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## Tablet PC

**?** Do you have any recommendations for installing Linux on a tablet PC, Acer Travelmate C100 series? After a few MS Windows updates, it has become almost unusable. What is the preferred Linux distribution? Are there any known issues?

At the moment I am a newbie and experimenting with Linspire.

**💡** It seems that many GNU/Linux distributions will run without many problems on that particular PC/Notebook, but not all features of the “proprietary” hardware parts (such as the screen pen) are available because of missing open source driver specifica-

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tions from the vendor. There is no “tablet PC-specific” distribution that would fit perfectly, but there are success reports, especially from Debian-based distributions.

If you already have Linspire up and running, you should also give Ubuntu or Debian a try and decide what you like best for a final installation. Also, you can probably go with a dual- or triple-boot option to switch between distributions on different partitions, while keeping your personal data and settings on the same shared partition.

Don't forget to make backups of your home directory once you really start to work productively with it.

## Input Not Supported

**?** I tried booting Knoppix 5.1.1 and it booted off the DVD properly and went into the Knoppix startup screen. I hit Enter to boot from DVD (as prompted to do so) and the kernel startup began. It seems like it went through startup and was prepared to show me the GUI, but instead my monitor went dead with the “input not supported” box on the screen (manufacturer default for monitor). My specs are:

- Computer: Dual Core AMD Optron, 2.01GHz, 2GB RAM
- Video: NVIDIA GeForce 7600 GT 256MB
- Driver name: nv4\_disp.dll
- Driver version: 6.14.0011.6375

I discovered a more recent driver was available and I downloaded it, but it didn't help.

- New driver: nv4\_disp.dll
- Driver version: 6.14.0011.6921

I watched the messages as the system started and noticed that Knoppix does see all my hardware.



Yes, it's your monitor. By the way, it does not matter which “driver” you installed for your graphics card under Windows, since nothing of Windows will be used when you start Linux. Linux has its own modules for each part of hardware – usually more generic drivers that work for a variety of hardware rather than “one driver for each product.”

Several problems can cause this monitor-generated message.

1. Maybe the monitor is not DDC-capable (i.e., it does not report its preferred settings to the operating system), so the hardware detection does not find



the right frequencies for it. Default in Knoppix is a resolution of 1024x768 at 16-bit color depth with 75Hz vertical and up to 90kHz horizontal refresh.

For Knoppix, you can set the desired frequencies and resolution for the Xorg server at the *boot:-prompt*:

```
knoppix screen=1280x1024 ↵
vsync=75 hsync=95
```

Note that these settings will only become active once X starts; prior to this, a framebuffer resolution is active.

Usually, for other distributions, an interactive setup program is provided, which can be called from the text console to configure graphics mode.

Under Debian, this can be done with the command

```
dpkg-reconfigure xserver-xorg
```

which will guide you through the graphics adapter setup with a textmenu-driven GUI. Also, you can enter this interactive setup in Knoppix by giving the *expert* boot option at boot time.

2. A second problem could be a wrong or mismatching driver.

For your card, Knoppix will try the “nv” driver of Xorg, which may not fully support some NVidia graphics cards. This also has to do with the closed or unavailable technical specifications of NVidia cards, which makes it difficult to write optimized drivers. You can try a different driver with boot option:

```
knoppix xmodule=vesa
```

This sets the vesa driver in */etc/X11/xorg.conf*, which is a bit slower than nv but works fine on most cards.

Also, you could stay in the working framebuffer resolution mode by booting with

```
knoppix xmodule=fbdev
```

or selecting the framebuffer modes with

```
fb1280x1024
```

(no “knoppix” prefix in this case), which will start the framebuffer in a 1280x1024 at 16-bit resolution.

If you see a penguin in the top left corner of your screen during boot, then

framebuffer mode is supported by your card and also can be used by Xorg if you tell Knoppix to do so, as described previously.

Framebuffer mode also has another advantage. For most notebooks, the framebuffer mode is a good (if not the only) way to activate all output video ports at once, so that a monitor connected to the external port will show the same picture that the internal display does. If you cannot get a notebook to work with a beamer, try framebuffer mode, but 3D and opengl functions won’t work in that mode.

3. Finally, maybe you should boot into text mode (*knoppix 2*), download and install the proprietary NVidia driver for your card from NVidia’s home page (if you can agree with its license), and then start graphical mode (*init 5* from the shell, no reboot required).

To do this, you will need a working Internet connection, which can be achieved with *netcardconfig* (LAN), *wlcardconfig* (WLAN), *modemtool*, or other Internet setup programs provided by Knoppix, which are all able to run in text mode as well as graphics mode.

I recommend trying the framebuffer option first.

## Connecting to a PDA



I have a Sharp SL-5600 PDA that I have been trying to connect to my Fedora Core 6 system. I’m

not sure what I’m doing wrong, but it won’t work. I have a USB connection and because the PDA is a Linux-based system, I thought this would be easy.

What steps do I need to follow to make my Fedora system communicate with my PDA?



The good: Running a Linux-based operating system by itself.

This PDA offers access via SSH, rsync, and other similar access points once you get it networked to your computer –it is just like a second computer connected to a LAN, which is a USB-based local network in this case.

The bad: After some research, I could not find a specific Fedora GUI especially suited for data synchronization that would be easy enough for beginners, and the PDA has no “usb data storage” emulation mode that would make it behave like a USB hard disk (which is what



most digital cameras provide for easy data exchange). Still, there are some ways to connect:

1. Use a USB or PCMCIA CompactFlash card reader for exchanging data via compact flash card directly. (I think the SL-5600 has one.) This can be a little dangerous if you are new to Linux and don’t know which files are needed on the compact flash.
2. Create a network USB connection to the PDA. A HOWTO and Framework for data exchange is at [http://zsrep.sourceforge.net/docs/deb\\_etch\\_cradle\\_conf/deb\\_etch\\_cradle\\_conf.php](http://zsrep.sourceforge.net/docs/deb_etch_cradle_conf/deb_etch_cradle_conf.php), but it looks like it was written for experienced GNU/Linux users.

I’m confident that Fedora Core will set up most of the driver stuff by itself, but you will have to get familiar with network services, such as SSH and rsync. Maybe use the *fish* plug-in and protocol in the Konqueror browser, which allows you to remotely access files over SSH with a URL such as *fish://computer-address/*.

Another graphical front end for synchronization called Qtopia Desktop is available, but it looks like it’s not offered in a recompiled form for Fedora. For older distros, you can download it from <ftp://ftp.trolltech.com/qtopia/desktop>. There could be a port to Fedora from another place, but I couldn’t find one. ■

Send your Linux questions to  
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