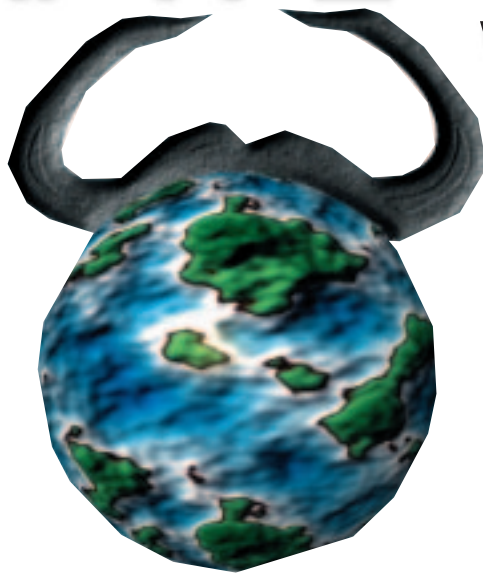


The monthly GNU Column

BRAVE GNU WORLD



Welcome to another issue of Georg's CF Greve's Brave GNU World.



Ganesha's Project

Ganesha's Project, named after the Hindu god of wisdom and prosperity, has been set up to help children of the Shree Bachhauli Secondary School in Nepal set up and administrate a GNU/Linux network using donated computers. The idea for the project evolved during a two-month stay with Kuma Raj Subedi, who teaches at the Nepalese school.

The situation for children in Nepal is quite problematic. Having to work, they often cannot attend school regularly. However, without education they lack a perspective for their future and so their children will also end up having to work. Ganesha's Project tries to break this circle by teaching children how to use computers in order to enable them to participate in the information age and keep them in school.

The first stage is to raise the required finances and computers in order to transport them to Nepal, where the network will be set up and the software installed. The first class of children will then be taught how to use the machines, so they can subsequently help other children use the computer pool. Besides elementary computer use Web programming,



Ganesha's Project aims to help Nepalese children set up a GNU/Linux network

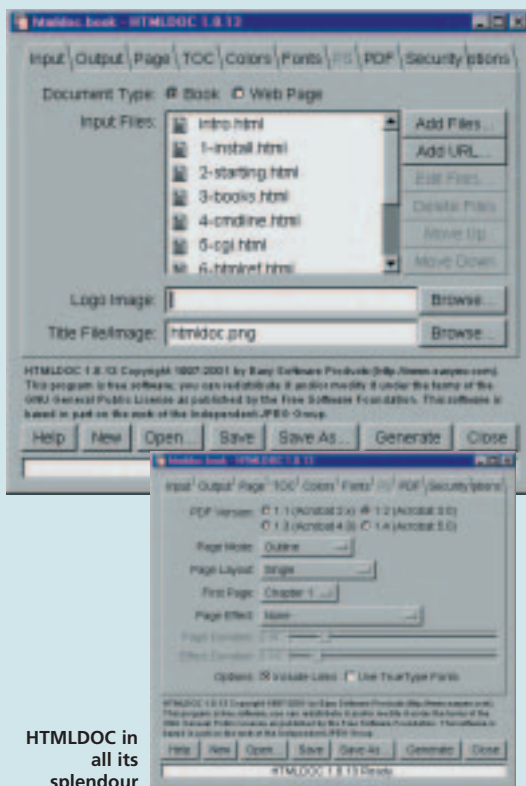
databases, networks and graphics will also be covered.

Besides financial aid, the project also needs network cables, computers, network cards, a video-projector, printers and so on.

English books about PHP, networking, MySQL, shell scripting and more would also be very useful.

In our richer countries, computers are quickly outdated and get thrown away. Using them instead to give children anywhere in the world a better outlook for their future seems like a much better use to me. Of course similar problems exist in many places, because of this Ganesha's Project seeks to be a Free Software project in the sense of trying to inspire others to copy the concept and participate.

It might be useful to collect all experience, operation procedures, and ideas in a kind of project repository under the GNU FDL in order to create a how to that will enable others to start similar projects in order to help people help themselves.



HTMLDOC in all its splendour

HTMLDOC

HTMLDOC bears some similarities to the Logidee project, because it also tries to make documents widely available. It is also released under the GPL and has been developed by a company; in this case Easy Software Products (ESP).

HTMLDOC uses HTML as the source format for writing documents. These can be used to generate indexed HTML, PDF or PostScript (Level 1, 2 or 3) files. Kurt Pfeifle considers the killer feature to be that links present in HTML are preserved in PDF documents as hyperlinks. People who want to make use of this don't have to use the proprietary Acrobat Reader, they can also use the Free project xpdf. There is justified hope that more Free projects will be available soon.

The "Linux Documentation Project" has been using HTMLDOC to convert their HOWTOs into PDF format for quite some time now, replacing the formerly used SGML-Tools. This seems to prove, it's safe to say, HTMLDOC is ready for everyday use.

