The XLocate Handbook

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version 0.68
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Abstract

XLocate extends locate tools usability.

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Chapter 1. Introduction

XLocate is an elaborate X front end to the various GNU-Linux **locate** utilities, which permit fast file search through indexation. Beyond this, XLocate allows you to maintain a collection of index files for shelved or offsite CD/DVD/Blue Ray collections, network places, memory sticks, fixed and removable hard disks, etc. You can define search sets and get a high level of flexibility through a large set of options. XLocate automatically recognizes 3 of the most widespread search index formats (GNU locate, slocate and mlocate) and allows concurrent index creation and updating, as well as search for files with any of these 3 tools, which don't need to be installed in your path.
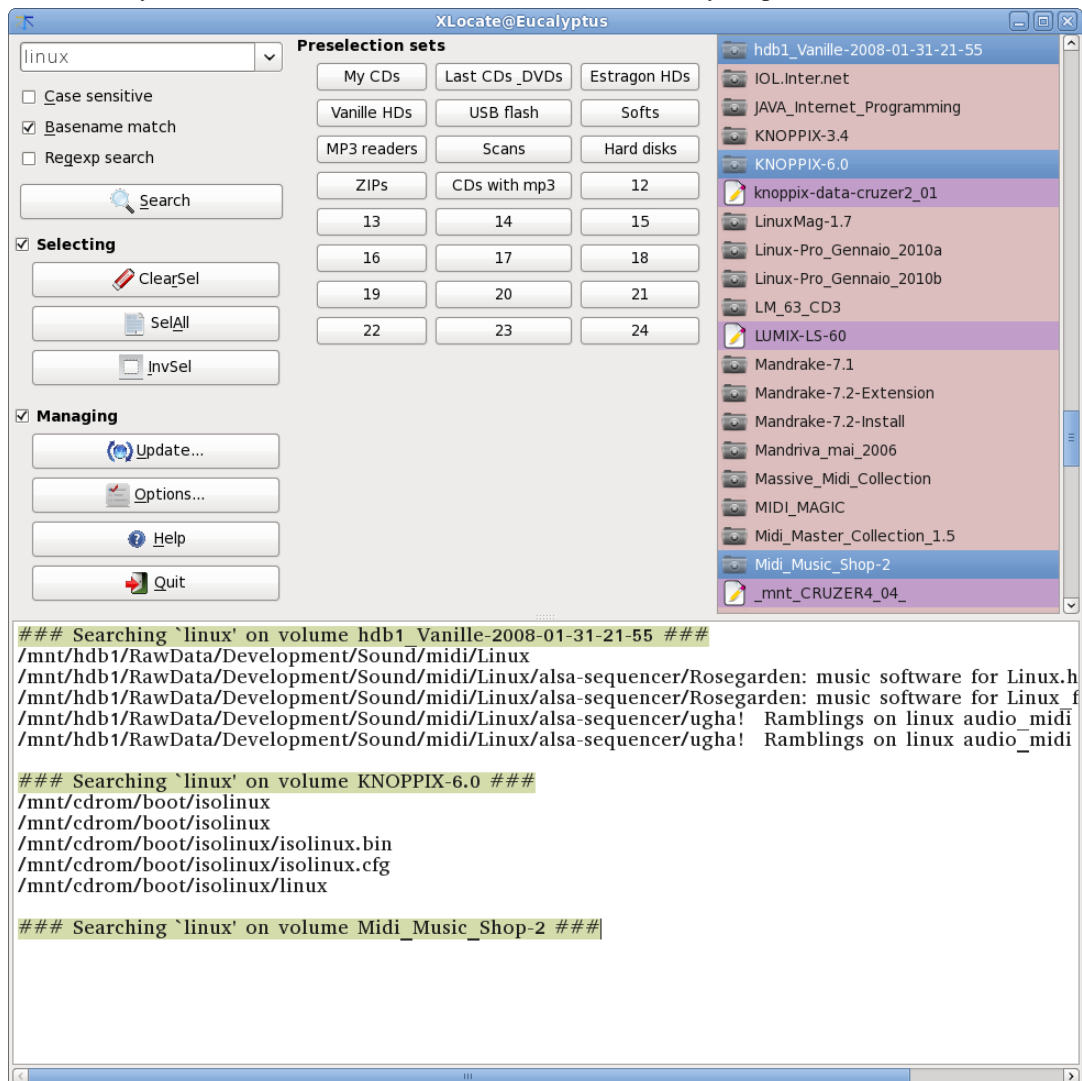
Screenshot of XLocate's main window

Chapter 2. Options

The settings for XLocate on Qt4 are typically stored under your ~/.config/, in a file named `xlocate.conf`.

This file has five sections:

- The [Mounts] section contains information about your drive configuration.

- The [Options] section contains some resource values.

- The [Presets] section contains information about your customized volume preselection buttons.

- The [Font] section contains information about the font you selected in the results pane.

- The [Geometry] section contains main window's position and size.

Geometry and layout are remembered across sessions. Everything else is configurable through the four tabs of the Options dialog box, displayed by clicking on the Options button of the main application's window.

