

# Open Source Applications for Education

With shrinking budgets, open source & freeware applications are worth exploring. Take a look at the best applications for your computers: from painting to publishing.

## Back End – Server based

Apache, Bind, MySQL, Moodle, Drupal, SquidGuard, Dans Guard, Sendmail, Squid, OpenLDAP, IPCop

## Front End - Operating system

Educational versions of Linux

[www.edubuntu.org](http://www.edubuntu.org)

<http://www.linuxinsider.com/rsstory/56656.html>

[www.netc.org/openoptions](http://www.netc.org/openoptions)

## Front End – Applications used online

Online applications a growing and viable alternative if you have the bandwidth. Some of the most popular will be highlighted at my next presentation:

*Web 2.0 - Free Learning Tools.*

## Front End – Applications used locally

Open Source and Free applications we'll explore. Most are Windows specific though with Linux versions of many of these programs or Mac OS running Parallels – this is becoming less of an issue. There are also some excellent applications which have been created only for Mac OS which we will not review.

- TuxPaint and TuxPaint Config
- OpenOffice/StarOffice
- PhotoFiltre
- GIMP/GIMPshop
- West Point Bridge Designer
- Hector Protector
- K9Web Protection
- Sqirlz Morph
- Magnifier Powertoy
- PowerToy Calculator (graphing)
- Picasa 2
- PhotoStory 3
- Audacity
- MovieMaker 2
- Google SketchUp
- VCW Vicman's Photo Editor
- IrfanView and FastStone
- NvU

# Open Source & Free Desktop Applications

## *Presentation format*

1. Share and learn from each other – you may have a program to share or positive or negative experience with one of these applications. Please share.
2. Overview of applications, some open sources and others freeware.
3. We'll review desktop open source applications not server open source applications.

## Overview of Open Source, Freeware, Shareware

- Open Source – allowed to edit code, make changes, post
- Freeware – free software, not open to make changes
- Shareware – software, often with some featured inactive. May upgrade to full featured version. Program may stop working after a certain number of days or time using it.
- Commercial – for purchase...more stable, supported, more features

## *TuxPaint – compare to KidPix*

1. Shapes – two steps; stamps – change size; letter tool – color and size
2. Use .png picture as a background, magic tool. multiple undo
3. Simple interface, sound effects, can use config app. to adjust preferences
4. Works in an 800 x 600 windows, may not work with other applications open

## *Open Office/Star Office – MS Office alternative*

1. StarOffice 8 – free for education, for Mac OSX use NeoOffice
2. Can set default to open and save files in .doc format
3. Less clipart than MS Office. StarOffice includes more clipart and is free for ed.

## *Photo Filtre – compare to PhotoShop or PS Elements*

1. Wealth of photo touch up tools and filters: magic wand tool, advanced paintbrush
2. Automate/batch options change a folder of images at one time.
3. Clone stamping tools paints over a section with another part of the photo

# Open Source & Free Desktop Applications

## GIMPshop/GIMP – *compare to PhotoShop*

1. General Image Manipulation Program – runs on OS X, Windows, Linux
2. Allows simple to complex image editing and drawing of new images
3. Can resize, crop and fix damaged photos, selective color B & W photos, and more
4. GIMPshop is a version of GIMP where the menus and other features have been modified to look and operate similar to PhotoShop

## West Point Bridge Designer

1. Free bridge building competition software from the West Point Military Academy
2. Design a virtual bridge and learn about engineering, stress, load, budget
3. May use without being involved in the contest

## Hector and K9Web Protection – *web filtering*

1. Hector is a dolphin screen saver which cover the screen if needed
2. K9 Web Protection is a free Internet filter – ideal for parents and families

## Sqirlz Morph – *can you say “fun?”*

1. Easy to use free program. Start with images of similar size
2. Great application for gifted and talented students or in writing (e.g. using similes)
3. Saves as animated .gif, AVI movie, or Flash file

## Magnifier and Calculator – Windows XP Powertoys

1. Allows the zooming in on a section of Application or window. Uses Shortcut keys.
2. Calculator is a full featured graphing calculator with built-in conversion tool

## PhotoGadget Resizer and Image Resizer PowerToy

1. Similar programs. Highlight photos in a folder on desktop and right click. Allows the saving in a lower resolution. Default is to create a new image with an added suffix of: (Small) or \_640X480.

