Introduction: software and freedom
Freeduc-CD as a collaborative work
Freeduc's Factory
Let us work together

Freeduc series

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Freeduc-CD is libre/free
Educational CDROMs in the same family

When is a software free-libre?

Free-libre software give four liberties:

Freedom # 0 The right to execute the program, for any usage.

Freedom # 1 The right to study how the program works, and to modify it.

Freedom # 2 The right to distribute copies of it.

Freedom # 3 The right to improve the program and to publish your improvements.

More info : www.gnu.org/philosophy/free-sw.fr.html

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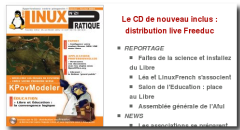Here are the common features of every Freeduc-CD:

- bootable CDROM, GNU/Linux system, hardware recognition

- successfully boots in most cases without interaction from the user

- 40˜ 50 user-level applications in educational fields

- a user manual is included, structured exactly as the user interface

- 100 % free-libre software, based on Debian.

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Freeduc's footprint

The most widely distributed releases of Freeduc-CD are numbered 1.3, 1.4, 1.5, 1.6 and 1.7, they are downloadable from http://sf.net, the direct downloads of ISO images have overcome the hundred of thousands last year.

Some releases have been published annexed to free software magazines (Linux pratique in France, Linux4U in India).

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Freeduc-CD is libre/free

The authors of Freeduc-CD series often receive suggestions to include such and such interesting software in the next release. Some of the suggestions, typically like including Java-based applications, will be rejected as long as the underlying SWING libraries are not free/libre.

> Freeduc-CD is a series of educational software obeying the 4 rules which define software liberty. If you got a Freeduc-CD, you may ask for every source and rebuild it from scratch, modify it, and publish it legally.

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Freeduc-CD is currently based on KNOPPIX, Klaus Knopper's bootable GNU/Linux CDROM. It took advantage of its system to detect local hardware peculiarities, and other interesting features.

Freeduc-CD has been a helpful basis to generate some distributions of local interest, one example is the CDROM distributed to the students of the training center for teachers of my academy (IUFM de Lille, *Universitary Institute to Train Masters* of Lille). This latter comes with installable free applications for Windows, loads of HTML pages about training courses, and as an additional feature, it can boot your computer under GNU/Linux.

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Educational skills
Communication skills
Development and packaging skills
Management skills

Authoring a usable CDROM for students and teachers generally requires the following skills:

- Educational skills,
- Communication skills,
- Development and packaging skills,
- Management skills.

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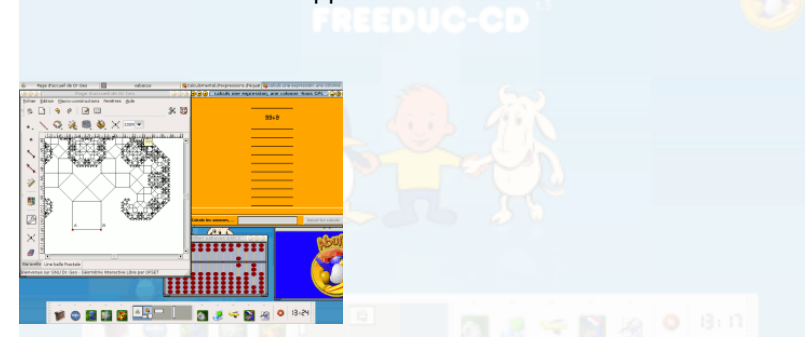
Educational skills
Communication skills
Development and packaging skills
Management skills

The applications, their manual, given examples must have some educational interest. Most often, this interest comes from people having used the applications to do their teaching job, and interacted with their development.

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The first idea you get from a CDROM comes from its graphic feel and touch, and from the first documentation you read about it. Later, a good communication optimizes the discovery of the useful features of each application bundled with the CDROM.

