OLPC Support FAQ

This document is derived from the online Support FAQ http://wiki.laptop.org/go/Support_FAQ dated September 9, 2008. This PDF version was last modified on September 19, 2008 4:26 PM.

Contents

G1G1 Donor Inquiries 3
- How can I order an XO laptop?.................................................................................................................. 3
- Where is my Get One XO laptop?................................................................................................................ 3
- What Microsoft agreement was announced on May 15th 2008?............................................................ 3
- Where does the Give One XO Go?.............................................................................................................. 3
- How do Give1Get1 donors access their free year of T-Mobile wireless Internet?........................................ 4
- How do I reach Give1Get1: Shipment & Donor Services............................................................................ 4
- What is OLPC’s tax exempt info?.................................................................................................................. 4
- How can I donate my Get One XO to a child?............................................................................................... 4
- How can I donate 100+ laptops? Enlist my entire school?.......................................................................... 5

Getting Started, Laptop Settings 5
- Where do I get support?................................................................................................................................ 5
- How do I get started? Where is the manual?................................................................................................. 5
- Can I print from the XO laptop?................................................................................................................... 5
- How do I access a Linux command prompt?................................................................................................ 5
- What does “Register” (in Home View) do?..................................................................................................... 5
- Why is there no windowing system? How do I learn the XO Sugar Environment?...................................... 6
- How do I change my XO’s Nickname, my XO’s color on Sugar Views?......................................................... 6
- How do I set the date and time on my laptop?............................................................................................... 6
- How do I set the time-zone on my laptop?..................................................................................................... 7
- How do I disable the boot-up sound?............................................................................................................ 7

Keyboard, Languages 7
- What are the functions of all the keys on the keyboard?............................................................................... 7
- Can I type languages other than English?................................................................................................... 7
- Can I switch my keyboard to Dvorak layout?............................................................................................... 7

Internet, Connectivity, Email, Chat 7
- How can I access the Internet?.................................................................................................................... 7
- I am on Google, but the browser then tells me "search failed!".................................................................... 7
- Can I use a wired Ethernet connection?...................................................................................................... 7
- How do I disable wireless when flying?....................................................................................................... 7
- Can XO laptops share an Internet connection?............................................................................................ 8
- What exactly is a mesh network?.................................................................................................................. 8
- Is there an email program?.......................................................................................................................... 8
- Can I install other software, like Flash, Java, AIM, MSN Messenger, or Skype?......................................... 8

Mouse, Touchpad 8
- Can I attach an external keyboard or mouse?............................................................................................... 8
- Is there a stylus for the touchpad?................................................................................................................ 8
- Why is my touchpad jumpy?........................................................................................................................ 8

File Access 9
- How do I save a file?....................................................................................................................................... 9
- How do I load a file on the disk into the Browser?......................................................................................... 9
- How do I save or retrieve files from a USB drive or SD (Secure Digital) card?.......................................... 9
How do I delete a file? ............................................................................................................. 9
How do I play sound files? ........................................................................................................ 10

General Activity/Interface Questions .................................................................................. 10
How do I close an Activity (program)? .................................................................................... 10
How do I download and run Activities (programs)? ................................................................. 10
Is Internet required, or are Activities included? ................................................................... 10
After working properly for a while, activities won’t load/start.................................................. 10
How do I use the Camera? ......................................................................................................... 11
How do I take a screenshot? ........................................................................................................ 11

Specific Activity Questions .................................................................................................. 11
Read: I can’t find the icon for Read Activity. How do I read PDF files? ..................................... 11
Browse: How do I bookmark a website and browse it later? ..................................................... 11
Browse: How can I protect my children from objectionable content? ..................................... 11

Activity Development .......................................................................................................... 11
How do I begin to write programs for the XO laptop? ............................................................... 11

Power Generation, Power Management, Battery Issues ....................................................... 12
Does my laptop come with a hand crank? Solar panels? Can the XO be used Off Grid? .......... 12
What kinds of power sources can I use with the XO laptop? ................................................... 12
How long does the battery last? ............................................................................................... 12
How do I power off the XO laptop? .......................................................................................... 12
How do I put an XO laptop to sleep? ....................................................................................... 12
My XO laptop won’t power on.................................................................................................. 12
Is my battery OK? Why does it say “discharging” when plugged in? ....................................... 13

Software Update, Restore to Factory Default ..................................................................... 13
How can I restore my Give1Get1 XO to its factory configuration? ........................................... 13
How do I check which version of the operating system I am running? .................................... 14
How do I update/upgrade my laptop? Opt out? ......................................................................... 14
What’s the latest on the current software release? (Build 656)? ................................................. 14
Why do I see Build 653/656 on this page? What’s the deal with Build 653/656? ....................... 14
How do I recover from a "Disk Full" error? .............................................................................. 15
How do I run unofficial/unsigned builds & firmware? ............................................................. 15

