

Community News

A weekly update of One Laptop per Child November 2, 2008

Antonio Battro presented Pope Benedict XVI with an XO on Friday at the Vatican. The occasion was a papal audience for the Pontifical Academy of Sciences, of which Antonio is a member. They spoke about OLPC's philosophy and objectives in the developing world. Benedict seemed deeply pleased by our work. Antonio is in Rome to address a plenary session of the academy.



Technology

Testing:

1. Joe Feinstein reports that the OLPC QA team worked with a few different access points, and did some backup/restore testing in a 50+ laptop system test. Frances Hopkins is still capturing logs and posting bugs, as well as writing up the test cases in the hopes of reproducing the problems. We received an additional 50 laptops and will be building a 100-laptop test bed that simulates a rural school environment right here at 1CC. We continued working on test automation tools, including remote access to XOs at the GUI level (the VNC is working now, requires additional investigation), command level (script development is in process) and physical (serial port) level (Tinderbox). Other approaches are also under investigation.

2. Testing: Mel Chua reports great first test community meeting!
http://wiki.laptop.org/go/Testing_meetings/20081030 (soundbyte snips on this below from <http://lists.laptop.org/pipermail/testing/2008-October/000549.html>)

We had a great discussion on Activity testing tonight and ended up breaking it down into 3 subproblems that we'll need to tackle to move forward. Mel is looking forward to seeing what people have come up with at next week's meeting...

1. How do we prioritize Activities to test? (gregdek)
2. How can we display testing metrics in places and ways that will motivate community developers and testers? (cjl)
3. Let's look at the current procedure being used to get Activities through Testing - how can we improve it? (lfaraone, mchua)

Next meeting - we'll go at the same time, same place next week, #olpc-meeting on Nov. 6, 2200 UTC (5pm EST). Pre-agenda is at http://wiki.laptop.org/go/Testing_meetings/2008-11-06

3. This week Reuben Caron continued working with QA team on testing and automation. Jabber.L.O has been using ejabberd-2.0.0-0.1.beta1.olpc successfully all week and has 517 registered users. Reuben also spent some time researching virtualization methods for the XS to test running a principal/auxiliary configuration. Support:

4. Kim Quirk led the first regular call with Perú on their technical issues, plus follow-up calls with Uruguay. At the top of the priority list for both Uruguay and Perú are time-based lease management, theft deterrence, and then easier customizations and upgrades. Greg Smith will be taking the lead in requirements definition based on the feature requests from these meetings. Reuben Caron continued answering questions from deployments in Perú, Uruguay, Mongolia and Paraguay.

5. The Jabber server that Reuben has been testing - ejabberd-2.0.0-0.1.beta1.olpc - has been up all week and has 517 registered users. Reuben also spent some time researching virtualization methods for the XS to test running a principal/auxiliary configuration.

6. Frances Hopkins and Sean Hooley continued to resolve tickets and respond to questions from the first G1G1. The support gang is eager to prepare questions and answers for the upcoming G1G1.

7. Henry Edward Hardy and Stefan Unterhauser made some progress in recreating and understanding the print related problems with quickbooks that have been plaguing the finance team. Stefan will be joining us for a few months to work on both sysadmin issues as well as Give One Get One systems-related work.

Community:

8. Scott and SJ facilitated a Game Jam last week in Lima, attended by 5 teams of undergraduates and another 10 individuals from two universities: USMP-FIA, the engineering and architecture school which works closely with OLPC Peru, and the National University of Engineering. A student team from USMP handled the local outreach and logistics for this event, and students at both unis are in the process of forming university chapters. USMP had only 10 XOs before the Jam, some of them B4s; we brought them another 40 machines and they will now be able to saturate their interested research students (some of whom had never before seen Sugar or used an XO).

SJ met with local FOSS and free knowledge groups in Peru to discuss ways to collaborate.