# Open Source & Free Desktop Applications

## Picasa 2 – *PhotoShop Elements alternative*

1. Scans folders, allows labeling of photos, addition of captions, creation of slide show, burn backup or create “gift” CD, share via free Hello software, or print.
2. Search helps you to quickly find any image or movie by date taken, label, etc.
3. Basic edit tools: quick fix “I’m feeling lucky”, crop, apply effects, rotate, save.

## PhotoStory 3 – *Digital Storytelling made easy*

1. Free for Windows XP. Requires Windows Media Player version 10 or higher
2. Does not support movies. For solid colors for title backgrounds, first create a solid colored black, blue, yellow, green, 640 x 480 images in Paint, then import.
3. To save as a DVD purchase the Sonic PhotoStory 3 DVD software (\$20)

## Audacity – *Garageband alternative*

1. The best free choice for recording audio for podcasting in Windows
2. Download and put into the Audacity folder the LAME MP3 encoder
3. Add layers of loops and effects using free online MP3 tracks or create your own
4. Super Duper Music Looper is a fun, easy to use loop creation program (\$15)

## Movie Maker 2.1 – *iMovie or Premiere alternative*

1. Full featured video editor, imports from digital video camera AVI, WMF, JPG...
2. Trim clips, add transitions, titles, effects, and finally add music and narration
3. Share finished video via computer, CD, e-mail, DVD or Web.
4. Requires Windows XP and Service Pack 2 (installs automatically with SP 2)

## VCW Vicman’s Photo Editor – *PS Elements alternative*

1. Ideal program for photo retouching; support PhotoShop plug-ins
2. Similar to PhotoShop Elements: cropping, resizing, adding text, filters
3. Crop by selecting with the selection rectangle, the selecting crop tool
4. Free version: one file open at a time, can’t save as .GIF, limits file size to no larger than 3000x3000 pixels, and cloning tools are not active. Ads come up periodically

# Open Source & Free Desktop Applications

## InfanView and FastStone – *Free image viewers*

1. Opens nearly any file format, even video and audio. Allows saving of images in nearly any format
2. Simple interface, thumbnail viewer, slideshow, batch converter, print contact sheet

## Google SketchUp – *Design software*

1. Educational institutions can upgrade to the commercial version with a letter from the school.
2. Students pick this software up quickly. Images can be linked to Google Earth

