GCompris behind the Scene

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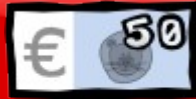http://gcompris.net

Project goal and history

- Project created in 2000 to provide educational content on GNU/Linux for children 2 to 10

- Used worldwide at home, at school, at the hospital, …

- Originally written in GTK+, port to Qt Quick started in January 2014 and still in progress

Community and commercial

- Increased our audience with a Windows version in 2003

- But this version requires an activation code in order to:

  - Give an advantage to the GNU/Linux version

  - Fund the development

  - Increase our audience by being distributed in commercial distribution channels.
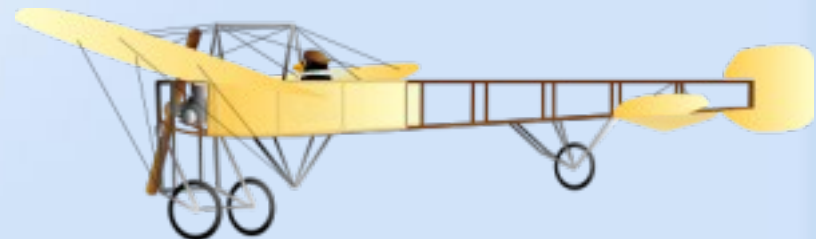
Porting strategy

- Full rewrite in QML
- We copy the game play, graphics, dataset and the translations from the Gtk+ version
- Screen resolution independence (Thanks SVG)
- Major effort on the graphics and the user experience
- Can run in landscape or portrait mode
- Compilation chain in CMake

Architecture

- A C++ core in src/core

- QML activities in src/activities/*

- Each activity in its folder

- An activity can extend an other one and provides it a dataset

- At compilation time each activity is zipped in an 'rcc' file which is loaded at run time

Creating an Activity

- cd src/activities

- ./createit.sh ordering

- Rerun cmake

- Start GCompris and the template activity is there

- Just open src/activities/ordering/Ordering.qml and put your QML items.

Status

- Currently more than 100 activities have been ported on the 140 of the Gtk+ version

- 60 contributors (currently 2 GSoC students)

- Completed a rework of the graphics by Timothée Giet backed by a crowd funding operation

- Android release in January 2015

- 16 languages at 100% thanks to KDE-I18N. Reused the Gtk+ version strings when possible

Multiplatform / good

- Qt is doing an excellent job in multiplatform
- Platform specific code is limited to
    - Updating our CMakeLists for the platform
    - Selecting the path to resources and translations
    - Adding In App purchase hook
    - Packaging audio file in a supported codec

Multiplatform / bad

- Supporting a platform requires to have the hardware to test it

- Need to learn and integrate specific toolchains to make a package

- Need to maintain app store product entries

- Doing follow up, answering comments, …

- Promoting the app towards a given platform

Multiplatform / ugly

- On Android particles makes GCompris crash

- On Windows, could not find a suitable audio codec

- On MacOSX packaging a Qt app is broken

- On iOS, SVG rendering is doubled on retina display

- IOS requires the commercial Qt version

- SailfishOS, need to use an older Qt version
  (5.2.2) and QtQuick.Controls is not packaged

Commercial approach

- I sell binaries on proprietary platforms
- A demo version with all contributed activities is always available
- On Windows the code THANKS give access to the full version
- On Android the full APK is easy to find on gcompris.net/download

Windows Gtk+ reference

- 300 downloads / day on gcompris.net
- 2 sales / day
- 30 school sales in 2014

Android since January

- 100 installation / day (20000 so far)
- But 50 deinstall / day
- Rated 4.35
- 2 sales / day
- No growth even after a new version
- At first, very popular in France
- Now popularity is growing in other countries: Russia, Brasil, USA, Spain, Italia, UK, Germany, Netherlands

Android App store ranking

Ranking snapshot of the 2015/07/20

Country	Games Top Paid	Educational Top Paid / Grossing	Educational Top Free
Brazil		43	
Germany		114	
France	491	27	371
Mexico		148	
Saudi Arabia		145	
United States		270	
Switzerland		153	499
Indonesia		145	
India		147	
Netherlands		147	385

Roadmap

- Completing the port and killing the Gtk+ version

- Adding a teacher console
    - Let the teacher see in real time what the children are doing
    - Looking at achievements, detecting difficulties
    - Creating exercises
    - Assigning exercises to a children or a group

GCompris needs you

- Talk about GCompris to your friends, teachers, blogs, tweets, …

- Create an activity to discover Qt Quick while doing something useful

- Package GCompris on whatever platform you like

- Pick a mic and provide voices

http://gcompris.net/wiki/Developer's_corner