



Strigi Desktop integration

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Strigi's main features

- fast and lightweight
- portable
- extensible
- next KDE4 desktop searching engine
- can be easily accessed from external programs



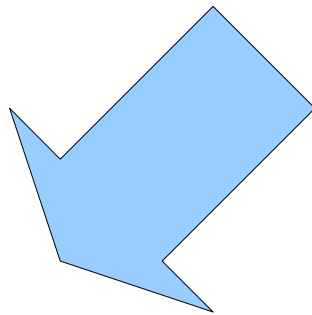
Strigi's capabilities

- perform fast searches across heterogeneous data collections
- extract metadata informations from files
- index compressed archives contents
- create/recreate/discover relations between different data

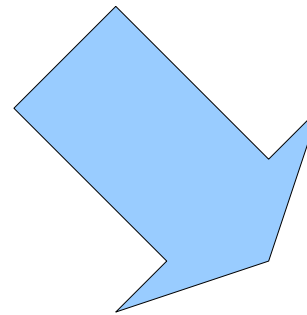


Strigi communication interfaces

socket



DBus





Socket interface

Benefits:

- well known mechanism
- can be accessed from different languages / OS

Drawbacks:

- actually has less priority --> it isn't fully tested



DBus interface

The best way to access Strigi features:

- simple and fast to use
- IPC protocol used by KDE4 and Gnome
- there are lots of DBus bindings
- actively developed



Available functions

Everything can be performed through the socket and DBus interfaces:

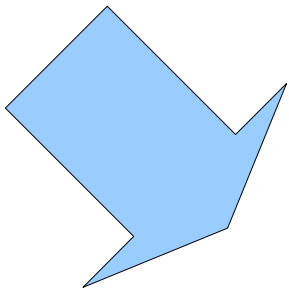
- start/stop Strigi daemon
- add/remove filters
- force index updates
- index a specific resource
- perform searches (and retrieve results ;)



Available classes for C++ developers

Existing C++ classes for playing with Strigi:

- `AsyncSocketClient`: access socket interface
- `DBusClientInterface`: access DBus interface



Automatically shipped with Strigi installation



“main” clients

Their code can be taken as example:

- StrigiClient:
 - written in C++
 - uses Qt4
 - connection through DBus interface
- StrigiApplet:
 - written in C++
 - uses KDE3 libs
 - connection through socket interface



Strigi's Gnome DeskBar handler

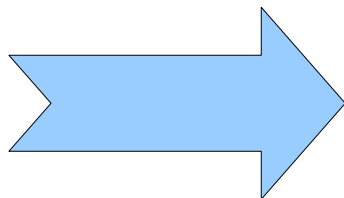




Strigi's Gnome DeskBar handler

Features:

- written in python
- communicate using DBus interface
- **only 95 lines of code**



Strigi integration is easy



Really short description

What are JStreams:

- a C++ “transposition” of Java `InputStream` childs

```
public StreamDemo(URL url) throws IOException
{
    InputStream filestream = url.openStream();
    ZipInputStream zipstream = new ZipInputStream(filestream);
    ZipEntry entry = zipstream.getNextEntry();
    while (entry != null) {
        handleEntry(zipstream, entry);
    }
}
```



The power of JStreams

- flexible: can be extended for supporting new file types
- really fast (especially while accessing compressed archives)
- easy to use
- code reuse: can be used by other programs with ease