Disk, Storage Device ............................................................................................................ 15
How much memory/disk is built in? ......................................................................................... 15
How should I use the SD card slot? .......................................................................................... 15

Hardware Repairs, Returns ................................................................................................. 15
My XO laptop won’t play sound. ............................................................................................... 15
My screen has a couple discolored pixels. ............................................................................... 15
How do I test my keyboard for sticky/broken keys? ............................................................... 15
What is the warranty info? RMA process? ............................................................................... 16
Does opening my laptop void the warranty? ............................................................................ 16
How do I obtain replacement parts, e.g. batteries and chargers? Repair? ............................. 16

Colophon ............................................................................................................................... 16
Revision History ...................................................................................................................... 17
FA:G1 Donor Inquiries

How can I order an XO laptop?
We are not selling individual XO laptops at this time. However, One Laptop per Child plans to run another Give One Get One program sometime later in 2008—rolling out to progressively more countries over time. While some basic advance details are currently available, please keep an eye on our websites, http://laptop.org/ and http://wiki.laptop.org/, as details emerge.

If you are interested in buying 100 to 10,000 or more XO laptops at this time, and have a thoughtful deployment/support plan in place, please see http://laptopfoundation.org/participate/givemany.shtml

Where is my Get One XO laptop?
If you believe you ordered an XO laptop between Nov 12, 2007 and Dec 31, 2007, and have yet to receive it—please email: help @ LAPTOP. ORG with:

1. your 10-digit reference number (order number)
2. the exact amount you paid
3. the exact date you ordered or paid
4. your original email address used to place your order
5. the precise spelling of the person’s name who ordered
6. your up-to-date US or Canadian shipping address (sorry PO Boxes don’t work!)
7. your daytime/evening phone number(s)

Thanks!

Historical Information: the G1G1 Fulfillment Information page http://wiki.laptop.org/go/G1G1_Fulfillment_Information outlines some past problems with the Give1Get1 shipping and ordering process, dating from back in late 2007 and early 2008, which have now been resolved.

What Microsoft agreement was announced on May 15th 2008?
Microsoft Windows now available on the XO laptop; trials to begin in key emerging markets as early as next month.

REDMOND, Wash., and CAMBRIDGE, Mass., May 15 /PRNewswire-FirstCall/ -- Today, Microsoft Corp. and One Laptop per Child (OLPC) announced an agreement that will make the Microsoft Windows operating system available on OLPC’s low-cost XO laptops for the world’s poorest children. Through this agreement, trials of the XO running Windows are planned to begin as soon as June in key emerging markets. Recognizing that the challenge of providing high-quality education for children in the developing world is too large to be solved by any single organization, Microsoft and OLPC are committed to working with governments and nongovernmental organizations to ensure the success of these pilot programs... http://wiki.laptop.org/go/AnnounceFAQ

Also see the FAQ http://wiki.laptop.org/go/MS_FAQ about this announcement.
Where does the Give One XO Go?

The generous Give1G1 donors of North America have given of tens of thousands of XO laptops to children in developing countries, including these new XOers in Ulaanbaatar, Mongolia. (Photo by Carla Gomez Monroy, Learning Consultant, OLPC, 17 Jan 2008).

As of June 2008, about 10,000 XO laptops each are being prepared for Haiti, Rwanda and Mongolia. This expands upon the Mongolian deployment which began on a smaller scale in January 2008. Stay tuned: further details of the Give1Get1 program’s matching donations (eg. Afghanistan and Cambodia) anticipated) will be forthcoming.

What if my Give1Get1 laptop was lost or stolen in transit?

File a lost or stolen package claim immediately with FedEx by calling 800-GO-FEDEX. They will work with you and the credit card company to find the problem.

How do Give1Get1 donors access their free year of T-Mobile wireless Internet?

Give1Get1 donors can activate their T-Mobile offer when their XO is confirmed received.

How do I reach Give1Get1: Shipment & Donor Services

Give1Get1 “customer service” questions need to be directed to Donor Services at 800-201-7144, open Monday to Friday 9 AM – 8 PM Eastern time — or email: help@LAPTOP.ORG

What is OLPC’s tax exempt info?

Our US tax-exempt EIN (Employer ID Number) is towards the bottom of the Give1Get1 Donor Services FAQ.

How can I donate my Get One XO to a child?

We thank you for your generous thought of donating back the laptop. It is very kind of you!

If you have the original packaging, please send in that box, or pack carefully in your own box, and mail to the address below:

One Laptop per Child
Att: Give Another
One Cambridge Center, 10th floor
Cambridge, MA 02142

You may also be interested in giving your XO laptop to someone locally. Get a big smile for yourself!

Alternatively, you may want to Donate Your Get One XO to:

- an international group in a developing country
- a non-profit in North America collecting XO’s for schoolchildren

OLPC Support FAQ
• a Computer Science Education Project ➡️ http://wiki.laptop.org/go/Donate_Your_Get_One#Computer_Science_Education

• including high schools and regional community groups ➡️ http://wiki.laptop.org/go/Regional_community_groups.