The Mounted volumes tab

Here you select some or all of your mounted volumes as indexable. You can also finetune the name and contents of your index files.
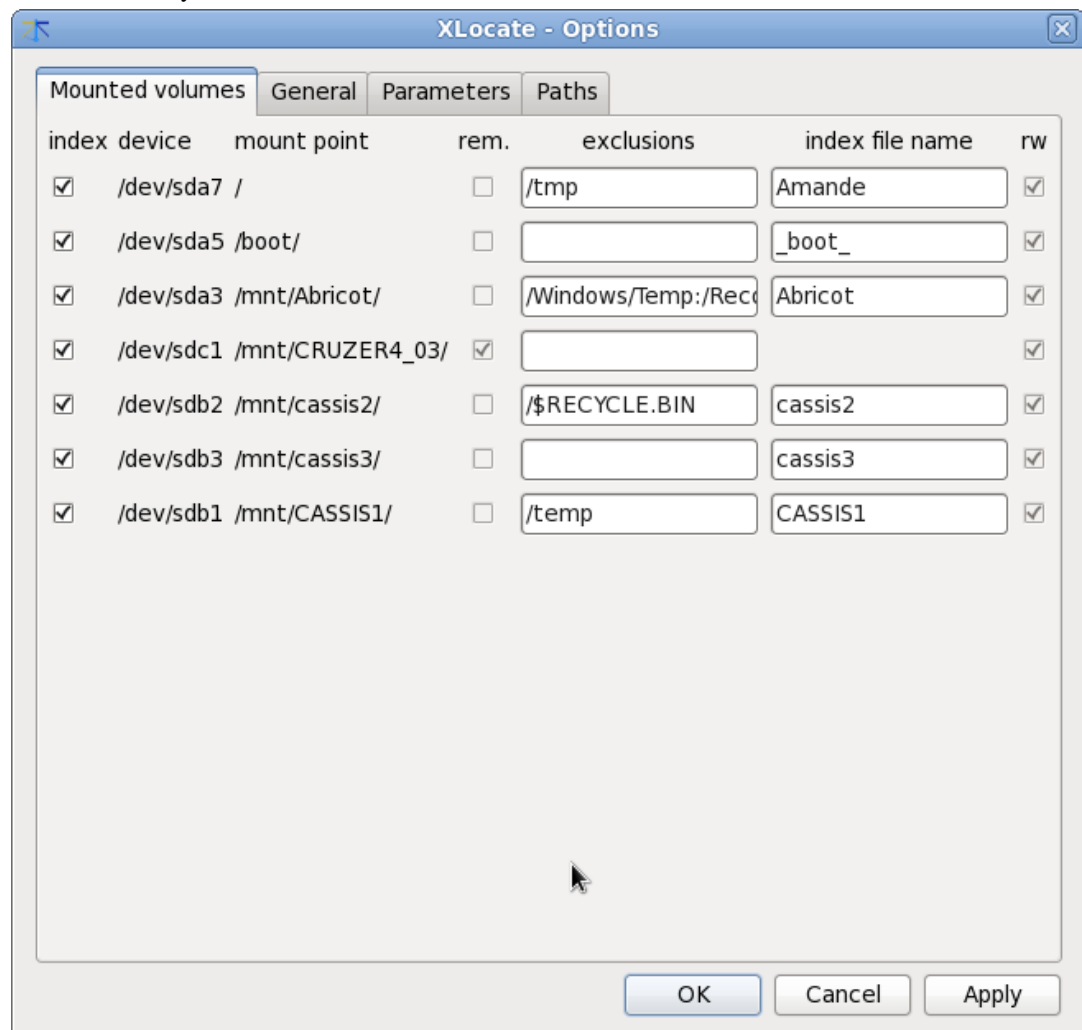
Screenshot of the Options / Mounted volumes tab

The second column (mount point) and the sixth (read-write flag of drive) are set by the operating system.

The first column (index) is a check box where you decide if the volume whose device appears in the second column and mount point in the third column is among those that you'll want to index (using the Update command).

The fourth column (removable unit flag) is checked if the concerned drive is designed for removable media (CD-ROMs/DVDs/BlueRay, USB flash memory sticks, removable disk cartridges, floppy disks, etc.)

The fifth column (excluded subdirectories) is a comma-separated list of the subdirectories of the mount point which you want to exclude from the index file. It might be mount points for other file systems you'd like to index separately (e.g. mnt, media) or temporary files directories you don't mind to index (e.g. tmp, or var/tmp). Note that the paths you specify are considered relative, so they should NOT begin with the mount point given in the first column.

The sixth column (name) appears only for volumes in fixed drives and is just a display name you would like XLocate to use to refer to the volume. You can use any nickname of your choice, provided it does not contain slashes (/) nor spaces (you will still be able to use spaces in the volume names for removable drives). If you leave this field blank, the absolute mount point will be used (with slashes replaced by underscores). Since items are alphabetically sorted in the volumes list according to their nicknames, which are just the filenames of the index files minus extension, you can name the fixed volumes (or **ln** to their index files) in such a way that they will be listed at the beginning of the list, this way avoiding to swamp the few entries for your local hard disks amidst hundreds of CD-ROMs for example. It is not recommended to give the device name as a display name since in certain configurations the same volume might be assigned different device names between session, which might be confusing.

Note

The USB hard drives are not considered removable by the system, so you'll get an "index file name" column for volumes in USB hard drives.

Note

The index file name will be the display name with the extension ".ro" (for read-only mounts) or ".rw" (for read-write mounts) appended. So the naming restrictions applying for file names apply for display names, with the extra restriction of no space inside fixed drive names.