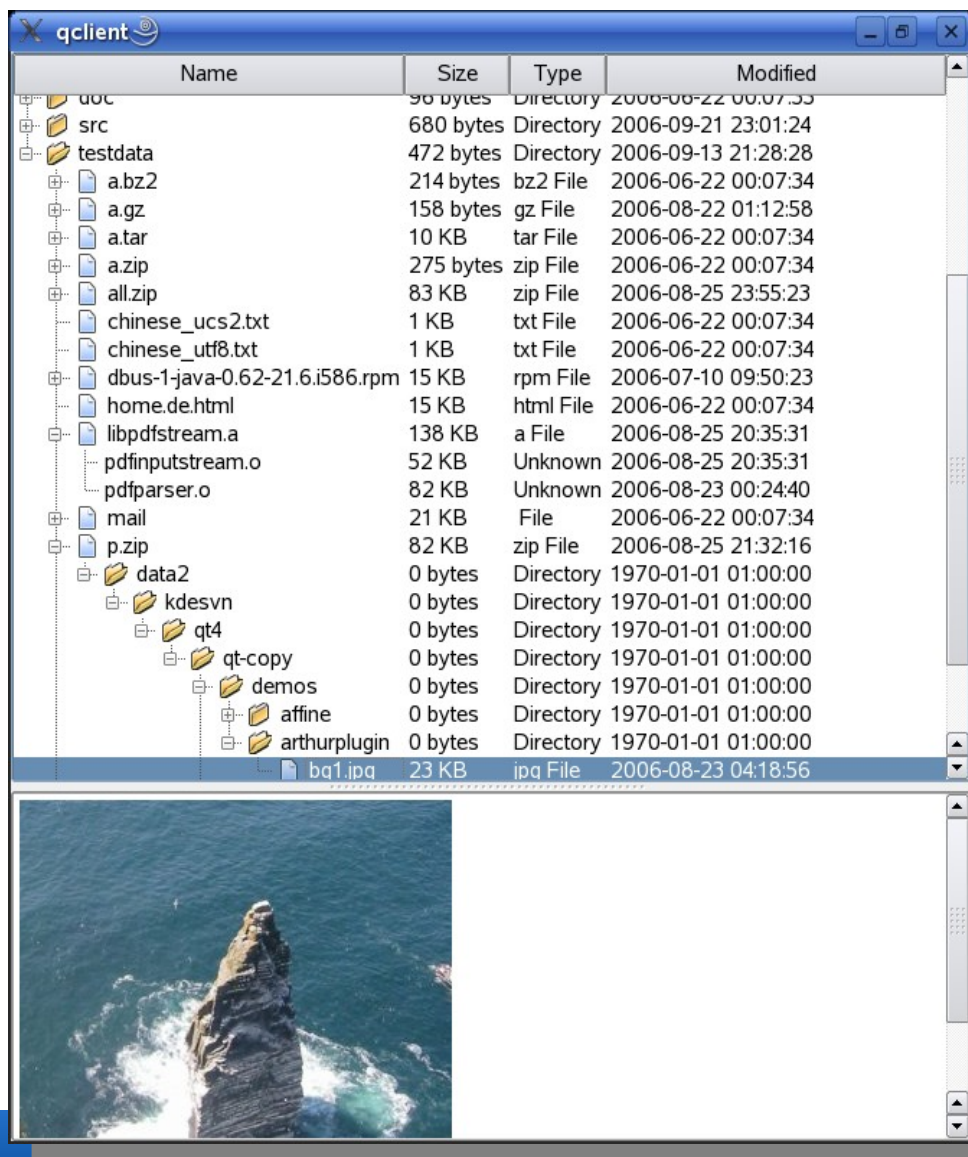
JStreams actual status

More relevant file types:

- compressed archives: tar, gzip, bz2, ar,...
- linux distribution packages: deb, rpm,...
- pdf files
- email
- ...



A simple example





QClient

Simple Qt4 program that uses JStreams:

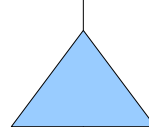
- navigate through archive files
- can open archive file contents

How can be done ?

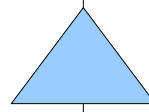


QArchiveEngine Class

QAbstracFileEngine



ArchiveEngineBase



ArchiveEngine

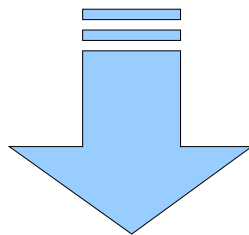
Access
archive files
as directories



QArchiveEngine Class

For accessing compressed files as directories:

- create a new QAbstractFileEngine child
- use JStreams inside it
- register the new engine



All Qt classes that provides file system access will use it whenever it's possible