How can I donate 100+ laptops? Enlist my entire school?
Contact: givemany AT laptop.org or call 800-379-7017. Basic cost/quantity details: ➡️ http://laptopfoundation.org/en/participate/givemany.shtml

For government inquiries only, contact: countries AT laptop.org

For smaller international rollouts, please work with others on the grassroots mailing list ➡️ http://lists.laptop.org/listinfo/grassroots

While OLPC doesn’t have a general mechanism for setting up smaller trials, immediate community feedback on school pilot projects is available in our live chat channels #olpc or #olpc-groups (see IRC channels ➡️ http://wiki.laptop.org/go/Communication#IRC for details). Similarly, you can have these and other questions answered live in the #olpc-help channel ➡️ http://olpc.osuosl.org/chat/

Getting Started, Laptop Settings

Where do I get support?

Please consider joining one of the many One Laptop Per Child (OLPC) communities ➡️ http://wiki.laptop.org/go/Support#Community.2FLive_Support

How do I get started? Where is the manual?
The XO laptop design rationale is to encourage kids to discover/learn things by themselves ➡️ http://wiki.laptop.org/go/Constructivism, rather than giving them a fixed set of instructions. However, you can learn about your new XO laptop with our Getting Started Guide ➡️ http://wiki.laptop.org/go/Getting_Started. A printable PDF version ➡️ http://laptop.org/en/laptop/start/getting_started_3.pdf (17.5MB, be patient downloading!) is also available.


Can I print from the XO laptop?
The first shipment of XOs from December 2007 do not have built-in printer support, however, the XO Community has worked on printing solutions ➡️ http://wiki.laptop.org/go/Printer_Support for G1G1 donors.

How do I access a Linux command prompt?
For a Linux command prompt, run the Terminal Activity ➡️ http://wiki.laptop.org/go/Terminal_Activity
What does "Register" (in Home View) do?
"Register" is for children that are connecting to a School Server ➡ http://wiki.laptop.org/go/School_Server, and serves no function for G1G1 recipients. See School Identity Manager ➡ http://wiki.laptop.org/go/School_Identity_Manager for more explanation. After a child uses the Register function once, at his/her school, this item disappears from the Home View.

Why is there no windowing system? How do I learn the XO Sugar Environment?
One Laptop per Child’s XO software environment uses the Sugar ➡ http://wiki.laptop.org/go/Sugar graphical user interface on top of the Linux operating system. This environment is new and different from traditional PCs and Macs. We hope you will not only "learn by doing" ➡ http://laptop.org/start, but also seek out others to collaborate with you in the learning process— taking the initiative to join/form users groups both online ➡ http://wiki.laptop.org/go/Getting_involved_in_OLPC and in the real world ➡ http://wiki.laptop.org/go/Regional_community_groups

How do I change my XO’s Nickname, my XO’s color on Sugar Views?
Your XO's Nickname and other options can be changed using sugar-control-panel via the Terminal Activity. For example, to change the nickname to “Katie”, type:

    sugar-control-panel -s nick "Katie"

See Sugar-Control-Panel ➡ http://wiki.laptop.org/go/Sugar-Control-Panel

How do I set the date and time on my laptop?
You may set the date and time as follows:

1. Connect to the Internet (see How can I access the Internet? ➡ http://wiki.laptop.org/go/Support_FAQ#How_can_I_access_the_Internet.) to be able to query a time server.

2. Open the Terminal Activity ➡ http://wiki.laptop.org/go/Terminal_Activity.

3. Type "su -" at the command prompt and press the Enter key. (Note that as user "root" you have the ability to destroy all software on the XO, so you should end your session as soon as you successfully change the date and time.)

4. At the command prompt, enter the following commands, press the Enter key after each line:

   /usr/sbin/ntpdate time.nist.gov
   /usr/sbin/hwclock --systohc

   In response to the ntpdate command, if it successfully contacts this US government official time server, the system will output a line of data displaying the correct date and time.

5. Click the “Stop” icon at the upper right corner of the screen to log out and close the Terminal Activity program.

How do I set the time-zone on my laptop?
You can set the time-zone using sugar-control-panel via the Terminal Activity:

    su
    sugar-control-panel -s timezone [timezone]

You must become “root” first, via the su command. See Sugar-Control-Panel ➡ http://wiki.laptop.org/go/Sugar-Control-Panel
How do I disable the boot-up sound?
Turn the volume down while the laptop is booting (i.e. before getting into Sugar).

