

Klaus Knopper answers your Linux questions

Ask Klaus!

By Klaus Knopper

Knoppix Install

? Hello, Klaus. I have been using your OS version 6.4 as supplied on the DVD with the January 2011 *Linux Magazine*. I like it so much that I would like to install it on the hard drive on one of my machines. I have looked through the files but cannot find a way to install it. Can you please advise? I am not on the Internet but hope to be on in the next couple of months. Best Regards, John Stirling

💡 A *Knoppix harddisk install* option exists in the Preferences menu with the "Own" ("zero work needed") utility. You need at least 15GB free on your hard disk with unpartitioned space, or a 1GB Linux swap partition, and the rest for the uncompressed Knoppix files. The installer tells you at each stage what it needs and also allows you to repartition your hard disk with gparted, in case you want to keep another previously installed operating system.

My Laptop for a Distro

? Klaus! How great it is to finally write to you. I've been reading your column and seeing your genius solutions for almost two years now, and I now have an issue worthy of your time – at least I hope. I recently bought a fairly good laptop: an Acer Aspire Timeline X 5820TG-6406. Being lazy, I no longer have the energy to install and configure Gentoo. But now I have hit an impasse. The laptop is a dual-GPU laptop. On Windows 7, that's no issue, but Windows 7 itself is an issue.

No matter what [Linux] distro I use, it won't work. I tried loading Ubuntu 10.10; nothing started, so I loaded 10.04 and it worked somewhat. Now, I'll be honest, I have no brand loyalty when it comes to distros; I'm willing to jump to any distro. If you know this issue is solved, I will hop to it. My needs are simple when it comes to Linux: Gnome or Xfce, and no PulseAudio.

Thanks for reading this, Klaus; it really means a lot to me that you take time to help out the Linux community. Mark Mina

💡 If I'm not completely mistaken (having no such model for testing), the main challenge with this notebook really seems to be the graphics adapter, which is a hybrid Intel + ATI/AMD RadeonHD 6550M. You will most likely need a new kernel (at least 2.6.38 or 2.6.39) with the Radeon DRM module and Xorg 1.10 with the xorg-video-radeon driver, which is currently in Debian/unstable. This is quite distro-independent; the most recently released ones will be the best candidates.

You may also succeed by switching off one of the graphics chipsets in the BIOS and explicitly configuring the other in Xorg. The Intel version may be a good candidate. For Knoppix, try to boot with:

```
knoppix xmodule=intel
```

to see if the "powersaving mode" part of the graphics chipset is working. Actually, the Intel chipset should even be sufficient for 3D effects and Compiz for your daily work, because the ATI chipset is probably targeted more to high-frame gaming.

To create a custom `/etc/X11/xorg.conf`, the "Device" section should contain the following lines

```
Section "Device"
    Driver      "intel"
    ...
EndSection
```

to select the Intel chipset driver (as opposed to "radeon" driver for the ATI/AMD graphics chipset).

Linux Network Drive

? Klaus: How would you map a Linux RedHat/Ubuntu (network) drive on a Windows XP computer? Somebody recommended a tool called ExpanDrive [1] or replacing the computer name with an IP address. Samba is installed, running, and properly configured on the Linux box, but there's got to be another way. Are there any alternatives to Wine software? How can I be just as good at Linux as you? Thanks for your help. Mike Mcleod



KLAUS KNOPPER

Klaus Knopper is the creator of Knoppix and co-founder of LinuxTag expo. He currently works as a teacher, programmer, and consultant. If you have a configuration problem, or if you just want to learn more about how Linux works, send your questions to: klaus@linux-magazine.com



Your question falls into two categories, which I will try to answer. In the first scenario, you have a Linux and a Windows partition on the same computer, and you want to access the Linux partition from a running Windows operating system.

Samba is not a good solution in this case, because it runs on Linux and exports directories as a “Windows drive” over a network to computers running Windows (or Linux as Samba clients). You could still accomplish this by running Linux inside a virtual machine on Windows and network-exporting the imported Linux partition to the Windows host. Nah, too complicated I would try the other way around. Boot Linux from the Linux partition or a Live system, and copy all needed data to the Windows partition. It does not matter whether your Windows system uses NTFS or FAT32, because Linux can write to both filesystems.

Still, a few “drivers” for Windows do allow access to Linux partitions from Windows, but they are very filesystem-specific – that is, you need to know

whether an ext2/3/4, Btrfs, ReiserFS, XFS, or other filesystem is installed on the Linux partition.

In your second scenario, you have a computer with Linux and a second computer with Windows, and you want to access files exported by the Linux computer acting as file server.