## Nvu – *alternatives to FrontPage or Dreamweaver*

1. If you are doing web design, this is a program worth exploring. Very full featured.
- 

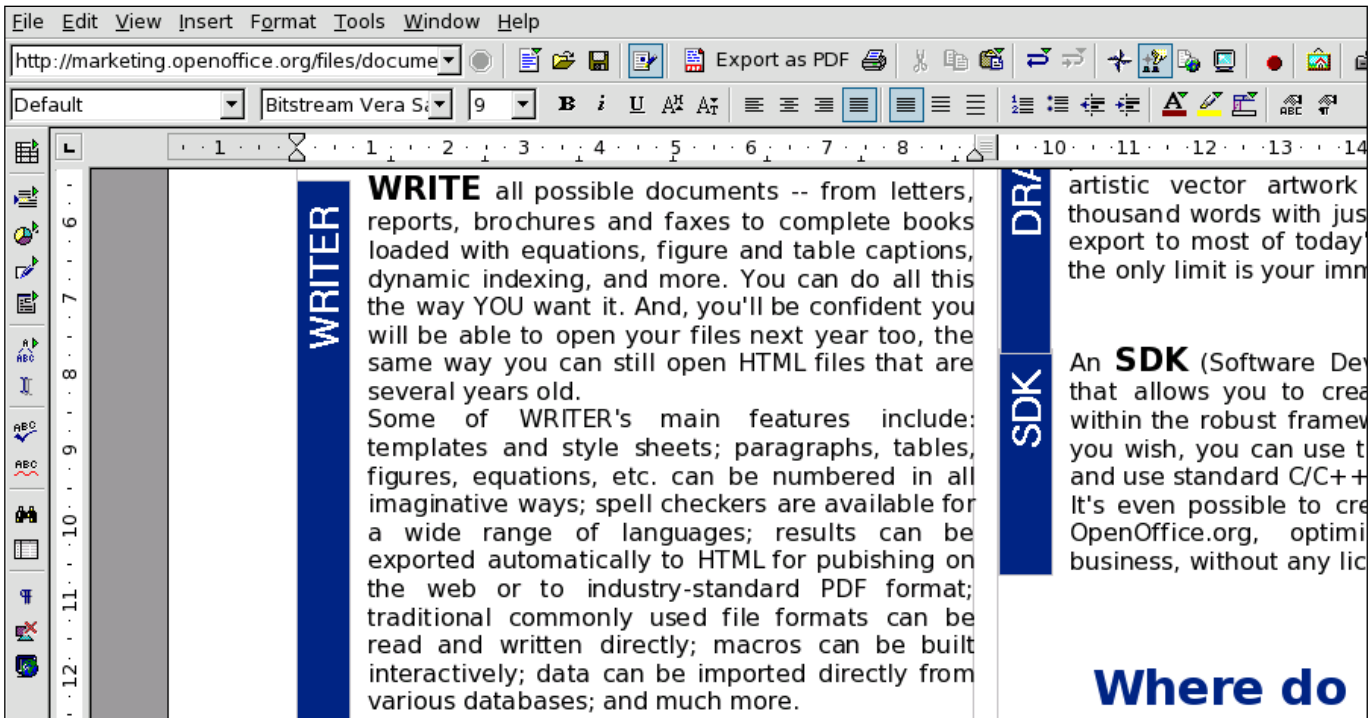
## Open Office Overview

### OpenOffice - Basics

1. Full featured applications for Writer (Word), Calc (Excel), Impress (PowerPoint), Draw, Web page creation, and database
2. Entering text, drag and drop, shortcut keys, undo, all similar to MS Office
3. Graphic insert, text wrap, FontWorks (Word Art), Autopilot (Wizard), templates
4. Many shortcut key combinations are similar to MS Word, as well as drag and drop editing
5. Double shortcuts are similar, e.g. double click gray ruler → paragraph setting
6. Spell checker, thesaurus act similar...it even uses the same F7 shortcut key
7. Gallery of Images built-in...Tools→Gallery; right click on graphic and insert
8. Graphic cropping is done in cropping dialogue box using side measurements...not with a simple to use crop box.
  - a. Filters to customize a graphic (magic wand) on graphic object bar

# Open Source & Free Desktop Applications

9. Navigator Window – Ctrl + Double click in gray area to dock/undock or Ctrl + drag
  - a. Special objects such as hyperlinks, tables, text frames, graphics...are organized in the navigator window and can be quickly accessed by double clicking on an object
10. Built-in Export to .pdf



*Open Office Writer*

## OpenOffice - Writer

1. Bulleted and numbered lists are similar, start with a # or – or \* and space
2. Some items are hidden an additional layer deep, e.g. to set tabs or tab leaders: Format→Paragraph→Tabs
3. Nice shortcuts, e.g. to turn off AutoFormat while you type: Format menu→AutoFormat→While Typing
4. Headers and footers are done differently in Writer: Format→Page→Header to create a header and create size. To insert an item in header or footer, Footers – page #, Insert fields

# Open Source & Free Desktop Applications

## OpenOffice - Calc

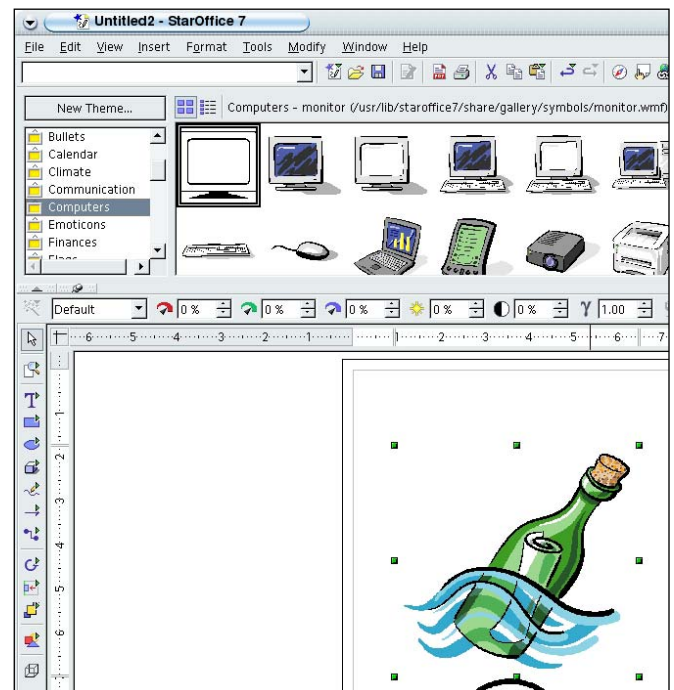
1. Headers and footers are done similar to Excel: Edit→Headers and Footers. Adding page numbers and dates is through dialogue boxes
2. Calc program is very similar to Excel with freeze titles, set print area and more
3. Cells can be merged and text wrapped or rotated within a cell
4. Formulas have a “helper” to walk through the creation of formulas