Note

For removable drive volumes which are mounted in /etc/fstab according to the device name (e.g. /dev/sda1, /dev/usbflash), different index files may refer to the same mount point. These volumes are tagged as rem. in the Options / Mounted volumes tab. The index file name used for this type of volumes (e.g. CDROM/DVD/BlueRay, flash memory sticks, removable disk cartridges, etc.) can be anything that refer to the volume, not to the drive nor the device. The recommended choice is the volume label whenever possible. For convenience, the volume label is displayed through the system call to blkid.

Note that you must have blkid setuid for this to work when running XLocate as an unprivileged user:

```
% su
% setuid /sbin/blkid
```

> **Note**
>
> If a removable disk's volume is always mounted at its own same place (e.g. by using its volume label or UUID in `/etc/fstab`), then the volume will be recognized automatically as long as the permission condition in the previous note is fullfilled. This is because those data get stored in XLocate's configuration file.

The seventh column (read-write flag of drive) is checked in case of a writable drive (e.g. local or remote hard disk, removable cartridge or memory stick, floppy) as opposed to a read-only drive (e.g. CDROM, DVD). Since it is normally pointless to update an index file for a readonly volume, XLocate will filter out **slocate**'s warning about the obsolescence of the database file if this box is not checked.

If you selected a soft link to an index file, XLocate will give as argument to **GNU locate/slocate/ mlocate** the ultimate target of any series of soft links, so the eventual warning you'll get will be pertinent with the actual index file, without regard to the age of the soft links (which is not the case as of **slocate**). Thus you won't loose any of the advantages of XLocate by physically putting some DB files outside `/var/lib/xlocate` (or whatever DBPATH is), and just leaving soft links in DBPATH (found in Options / Paths / Path(s) of index files).

If you try to reindex a read-only file system under an already existing name, XLocate will inform you that the file already exists, but will not prevent you to update it if you confirm.

The General tab
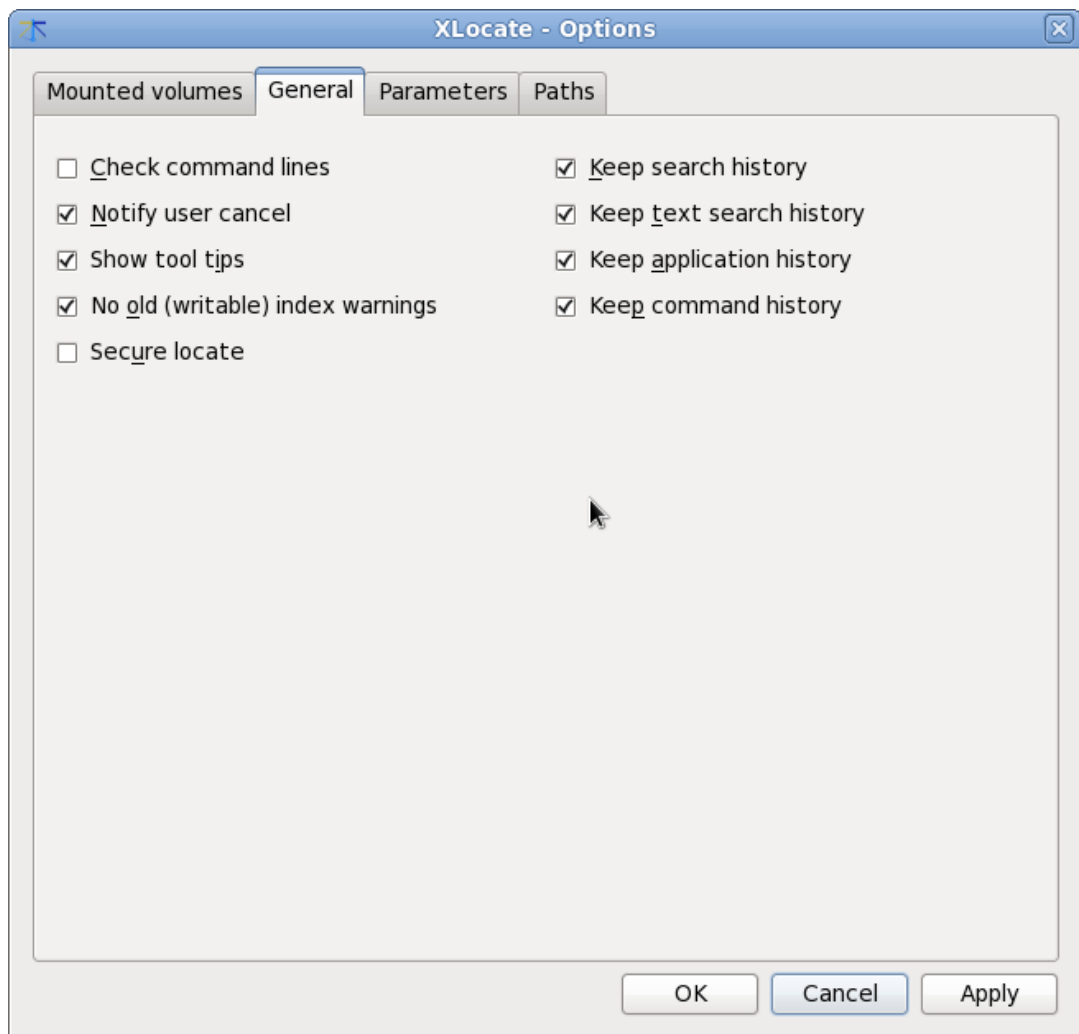
Screenshot of the Options / General tab

Check command lines

If set to true, this option allows you to check every search or update command line that is sent to **GNU locate/ slocate/mlocate**. You'll then be given the opportunity to edit or cancel the command. Deselect the Basename match box in the pattern zone of the main window in case you want the matches at any place in the path. In the case of **slocate**, this behaviour is not native and is performed by XLocate.

