1 Overview

BDGUI is a GUI program for displaying information about block devices under Linux. It's also possible to (temporary) mount devices with this program.

This program displays information about:

- Block devices
- Software raid
- iscsi disks
- fstab
- stats
- LVM

it also has the following features

- It's possible to change the columns and the order in which they are displayed in the 'disks' tab page (settings=>fields)
- The program displays a notification when devices are added or removed or when devices are mounted or unmounted
- There is also an auto refresh of all information when there when devices are added or removed or when devices are mounted or
- It's possible to hide and show tab pages ("settings=>visible tabs" and "settings"=>"user defined tabs"
- It's possible to define your own tab pages based on the "Disk" tab page (setting=>user defined tabs"

2 Building BDGUI

This program can be build als follows:

For compiling BDGUI you need the following libraries and dev packages:

- gettext
- libblkid
- libudev
- When compiling for KDE4, the following is also required:
  - libQtNetwork.so.4
  - libQtXml.so.4
  - libQtDBus.so.4
  - libQtGui.so.4
  - libQtSvg.so.4
  - libQtCore.so.4
  - qjson (version 0.8.1)
  - libkdeui.so.5
  - libkdecore.so.5
- When compile for KDE5, also the following is required
  - libKF5ConfigCore
  - libKF5CoreAddons
  - libKF5I18n
  - libQt5Core
  - libQt5Gui
  - libQt5Widgets

The program can be build as follows:

- goto the rood of bdgui sources and do the following:
- mkdir build
- cd build
- Configuration:
  - for kde5: cmake ..
  - for kde4: cmake -Dkde=4 -DQT_QMAKE_EXECUTABLE=<qmake 4 exec> ..
- make
- sudo make install (if you want to install the program)
- running:
- bdgui can be run directly from the “build” folder after make compleets. It can be run as normal user but not all information is diaplyes (LVM tab, label and filesystem type from not mounted disks).
- If it’s possible run bdgui as root, this way more information is displayed.

Problems:

- If you get message 'Compile your code with -fPIC or -fPIE….' ,
  remove the contents of the build folder and run cmake again. This happens when the program is first build for kde5 and then for kde4 without cleaning the build directory.
- KDE4 version can be build with “cmake -Dkde=4 ..”
  If you get an error message that "QT_QT_INCLUDE_DIR" is used in this project but not found than add -D QT_QMAKE_EXECUTABLE=<qmake executable> to the cmake command line

3 “Disks” tab page

The first tab page(on the left) contains a lot of information about all block devices on the system.

In general the following storage types are handles as block devices under Linux:

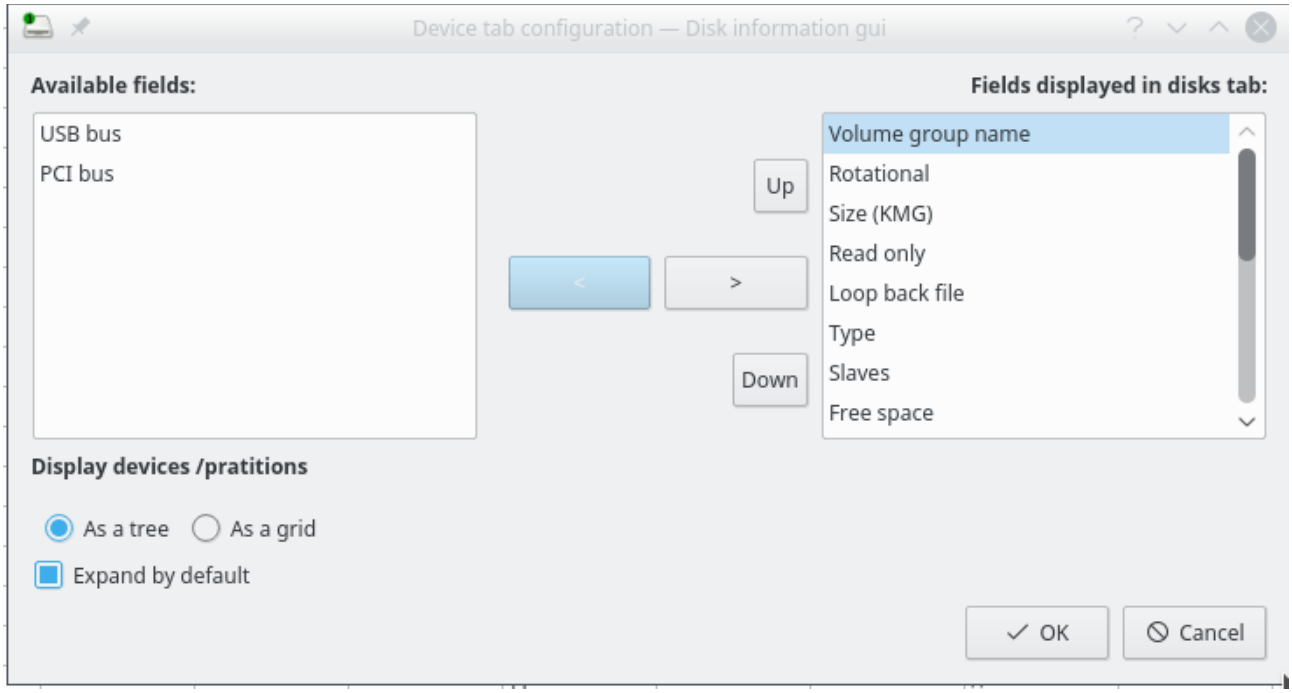
- Real block devices:
  - Physical disks
  - Removable disks
- Virtual block devices
  - LVM device mapper devices
  - Linux Raid devices
  - ISCSI
  - Loop back
  - and some ram disks