- CC-Peru - an active force for sharing culture in Peru. They are planning local publicity about the CC materials on the XO, and helping with Lima's first ever Barcamp on Nov 8, where OLPC will be a point of discussion.
- Derechos Digitales of Chile - primary advocates of improving access to Spanish cultural and educational works in South America. They are organizing Latam Commons 2008, with help from ccLearn and the Ford Foundation, in Santiago from Nov 19-21. OLPC and rural, offline access to knowledge are part of the agenda there.
- The Biblioteca Nacional del Perú - the major library in Lima, and an archive of public domain Peruvian works. They are rebuilding their virtual library, and have a low-volume scanning center. Their digital director is interested in community input about books to scan, and in making their collections down loadable to the XO - Elmo Ledesma Zamora at the Ministry of Education is planning to work with them.

G1G1:

9. Stefan, Seth Woodworth, Aaron Royer, Christian Schmidt, Jason McCann, Matt Keller, and Kim Quirk pulled together the final two weeks of planning for G1G1 (November 17th!). This included community-media updates, website updates, Daily Motion, Youtube, Amazon storefront, donor database mailing, and much more.

Software Development:

10. The technical mini-conference (XO Camp) has been rescheduled from November to early January. The agenda and exact dates are evolving at http://wiki.laptop.org/go/XOcamp_2 . Future feature requests and roadmap goals are being collected at http://wiki.laptop.org/go/Feature_roadmap. This page collects all well motivated feature ideas without regard to priority. Feature requests by country are tracked at http://wiki.laptop.org/go/Feature_requests . After a period of brainstorming and discussion, we will choose the most important and update them with more detail (i.e. requirements and specifications). Then we will scope the work effort for each and pick target releases. Some features will take longer than one release to deliver. The two pages will be tied together so that every feature has one or more countries identified as target users.

XO OS Software:

11. Chris Ball investigated the state of Joyride builds. Joyride-2519 contains the queued up userspace changes. Joyride-2520 (and above) switched over to using kernels from the "master" branch, which is based on the Linux 2.6.27 release. Please report any kernel bugs!

12. Michael Stone prepared materials for his activities talk and his tools talk. He also spent time advising Ed and Kim and creating a puritan compilation which regenerates

8.2-767. Michael and Chris are preparing to travel to Uruguay next week for a 10-day technical visit.

13. C. Scott Ananian returned from an eventful visit to Perú with SJ Klein, where the emphasis was on community-building and introduction of our 8.2 release. Scott's continued working on organizing 9.1 feature proposals, and prototyping next-gen journal and "click to translate" features. He also spent some time working on a Memorize-like collaborative card game in order to better understand our current collaboration framework.

14. Erik Garrison completed his analysis of issues associated with Sugar data storage, and explored the Awesome window manager as an alternative base for Sugar or the XO user interface. He is working to port and test compcache in the olpc-2.6 kernel master.

15. Paul Fox spent time analyzing a possible issue with the new keyboard controller, rearranged his git branches and repos to facilitate working with Richard, and worked on EC firmware cleanup and a bit of new bug and development work.

16. Dave Woodhouse found and fixed the JFFS2 problem which was crashing laptops attempting to test wear levelling. This is still being confirmed, but five laptops have already run for four days each, when the previous record was about 20 hours.

XS School Server Software:

17. Douglas Bagnall spent the week getting things in order for the imminent XS-0.5 release. He fixed bugs in XS-tools, XS-livecd, and XS-otp, and spun an installer ISO for testing. We'll almost certainly be looking for XS-0.5 RC testers next week.

Sugar / Activity Software:

18. Tomeu Vizoso:

- profiled activity startup, found a simple change to python's re module that would save us 0.5s. Started discussing with pyMaemo developers [1] their experiences with python on the Nokia tablets, got some ideas that I want to check during the next weeks.
- profiled frame retraction while on the shell. Found a serious performance issue in HippoCanvas where the redrawing area was calculated naively enough that at every frame step the whole screen needed redrawing. A fix has been submitted upstream [2].
- started work with Eben on improving the clipboard experience. Designed a plan for activities to provide useful titles for clippings that could be used for more metadata in the future. Wrestled with mozilla for adding it, resulted in a patch for upstream [3].