	A	B	C	D	E	F
1		Hourly rate	\$35.00			
2						
3		<b>Hours</b>	<b>Total</b>	Notes		
4	Computer	-	\$450.00			
5	08/22/03	2.25	\$78.75	HDD wipe, hardware swap		
6	08/23/03	3.75	\$131.25	Finish assembly, install XP, c		
7	08/24/03	1.5	\$52.50	Install software		
8	08/25/03	1.75	\$61.25	Finish software, install updat		
9	08/26/03					
10	08/27/03	2	\$70.00	HDD backup, reassembly, te		
11	<b>Total</b>		=C5+C6+C7+C8+C9+C10+C4			
12						
13						
14	<b>New computer</b>					
15	Processor	P4 1.5 Ghz				

StarOffice Calc

## OpenOffice - Impress

1. Impress – saves in multiple formats: .ppt, .swf (Flash), .pdf and more
2. Uses tabs across bottom for each slide and view buttons are along the right side
3. Make changes to background using the master slide and Format menu→Page→Background
  - a. Insert graphic as background on Master slide, then send to back
4. Change number of slides printed in handouts by first changing layout in handout view
5. Greater number of transitions and effects than available in PowerPoint. Use preview window to see preview of transition or effect
6. W and B keys act similar in the slideshow mode



StarOffice Impress

# Open Source Applications for Education

A few of my favorite free or open source programs and websites

<b>TuxPaint</b>	<a href="http://www.tuxpaint.org">http://www.tuxpaint.org</a>
<b>Picasa</b>	<a href="http://picasa.google.com">http://picasa.google.com</a>
<b>WP Bridge Designer</b>	<a href="http://bridgecontest.usma.edu/">http://bridgecontest.usma.edu/</a>
<b>Photo Filtre</b>	<a href="http://www.photofiltre.com">http://www.photofiltre.com</a>
<b>PhotoStory 3</b>	<a href="http://www.microsoft.com/photostory">http://www.microsoft.com/photostory</a>
<b>Audacity</b>	<a href="http://audacity.sourceforge.net/">http://audacity.sourceforge.net/</a>
<b>Google Earth</b>	<a href="http://earth.google.com/">http://earth.google.com/</a>
<b>Google Sketch Up (free version)</b>	<a href="http://sketchup.google.com/product_suf.html">http://sketchup.google.com/product_suf.html</a>
<b>FastStone Image Viewer</b>	<a href="http://www.faststone.org">http://www.faststone.org</a>
<b>FastStone FastStone Capture</b>	<a href="http://www.faststone.org">http://www.faststone.org</a>
<b>Sqirlz Morp</b>	<a href="http://www.xiberpix.com/SqirlzMorph.html">http://www.xiberpix.com/SqirlzMorph.html</a>
<b>Irfan View</b>	<a href="http://www.irfanview.com">http://www.irfanview.com</a>
<b>Picasa 2</b>	<a href="http://www.picasa.com">http://www.picasa.com</a>
<b>GIMP</b>	<a href="http://www.gimp.org">http://www.gimp.org</a> and <a href="http://www.gimp.org/windows">http://www.gimp.org/windows</a>
<b>GIMPShop (PhotoShop like version)</b>	<a href="http://www.gimpshop.net/">http://www.gimpshop.net/</a>
<b>TuxMath</b>	<a href="http://www.newbreedssoftware.com/tuxmath">http://www.newbreedssoftware.com/tuxmath</a>
<b>MovieMaker 2.1 (Windows XP)</b>	<a href="http://www.microsoft.com/windowsxp/using/moviemaker/default.mspx">http://www.microsoft.com/windowsxp/using/moviemaker/default.mspx</a>
<b>StarOffice – no cost for education</b>	<a href="http://www.staroffice.org">http://www.staroffice.org</a>
<b>StarOffice – no cost education page</b>	<a href="http://www.sun.com/products-n-solutions/edu/solutions/staroffice.htm">www.sun.com/products-n-solutions/edu/solutions/staroffice.htm</a>
<b>OpenOffice</b>	<a href="http://www.openoffice.org">http://www.openoffice.org</a> <a href="http://download.openoffice.org/680/index.html">http://download.openoffice.org/680/index.html</a>
<b>Knoppix <i>Bootable Linux CD</i></b>	<a href="http://www.knoppix.net">http://www.knoppix.net</a>
<b>GIMP Review - PC Magazine</b>	<a href="http://www.pcmag.com/article2/0,1759,1650360,00.asp">http://www.pcmag.com/article2/0,1759,1650360,00.asp</a>
<b>Office 2003 vs. OpenOffice.Org</b>	<a href="http://www.eweek.com/article2/0,1759,1571626,00.asp">http://www.eweek.com/article2/0,1759,1571626,00.asp</a>
<b>GNU Software for Education</b>	<a href="http://www.gnu.org/education/software.html">http://www.gnu.org/education/software.html</a>
<b>Producer 2003</b>	<a href="http://www.microsoft.com/office/powerpoint/producer/prodinfo/default.mspx">http://www.microsoft.com/office/powerpoint/producer/prodinfo/default.mspx</a>
<b>PhotoGadget</b>	<a href="http://www.xemico.com/photogadget/freeware.html">http://www.xemico.com/photogadget/freeware.html</a>
<b>Microsoft Power Toys</b>	<a href="http://www.microsoft.com/windowsxp/downloads/powertoys/xppowertoys.mspx">http://www.microsoft.com/windowsxp/downloads/powertoys/xppowertoys.mspx</a>
<b>CutePDF Writer</b>	<a href="http://www.cutepdf.com/Products/CutePDF/writer.asp">http://www.cutepdf.com/Products/CutePDF/writer.asp</a>
<b>Go2PDF</b>	<a href="http://www.go2pdf.com">http://www.go2pdf.com</a>