Note: CIFS/SMB mounted shares are not handled through a devices and are therefor not visible in the “disk” tab page”.

3.1 Changing the “Disks” tab page

It’s possible to change the information displayed on the “Disks” pages through “settings”=>”Fields”. It’s also possible to define you’re own tab pages with the menu option “settings’=>”user defined tabs”.(see 4 Define your own tab pages).

This chapter is about the “Fields” dialog.



The “Fields” dialog can be used to changes to following settings:

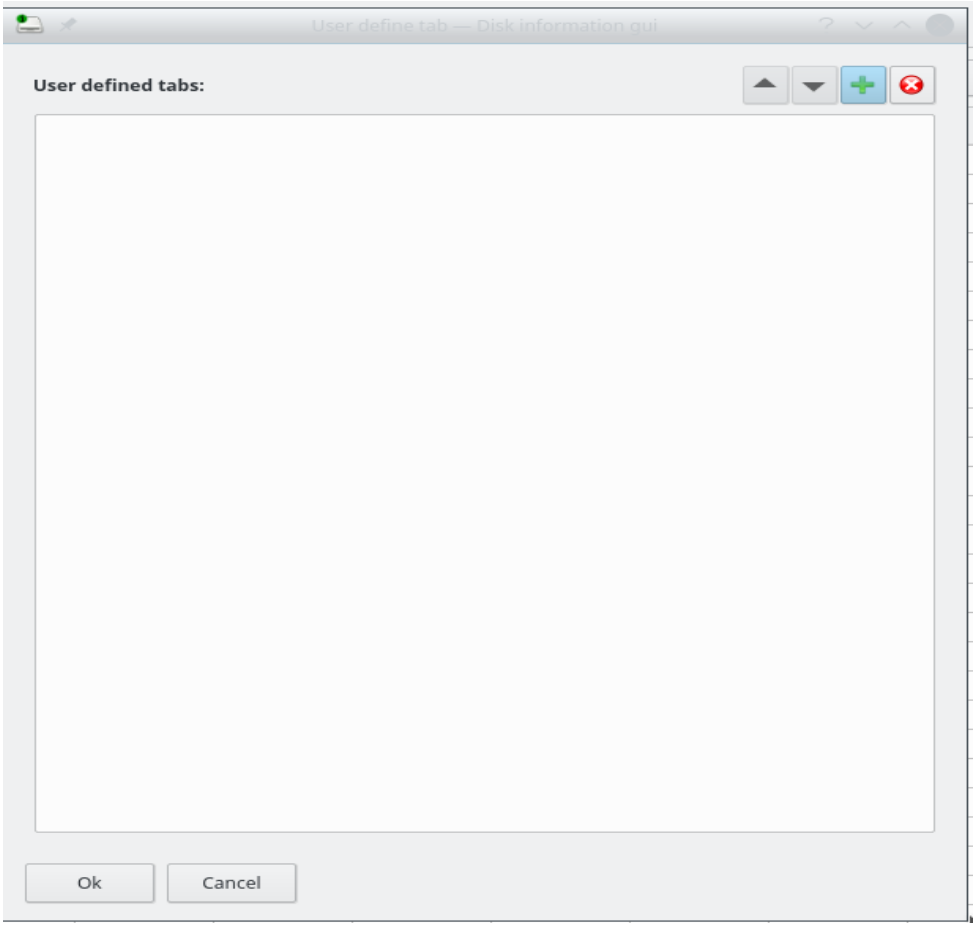
- The fields that are displayed in the “Disks” tab page
- The order of fields
- Choose if the table is displayed as a tree of as a grid
- “Expand by default”, if the table is displayed as a tree

4 Define your own tab pages

It’s possible to define your own tab page based on the data from the “Disks” tab page.

Those tab pages can be defined after selecting the “settings” menu and then “user defined tabs”.