Notify user cancel

Set this to true if you want a confirmation message when you cancel an action.

Show tool tips

If set to true, the main command widgets will give you basic info on their purpose when pointed to by the mouse. You might want to disable the tooltips when you get used to XLocate.

Secure locate

Check this if you use **slocate** and you want file permissions to be stored in the databases. This is meaningful only for file systems with a complete permission scheme, like ext2. If you don't need it, don't use it since it will make the index file larger and **slocate** operations slower.

Note

XLocate can be configured to use of the secure option of **slocate** when updating index files. Still the default is not to use it. This is because building or updating index files with the secure option does not make much sense if done without root privileges. If you need to hide the existence of certain files to certain users, one solution is to setuid root your **GNU locate/slocate/ mlocate** utilities. You can also update via **cron** or **at** sensitive partitions. The system administrator will choose if this updating should be done with or without security on (i.e. file permissions stored in the database). For other file systems (vfat, iso9600, etc), the updating can as well be done by any user, possibly through XLocate

However, if you use the security scheme of **slocate** or **mlocate** and want to quickly update your ext2 partitions, you can run XLocate with the Secure locate and Check command lines boxes checked in the Options / General tab. You'll then be able to paste the appropriate update commands into a root terminal or using **sudo**.

Note

The default installation stores index files in a directory `/var/lib/xlocate` having permissions 775. Since this directory has group write access you can create new index files in it by calling locate updating utilities (updatedb) through XLocate as a simple user. You can also update/delete/rename existing index files provided the individual file permissions are set accordingly (recommended setting 664, with group slocate). XLocate should not be setuid nor setgid. Giving universal write access to the directory `/var/lib/xlocate` is strongly discouraged.

Note

XLocate can manage index files from several directories outside `/var/lib/xlocate`. In case you have permissions issues due to your site's administration policies, you then can index whatever you want and put the index files in a personal directory (e.g. `~/.qt/xlocate`).

Keep search history

Set this to true if you want XLocate to remember your 8 last searches between sessions.

Keep text search history

Set this to true if you want XLocate to remember your 8 last textual searches in the results pane between sessions.

Keep application history

Set this to true if you want the 8 last applications you launched from XLocate to be remembered accross sessions.

Keep command history

Set this to true if you want the 8 last commands you launched from XLocate to be remembered accross sessions.

The Parameters tab

Screenshot of the Options / Parameters tab

Some of the settings on this tab will only be effective the next time you start XLocate.

Number of rows of preset buttons

Just enter 0 if you don't mind this feature.

Number of columns of preset buttons

Just enter 0 if you don't mind this feature.

The Paths tab

Screenshot of the Options / Paths tab

From here you can enter the paths to help, locate utilities and index directories.

|	
Path of help	Where resides the manual of XLocate.
Path of help browser	Location of the browser application you use for HTML help.
Path of GNU locate	Location of the GNU locate command line search program.
Path of GNU locate updatedb	Location of the GNU locate command line index updating program.
Path of slocate	Location of the slocate command line search program.
Path of slocate updatedb	Location of the slocate command line index updating program.
Path of mlocate	Location of the mlocate command line search program.

Path of mlocate updatedb	Location of the mlocate command line index updating program.
Paths of index files	This entry gives the location of the **GNU locate/slocate/mlocate** index files used by XLocate. By default, **GNU locate/slocate/mlocate** use a single huge index file for all the accessible volumes and stores it under `/var/lib/?locate/?locate.db`. On the other hand, XLocate uses several distinct index files to allow you a targetted search on any specific drive or removable medium you have access to. The installation creates a directory `/var/lib/xlocate/`, but you might have to manually add a subdirectory of your home directory to this entry in case of permissions issues. You can also use `/var/lib/?locate` if you wish, but remember that XLocate will only consider files with extensions ".rw" or ".ro". You can add any number of directories to this entry using a colon (":") to separate them. Note that you need write permission to any directory with index files in order to update or create index files.