JStreams and KDE

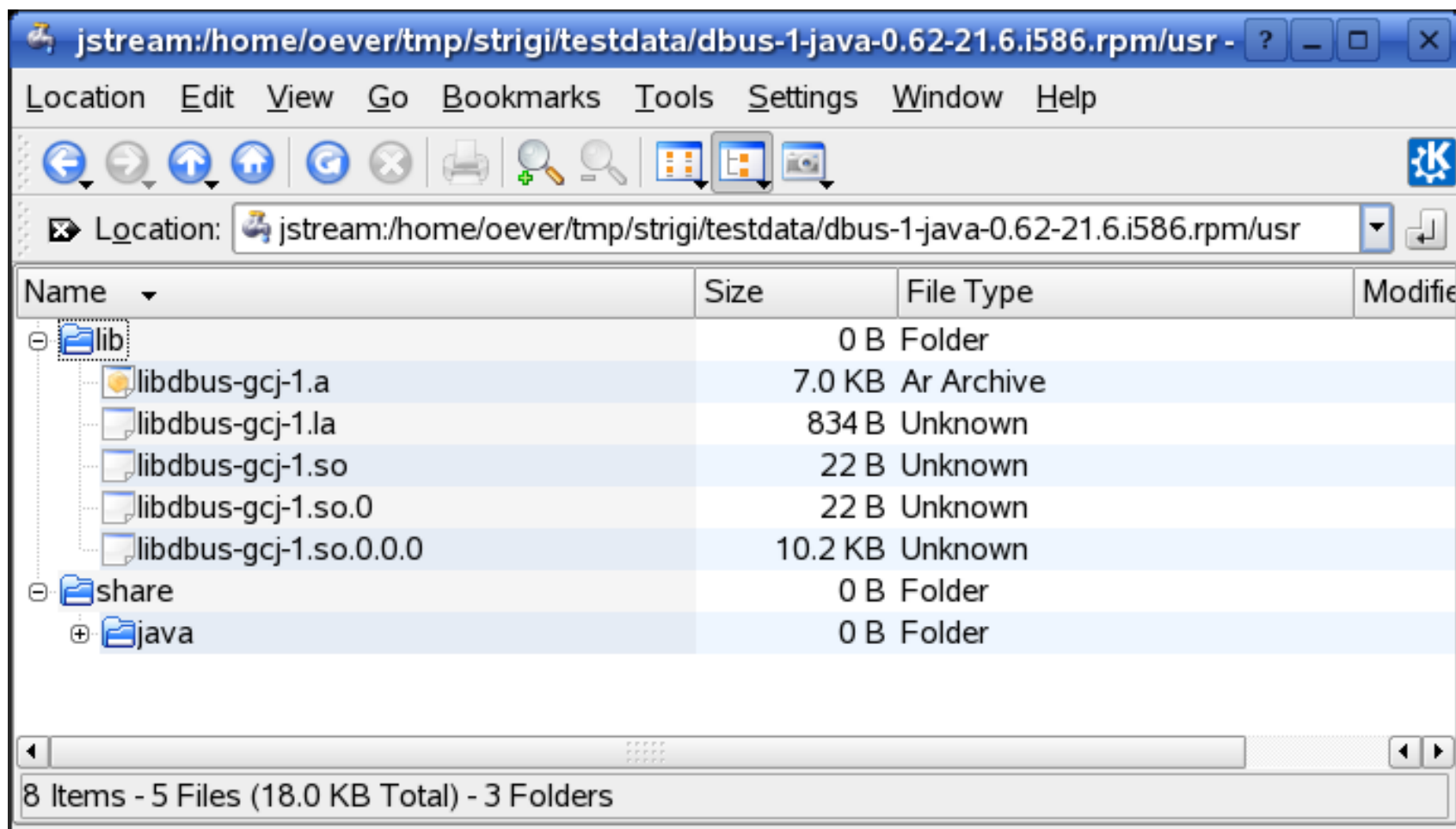
Also KDE programs can use JStreams functionalities:

JStreams KIOSlave

- Available for KDE3
- Already into KDE4 trunk



JStream KIOSLAVE





Interact with Strigi

- use Strigi's features is really simple
- it can be done from:
 - different programming languages
 - different window managers
 - different OS
- you can use Strigi for:
 - desktop searching tasks
 - fast and simple access to a large set of file types



Strigi's integration

Actually we cover a good set of possibilities:

- StrigiClient: generic window manager
- StrigiApplet: kde client
- Gnome DeskBar handler: self-explaining

In the near future:

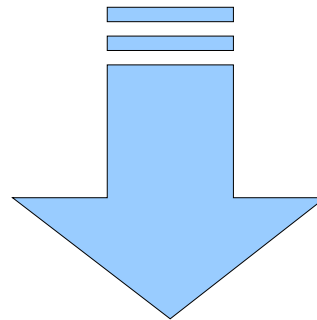
- a KDE4 Plasmoid client



Strigi's integration: the future...

There is lot of work to be done on the client-side:

- keep improving actual interfaces
- improve usability & integration
- create a better user experience



create a better user experience



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