The recently released version 1.8.14 added support for Acrobat 5.0 compatible files (PDF 1.4), which allows 128-bit encryption of documents. It also uses less memory and some problems regarding displaying tables have been resolved.

In terms of speed, HTMLDOC can convert its current handbook (with 102 pages and 17 screenshots) in 4.0 seconds to PostScript and 6.2 seconds to PDF with maximum compression on Kurt Pfeifle's 500MHz Pentium III.

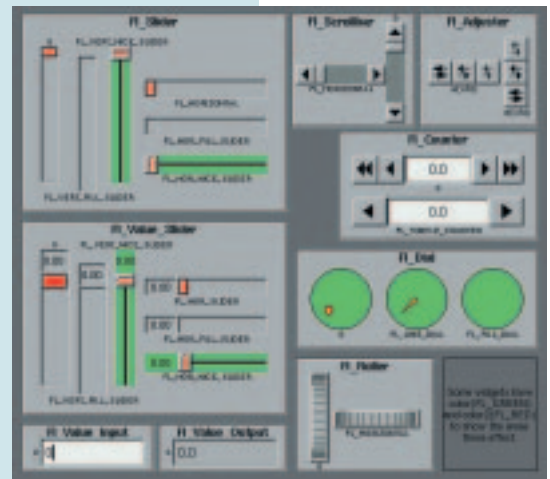
Another option available with HTMLDOC is

remote-access through proxies or secure/encrypted connections in order to convert Web pages into PDF. Thanks to bindings to Shell, Perl, PHP, C and Java, it can do this even as a "portal" that gets Web page addresses as input and returns ready-made PDF documents of the page. An example of this can be found on the Easy Software Products home page.

When using HTMLDOC on a local machine, it can be controlled through a GUI based on the "Fast Light Toolkit" (FLTK) or via the command line. The latter also allows using it in batch jobs in order to automate the process, should this be desired.

These are just some of HTMLDOC's features in order to convey an impression of what the project can do. The project is already very mature and allows not only defining special effects when turning pages in PDF presentations, but also definition of title pages, background images or the creation of "PDF books" from randomly chosen Web pages.

On top of this, HTMLDOC is also remarkably portable. Not only does it run on GNU/Linux, but also on IBM-AIX, Digital UNIX, HP-UX, *BSD, OS/2, Solaris, SGI-IRIX, MacOS X and MS Windows 95/98/ME/NT4/2000. Further plans for development include XHTML and an extended stylesheet support.



FLTK widgets in action

Logidee-tools

Another project this month is Logidee-tools, authored by Raphaël Hertzog and Stéphane Casset. The project's goal is to simplify the writing of courses and their conversion into print-ready documents and Web pages.

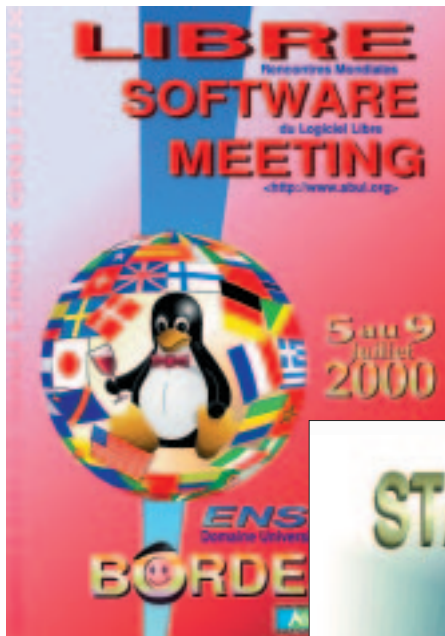
The courses are written as XML documents, which are converted into presentations or complete training documents. In order to do so, Logidee-tools uses a XML DTD with some XSL- and Makefiles. For XSLT processing, the project makes use of the xsltproc of the GNOME project.

Logidee-tools' typical users could be anyone teaching courses or giving lessons. Professional trainers in particular should give this project a look, as it was specifically written to fit their needs.

The project was originally created by the French company Logidee, which specialises in professional training for Free Software. When they realised that this might also be useful to others, Logidee-tools were released under the GNU General Public License and the GNU Free Documentation License.

The documentation is still a weak point as yet, however, as it is only available in French. An English translation is desired but is not yet planned.





Just a few examples of what you can achieve with Sketch



Sketch

It is no exaggeration to call Sketch the currently most advanced Free Software vector-drawing program. The project was started in 1996 by Bernhard Herzog, who has been the central developer ever since.

Sketch is now rather stable and supports several advanced features like gradient-filling, fading from one picture to another, transition and masking. It is also possible to convert all vector objects, including text, into curves.

Another fascinating feature is the ability to use pretty much any object as a "magnetic" guideline by moving it to the guideline layer. Of course this is additional to the horizontal and vertical guidelines and the standard grid.

Sketch is already being used as the GIMP pin badges on the last GNU/LinuxTag prove. These were created by Simon Budig with Sketch, as was the poster of the first Libre Software Meeting in Bordeaux.