Keyboard, Languages

What are the functions of all the keys on the keyboard?
The XO Keyboard has a number of special keys and keycap symbols. See Keyboard Shortcuts
ttp://wiki.laptop.org/go/Keyboard_Shortcuts

Can I type languages other than English?
Yes, you can enter letters from non-English languages
ttp://wiki.laptop.org/go/Keyboard#Languages_other_than_English

Can I switch my keyboard to Dvorak layout?
To access the dvorak layout on an XO, start the Terminal Activity, and type:

```bash
setxkbmap dvorak
```
To return to your national keyboard, use the same command with the appropriate keyboard layout name. For example:

```bash
setxkbmap us
setxkbmap ara
```

Internet, Connectivity, Email, Chat

How can I access the Internet?
Our Connectivity Quick Start Guide ttp://wiki.laptop.org/go/Wifi_Connectivity will answer most questions about Internet Connectivity.

Give1Get1 donors can activate their T-Mobile ttp://wiki.laptop.org/go/T-Mobile offer when their XO is confirmed received.

I am on Google, but the browser then tells me "search failed"!
When the Browse activity is launched, it displays a page with a Google logo and a search box. This page is stored locally in the XO, and does not indicate that the XO is connected to the Internet. Please see How can I access the Internet? ttp://wiki.laptop.org/go/Support_FAQ#How_can_I_access_the_Internet.3F

Can I use a wired Ethernet connection?
Yes, you can connect to a wired Internet connection by using an USB-to-Ethernet adapter ttp://wiki.laptop.org/go/USB_ethernet_adaptors

Note: XO laptops were intentionally designed for children in developing nations, where it is faster and less expensive to deploy wireless connections, rather than a traditional telecom infrastructure.

How do I disable wireless when flying?
To disable the wireless radio, start the Terminal Activity and type:

```bash
sugar-control-panel -s radio off
```
To turn it back on, type:

```
sugar-control-panel -s radio on
```

For details, see Airplane mode ➡️ [http://wiki.laptop.org/go/Airplane_mode](http://wiki.laptop.org/go/Airplane_mode)

**Can XO laptops share an Internet connection?**

At the moment, an XO laptop cannot be on both the Internet and on the mesh network at the same time, with a default laptop configuration. This ability will hopefully be re-enabled by default in the future; until then, School Servers can serve as Mesh Portals. See Mesh Network Details ➡️ [http://wiki.laptop.org/go/Mesh_Network_Details#Mesh_Ports](http://wiki.laptop.org/go/Mesh_Network_Details#Mesh_Ports)

**What exactly is a mesh network?**

A mesh network allows nearby XO laptops to talk to one another directly (wirelessly) without the need for a traditional Internet Service Provider.

This feature makes very rural deployments (say, Nigeria) practical; there isn’t much need for dedicated network hardware. The laptops do the heavy lifting, rather than the traditional hierarchical network of hubs/switches/routers.

The mesh demo ➡️ [http://laptop.org/laptop/hardware/](http://laptop.org/laptop/hardware/) demonstrates how a mesh can connect to the Internet.

**Is there an email program?**

You can use the Gmail Activity ➡️ [http://wiki.laptop.org/go/Gmail](http://wiki.laptop.org/go/Gmail) to access your email if you have a @gmail.com account; or you can simply use Browse to access most any web-based email program.

**Can I install other software, like Flash, Java, AIM, MSN Messenger, or Skype?**

Yes you can, but this type of software ➡️ [http://wiki.laptop.org/go/Other_software](http://wiki.laptop.org/go/Other_software) is not supported by OLPC. Some software is Free and Open Source Software and supported by its own user community. Other software does not meet the OLPC standard of Software Freedom.

**Mouse, Touchpad**

**Can I attach an external keyboard or mouse?**

Most USB keyboards and mice work fine. However, avoid “PalmPilot keyboards,” as these use IR (infrared), and “wireless keyboards,” as these use Bluetooth— neither of which are supported on the XO laptop.

**Is there a stylus for the touchpad?**

The touchpad is designed to work with a stylus across the full width of the three panels (only the center panel is sensitive to your finger.) A stylus does not ship with the laptop.

Currently, there are no activities that use the stylus. However, in a future software release, the Paint Activity ➡️ [http://wiki.laptop.org/go/Paint_Activity](http://wiki.laptop.org/go/Paint_Activity) (formerly known as Draw) will work with a stylus.

**Why is my touchpad jumpy?**

There are three known touchpad issues ➡️ [http://wiki.laptop.org/go/Three_known_touchpad_issues](http://wiki.laptop.org/go/Three_known_touchpad_issues) . A USB mouse is a useful workaround in all three cases.
File Access

How do I save a file?
Files are saved automatically in the Journal Activity http://wiki.laptop.org/go/Journal_Activity accessed from the Home View http://www.laptop.org/laptop/start/homeview.shtml Select the notebook icon, appearing just below the XO character, to open the Journal and find the activity or file you need.

How do I load a file on the disk into the Browser?
1. Open the Browser.
2. In a window in the middle of the top of the Browser page you will see the words OLPC Library. Click on "OLPC Library" and you will see the url: file:///home/olpc/.library_pages/search/bundle_index.html in the window and the contents of the file: .library_pages/search/bundle_index.html will appear in the browser.
3. Replace that filename with the name of the file you want to load, and have it display, for example, file:///home/olpc/upload-file.html
4. Click on the window and the file upload-file.html will be loaded from your home directory (/home/olpc) into the Browser.

