



FSDB

User guide

Sébastien Rastegar – Guillaume Estocq – Ludovic Laguerre – Michel
Riedel – Loïc Doyen



www.fsdb.fr

www.epitech.eu

About this guide :

This guide is for the users of our software, it presents FSDB, detailing its various features and explains how to use FSDB.

This documentation is accompanied by a technical documentation for developers wanting to help the project.

Releases history :

Release	Date	Modification
1.0	04/04/2008	Creation
2.0	15/06/2008	Recasted graphics and updated contents
2.1	21/09/2008	Update features
2.2	05/01/2009	Added limitations, referential and install/uninstall procedure

Table of contents

ABOUT THIS GUIDE :	2
RELEASES HISTORY :	2
I - PROJECT PRESENTATION:	4
II - DIAGRAM OF OPERATION :	5
III - INSTALL.....	6
A. PREREQUISITE.....	6
B. DEPENDENCIES INSTALLED BY THE PACKAGE	6
C. PROCEDURE.....	7
IV - UNINSTALLING.....	7
V - USAGE.....	8
A. IN TEXT MODE:.....	8
B. GRAPHIC MODE:.....	9
VI - LIMITS AND BUGS KNOW.....	11
VII - REFERENTIAL.....	13

I – Project presentation:

FSDB is a command translator. This project mainly aims to able a beginner in the UNIX world, to manage a database after determining, or copying its structure, only with the shell commands this person learned, to deal with the file system.

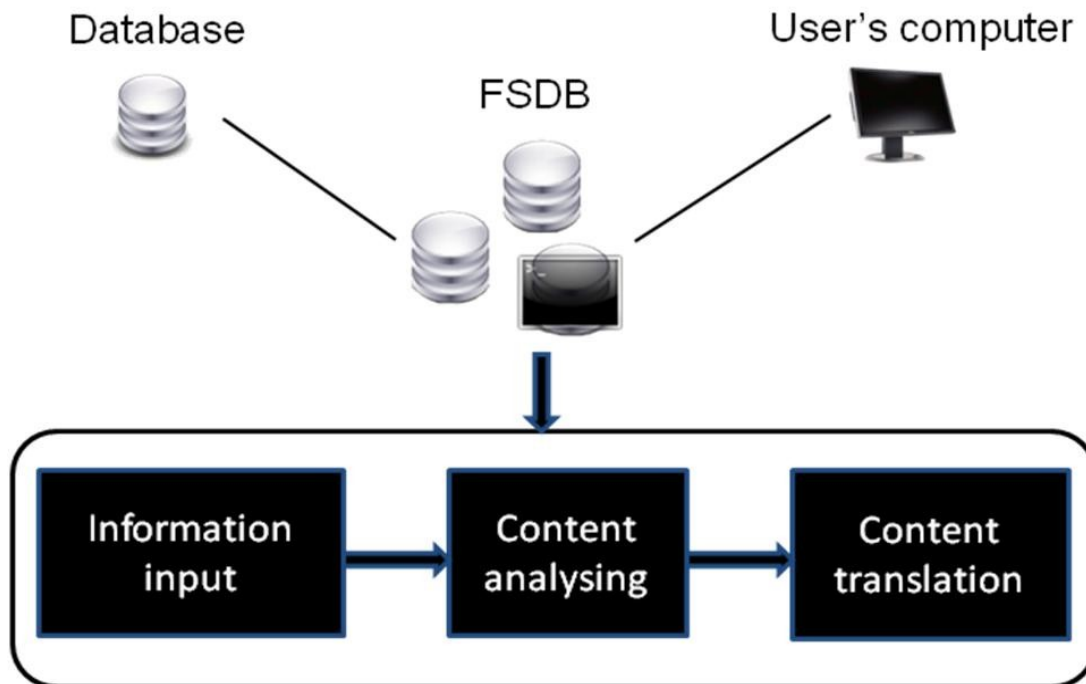
The main thing about this project is its conceptual aspect. Its goal is to ease the use of databases, while offering a performance level at least equal to what is currently used.

The database will be mountable as a Filesystem, and managed as is by the user, with all the advantages that this implies:

- Time savings
- No need to learn a new language
- No need for a programmer to deal with the communication with the database, as it will be available through the shell

Every user able to use a Filesystem* under UNIX and to understand databases fundamentals is concerned.

II – Diagram of operation :



This diagram shows the various steps necessary to FSDB to process a database.