For this, the Windows program ExpanDrive, which you mentioned, could work, but you don’t really need it if you can configure the Linux computer as a Windows file server using Samba. ExpanDrive adds “secure FTP” (SSH on the Linux side) capabilities to Windows.

For Samba, check your running Linux system for the `/etc/samba/smb.conf` configuration file. If it’s not there, Samba is not yet installed. After installing and starting Samba with

```
sudo /etc/init.d/samba start
```

you can access data in your user home directory from Windows using the “network drive” path:

Hardware

Level 3 cache 3 MB

Product Name	G62-b55SE
Product Number	XF312EA
Microprocessor	2.53 GHz Intel Core i5-460M Processor
Microprocessor Cache	
Memory	4 GB DDR3 (2 x 2048 MB)
Memory Max	Supports up to 4 GB DDR3 memory
Video Graphics	ATI Mobility Radeon HD 5470 Graphics (switchable)
Video Memory	up to 2714 MB total graphics memory with 1 GB DDR3 dedicated
Display	39.6 cm (15.6") diagonal High-Definition LED HP BrightView Display (1366 x 768)
Hard Drive	500 GB SATA Hard Disk Drive 7200 rpm
Multimedia Drive	SATA optical drive: LightScribe SuperMulti DVD±R/RW with Double Layer Support
Network Card	Integrated 10/100BASE-T Ethernet LAN
Wireless Connectivity	Bluetooth wireless networking 802.11 b/g/n
Sound	Altec Lansing speakers
Keyboard	Full size keyboard with One touch launch keys and Action keys
Pointing Device	Touch Pad with On/Off button and 2-way Scroll pad support
PC Card Slots	5-in-1 integrated Digital Media Reader for Secure Digital cards, MultiMedia cards, Memory Stick, Memory Stick Pro or xD Picture cards
External Ports	<ul style="list-style-type: none"> • 1 VGA port • 1 stereo headphone-out • 1 microphone-in • 3 USB 2.0 ports • 1 RJ45 ethernet port
Dimensions	24.6 cm (L) x 37.4 cm (W) x 3.18 cm (min H) / 3.68 cm (max H)
Weight	Starting at 2.20 kg
Power	90 W AC Power Adapter 6-cell Lithium-Ion (Li-Ion) battery
What's In The Box	Webcam with Integrated Microphone (VGA)

Software

Operating System:	Linux SuSe SLED11
--------------------------	-------------------

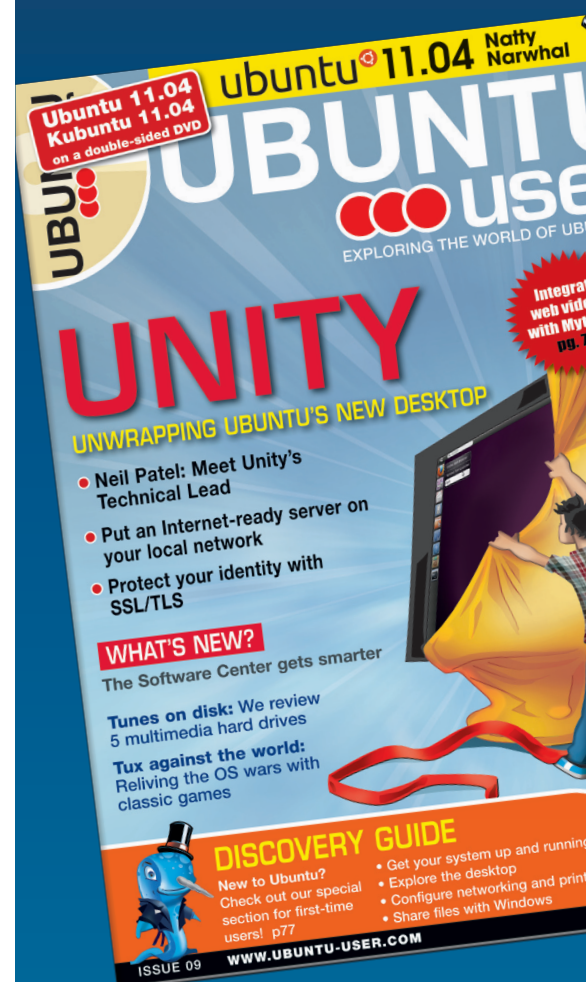
Figure 1: HP G62-b55SE hardware specs.