How do I save or retrieve files from a USB drive or SD (Secure Digital) card?
1. Insert the USB drive (sometimes known as a "flash drive" or a "USB key") in one of three USB ports on the side of the display of the XO laptop. The SD card inserts into a slot under the display.
2. Open the Journal (in the Home View, select the notebook icon directly below the XO at the center of the screen).
3. The USB icon will appear in the lower left corner of the screen.
   • To copy a file from the Journal to the USB drive, move the cursor over the Journal item and drag it to the USB icon.
   • To copy a file from the USB drive to the XO Laptop, first click on the USB icon itself (rather than the number or the text above the word "Unmount") to display the list of files present, then drag the file from the USB drive to the Journal icon.

NOTE: Before removing the USB drive, hover over the USB icon itself and click on the word "Unmount". When the USB icon disappears, it is safe to remove the USB drive. Also note that the USB drive's filesystem is auto-mounted under /media.

How do I delete a file?
1. Open the Journal Activity by clicking on the notebook icon just below the XO character.
2. Find the file to be deleted by scrolling up or down the Journal list.
3. Move the pointer over the entry to be deleted and click to open a preview of the file.
4. Press the minus sign at the top of the screen to delete the file.
How do I play sound files?
The eToys Activity ➡ http://wiki.laptop.org/go/EToys can play MP3 and OGG files. After finding such a file in the Journal, click the far right icon (a square in a circle) to start eToys.

You can also try the Watch and Listen ➡ http://wiki.laptop.org/go/Helix_media_activity activity, a media player based on the Helix ➡ http://en.wikipedia.org/wiki/Helix_project project:

1. When on the Journal entry for a sound file, click in the middle of the entry, to show the details.
2. On that page, hover the mouse over the square-in-circle icon in the upper right corner of the screen. It should say “Resume”, and list the possible activities that you can resume with this file.
3. Click on “Watch & Listen”. Check for supported codecs you may need to download, if you require proprietary formats.

General Activity/Interface Questions

How do I close an Activity (program)?

• Most activities have an “Activity” tab with a close button found at the top right of the display; select the “Close” tab and press to close the activity.

• For most activities, the keyboard shortcuts Ctrl-q or Ctrl-Esc can also close the activity. The Esc key is marked with an X.

• Alternatively, return to the Home View ➡ http://www.laptop.org/laptop/start/homeview.shtml by pressing the “Home” key. Hover the cursor over the activity icon to bring up a menu; press “Stop” to end the activity.

How do I download and run Activities (programs)?

There are many Activities ➡ http://www.laptop.org/laptop/start/activities.shtml the community has developed for download. From the Browser activity on the XO laptop, go to Activities and click on the .xo file within to download and install the activity to your laptop. When it is finished installing, click OK. Press the Home key (fifth key from the upper left; see the previous question) to see the task-bar.

Scroll the task-bar to the right (by clicking on the arrow) until you see the icon for the Activity; click on it to start.

All activities on the XO laptop have been developed in the open-source community by volunteers. OLPC encourages all laptop owners to contribute to this effort.

Is Internet required, or are Activities included?

The XO laptop does not require Internet access to be used. The XO laptop comes with more than 20 Activities (programs) and many more are freely downloadable. See the quick introduction ➡ http://www.laptop.org/en/laptop/start/activities.shtml to pre-loaded Activities on the XO laptop. Start any of these Activities from the Activity task-bar at the bottom of the Home View ➡ http://www.laptop.org/en/laptop/start/homeview.shtml

After working properly for a while, activities won't load/start

There is a known bug in build 650 (the build shipped with all G1G1 laptops), which can result in activities working fine the first few times they are loaded; but on subsequent boots, the activities may not load.
There is a fix in build 653 http://wiki.laptop.org/go/OLPC_653_Software_Release_Notes and later versions. If you have this problem, please try upgrading to build 653 or [656](http://wiki.laptop.org/go/OLPC_656_Software_Release_Notes), which is the latest release, following the Upgrade Instructions http://wiki.laptop.org/go/Upgrading_the_XO. Please note that upgrading to build 656 may disassociate (the activities will no longer appear) the external applications installed in the previous build. See #6317 http://dev.laptop.org/ticket/6317

**How do I use the Camera?**

The camera [http://wiki.laptop.org/go/Camera](http://wiki.laptop.org/go/Camera) can be used with the Record Activity [http://wiki.laptop.org/go/Record](http://wiki.laptop.org/go/Record)

**How do I take a screenshot?**


This [quick screenshot hack](http://wiki.laptop.org/go/Sugar/Quick_screenshot_hack) also makes it easier to capture and upload multiple screenshots to a web server.