Information input	This step is the passing of the parameters that the application needs to run correctly
Content analysing	This step is the information given by the user on the type of database
Content translation	This step concerns program execution

III – Install

FSDB is provided as a .deb package, which simplifies the installation through the command ligne or with a graphical interface.

a. Prerequisite

Software :

Operating system based on Unix/Linux

b. Dependencies installed by the package

Name	Release
libfuse	2.7.2-1ubuntu2
libmysqlclient15	5.0.51a-3ubuntu5.1
libgtk2.0	2.12.9-3ubuntu4
libpostgre	4.0.5a-3ubuntu5.1

c. Procedure

After you download the FSDB package from : www.fsdb.fr, open a shell and use this command : `dpkg -i name_of_package` (ex: `dpkg -i fsdb_1-xx.deb`)

IV – Uninstalling

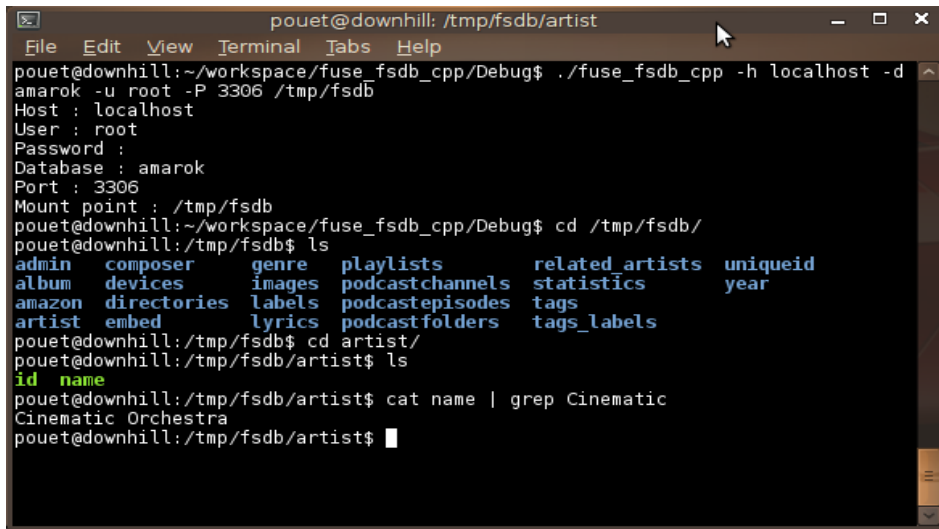
Uninstalling is very simple, a single command is needed. On your shell prompt, type: **`dpkg -r fsdb`**

Wait a moment, the application will be uninstalled.

v – Usage

The use of FSDB is very basic. It is possible to use FSDB in command line or from its graphical interface..

a. In text mode:



```

pouet@downhill: /tmp/fsdb/artist
File Edit View Terminal Tabs Help
pouet@downhill:~/workspace/fuse_fsdb_cpp/Debug$ ./fuse_fsdb_cpp -h localhost -d
amarok -u root -P 3306 /tmp/fsdb
Host : localhost
User : root
Password :
Database : amarok
Port : 3306
Mount point : /tmp/fsdb
pouet@downhill:~/workspace/fuse_fsdb_cpp/Debug$ cd /tmp/fsdb/
pouet@downhill:/tmp/fsdb$ ls
admin  composer  genre  playlists  related_artists  uniqueid
album  devices  images  podcastchannels  statistics  year
amazon  directories  labels  podcastepisodes  tags
artist  embed  lyrics  podcastfolders  tags_labels
pouet@downhill:/tmp/fsdb$ cd artist/
pouet@downhill:/tmp/fsdb/artist$ ls
id  name
pouet@downhill:/tmp/fsdb/artist$ cat name | grep Cinematic
Cinematic Orchestra
pouet@downhill:/tmp/fsdb/artist$

```

We need to start launching the program with its executable `fuse_fsdb_cpp` and properly pass the parameters of the database.

-h: hostname, the server where the database is hosted

-u: user, the username to identify with the database

-p: password, the password of the user

-d: database, the name of the database

-P: port, the configured port to communicate with the database

[path] the folder where the file system is mounted.

Then, to access the contents of the database you can use the standard shell commands.