Chapter 3. Using XLocate

You can see in the screenshot below how easy it is to spot the files you are looking for amidst a huge collection of volumes of any sort.
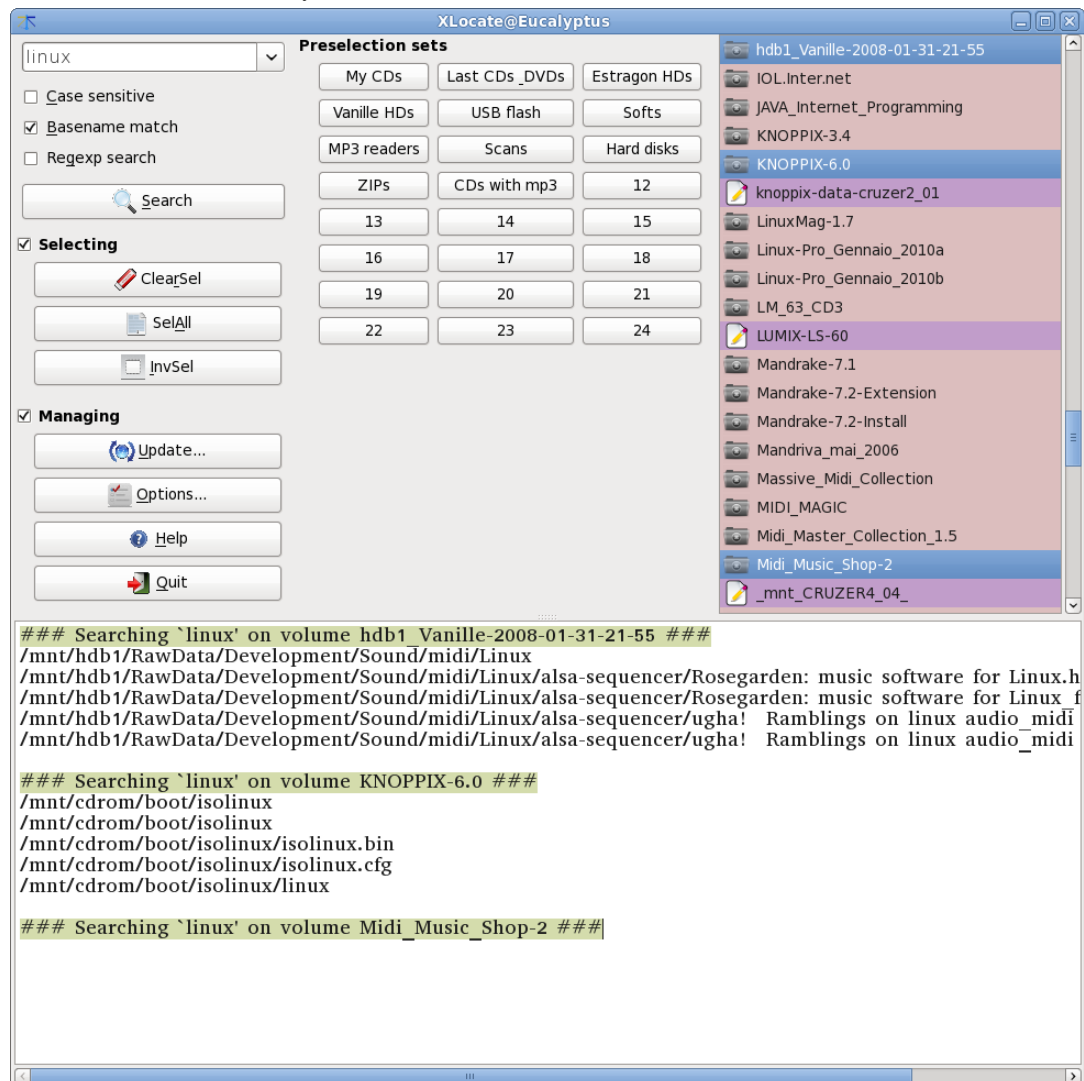
Screenshot of XLocate's main window

The volume list

Here are listed all the index files you created. Those files all have the extension ".ro" (for read-only) or ".rw" (for read-write). They are usually stored in `/var/lib/xlocate`, but you can change this default in your `xlocate.conf` file. See the section called "The Paths tab". One or more volumes must be selected before you perform a search.

A right-mouse menu is defined in this list with three options

Delete index   Physically delete the index file. Of course the entry in the volume list will go away as well. You will be prompted for confirmation.

Rename index   Change the filename of the index file. The entry in the volume list will reflect that change. You will be prompted for confirmation.

Index file info	Check the stats about the index file. This might be useful in case of permissions issues, or to check when the index file was last updated. You also can see if the file is a link, in which case the link's target will be indicated.

The first time you use XLocate, the volume list might well be empty. Once you have configured your `xlocate.conf` file e.g. by clicking on the Options button (see the section called "The Mounted volumes tab"), you will be able to create index files by clicking on the Update... button in the main window (see the section called "The update dialog").

The pattern zone

This is where you type the pattern you want to search for, and select different options regarding your search.
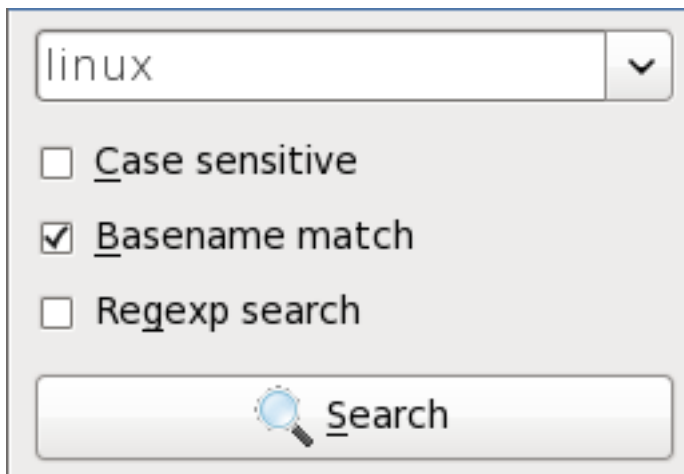
Screenshot of the Search zone

Case sensitive (**Alt+c**)	Check this box if you want to display exact case matches only.
Basename match (**Alt+b**)	If this box is unchecked, all matching paths will be listed, which can produce unnecessarily long listings if the match is in the directory part of the path.
	If this box is checked, only the matching in the base name of files (or directories) will be displayed. This is obtained by passing the -b option to **GNU locate/mlocate** or filtering the results in the case of slocate.
Regexp search (**Alt+g**)	This is the regexp option (-r) of **GNU locate/ slocate/mlocate**.
	In this mode, the locate tool lets you search for regexps instead of just textual strings. For instance you'll be able to search for files with ".html" extension simply by typing \.html$ with the Regexp search box checked.
	Type **info regex** on a terminal for more informations on regexps.