**Specific Activity Questions**

If you are interested in a particular activity, you may go to Activities [http://wiki.laptop.org/go/Activities](http://wiki.laptop.org/go/Activities) and click on the link right next to the activity icon. This will point you to the documentation of the activity, which is maintained by the author(s) [http://wiki.laptop.org/go/Activities](http://wiki.laptop.org/go/Activities)

**Read: I can’t find the icon for Read Activity. How do I read PDF files?**

The Read activity does not have an icon; it automatically loads when you click on a .pdf file, either through the web browser [http://wiki.laptop.org/go/Browse](http://wiki.laptop.org/go/Browse) or from a USB stick (Journal [http://wiki.laptop.org/go/Journal_Activity](http://wiki.laptop.org/go/Journal_Activity)).

**Browse: How do I bookmark a website and browse it later?**

Click the star (☆) in the upper-right corner to bookmark the website. The website will be saved in the Journal Activity [http://wiki.laptop.org/go/Journal_Activity](http://wiki.laptop.org/go/Journal_Activity) for future use.

**Browse: How can I protect my children from objectionable content?**

If you would not allow your children to have access to the internet from a PC, then carefully consider giving them access to the internet with the XO laptop. If you feel reasonably safe accessing the internet with a PC, then you can feel reasonably safe accessing the internet with the XO.

The best thing you can do to keep your children safe is to participate in their education. For example, explain to them the kinds of threats they may encounter online and appropriate behavior, don’t give out personal information such as an address, phone number, etc. over the Internet.

Finally, there are possible 3rd party solutions, such as [http://DansGuardian.org](http://DansGuardian.org), emerging as part of One Laptop per Child’s Uruguay rollout. OLPC is also exploring options for future client-side filtering.

**Activity Development**

**How do I begin to write programs for the XO laptop?**

You can find information on how to create your own programs for the XO at Getting started programming [http://wiki.laptop.org/go/Getting_started_programming](http://wiki.laptop.org/go/Getting_started_programming)
For those already familiar with both Linux and Python, the Sugar Activity Tutorial is a step-by-step guide to building a Sugar Activity.

**Power Generation, Power Management, Battery Issues**

**Does my laptop come with a hand crank? Solar panels? Can the XO be used Off Grid?**

The Give1Get1 XO laptop does not ship with any human powered device or solar panel, which are designed to support the XO laptops shipped to developing countries. Even without these accessories, the XO is a Green Machine suitable for Off Grid and fluctuating power areas.

Future peripheral availability is discussed in Product News.

**What kinds of power sources can I use with the XO laptop?**

In addition to plugging the laptop into an electrical outlet (110–240 volts AC), the XO laptop can take a DC input ranging from 11–40 volts, a range that’s far more flexible than most portable devices. The XO laptop is remarkably energy efficient, generally using only 5–10 percent of the average wattage of a standard laptop.

See also Does my laptop come with a hand crank? Solar panels? See our overall discussion of Battery and power requirements.

For more formal specs, see Hardware specifications.

**How long does the battery last?**

Battery life is approximately 3 to 6 hours, depending on which Activities are used. Battery life may be increased to 10 hours or longer with future software releases, expected to start in the spring of 2008.

**How do I power off the XO laptop?**

From the Home View, hover the pointer over the XO symbol at the center of your screen, and select “Shutdown.”

Or depress the power button briefly until the green power light goes off.

**How do I put an XO laptop to sleep?**

The sleep feature is not enabled in software provided on XOs shipped starting December 2007 in the Give1Get1 program. A software upgrade later in spring 2008 should support suspend/resume sleep features, for much improved battery life.

**My XO laptop won't power on**

- Carefully read about power/battery issues.

- Ensure the battery is properly inserted and the power adapter is plugged into the XO laptop and the electrical outlet.
• If both the battery and power lights are on (just below your screen, to the right), and the laptop won't start when the power button is pushed, this may indicate a minor problem with the embedded controller (EC).

• Remove all power sources (take the battery ➡️ http://www.laptop.org/en/laptop/start/battery.shtml out and remove the power adapter.

• Wait 10 seconds to allow it to reset.

• Power up your XO laptop. Confirm your laptop turns on and boots.

• If your XO laptop does not turn on or boot, it may be damaged.

If your XO laptop was damaged on receipt, call Donor Services at 800-201-7144 within 30 days, to exchange it or email them at "help AT laptop.org". They are open Monday to Friday 9 AM – 8 PM Eastern time. For warranty information, check the Give1Get1 program’s Terms & Conditions, along with the Donor Services FAQ.

Is my battery OK? Why does it say "discharging" when plugged in?