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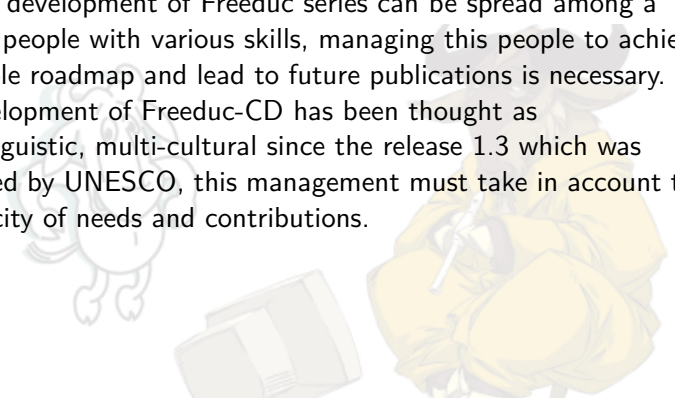Management skills

Development and packaging skills

Freeduc-CD relies on the powerful packaging system created for Debian (and currently used by Ubuntu). Some contributors need to know this system to be able to enrich future releases of Freeduc-CD.

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Management skills

As the development of Freeduc series can be spread among a team of people with various skills, managing this people to achieve a valuable roadmap and lead to future publications is necessary. As the development of Freeduc-CD has been thought as multi-linguistic, multi-cultural since the release 1.3 which was supported by UNESCO, this management must take in account the multiplicity of needs and contributions.

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Traditional collaborative tools
Freeduc-Doc
Freeduc's database
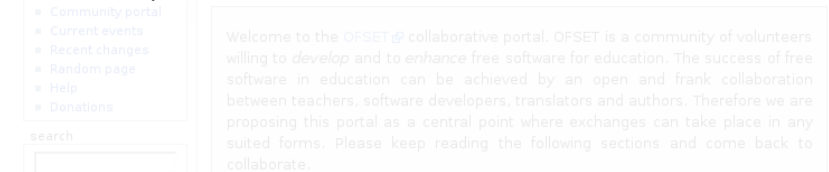The package Freeduc-build

As Freeduc-CD is based on free software, the contributing people take advantage of some collaborative tools made available for everybody. This include traditional collaborative tools and some very specialized ones.

- mailing lists, collaborative source repositories, a common wiki, a blogging area,
- the project Freeduc-Doc has tools to foster multilingual contributions,
- the *Freeduc database* feature multilingual metadata sufficient to drive the automated construction of Freeduc-CD,
- the package *Freeduc-build* features a computer-assisted design tool for bootable CDROMs targeted at various linguistic areas.

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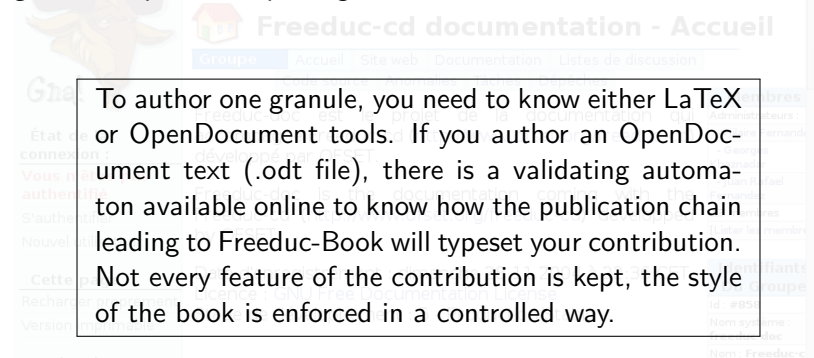The package Freeduc-build

Traditional collaborative tools

mailing lists are appended to each development area, people willing to keep informed can subscribe them, each package developed by OFSET's members is bound to collaborative source repositories: you can apply to get rights to write your modifications into them, a common wiki makes it easier to summarize important informations about current developments, a blogging area is another expression area available to OFSET's members.