Sketch can easily be extended with the help of Python scripts and plug-ins and since Sketch itself is written in Python, all user scripts have full access to Sketch objects. New object types and import/export filters can also be added through plug-ins.

Python was the language of choice for Bernhard Herzog as the object-oriented approach is a very natural choice for vector drawing programs and Python's flexibility makes experimenting with new concepts much easier than it would be in C or C++. Therefore Sketch relies almost exclusively on Python, with only a few modules written in C.

Among Sketch's weaknesses are the limited text support and the lack of a possibility to directly enter coordinates and the size of objects by hand, although these problems will probably be solved in the foreseeable future. Right now Sketch is being migrated from Tkinter to GTK. The completion of this migration is the primary goal for the next stable version (0.8).

The long-term goal is to make Sketch a complete vector drawing program, which is able to compete with proprietary solutions. In order to achieve this, the import/export filters still need to be completed and expanded, and the aforementioned text support needs to be improved. New features like transparency effects, vector filling patterns, CMYK and colour

GNU Passwords On Card

The GNU Passwords On Card (POC) project is a rather young addition to the GNU Project by Henning Koester. This program, under the GNU General Public License, offers the capability to administrate passwords via smartcards. The use should be rather obvious for every reader with more than five passwords – especially if some of the passwords are only used once or twice a year.

Until now, many people either wrote down their passwords on pieces of paper, saved them on their hard disk or reused passwords in several places. Everyone knows these are things you shouldn't do, but what they don't know is how to solve the problem of memorising many passwords reliably. GNU POC offers a solution to this by saving the passwords and short descriptions of them on a smartcard in encrypted form.

Currently GNU POC only supports I2C memory cards, but it is planned to support as many cards as possible. One way of helping GNU POC is providing other cards, so their support can be included.

The next project has been on my Brave GNU World wishlist for some time now and I'm glad it finally worked out.



management are also planned.

So there's still quite a bit waiting to be done and Bernhard welcomes any help. In his eyes, the filters in particular are a good way to get into Sketch development, as they don't require complete knowledge about the Sketch internals.

Furthermore there is documentation in French, which should be translated into English and help with the Web page is equally welcome.

However, it's not only possible to support the development of Sketch through voluntary work, which is more or less the classical way. Bernhard Herzog works for Intevation, a German company specialising in Free Software. Even if Intevation tries to give Bernhard as much time as possible to work on Sketch during his regular hours at work, they cannot afford having him work on Sketch full-time.

Therefore Intevation has created an online account that can be found via the Sketch home page, which makes it possible to buy time for Sketch development in US\$10 steps. These should not be understood as donations, but rather an investment in future possibilities gained through Sketch.

Similar approaches are very often designated as "tipping culture," so we are talking about voluntary payment of an acceptable amount triggered by the understanding that this service should still be available tomorrow. So if you lack the time or the know-how to get actively involved in developing Sketch, you can let Bernhard Herzog do it for you by buying him time that he can spend on Sketch.

Should you ask for special things to be included in Sketch as a feature, Bernhard has requested that you also mention any possible patent problems.

Adobe holds some US software patents regarding transparency features of PDF 1.4 and some other parts for PDF \geq 1.3. At the moment, Adobe does not ask for patent fees, given that the algorithms are being used for PDF processing. But this may mean that Sketch cannot implement these features as its main purpose is not PDF processing.

It's also not clear whether the "Scalable Vector Graphics" (SVG) format poses patent-related problems for Free Software. So it may be that at least some features of Sketch may not be used for commercial

Info

Send ideas, comments and questions

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Homepage of the GNU Project

<http://www.gnu.org/>

Homepage of Georg's Brave GNU World

<http://brave-gnu-world.org>

"We run GNU" initiative

<http://www.gnu.org/brave-gnu-world/rungnu/rungnu.en.html>

Ganesha's Project homepage

www.ganeshas-project.org

Logidee-tools homepage

<http://www.logidee.com/tools>

HTMLDOC homepage

<http://www.easysw.com/htmldoc/>

HTMLDOC PDF-O-Matic

<http://www.easysw.com/htmldoc/pdf-o-matic.php>

Fast Light ToolKit homepage

<http://www.fltk.org>

GNU Passwords On Card homepage

<http://www.gnu.org/software/poc/poc.html>

GNU software directory

<http://www.gnu.org/software/>

Sketch homepage

<http://sketch.sourceforge.net>

Intevation homepage

<http://www.intevation.de>

Eurolinux Petition

<http://petition.eurolinux.org>



purposes in the USA. The same will be true for Europe should these patents become valid here.

If you haven't signed the Eurolinux-Petition yet, you should do this as soon as possible in order to support the movement against software patents in Europe.

Enough for today

Since the question is raised repeatedly, I'd like to point out that the Brave GNU World features all Free Software, whether it is part of the GNU Project or not. Every type of Free Software project can get featured.

Alright, that's enough for today and as usual I'd like to ask for comments, questions, ideas and new project introduction by mail to the usual address. ■