The vast majority of reported battery issues are not in fact hardware problems, but rather software problems. This is because December 2007’s Build 650 has a couple bugs which commonly leads to false reporting of the actual amount of battery life in the Home View ➡️ http://www.laptop.org/en/laptop/start/homeview.shtml. These software bugs (#4208 ➡️ http://dev.laptop.org/ticket/4208 and #4401 ➡️ http://dev.laptop.org/ticket/4401) were fixed for the 8.2.x software build ➡️ http://dev.laptop.org/milestone/8.2.0%20%28was%20Update.2%29

If however your battery does not retain any charge at all, consider applying for an RMA return ➡️ http://wiki.laptop.org/go/Support_FAQ#What_is_the_warranty_info.FAQ_process.3F

Many non-BYD batteries can also be repaired, using the following Battery Troubleshooting Process ➡️ http://wiki.laptop.org/go/XO_Troubleshooting_Battery

But if it’s a BYD battery (yellow label) and it won’t charge then it’s almost certainly the "charge balance" issue – in which case, diagnostic and recovery info can be found here: XO LiFePO4 Recovery Procedure ➡️ http://wiki.laptop.org/go/XO_LiFePO4.Recovery_Procedure, otpc-pwr-log is the successor to otpc-logbat for generating battery-diagnostic logs, and should be included in the upcoming 8.2.x release ➡️ http://dev.laptop.org/milestone/8.2.0%20%28was%20Update.2%29. Users of older builds should download and run otpc-pwr-log rather than otpc-logbat.)

Note: new batteries are available for sale for about $25, at several community repair centers ➡️ http://wiki.laptop.org/go/Repair_center_locations.

Software Update, Restore to Factory Default

How can I restore my Give1Get1 XO to its factory configuration?

If you have "upgraded" the software on your laptop, try the recover process: hold the 'O' game-pad key during boot. This should boot from an alternate "disk image" (the one shipped with the XO laptop).

Second, for advanced users only— be prepared to lose all data— try upgrading the activated laptop ➡️ http://wiki.laptop.org/go/Activated_Upgrade#Upgrade_the_Activated_Laptop to re-flash its entire "disk image" including its operating system and Activities.
If you see a "Bad hash at eblock #0" message while performing these "Activated Upgrade" steps, this indicates your image on the USB key is bad. Download the image again, or try a different USB key.

**How do I check which version of the operating system I am running?**

- Type Ctrl-Alt-F2 (the F2 key is the same as the Group key)
- Read the build number from the first line of text that appears in the console window. Sample transcript (the OS build number is 650):

  OLPC build 650 (stream ship.2: variant devel jffs2)  
  kernel 2.6.22-20070919.2.olpc.0987654321abcdefabcedf on an i586  
  xo-05-29-BB login:

- Ctrl-Alt-F3 returns to Sugar

**How do I update/upgrade my laptop? Opt out?**

Currently two methods for Upgrading the XO [http://wiki.laptop.org/go/Upgrading_the_XO](http://wiki.laptop.org/go/Upgrading_the_XO) are available:

1. **Online Method** [http://wiki.laptop.org/go/Upgrading_the_XO#Online](http://wiki.laptop.org/go/Upgrading_the_XO#Online) and
2. **Offline Method** [http://wiki.laptop.org/go/Upgrading_the_XO#Offline](http://wiki.laptop.org/go/Upgrading_the_XO#Offline)

To opt out of updates/upgrades to your XO, which occur automatically over the Internet, please see the Update streams [http://wiki.laptop.org/go/Update_streams](http://wiki.laptop.org/go/Update_streams) page.

**What's the latest on the current software release? (Build 656)**


These software environments include the operating system and all built-in applications for now. Click above for summary release notes.

In early 2008, we are recommending most everybody upgrade to Build 656, for improved stability and WPA support.

To upgrade, back up all critical files to a USB memory stick, and then use either the Olpc-update [http://wiki.laptop.org/go/Olpc-update](http://wiki.laptop.org/go/Olpc-update) online or offline (USB memory stick) methods. Read the Upgrading the XO [http://wiki.laptop.org/go/Upgrading_the_XO](http://wiki.laptop.org/go/Upgrading_the_XO) summary explanation.

**Why do I see Build 653/656 on this page? What's the deal with Build 653/656?**

Please see After working properly for a while, activities won't load [http://wiki.laptop.org/go/Support_FAQ#After_working_properly_for_a_while.2C_activities_won.27t_load](http://wiki.laptop.org/go/Support_FAQ#After_working_properly_for_a_while.2C_activities_won.27t_load)
How do I recover from a "Disk Full" error?
Recovering from the "Disk Full" error requires you to upgrade your XO laptop:
http://wiki.laptop.org/go/Activated_Upgrade#Upgrade_the_Activated_Laptop

How do I run unofficial/unsigned builds & firmware?
For advanced users/developers only. You will need to download a "developer key". Please follow the process outlined at Activation and Developer Keys:
http://wiki.laptop.org/go/Activation_and_Developer_Keys

Or you may simply want to Upgrade Firmware:
http://wiki.laptop.org/go/Upgrade_Firmware

Disk, Storage Device

How much memory/disk is built in?
The XO laptop has 256MB of dynamic RAM memory, as well as 1024MB (1GB) of flash memory.