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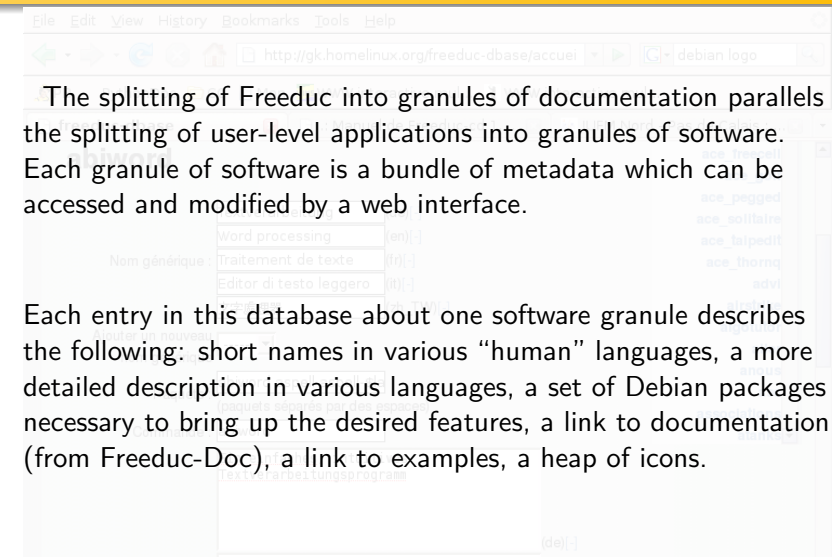The package Freeduc-build

Freeduc-Doc

The documentation which comes with each release major or minor, official (100 % free) or non-official (may contain contributions with other licenses) is always automatically built at the same time as the user interface, from *documentation granules*.a particular package.

To author one granule, you need to know either LaTeX or OpenDocument tools. If you author an OpenDocument text (.odt file), there is a validating automaton available online to know how the publication chain leading to Freeduc-Book will typeset your contribution. Not every feature of the contribution is kept, the style of the book is enforced in a controlled way.

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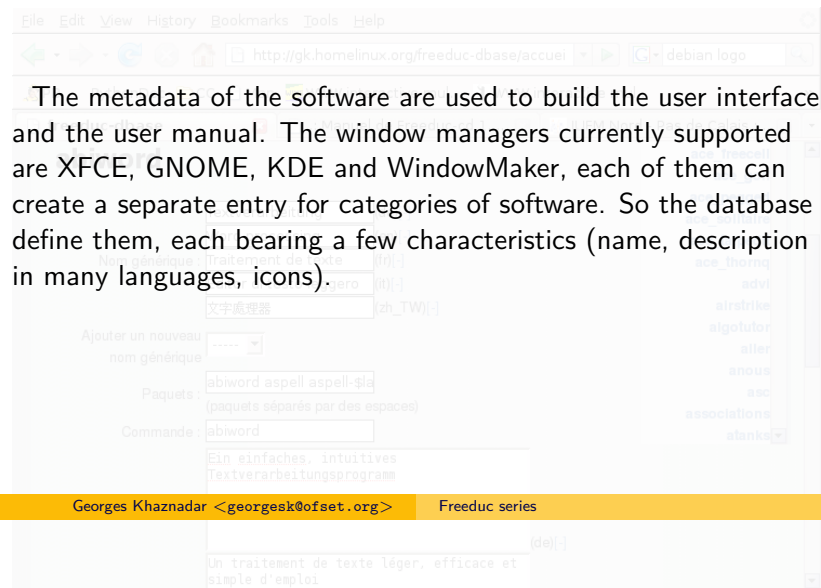**Freeduc's database**
The package Freeduc-build

Freeduc's database

The splitting of Freeduc into granules of documentation parallels the splitting of user-level applications into granules of software. Each granule of software is a bundle of metadata which can be accessed and modified by a web interface.

Each entry in this database about one software granule describes the following: short names in various "human" languages, a more detailed description in various languages, a set of Debian packages necessary to bring up the desired features, a link to documentation (from Freeduc-Doc), a link to examples, a heap of icons.