# Open Source Applications for Education

<b>PDFCreator</b>	<a href="http://sector7g.wurzel6.de/pdfcreator/index_en.htm">http://sector7g.wurzel6.de/pdfcreator/index_en.htm</a>
<b>Pdf995</b> (\$9.95 for no ad version)	<a href="http://www.pdf995.com">http://www.pdf995.com</a>
<b>Hover Snap!</b>	<a href="http://www.hoverdesk.net/freeware.htm">http://www.hoverdesk.net/freeware.htm</a>
<b>Pivot Stickfigure Animator</b>	<a href="http://www.snapfiles.com/get/stickfigure.html">http://www.snapfiles.com/get/stickfigure.html</a>
<b>Art Rage – Free</b>	<a href="http://www.artrage.com/artrage.html">http://www.artrage.com/artrage.html</a>
<b>InstantShot!</b> Screen capture	<a href="http://www.macupdate.com/info.php/id/23605">http://www.macupdate.com/info.php/id/23605</a>
<b>Wink</b> – screen recording	<a href="http://www.debugmode.com">http://www.debugmode.com</a>
<b>CamStudio</b> – screen recording	<a href="http://camstudio.org">http://camstudio.org</a>
<b>WinMorp</b> - morphing	<a href="http://www.debugmode.com">http://www.debugmode.com</a>
<b>HotPotatoes</b> – Flash quiz creator	<a href="http://hotpot.uvic.ca">http://hotpot.uvic.ca</a>
<b>AudioFlash</b> – streaming audio	<a href="http://www.audioflash.org">http://www.audioflash.org</a>
<b>Hector Protector</b> – dolphin screen hide button	<a href="http://www.netsafe.org.nz">http://www.netsafe.org.nz</a>
<b>K9Web Protection</b> – free filter	<a href="http://www.k9webprotection.com">http://www.k9webprotection.com</a>
<b>The Parental ControlBar</b>	<a href="http://parentalcontrolbar.org">http://parentalcontrolbar.org</a>
<b>Activity Monitor</b> – monitors MySpace activity	<a href="http://industry.net/ActiveMonitor">http://industry.net/ActiveMonitor</a>
<b>Hoopaa</b> – records MS Messenger activities	<a href="http://www.hoopaa.com">http://www.hoopaa.com</a>
<b>KidLogger</b> – records keystrokes	<a href="http://ww.rohos.com/kid-logger">http://ww.rohos.com/kid-logger</a>
<b>P.O.K.</b> (Protect Our Kids) - monitors text phrases	<a href="http://www.cyntrigal.com">http://www.cyntrigal.com</a>
<b>KidRocket</b> – alternative browser for young children	<a href="http://www.kidrocket.org">http://www.kidrocket.org</a>
<b>Tuki</b> – alternative browser for young children	<a href="http://www.noahsnet.com/noahfree.htm">http://www.noahsnet.com/noahfree.htm</a>

## Comparison of Office Suites:

[http://en.wikipedia.org/wiki/Comparison\\_of\\_office\\_suites](http://en.wikipedia.org/wiki/Comparison_of_office_suites)