Note

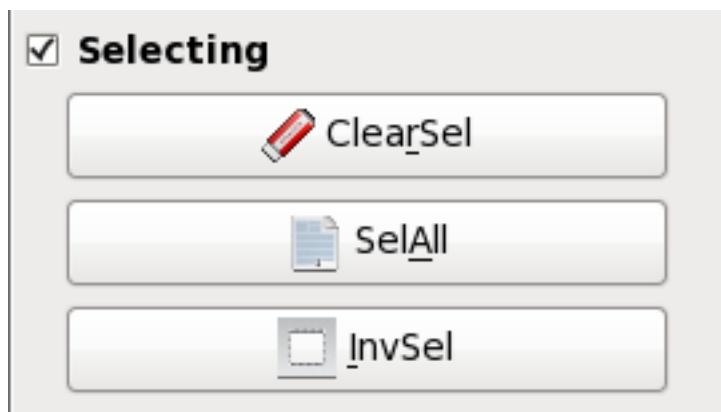Do not enter double quotes around the regexp as you would using **slocate**'s command line.

Search (**Alt+s**)	Starts the search. The results will be sorted by pathname.
Stop (**Alt+s**)	Aborts a running search. May be useful when you have launched a search with lengthy output.

The select groupbox

Screenshot of the Select groupbox

Here are some basic selection operations to avoid extensive clicking and scrolling in the volume list.

You can also customize volume selection sets using the preset buttons. See the section called "The preset buttons".

|	
ClearSel (**Alt+r**)	Clears the volume selection.
SelAll (**Alt+l**)	Selects all listed volumes for search.
Invsel (**Alt+i**)	Inverts the volume selection.

Note

If you need more space for the results pane, you can try to hide this groupbox by unchecking the Select checkbox. You can bring it back using the context menu.

The preset buttons

You can easily store your favorite volume selection sets using the buttons in the preset buttons box. .
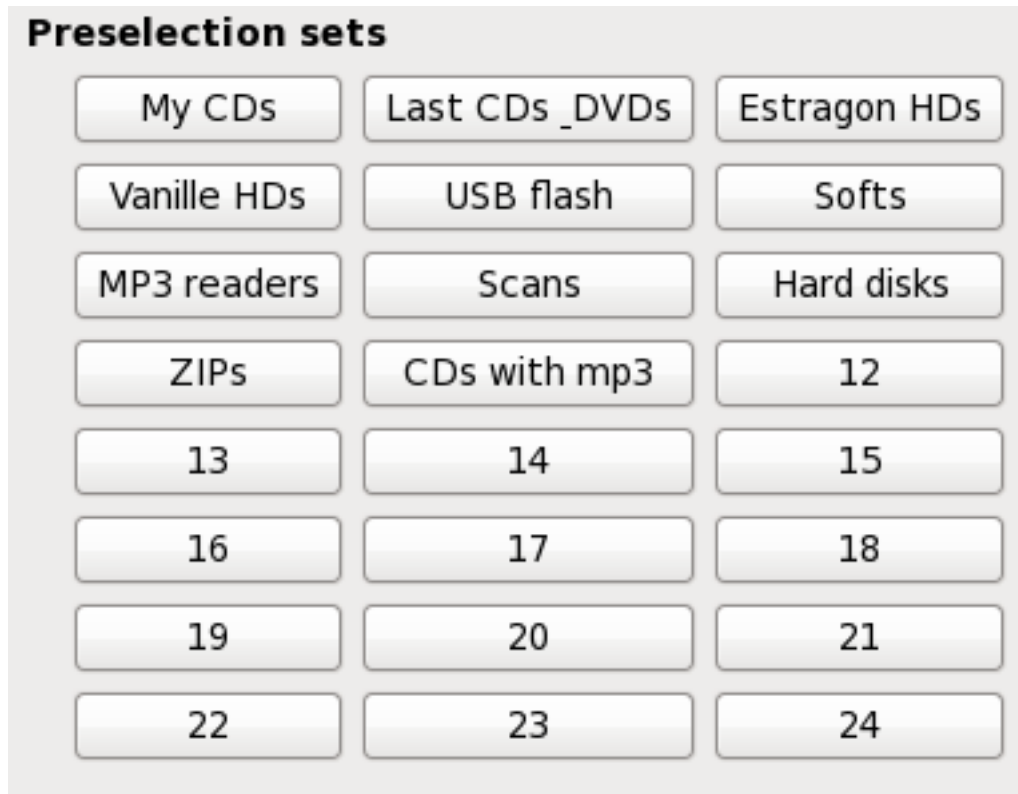
Screenshot of the Preselection sets zone

If you have a lot of volumes indexed, for instance a few hundreds CDROMs, it would be a chore to individually select each of them each time you are looking for some file. The preset buttons mechanism allows you to put some order in your collection. For instance you would define a preset button for all volumes where you can have music files, another where you have software installation files, etc. If you can hardly retrieve your fixed disks among all the CD and DVD volumes, just define a Hard disks button.

