### **Open Source Genealogy Software**

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#### What is Open Source Software?

By pure definition, Open Source is software that allows you to view and modify the source code<sup>1</sup>. However, in practicality Open Source does not just mean that the "source code" is open for review and contribution, but also that the "source of the code"—the developers, project leaders, and driving requirements—are also open to the feedback and suggestions of the user community. It has become a development model and project management methodology for creating software that allows many people to use and contribute to the software. It allows for rapid development and quick distribution to the users. Through this openness and rapid response time users have greater control over the product through their ability to provide meaningful feedback that actually contributes to the product's future development<sup>2</sup>.

For more information, refer to these general resources about the Open Source and Free Software movement:

Open Source Initiative: <u>http://www.opensource.org/</u> The Free Software Foundation: <u>http://www.fsf.org/</u> NewsForge.net: <u>http://www.newsforge.com/</u>

### Why does genealogy need Open Source?

Why have we not seen the same technological advancements in computerized genealogy that we see in other industries? There are many factors that inhibit new technologies from making their way into genealogical computing including low return on investment and a technological apathy among the majority of genealogists. Proprietary software development also blocks those users who are interested, limiting the new ideas that make it into current software packages. Thus every new innovation prompts the creation of yet another software package. With too many software options, users are left confused and frustrated and investment return is further diluted.

Open Source software development provides a means whereby these problems can be solved and greater unity can be achieved. Open Source is primarily community and volunteer driven instead of profit driven. Without the need to generate profits, new ideas can come to market faster. Under the community driven process users also have a medium through which they can provide useful feedback to the software developers. By encouraging community involvement the software ownership and the features implemented belong to the user community. It truly becomes "their" software.

Genealogy is by nature cross-cultural and multi-lingual with a great need to support internationalization. Open Source meets this need by promoting a more diverse, world-wide community where people from many different languages, backgrounds, and cultures are involved and contribute.

With the freedom to contribute their ideas to an existing product, developers are less likely to spawn yet another software program. Instead of getting another product we get new ideas flowing into mature products. Also users who have unique needs or demands will be satisfied because they will be able to "fork" existing code. This will bring unity and cooperation to a factious market.

## **Open Source Software Resources**

The largest repository of Open Source software on the internet is SourceForge.net (<u>http://www.sourceforge.net</u>). Other repositories for Open Source software include GNU's Savannah (<u>http://savannah.gnu.org</u>) and Freshmeat.org (<u>http://www.freshmeat.net</u>)

The following chart lists the different repositories and how many genealogy projects are registered at each of them.



Repository	Link to registered genealogy software projects
SourceForge.net	http://sourceforge.net/softwaremap/trove_list.php?form_cat=284
FreshMeat.net	http://freshmeat.net/search/?q=genealogy&section=projects
Savannah.gnu.org	<u>http://savannah.gnu.org/search/?words=genealogy&amp;type_of_search=soft</u> &exact=1
Free Software Directory	http://directory.fsf.org/search/fsd-search.py?q=genealogy

## Current status of Open Source genealogy software

Open Source genealogy software is still relatively new and there is still much work to be done. However, because they are Open Source, you will find many of the newest innovations and coolest features in these programs. You will also find that they will change and mature faster than traditional programs. Following is a list of the top 10 genealogy projects on SourceForge.net<sup>3</sup> (http://sourceforge.net/softwaremap/trove\_list.php?form\_cat=284)

- 1. PhpGedView PhpGedView parses GEDCOM 5.5 genealogy files and displays them on the internet in formats and charts that you are familiar with. It is also allows relatives to edit their genealogy online and collaborate together on their research. http://www.phpgedview.net
- 2. phpmyfamily phpmyfamily is a dynamic genealogy website builder allowing geographically dispersed family members to co-ordinate and share research. Users can import and export GEDCOM files, upload images and document transcripts and monitor changes to individuals.

http://www.phpmyfamily.net/

3. LifeLines - LifeLines is a genealogy program to help with your family history research. Its primarily strengths are its powerful scripting language and the ability easily import and

export information in the GEDCOM format. http://lifelines.sourceforge.net/

- 4. GDBI Gedcom DataBase Interface GDBI is a genealogy program integrator. It includes an editor and the lifelines report language. It interfaces to 3 GEDCOM databases: phpGedView, GenJ, and jLifelines. At the core is a common Java API to simplify adding more databases and editors. http://gdbi.sourceforge.net
- gramps GRAMPS is a GNOME genealogy program for Linux and FreeBSD that allows you to easily build and keep track of your family tree. <u>http://gramps.sourceforge.net/</u>
- 6. GenealogyJ GenealogyJ (GenJ in short) is a full-featured standalone Java application that can handle all of your genealogic information (GEDCOM compliant). It provides different graphical components for working on your Family Tree. http://genj.sourceforge.net/
- Retrospect-GDS A web app designed to display genealogy information. Data can be stored in one of several databases including MySQL. Supports multiple languages. The look and feel can be changed easily using the built in templating system. <u>http://www.infused-solutions.com/retrospect/</u>
- GenerationX A Cocoa Genealogy Tool GenerationX is a genealogy tool for Mac OS X written entirely in Cocoa and conforming to the GEDCOM 5.5 standard for storing genealogy data.