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```
\\Linux-Computername\username
```

where `Linux-computername` is the host-name of your Linux computer and `username` is the user of your “normal work” Linux user account.

Windows will ask you for the password for the “network drive,” which is usually the login password for your Linux user account. If that password does not work, you need to set a “Windows file server password” on the Linux side by issuing the following as system administrator:

```
smbpasswd -a username
```

The password will be added to Samba’s own password database and will be used exclusively for Windows access to the user’s Samba network drive.

HP WiFi on Ubuntu

Hi. I always read your replies in *Linux Magazine* and can’t tell you how much it helps. I have a problem with my WiFi and wonder if you could help. I recently got an HP G62-b55SE laptop (Middle East only), and it came with SUSE SLE. I am more of an Ubuntu user (though still a noob), so I installed Ubuntu on it.

Now my WiFi is not performing as well as it was before. It won’t detect networks, and even if it does, I need to be within 10 feet with no physical barrier. I looked on the HP site, but strangely, they only have Windows drivers and not a one for Linux. Surprising, because it comes with Linux. Please find my hardware specifications attached (Figure 1). Is there an alternative place to get these drivers?

Thanks in advance for the solution I know is coming. Regards, Muhammad Zubair Waqar

LISTING 1: GTA Output

```
01 mateusz@mateusz-R540-SA41-E452:~/Pulpit/Rockstar Games/
   GTA San Andreas$ WINEDEBUG=all wine gta_sa.exe
02 X Error of failed request: BadValue (integer parameter
   out of range for operation)
03 Major opcode of failed request: 140 (ATIFGLEXTENSION)
04 Minor opcode of failed request: 74 ( )
05 Value in failed request: 0x6200002
06 Serial number of failed request: 1980
07 Current serial number in output stream: 1980
08 mateusz@mateusz-R540-SA41-E452:~/Pulpit/Rockstar Games/
   GTA San Andreas$
```



This notebook uses a Bluetooth/WiFi combination by Broadcom. It may be that using Bluetooth and WiFi together causes interference between the two, or perhaps the Broadcom driver in the Linux kernel simply can’t handle it.

My best guess is to try the “broadcom-sta” driver module instead of the stock Linux kernel’s Broadcom support. The `broadcom-sta-source` module is available as source package in Debian, and `bc-mwl-kernel-source` in Ubuntu. You probably need to disable the “`ssb`” module (just add an entry to `/etc/modprobe.d/blacklist.conf` saying `blacklist ssb`) as well; otherwise, the kernel driver may block the hardware.

Got Game?

Hello: I am a long-time user of Ubuntu. Recently, I bought a new laptop on which I installed Ubuntu 10.10 and my favorite game, Grand Theft Auto: San Andreas (GTA:SA), which I also have on my second computer with Ubuntu 10.10. When I ran it, I just got some clips that seemed to be from GTA, but the game didn’t run. I clicked around a bit and, finally, I quit GTA and got the output shown in Listing 1.

Please help! Mateusz Magacz



You are trying to run a game designed for Windows, under Linux using Wine. Well, as you already know, this is possible.

Wine [2] provides the Windows API to Windows executables so that they will “see” a Windows environment. Wine is under heavy development, and it’s not easy to tell which version will work best with which Windows program. For some features, Windows libraries (`.dll` files) and special Windows drivers must be installed. Sometimes, programs tell you what’s missing during installation; and sometimes, you need them “pre-installed” in a directory because the installer does not even start. It’s a mess. ;-)

Please check the Wine application database [3] for the procedure and version of Wine known to work

with your game. It may be that you even need to downgrade Wine to get the game running.

The error message you sent is the graphics server Xorg telling you that the necessary 3D support would be missing in order to run the game or parts thereof. If 3D is otherwise working (Compiz, native Linux games like Neverball or Chromium B.S.U.), then it’s a Windows driver problem. If `glxgears` shows fewer than 100 frames per second, and `glxinfo | grep -i direct` does not say `direct rendering: Yes`, then hardware acceleration is not working with your card, and you need to take care of your X server’s configuration first.

Be My Guest

From the *Knoppix Support mailing list*

The problem I am having is that the mouse movement and positioning (in Knoppix Guest) is so horribly slow as to make it totally unusable. This is not the case with other systems, such as guests in Fedora or Windows.



I noticed that mouse acceleration sometimes differs in KVM/QEMU compared with the surrounding native Xorg. I’m not entirely sure why; it may be an option in the generated `xorg.conf`, related to “`HWCursor`” vs. “`SWCursor`,” or just internal calibration of the usually “experimental” version of Xorg that I use because of support for newer hardware. I did not experience pointer delays or slowness, however; rather, the pointer was moving “too fast.” I use VirtualBox rather seldom, because KVM currently has better scripting and internal virtual network infrastructure.

You can probably set mouse acceleration in the guest operating system with:

```
xset mouse 4
```

or:

```
xset mouse 8
```

or even higher values. ■■■

INFO

- [1] ExpandDrive: <http://www.expanddrive.com/mac>
- [2] Wine: <http://www.winehq.org/>
- [3] Wine application database: <http://appdb.winehq.org/>