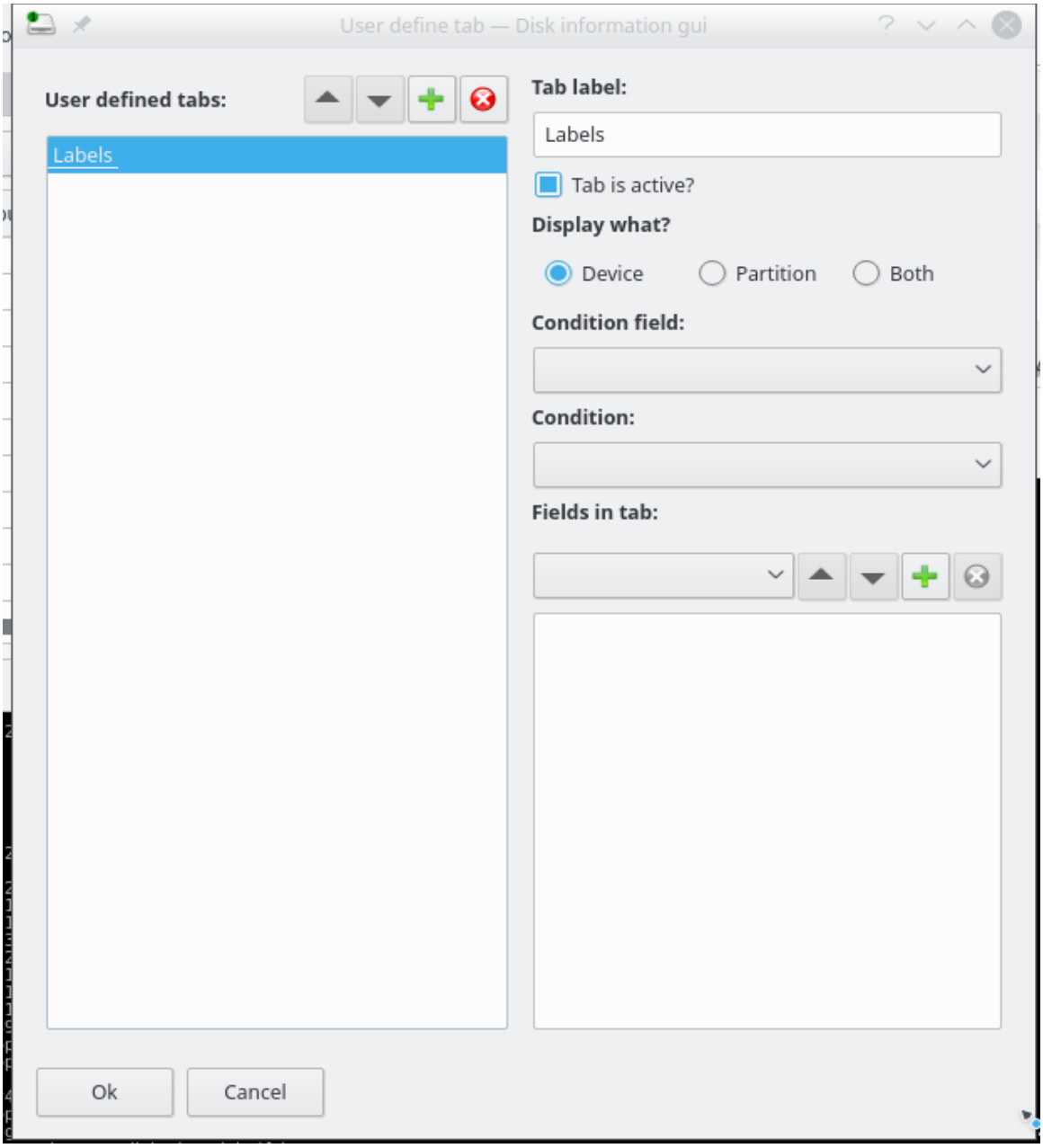
A dialog with an (empty) select list is displayed:



After pressing the “+” button you can enter the tab page label. It is possible to define a hot key by adding a & to the label name. If for example La&bel is entered, then after alt-b the tab named “label” is displayed.

After pressing OK it’s possible to define which data is displayed on the tab page.

The dialog look like this:



Label	The label of the tab page
Tab is active	When checked (by default) this tab is displayed
Display what	Choose what do display Block devices only, partition of both
Condition Field Condition	It is possible to filter the data from the “disks” device on one field. When left blank all data is shown
Fields	Add the field you want in the tab

After pressing “Ok” the configuration is saved to disk

5 LVM

The “Disks” tab has some information about devicemapper devices. For those devices the “model” column contains the text “LVM device” and the column “lvm name” contains the lvm name of the device. This even works when the program is run as a normal user.

There is also a tab called “LVM”. This contains information about physical volumes, volume groups and logical volumes. This part of bdgui contains information if:

- Bdgui is run as root
- lvm meta daemon is running
- and here is or more LVM partition.