http://homepage.mac.com/nowhereman77/GenX

- Poplar Gedcom Viewer View and edit genealogy dynamically on a web site with PHP/MySql. Loads standard GEDCOM files. Includes both standard and tree views, comprehensive searches, themes, privacy module, guest book, GEDCOM download, GENDEX output, photo module, multi-lingual. http://poplar.sourceforge.net/
- Genealogy A Java app for the entry, storage, and networking of genealogical information. Unlike most other genealogical database programs, Genealogy uses the rich GENTECH model rather than a custom one or GEDCOM, and can network remote genealogical databases.

http://genealogy.sourceforge.net/

# How to get involved

Open Source software is driven by people freely donating of their time and talents to improve the project. Because of the community and volunteer nature of Open Source projects, when people stop contributing the project stops growing and will usually whither and die. There is a great need for help with Open Source genealogy applications.

To get involved first choose a software package that you like and begin using it. Then integrate yourself into the user community for the project. Read the forums and mailing lists and find out who the project leaders are and what the future of the project is. Then decide how you would make the software better and work within the community to make it happen.

There are many ways that you can contribute. The most obvious is as a programmer. Programmers can have different levels of involvement in a project and can range from figuring out how to fix a simple bug all the way up to leading a project's development. The simplest way to get involved is by "scratching" your own personal "itches," meaning you work on the things that are the most important to you. Anyone may fix bugs or add new features and then submit them back to the project leaders as patches, because the source code is open.

Getting fully involved as a leading developer will take a lot of time and initiative whether you start your own project or whether you want to contribute to an existing project. If you decide to start your own project or work on younger Open Source projects then you can expect to spend a lot of time supporting and helping users as well as writing code. If developers are not timely in their responses to the users, then the users will lose interest and the project may never have a chance to get off the ground. As Open Source projects mature, users will start helping and supporting each other, but it is also harder to work your way into the leading developer's circle. You will likely have to prove your merit by submitting several patches and spending several months contributing to mailing lists before you are invited to participate as a lead developer<sup>4</sup>.

Open Source software development relies heavily on distributed repositories and versioning systems—CVS being the most popular system. With a system like CVS developers can work simultaneously on the same source code even though they are physically distributed throughout the world. CVS automatically handles merging the changes and helps you in resolving conflicts. Most Open Source projects have open repositories so that anyone can get the latest source files from the repository, but only lead developers can commit changes to the repository. If you want to get more involved in programming Open Source software, you will need to train yourself on how to work with CVS.

There are many more ways that you can get involved and help with an Open Source project without doing any programming. Most projects need much more help testing new versions and supporting other users than they need more programming. So after you have downloaded and tried out some of these programs, you should write back to the developers and let them know about your experience with the program. Tell them what you like and tell them how you would improve the program. If you find a bug, then you can submit a bug report. The developers will use your bug report to fix the project and may ask for your help to test their solution to the bug. As you get involved in the project, you can begin helping other users who are starting out using the project.

If you have skills in another language, you may also contribute to a project by offering to help with the translating. Most of the current genealogy programs are geared toward English speakers in the United States. This is a great limitation to other genealogists who don't speak or read English. These users often turn to Open Source programs and need them to be translated into their language. The documentation and project website may also need to be translated.

Another way that you can help an Open Source project is by writing documentation for the program. Documentation includes help and instructions for running the program and using its features. Without good documentation, it will be hard for a program to make it to the mainstream genealogy user.

#### **Future Potential**

There is great potential for Open Source software to bring new innovations to the world of computerized genealogy. Open Source has already brought great change to other industries—Linux and Apache are prime examples of this. The more people get involved in Open Source genealogy, the greater an effect it will have. As you get involved you will have the opportunity to direct the software down the path you would like to see it go. You will also be helping genealogists take full advantage of the potential that technology has to offer.

# Bibliography

- 1. Open Source Initiative, *The Open Source Definition*. <u>http://www.opensource.org/docs/definition.php</u>
- 2. Raymond, Eric S., Release Early, Release Often. http://www.catb.org/~esr/writings/cathedral-bazaar/cathedral-bazaar/ar01s04.html
- 3. SourceForge.net, *Genealogy Software Trove Map*. <u>http://sourceforge.net/softwaremap/trove\_list.php?form\_cat=284</u>
- 4. Thomas, Dave and Andy Hunt, *Open Source Ecosystems*. <u>http://www.computer.org/software/homepage/2004/July-Aug/open\_source.htm</u>