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Defined categories

The metadata of the software are used to build the user interface and the user manual. The window managers currently supported are XFCE, GNOME, KDE and WindowMaker, each of them can create a separate entry for categories of software. So the database define them, each bearing a few characteristics (name, description in many languages, icons).

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The profile editor

The profile editor of the web interface enables you to design the contents of a release of Freeduc-CD. It uses drag'n drop of icons to define a tree with two levels: categories and soft granules. When a profile is designed, it can be saved and exported to various formats, depending on the desired window manager. These exports are powerful enough to drive the automaton which builds the ISO images.

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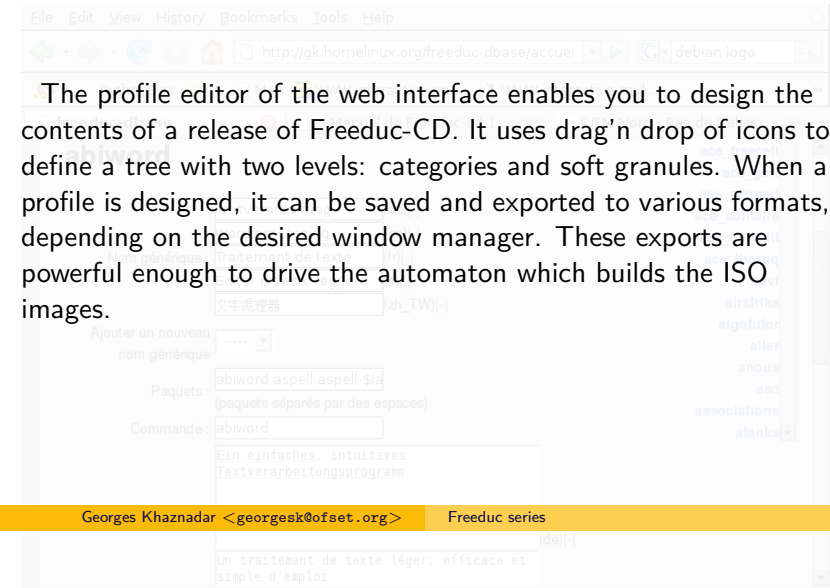Freeduc's database
The package Freeduc-build

The package Freeduc-build

It is a Debian package, which you can install and use independently from the Freeduc project. The project is currently hosted at http://gna.org and can enrol contributors.

The program has a text-only friendly interface, which can be used remotely by SSH. You can use it to manage several releases of GNU/Linux distributions.
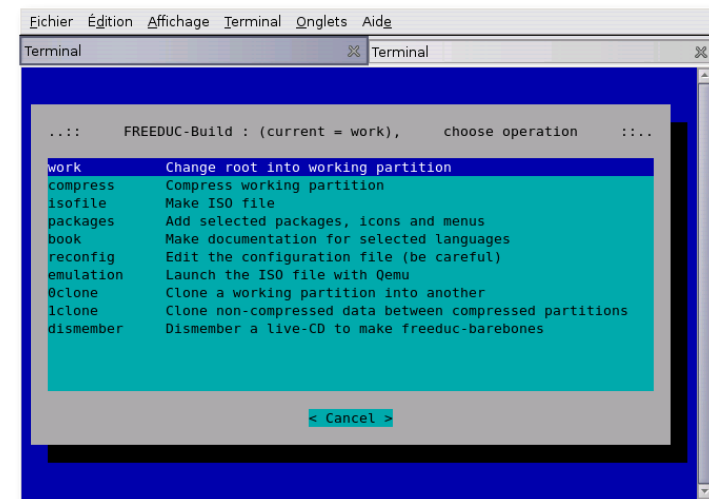
The uses of this program are: getting an existing distribution and stripping it down (example : stripping down KNOPPIX), forking a distribution in various branches, getting a Freeduc profile and building automatically the ISO image based on this profile (approx. duration 30 min).

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The text interface

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And in the near future ...

As Freeduc provides a collaborative framework, with each part
freely available and modificable, so let us work together, for the
best.

OFSET: Organisation for Free Software in Education and Teaching
http://www.ofset.org