[1] <https://garage.maemo.org/pipermail/pymaemo-developers/2008-October/000542.html>

[2] <http://mail.gnome.org/archives/online-desktop-list/2008-October/msg00011.html>

[3] https://bugzilla.mozilla.org/show_bug.cgi?id=462508

19. Simon Schampijer worked on the Sucrose Development 0.83.1 Release, the first of the 0.84 cycle out the door. With Marco he kept on working on the integration of Network Manager 0.7 in sugar. Marco Pesenti Gritti worked on source release automation, it is now possible to release sources of glucose modules and activities with a single command, including the announcement to the list with an autogenerated report of fixed bugs. He fixed an annoying bug with palette positioning, he published the API policy discussed last week and marked all the Glucose public API accordingly. Finally he reviewed Benjamin patch to improve icon caching. Morgan Collett worked on Sugar and activity tickets, and released Chat and Read for Sucrose 0.83.1. He also worked on improving the activity collaboration API.

20. Release notes for Sucrose 0.83.1.: <http://sugarlabs.org/go/ReleaseTeam/Releases/Sucrose/0.83.1>

21. Walter Bender's Sugar Digest: <http://lists.laptop.org/pipermail/sugar/2008-October/009546.html>

22. Sayamindu Dasgupta worked on SCIM integration to improve our localization and translation support this week. He hopes to have packages ready for testing in Joyride by next week.

23. Guillaume Desmottes pushed his last Gadget patches to Sugar master, meaning that Sugar 0.83.1 will have Gadget support. He released sugar-presence-service 0.83.1 too. Guillaume spent much of this week working on the Salut file transfer branch. This branch is now using the new requests API and gained file transfer unit tests. He also wrote a simple file transfer demo script for telepathy-python.

24. Jim Gettys worked on understanding the current OpenGL/EXA/X11 driver development trends and issues around Mesa/Gallium/GEM/TTM/GLSL implementations to help guide Gen-2. This work is now nearly complete. Jim also acted as matchmaker between Peter Korn of the AEGIS <http://www.aegis-project.eu> project and Wolfgang Stuerzlinger's Façades <http://www.cse.yorku.ca/~wolfgang/facades/> projects, which may help our touch efforts in the future. Jim also spent time investigating an off-the-wall idea for touch event encoding (actually, event encoding in general), reading up on diverse topics such as XML, EXI, and XML-schema.

New Touchpads:

25. The new touchpads underwent further testing. A problem with the default kernel driver configuration was found to cause a problem on resumption from a suspend (#8894). Deepak Saxena worked on a fix, with help from Paul Fox and Andres Salomon, who has encountered what appears to be a different symptom of the same problem (#8901) with his debxo "Debian for the XO" releases.

Firmware:

26. Mitch Bradley released OFW Q2E20, formalizing support for the new touchpad and fixing a partition-creation bug. Q2E20 is necessary if you want to use Andres Salomon's recently-released "debxo" Debian OS versions. Debxo uses a separate NAND boot partition, thus speeding up booting. As a result, the OFW support for partitioned NAND is finally getting some actual-use testing. Mitch also investigated schemes to streamline the installation of OS images onto USB sticks and SD cards, to account for the fact that such devices have different sizes and internal geometries and preferred filesystem layouts.

Multi-Battery Charger:

27. Richard Smith tested 143 batteries using two multi-battery charger (MBC) prototypes. Richard has determined that the over-voltage errors are the result of the charge balance problem that was seen in BYD batteries in the field. One hundred percent of the batteries that had an error in the MBC also had the same failure in the XO laptop. A sample of twenty of these failed batteries was run through the recovery procedure. Eighty percent of them then worked normally in the MBC. Forty-five of them were the new BYD batteries and had zero problems. Ninety-eight were 1CC batteries or G1G1 RMAs. Forty-one had problems. These numbers are quite high, but not too surprising since there were many G1G1 RMA's for exactly this problem. Richard has plans to run all the 1CC batteries through the charger in the upcoming week. Batteries out of the test bed laptops are next.

