gmodconfig Manual V0.2

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Introduction

The gmodconfig application aims to provide a simple way for end-users to download, install, configure and update Linux kernel modules, in the language of their choosing, through an easy-to-use GNOME based graphic interface.

To Start gmodconfig

You can start gmodconfig in the following way:

Command line

To start gmodconfig from a command line, type the following command, then press **Return**:

gmodconfig

When You Start gmodconfig

When you start gmodconfig, the following window is displayed.

X	qn	odco	onfig					• • ×
			Install	<u>H</u> elp				
	abi arcl cry; driv fs lib net sou	h pto vers	Tupren	Teh		Module: Parameters Setup Upda	tes About	
•				*	•	✓ Apply Sav	e 🥱 Und	0

Figure 1. gmodconfig Start Up Window

The gmodconfig window contains the following elements:

Menubar.

The menus on the menubar contain the commands to save, quit and get help.

Treeview.

The treeview shows the modules installed on your machine in a tree fashion.

Search field.

This search feature allows you to quickly access a module by name.

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Tab area.

The tab area has 4 tabs, in which module specific informations will be displayed once a module is selected.

Buttons.

Below the tab area are the "Apply", "Save" and "Undo" buttons.

Usage

You can use the gmodconfig application to perform the following tasks:

- the Section called *To Configure Kernel Modules Parameters*
- the Section called To Check New Releases Of Modules
- the Section called To Install Kernel Modules
- the Section called View Author, License, And A Link To The Author's Website

To Configure Kernel Modules Parameters

To configure a kernel module, either select the module from the treeview on the left or type its name in the search field below the treeview. Its parameters will be displayed on the right, in the "Parameters" tab. If the module does not have any parameters, the message "This module has no parameters" will be displayed instead.

If the module has parameters, you can change the settings as you wish. Click "Save" to save your changes into /etc/modules.conf (you might need root privileges to modify this file). Click "Undo" to revert back to the previous unsaved settings.

The parameters of a module are displayed one per line. By default a text field will show up next to each parameter description, allowing you to enter a value.

Xamodconfig		· • ×
<u>F</u> ile <u>E</u> dit <u>I</u> nstall <u>H</u> elp		
 ▷ abl ▷ arch ▷ crypto ▷ drivers ▷ fs ▷ lib ▷ net ▷ sound 	Module: scanner USB Scanner Driver 0.4.6 Parameters Setup Updates About User specified USB idVendor User specified USB idProduct User specified read timeout in seconds	
scanner	 ✓ ✓ Apply Save ✓ Undo 	

Figure 2. Parameters tab for the scanner module

If the proper XML meta-data file ("module XML") is available for the selected module, gmodconfig will be able to display:

- a check box for a boolean type parameter
- a pulldown list for an array type parameter or an itemized list of values
- an input field for char, long, strings etc.. type parameter

An example XML file is available for the ov511 module. The following figure shows what the parameters tab looks like for this module.

Xamodconfia	
<u>F</u> ile <u>E</u> dit <u>I</u> nstall <u>H</u> elp	
⊳ abi	Module: ov511
⊳ arch	ov511 USB Camera Driver
⊳ crypto	Parameters Setup Updates About
drivers	Sensor automatically changes brightness
⊳ fs	Sensor automatically changes gain
⊳ lib	Sensor automatically changes exposure
⊳ net	Debug level: 0=none, 1=inits, 2=warning,
▷ sound	3=config, 4=functions, 5=max
	Enable snapshot mode
	Fix vertical misalignment of red and blue at 640x480
	Read RGB instead of BGR
	1 Number of simultaneous cameras
	Turn on compression
	Replace image with vertical bar testpattern (only partially working)
4 1//	3
ov511	✓ ✓ Apply 🕞 Save 🥱 Undo

Figure 3. Parameters tab for the ov511 module

Tip: Kernel modules authors must produce a "module XML" file for gmodconfig to be able to show more precise parameter types as well as translations of parameters descriptions. A companion tool of gmodconfig called gmodconfigedit can help kernel modules authors to generate and update module XML files.

To Check New Releases Of Modules

To check if new releases of a kernel module are available, first select a module as explained in the Section called *To Check New Releases Of Modules*. Then click on the "Updates" tab on on the right. If no new releases informations are available, the message "I'm sorry, new versions informations for this module are not available" will be displayed instead. Else available versions will be displayed in a table.

Clicking on a release entry in the table will show the changelog of that release as specified by the author. In addition if the author made a DKMS³ package available for that release the "Install" button will be activated. Then clicking on the button will bring up the Install Manager.

For example the ov511 has 2 available releases. The second one has been selected and the list of changes written up by the author are displayed. The "Install" button is greyed out because no DKMS packages are available for download for this release.

Xamodconfia		• • ×
<u>F</u> ile <u>E</u> dit <u>I</u> nstall <u>H</u> elp		
⊳ abi	Module: ov511	
▷ arch	ov511 USB Camera Driver	
⊳ crypto	Parameters Setup Updates About	
▷ drivers	The latest versions of this module are:	
⊅ fs	The latest versions of this module are:	
⊳ lib	Name Version Last release	
▷ net	ov511 stable 1.64 20030101	
▷ sound	ov511 experimental 2.21 20030207	
	Changes:	
	This version separates the ov511 and ovfx2 code from the image sensor code, which lives completely in ovsensor.o now. You must load this module either before or after the ov511 or ovfx2 modules (unless you have an OV511-	
< /// >		
ov511	Apply Save Sundo	

Figure 4. Updates tab for the ov511 module

Tip: Kernel modules authors must make an XSA file available on the Net for gmodconfig to be able to pull new releases informations. This XSA file is referenced in the module XML file of the module. A companion tool of gmodconfig called gmodconfigedit can help kernel modules authors to generate and update XSA files.

To Install Kernel Modules

Select "Install a Module" in the "Install" menu to bring up the Install Manager, or select a release for which a package is available for download in the Updates tab.

Enter the URL of a DKMS⁴ package. If the Install Manager popped up because you clicked on the "Install" button in the "Updates" tab, then the URL of the package you selected is already entered. Clicking OK will start the installation.

View Author, License, And A Link To The Author's Website

Once you have selected a module these informations are available in the "About" tab. If a "module XML" file is available and contains a link to the author's website, a clickable link will be displayed in that tab.

About gmodconfig

gmodconfig was written by Cyril Bortolato (<borto@users.sf.net>). To find more information about gmodconfig, please visit the gmodconfig Web page⁵.

To report a bug or make a suggestion regarding the gmodconfig application or this manual, use the Trackers on the project's page⁶ on Sourceforge.

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Notes

- 1. ghelp:fdl
- 2. http://sourceforge.net/projects/gmodconfig/
- 3. http://www.lerhaupt.com/dkms/dkms.html
- 4. http://www.lerhaupt.com/dkms/dkms.html
- 5. http://gmodconfig.sourceforge.net/
- 6. http://sourceforge.net/projects/gmodconfig/
- 7. ghelp:gpl