cd: Access the contents of a folder

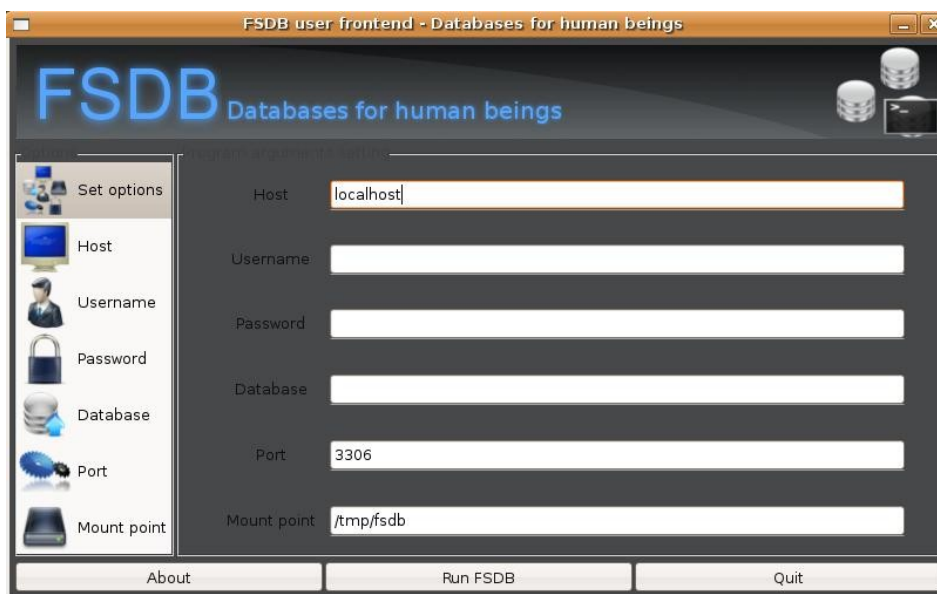
ls: List the contents of a folder

cat: View the contents of a file

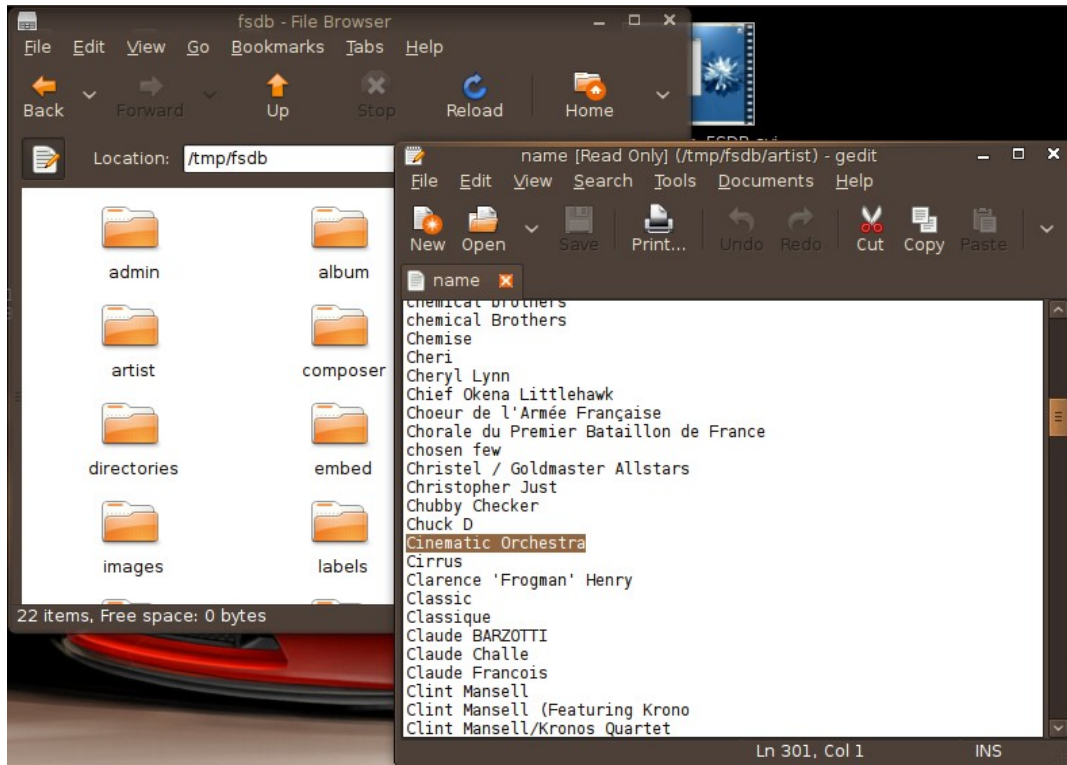
b. Graphic mode:

The graphical interface is not required to run the software. It only allows a beginner user to have some help with the parameters required for run the program.

To use it, download the .deb package from the website www.fsdb.fr, and follow the procedure described in the chapter 3 of this document.



After completing the fields with the required parameters, we can access the contents of the database with the file explorer of your operating system and a simple text editor.



VI – Limits and bugs know

A series of tests were conducted to test the stability of FSDB, its limitations and identify potential bugs.

Test 1: Displaying a table

The test consist to repeat the command several times. It shows if FSDB is tough to repeat the commands.

During this test the same script was launched from another terminal and this allows the if there are problems of access.

Result: No problems found

Test 2: Create a table

The objective of this test is to show the stability and reliability of the program with a script, he will create the 400 tables 2 columns in the database.

Result: OK, noted that treatment can be long, depending on the hardware of the server or the method used to host the server (Example : VM).

Test 3: creation / deletion of a table

We test the performance of two identicals script launched in parallel, he remove the table and create her. This is a test to see if FSDB is well managed access.

Result: OK, it is impossible to create or delete the same table when a user is currently works on

Test 4: Connecting to the databases

We will try to connect to the database with a username that does not identify by the base.

Result: OK, shell returns our an error 'Permission not granted', only root can access to the folders where databases storage.

VII – Referential

Document	Acronym	Status
schedule of conditions	CDC	OK
Study of the existing	EDE	OK
Study Report detailed	RED	OK
Architecture assesment	AA	OK
Technical documentation	TD	OK
User guide	UG	OK
Summary of activity	CRA	OK
Quality insurance plan	QIP	OK

A portion of these documents are available on our website:
www.fsdb.fr . To grant access to other documentation or any other
suggestion, please contact us through the website.