Deployment Costs:

28. John Watlington, Richard, and Reuben worked on a manual for calculating actual XO installation costs under various conditions. Richard, for example, produced a rough BOM and associated costs for 1 and 2kW off-grid solar and wind power systems. What is the real cost of giving a laptop to a school that lacks power? Using solar power alone and providing a single charge to each laptop each day (3-4 hours of conventional use; much longer in ebook mode), the additional cost is around \$200 per laptop for a mid-sized school (100 students). The manual is still being refined, but already it reinforces the importance of laptop power consumption in making it feasible to bring laptops to these most challenging, yet common off-grid schools.

Wireless:

29. Javier and Colin at Cozybit continued debugging our sporadic WPA association issues. The problem has been isolated in Network Manager, which doesn't always correctly pass the security information to wpa_supplicant for networks that have their information already saved into network preferences. The already implemented workaround of removing the network preferences file addresses this issue. Colin will be spending some more time this week on Network Manager since this bug will certainly

annoy many G1G1 users and it is not clear yet if it has been fixed in the current version of Network Manager (0.7).

30. Ricardo spent most of the week in testing and debugging the new WOL (Wakeup On wLan) functionality. He has discovered a couple of bugs in the driver that have been corrected by Cozybit. He has also spent time on the Internet Gateway functionality (formerly called Mesh Portal Point) in preparation for having it enabled/disabled via the Sugar control panel in our builds.

31. Deepak did some more testing under 2.6.27, worked on updating kernel build scripts and worked on hunting down a suspend/resume bug with the new Synaptics touchpad.

Contributors program updates:

32. Last week was a bit slow, with only 20 XOs sent out (not counting the machines sent to Peru); this week we approved another 40 and are reviewing three large requests for 15-20 each to expand XO pools in Boston, France and Germany.

Valerie Beyer and Lauren Laba of Desire2Learn organized a group to OLPC at last week's EDUCAUSE conference in Orlando, organizing a booth there with information about our mission and raising funds for 15 machines; a good return on 3 machines loaned for a month.

Peru, after having a slow year in project requests, has 5 good requests this week following the interest around the recent Game Jam. The Philippines and France continue to generate lots of good project ideas. Boston groups are setting up a locally maintained XO pool to deal with the increasing number of short-term projects in the area.

OLPC Journal, writing and analysis :

33. Michael Stone and SJ are putting out a new edition of the <http://wiki.laptop.org/go/OLPC:Journal> with brief articles and analysis, to complement the bullets of weekend news. Other beats, writing, and analysis are welcome. In particular, summaries of lists we don't currently cover, overviews of blog/press notes, a rundown of new relevant upstream changes in other communities, and highlights from new photos and recordings (including halloween this week :) would all be welcome.

OLPC:News :

34. Greg and others could use help updating <http://wiki.laptop.org/go/OLPC:News> as well – this is a page for overall news and can reflect more than just the weekend bullets; and should point to other regularly updated news feeds (incl. the planet and olpcnews).

Learning

Mongolia: The government has appointed a new laptop project unit manager. She will work with OLPC and the ministry to finish the distribution of the first 10,000 computers and plan for the next 10,000 to arrive in the coming months.

Elana Langer has continued to provide support to the laptop schools in Ulan Bataar, emphasizing going deeper with the laptops. In one classroom, the students worked with Scratch and were so engaged that they remained for more than an hour after school. One noteworthy observation was how the children all exhibited real engagement but through different styles of working with Scratch. Some used the provided examples. Some explored and played with the different features of the language. Some chose a project and went about deepening it.

Rwanda: The school year is coming to a close. Plans are underway to launch a “summer camp” for November and December to provide powerful experiences for children, to continue with teacher and content development, and to help launch the next set of schools that will begin in the next school year in January.

Administration

In the domestic Nigerian keyboard case, the court granted OLPC’s motions to dismiss Lancor's claims. This means all of Lancor's claims against OLPC, Nicholas Negroponte, and Quanta were dismissed. Nicholas and Quanta are out of the case. OLPC will proceed with its request for a declaratory judgment in the matter. Many thanks again to the outstanding support from the legal team at Foley Hoag.