Calc & Impress Tiled Rendering

Andrzej Hunt
Fast Tiled Rendering in textures
Kindly stolen from Michael Meeks

Tablet display

LibreOffice / Android 4.x

A small table with an embedded image.

This is a picture of our wedding, with some nice text flow going on around it. You can edit a custom contour as well as having a crude ellipse, which makes for a very nice look. Below it is an alpha blended free-hand, filled spline with drop shadow and gradient.

And chart of the week:

Persistant Sins

Jealousy
Pride
Lust
Idleness
Why Tiled Rendering

- Useful for:
  - Mobile Usage (smooth scrolling/zooming).
  - External usage, GTK+/Qt integration.

- Tiled Rendering in:
  - Firefox for Android (“Fennec”)
  - Possibly some iOS apps? (At least for our iOS tiled viewer.)
  - ...
Made available via LibreOfficeKit.

And a LOKDocView GTK+ widget.

Widget not useful yet: renders one (huge) tile.

Hopefully someone will upgrade it?

gtktiledviewer using the GTK+ widget also available, run:

```
./instdir/program/gtktiledviewer INSTDIR_PATH/program DOC_PATH
```

Unit tests for LOK:

Primarily rendering & tile matching.

Disabled for now: document loading issues on some tinderboxes, not good debug output.

Uncovered issues with thesvp vcl backend (i.e. bitmap rendering), and also viewport setup.
Cell / grid rendering:
- Assumptions wrt on-screen window & cells aligned to it.
- Loss of precision for scaling (multiple lossy multiplications).
- Not useable for us.
- Various breakage when adapting.
- Mostly working now, some features still need adapting.

Drawing Layer fortunately quite simple (i.e. more or less what we do for Impress/Draw).
- Still on (a) branch(es).
Impress (and Draw)

- Complex design: Slow to understand...
- But simple to implement (5 lines-ish)
- Draw uses the same code, comes for free :).
Related Work

- LibreOffice Android Viewer: by Collabora, thanks to Smoose:
- More from Tomaž tomorrow (Thu) @ 3pm.
- Useable: Writer and Impress/Draw.
- Calc branch doesn't work yet...

![Screenshot of LibreOffice Android Viewer](image)