Note: The flash memory acts as the hard disk. Original specifications are outlined here:
http://laptop.org/laptop/hardware/specs.shtml

How should I use the SD card slot?
The SD card slot is hidden on the edge of the unit under the power button. It is not intended for casual use, but intended for (semi)permanent augmentation of flash storage on the system. To try to keep water and dust out of the main unit, it has a rubber seal that makes it difficult to extract the SD card.

As a result, we recommend using the USB ports for casual transient storage expansion or moving files from computer to computer.

Hardware Repairs, Returns

My XO laptop won’t play sound
If there is no sound when you boot the XO laptop; or you are unable to record voice from the Record Activity:
http://www.laptop.org/en/laptop/start/activities.shtml#record, you may have a broken component— like the speaker. If you confirm sound is completely broken, call or email Donor Services at 800-201-7144, open Monday to Friday 9 AM – 8 PM Eastern time— or email: "help AT laptop.org".

My screen has a couple discolored pixels
We regret that our warranty does not provide for replacement laptops in this case, where just a few pixels are imperfect, in keeping with One Laptop per Child’s mission to build the best all-around low-cost laptop for the Developing World.

How do I test my keyboard for sticky/broken keys?
Test your keyboard by running the firmware diagnostics. To enter the diagnostics mode, hold the rocker (button below the speaker) to the left, while powering on the XO Laptop. You can skip various earlier diagnostics by hitting the Escape key; the keyboard diagnostic will eventually appear. This diagnostic lets you see what the computer is seeing as you press or release each key. Any "sticky" key will be displayed in light blue on the screen as if a finger was still pressing it.

The touchpad and stylus area can also be tested in the same diagnostic. See Cheat codes:
http://wiki.laptop.org/go/Cheat_codes
Finally, if you’ve genuinely confirmed your keyboard is damaged, after multiple reboots – check your warranty (see next question) if you need to apply for a possible return.

You may also want to check out this interim workaround: Stuck Keys ➡️ http://wiki.laptop.org/go/Stuck_keys

Problems with sticky keys may also be a software problem. If you have recently upgraded your firmware, which may have happened automatically as part of an upgrade to a newer release, you may also have run into a known bug in firmware Q2D09 http://dev.laptop.org/ticket/6105 that can be fixed by either downgrading or upgrading the firmware ➡️ http://wiki.laptop.org/go/Upgrade_Firmware.

**What is the warranty info? RMA process?**


All Give1Get1 "customer service" questions need to be directed to Donor Services. You can contact Donor Services by calling 800-201-7144 Monday through Friday, 9 a.m. - 8 p.m. Eastern Standard Time, or email service AT laptopgiving.org.

**Does opening my laptop void the warranty?**

Yes, but your warranty expires after 30 days anyway. In fact you may want to disassemble ➡️ http://wiki.laptop.org/go/Disassembly your own XO laptop to explore its components ➡️ http://wiki.laptop.org/go/Manual/Insides, AT YOUR OWN RISK — for example, the screen connector and keyboard internals are very easy to break!

**Note:** Do NOT remove the watch battery on the motherboard if you disassemble your machine — prior to the Q2D07 version of firmware, this can result in the computer becoming unusable, due to a bug in our anti-theft firmware implementation. G1G1 systems do not have the anti-theft system enabled.

**How do I obtain replacement parts, e.g. batteries and chargers? Repair?**


If you have a torn or ripped keyboard and do not wish to replace it with a new one, you may want to try these simple instructions for an inexpensive do-it-yourself repair ➡️ http://wiki.laptop.org/go/Keyboard_field_repairs.

**Note:** Do NOT remove the watch battery on the mother board if you disassemble your XO laptop — prior to the Q2D07 version of firmware, this can result in the computer becoming unusable, due to a bug in our anti-theft firmware implementation. G1G1 systems do not have the anti-theft system enabled.

**Colophon**

This document was created on a Macintosh PowerBook running OS X 10.3.9 Panther (upgraded to Leopard 10.5.4 in August 2008) with Pages v. 2.0.1. The body is typeset in 10pt Helvetica Neue Light while the 12pt bold variant is used for the headings. The title is typeset in 20pt Gill Sans Regular; fixed-width text is typeset in 8pt Bitstream Vera Sans Mono and 8pt Palatino is used for block-quotes. The colours used for the titles and headings are sampled from the OLPC logo; the green has been darkened so it is visible when printed.
Revision History

- May 25, 2008 18:00 Updated with inline URLs and colour headings.
- May 31, 2008 21:00 Darkened the green shade of headings as it too light when printed.
- Jun 1, 2008 12:00 Added sugar-control-panel commands for nickname and TZ.
- Jul 6, 2008 09:05 Minor edits.
- Sep 19, 2008 18:00 Second major release based on Sep. 9, 2008 Support FAQ.