

Free Software!

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Abstract

Many of us have reluctantly become the computer and software technical support services for our families and extended families. For example, without spending any money, we often have to find software to meet a specific need or a way to extend the life of a worn out computer. Luckily, there are many free software solutions available. Paul Mathews will describe some of the free software that he has found to be useful including software from the following categories: operating systems, password managers, office packages, PDF creators, statistics, mind mapping, CAD, graphics editing, and programming IDEs.

Operating Systems

- Ubuntu (Gnome, Cinnamon, KDE, MATE, XFCE, and FluxBox)
- Linux Mint (popular hybrid of Ubuntu, use XFCE desktop for old hardware)
- MX Linux

Password Manager

- DashLane
- OnePass

Virtualization (for running one OS inside of another, e.g. Linux inside of Windows)

- VMWare Workstation Player
- VirtualBox
- KVM
- Xen

Office

- Libre Office (Microsoft Office alternative)
 - Write (Microsoft Word alternative)
 - Calc (Microsoft Excel alternative)
 - Impress (Microsoft Powerpoint alternative)
 - Draw (Microsoft Visio alternative)
- AbiWord (Microsoft Word alternative, much smaller than Word and LO)
- Gnumeric (Microsoft Excel alternative, much smaller than Word and LO)
- Google Docs

Desktop Publishing

- Scribus
- LaTeX, e.g. MikTeX and TeXLive
- TeXNicCenter (front end for MikTeX (variant of LaTeX), Windows only)
- TeXStudio (another front end for LaTeX, any OS)

Statistics

- R (command line open source version of commercial SPlus)
- R Studio (front end for R)
- JAGS/RJAGS (Bayesian statistics)
- Statistics 101 (free version of commercial Resampling Stats)
- Piface (Russ Lenth's free sample size calculator)
- G*Power

Project Management

- FreeMind (mind mapping software)
- GanttPV
- BonitaSoft BPM software (www.bonitasoft.com)
- Dia (as in Diagram, as an alternative for Visio, for flow charts, org charts, schematics, etc.)
- yEd graph editor (www.yworks.com/en/index.html)

Mechanical CAD

- Fusion 360
- Design Spark Mechanical
- DraftSight (AutoCad alternative by Dassault Systems)
- Google SketchUp (3D graphics, by Trimble, formerly Google)
- TinkerCAD

Electronics CAD

- EasyEDA (web or desktop client)
- Design Spark PCB
- Fritzing (for electronic circuits)
- SchemIT
- KiCAD

Modeling

- Falstad JAVA circuit simulation
- PartSim
- EJS by Open Source Physics
- Crayon Physics (game)
- GNU Octave, Julia, SciLab (alternatives to MATLAB)

Graphics Editing

- Paint.NET (supercharged alternative to Microsoft Paint, with layers, etc.)
- GIMP and GIMPShop (alternative to Adobe Photoshop)
- Inkscape (vector graphics editor)
- IrfanView bitmaps, Windows only
- ImageMagick (www.imagemagick.org)

Animation

- Blender (3D graphics and animation)
- OpenToonz (Studio Ghibli)

Photo Management

- Picasa
- IrfanView

PDF and Postscript

- Adobe Reader
- Foxit Reader (alternative to Adobe Reader, smaller, more functions, allows annotations)
- Adobe Universal Postscript Print Driver (<http://kb2.adobe.com/cps/328/328620.html>)
- Ghostscript (command line pdf creation program)
- GhostView (GUI front end for Ghostscript, alternative to Adobe Acrobat)
- PDFCreator (create pdf files from any program that can File> Print)

Software Development IDEs

- Microsoft Visual Studio (.NET) - Visual Basic, C#, ...
- Microsoft Visual Studio Code
- MIT App Inventor (Android)
- Android Studio
- Eclipse
- Scratch (graphical programming for 8+ year olds by MIT)
- Arduino

Text Editors

- Notepad++ (supercharged alternative to Notepad with bindings for different languages)
- Bluefish
- Xemacs (supercharged alternative to Notepad with bindings for different languages)

Software Version Control

- Git
- GitHub
- Subversion

Database

- MySQL
- Oracle Database Express
- LibreOffice Base

Web Page Development

- Kompozer
- HTML Kit 292
- Seamonkey Composer
- BlueGriffon

Antivirus, Spyware, Firewall

- AVG
- Avast
- Avira
- Spybot
- BitDefender
- Tiny Wall

Web Browsers (alternatives to Microsoft Internet Explorer)

- Firefox
- Seamonkey (Mozilla product integrating e-mail, browser, html editor, and chat)
- Google Chromium/Chrome

E-mail Client (alternatives to Microsoft Outlook)

- Thunderbird
- Seamonkey
- Chrome

Utilities

- Process Explorer (SysInternals's supercharged version of the Microsoft Task Manager)
- CCleaner (registry and temp file cleaner)
- FileZilla (ftp)
- InfraRecorder (CD/DVD burning for Windows)
- Plot Digitizer (digitize the axes, scaling, and data from a scanned plot)