Install Ubuntu / Linux on a Dell Inspiron 7500

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`https://www.bortzmeyer.org/dell-inspiron-7500.html`

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I installed the operating system Ubuntu on a Dell Inspiron 7500 <`http://support.dell.com/support/edocs/systems/psyd/`> laptop machine. This article is to share the information that I obtained during the process.

While the basic functions are OK, there are problems. As often with laptops, especially very recent machines, a lot of things do not work, or do not work out of the box.

I hope I used only free software but I did not check thoroughly the licences.

This machine has the following hardware and, for each one, I indicate if it worked out of the box, or after manipulations :
— A PCMCIA Ethernet network controller. Works out of the box. Tested at 10 Mb/s.
— ATI Rage Mobility AGP 2x graphics card. Works out of the box.
— ESS Technology ES1978 Maestro 2E sound card. Did not work with "Hardy Heron", despite several tests but works since "Intrepid Ibex".
— Power management system. Not tested.
The network is OK. With "Hardy Heron", Gnome's Network Manager could start it automatically at boot time, may be a consequence of using PCMCIA. I had to log in and to activate the network through Network Manager's menu. With "Intrepid Ibex", it now works.

Here are some details about the machine, as seen by Linux. First, the hardware as seen by lspci :

```
00:00.0 Host bridge: Intel Corporation 440BX/ZX/DX - 82443BX/ZX/DX Host bridge (rev 03)
00:01.0 PCI bridge: Intel Corporation 440BX/ZX/DX - 82443BX/ZX/DX AGP bridge (rev 03)
00:04.0 CardBus bridge: Texas Instruments PCI1225 (rev 01)
00:04.1 CardBus bridge: Texas Instruments PCI1225 (rev 01)
00:07.0 Bridge: Intel Corporation 82371AB/EB/MB PIIX4 ISA (rev 02)
00:07.1 IDE interface: Intel Corporation 82371AB/EB/MB PIIX4 IDE (rev 01)
00:07.2 USB Controller: Intel Corporation 82371AB/EB/MB PIIX4 USB (rev 01)
00:07.3 Bridge: Intel Corporation 82371AB/EB/MB PIIX4 ACPI (rev 03)
00:08.0 Multimedia audio controller: ESS Technology ES1978 Maestro 2E (rev 10)
00:10.0 Communication controller: Agere Systems WinModem 56k (rev 01)
01:00.0 VGA compatible controller: ATI Technologies Inc Rage Mobility P/M AGP 2x (rev 64)
```

And the CPU information :

```
processor       : 0
vendor_id       : GenuineIntel
cpu family      : 6
model           : 6
model name      : Mobile Pentium II
stepping        : 10
cpu MHz         : 400.016
cache size      : 256 KB
fdiv_bug        : no
hlt_bug         : no
f00f_bug        : no
coma_bug        : no
fpu             : yes
fpu_exception   : yes
cpuid level     : 2
wp              : yes
flags           : fpu vme de pse tsc msr pae mce cx8 sep mtrr pge mca cmov pat p
se36 mmx fxsr up
bogomips        : 801.20
clflush size    : 32
```

and the kernel startup messages (en ligne sur `https://www.bortzmeyer.org/files/dell-inspiron-7500`
And, finally, the very simple xorg.conf, produced by Ubuntu's install procedure, and which works :

```
# xorg.conf (X.Org X Window System server configuration file)
#
# This file was generated by dexconf, the Debian X Configuration tool, using
# values from the debconf database.
#
# Edit this file with caution, and see the xorg.conf manual page.
# (Type "man xorg.conf" at the shell prompt.)
#
# This file is automatically updated on xserver-xorg package upgrades *only*
# if it has not been modified since the last upgrade of the xserver-xorg
# package.
#
# If you have edited this file but would like it to be automatically updated
# again, run the following command:
#   sudo dpkg-reconfigure -phigh xserver-xorg

Section "InputDevice"
Identifier "Generic Keyboard"
Driver "kbd"
Option "XkbRules" "xorg"
Option "XkbModel" "pc105"
Option "XkbLayout" "fr"
EndSection

Section "InputDevice"
Identifier "Configured Mouse"
Driver "vmmouse"
EndSection

Section "InputDevice"
Identifier "Synaptics Touchpad"
Driver "synaptics"
Option "SendCoreEvents" "true"
Option "Device" "/dev/psaux"
Option "Protocol" "auto-dev"
Option "HorizEdgeScroll" "0"
EndSection
```

```
Section "Device"
Identifier "Configured Video Device"
EndSection

Section "Monitor"
Identifier "Configured Monitor"
EndSection

Section "Screen"
Identifier "Default Screen"
Monitor "Configured Monitor"
Device "Configured Video Device"
EndSection

Section "ServerLayout"
Identifier "Default Layout"
Screen "Default Screen"
InputDevice "Synaptics Touchpad"
EndSection
```

Here are a few good sites talking about Ubuntu on this machine : `<http://brinley.indicium.com.sg/brinley/dell7500.php>` (with pictures), `<http://rhermida.dyndns.org/linux/inspiron7500.html>` and `<http://wwwhsse.fh-hagenberg.at/Studierende/hse02006/inspiron/>`.