-Y or D.M.-Y
- Cell Protection toggle command, Gülşah Köse
- Four new sheet protection options, Kohei Yoshida
 - Insert rows, Insert columns, Delete rows and 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

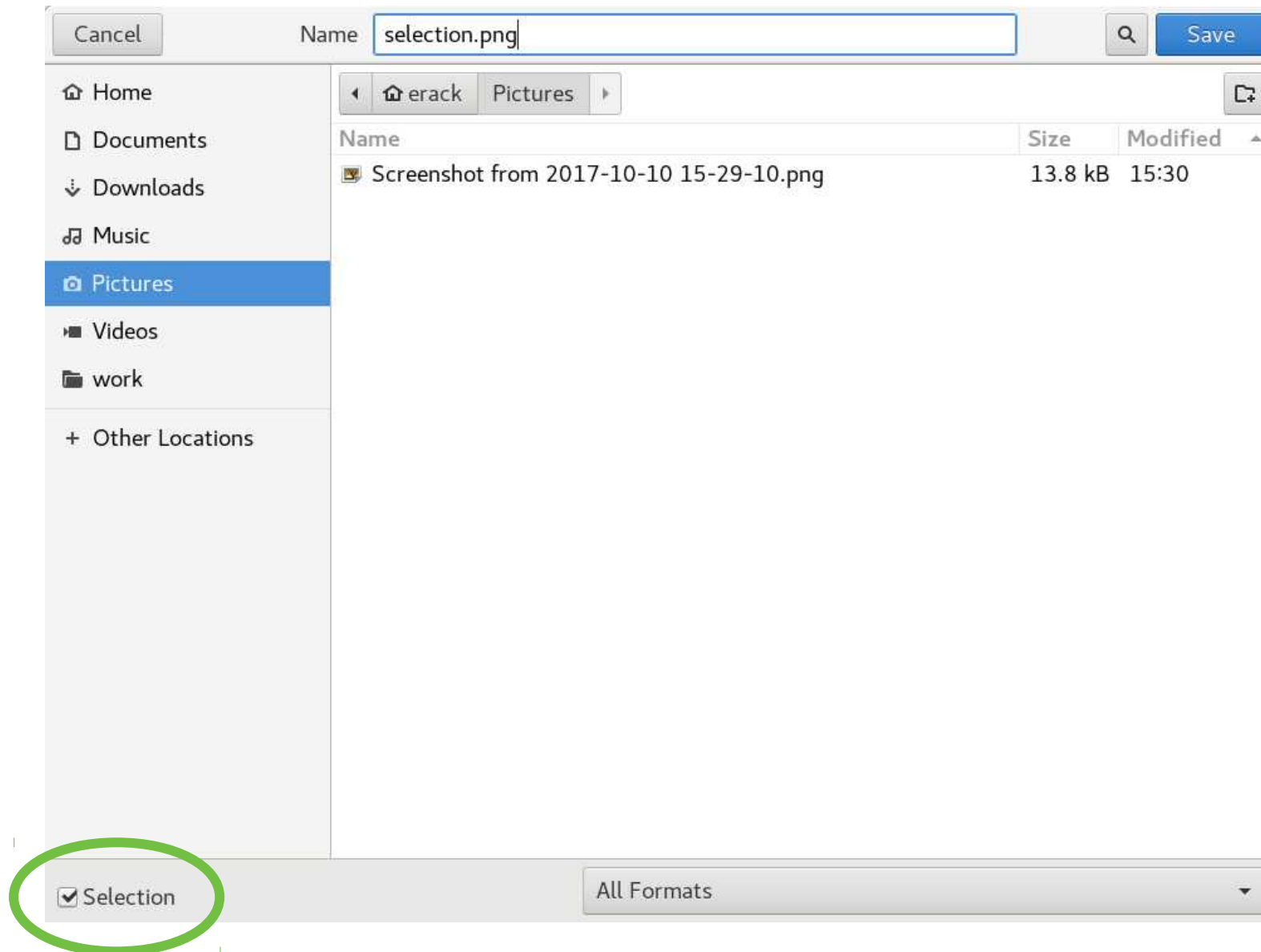


The screenshot shows an Excel spreadsheet with the following data:

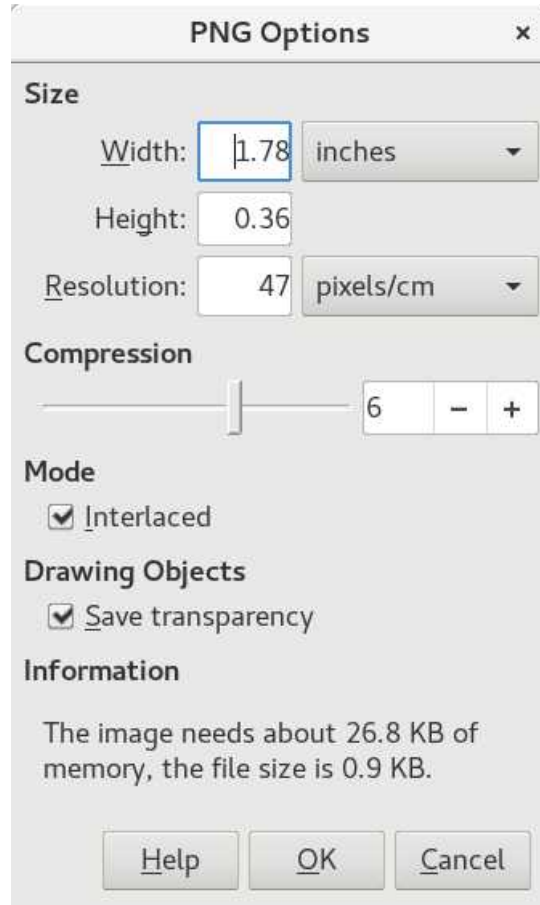
	A	B	C	D	E	F
1						
2						
3		1	5	9	13	
4		2	6	10	14	
5		3	7	11	15	
6		4	8	12	16	
7						
8						

The formula bar at the top shows the selected range C4:D5 and the sum of the selected cells, which is 6.

Export Selection to PNG



Export Selection to PNG



6	10
7	11

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