To store a preselection, first select the wanted volumes in the volume list. Then right click on a button labeled (void) and select Fill preset from selection . You will be prompted for a new label for the button. Alternatively, you may left-click on the preset button while the **Control** key is pressed.

Now to apply a previously stored preselection, replacing any previous selection in the volume list, all you have to do is left-click on the preset button. If the button has no preselection defined, i.e. is labeled by its order number, nothing will happen. Alternatively, you may choose Apply preset from the button's context menu.

You can also build up a complex selection using several preset buttons. In order to add preselections to the current volume list selection, left-click on the preset button while holding down the **Shift**. If the button has no preselection defined, i.e. is labeled (void), nothing will happen. Alternatively, you may choose Merge preset from the button's context menu.

The manage groupbox
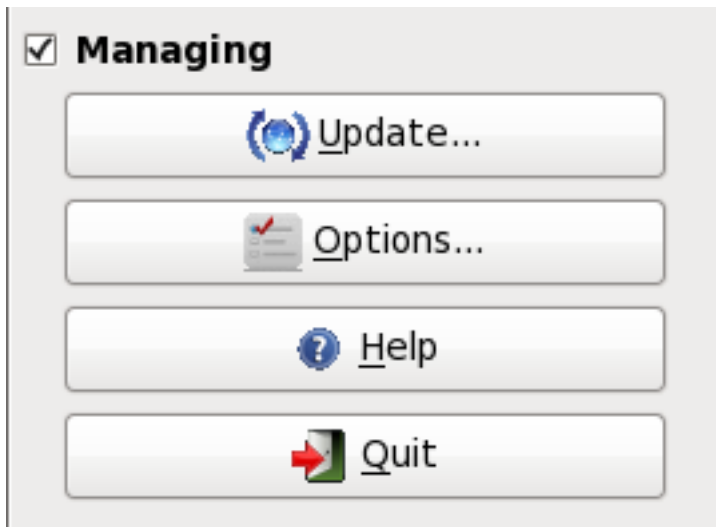
Screenshot of the Manage groupbox

Update... (**Alt+u**)	Brings up the Update indices dialog box, where you can update mounted volumes.
Options... (**Alt+o**)	Brings up the Options dialog box, where you can define or modify the drive configuration that is to be considered by XLocate.
Help (**Alt+h**)	Displays the XLocate Handbook in Konqueror.
Quit (**Alt+q**)	Exits the application.

Note

If you need more space for the results pane, you can try to hide this groupbox by unchecking the Manage checkbox. You can bring it back using the context menu.

The results pane

This is just an editor window where the results of your search are displayed. You can cut and paste and type in this pane. You can also display a HTML file or edit a text file.

A right-mouse menu is defined in the results pane. Besides the basic edition commands, we have the following entries:

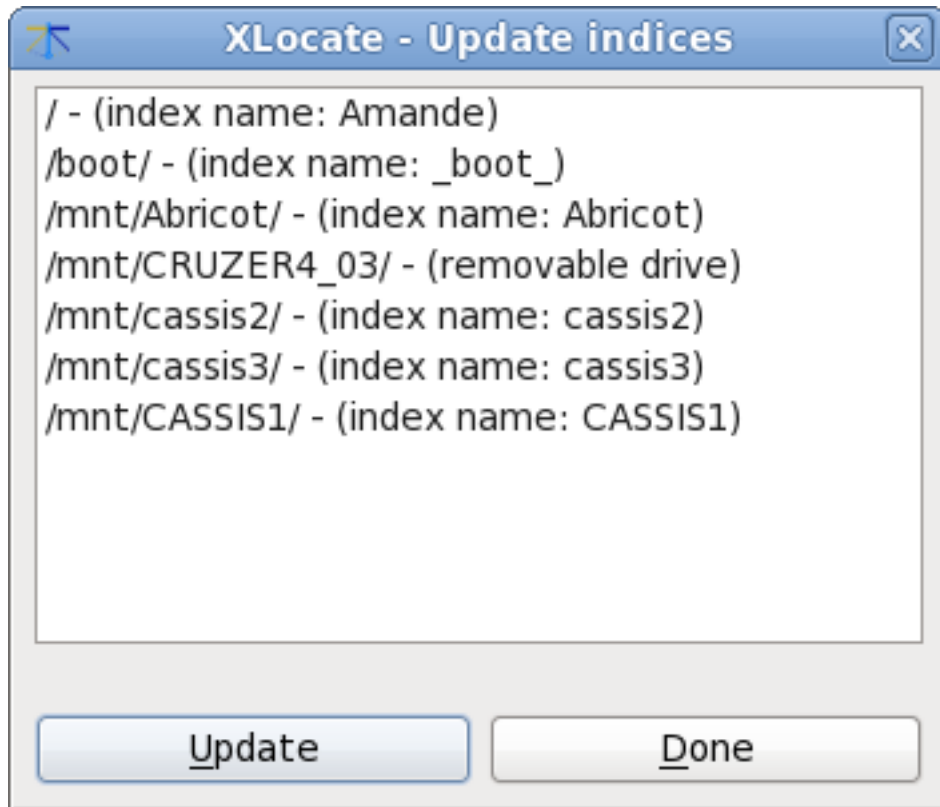|	
Change font	Useful to display command results with fixed pitch fonts for instance.
Display HTML file	Open (read only) a HTML file based on Qt's rendering engine.
Open text file	Convenience usage of editor.
Close file	Convenience usage of editor.
Save file	Convenience usage of editor.
Save file as	Convenience usage of editor.

Find in pane

A complete textual search with case sensitivity, whole word and backward search options. Regexps are not supported.

Run command

This is to run a shell command from within XLocate. XLocate will wait for the command's termination and display its results in the results pane.

Note

The text previously selected in the results pane (i.e. typically a file path and name) will be kept in the run command's text entry box..

Start application

XLocate will not wait for the termination of the command nor display any results. This is appropriate to launch an application.

Note

The text previously selected in the results pane (i.e. typically a file path and name) will be kept in the run command's text entry box..

The update dialog

The Update DBs dialog pops up when you click on the Update... button in the main window. The displayed volumes are the ones specified in your `xlocate.conf` file, provided there are mounted. You can select one or more volumes to update. The update processes are launched as separate threads as soon as you click on the Update button in the dialog box, but the dialog will be exited only when you click on Done. A message box will inform you when upon creation of every index file, which can in some cases take several minutes, but does not lock XLocate.

Screenshot of Update indices dialog

If you update a drive tagged as removable, you will be prompted for a name to give to the entry in the volume list, and by the same token to the index file. Be careful to use the same name when you update a removable writable media. Currently, XLocate helps you doing this by providing the volume's label as a suggestion for this name.

Chapter 4. Credits and Licenses

XLocate

Program copyright (c) 2012 Alexandre Oberlin

XLocate page at migo.info [http://www.migo.info/xlocate/]

This program is licensed under the terms of the GNU General Public License [common/gpl-license.html].

Documentation copyright (c) 2012 Alexandre Oberlin

XLocate page at migo.info [http://www.migo.info/xlocate/]

This documentation is licensed under the terms of the GNU Free Documentation License [common/fdl-license.html].

Appendix A. Installation

How to obtain XLocate

The home page for XLocate is http://www.migo.info/xlocate/.

Requirements

You will need the following programs installed in order to use XLocate version 0.68 :

- Qt libs version 4.7 or higher, available at http://www.trolltech.com [http://www.trolltech.com] (mandatory)

- slocate version 2.7 or higher

- GNU locate from package findutils version 4.2.15 or higher

- mlocate version 0.23.1 or higher

- blkid from package e2fsprogs version 1.41 or higher. If you want to index removable volumes other than CDROMs, blkid adds convenience by retrieving the volume label.

- hal daemon (to spot removable drives).

All this software comes along with any recent distribution.

The development version of Qt libs are necessary to install the program from sources.

Compilation and installation

XLocate from version 0.63 compiles natively on Qt4 and Qt3 (no Qt3 compatibility libs needed). However, new features in version 0.68 are not available when compiling under Qt3.

Let's suppose you downloaded the archive xlocate-0.68.tar.gz in /tmp. In order to compile and install XLocate on your system, type the following:

```
% cd /tmp
% tar -xvzf xlocate-0.68.tar.gz
% cd xlocate-0.68
% ./configure
% make
% su -c 'make install'
```

XLocate uses qmake in the configure process. Should you run into problems please report them to the author.

You might want to use **cron** or **at** to automatically update the indes files used by XLocate (of course not for read-only media like CDROMs/DVDs/BlueRay etc.). See the **GNU locate/slocate/mlocate** doc or check with the General / Check command lines option of XLocate to build the proper command lines to be given to **cron** or **at**.

Appendix B. Keyboard shortcuts

General keyboard shortcuts

Search (**Ctrl+r**)	Start searching.
Select All (**Ctrl+a**)	Select all items in volume list.
Invert selection (**Ctrl+i**)	Invert selections of items in volume list.
Update (**Ctrl+u**)	Display the Update DBs dialog box.
Options (**Ctrl+p**)	Display the Options dialog box.
Help (**F1**)	Display the Help menu.
Quit (**Ctrl+q**)	Quit the application, allowing to save a modified file.
Go to results pane (**Ctrl+e**)	Set focus to the results pane, where you can navigate, edit the result or display the context menu.
Go to pattern zone (**Ctrl+n**)	Set focus to the pattern zone, where you enter the string or regular expression to be searched.
Go to volume list (**Ctrl+k**)	Set focus to the volume list, where you choose the volumes in which the search will be done.
Open text file (**Ctrl+o**)	Open text file in the results pane.
Close text file (**Ctrl+w**)	Close text file opened in the results pane.
Save text file (**Ctrl+s**)	Save text file opened in the results pane.
Context menu (**Shift+F10**)	Brings up the context menu, which depends on the currently selected widget.

Editor keyboard shortcuts

XLocate emulates mouse select/paste operations using the keyboard.

Paste mouse selection (**Shift+Insert**)	Pastes the mouse selection, AKA primary selection (equivalent to pressing mouse middle button).
Copy as mouse selection (**Ctrl+Insert**)	Copies the current selection and put it into the mouse selection or primary selection (equivalent to selecting text with the mouse). This is necessary only if the text has been selected using the keyboard.

Appendix C. Glossary of specific terms

Explanation of terms

blkid   Found in e2fsprogs. Used to get labels.

hal   Used to identify removable drives.