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Q&A with Ubuntu Forums admin Mike Basinger

ANSWERBUNTU

Using ZFS on Ubuntu



I'm setting up a server and want to ZFS for the data volumes. Is there anyway to use ZFS natively on Ubuntu?



ZFS is a combined file system and logical volume manager designed by Sun Microsystems. It is designed to handle very large filesystems, up to a maximum 264 (2 to the 64th power) bytes (16 Exabytes), and it can store a large numbers of files on said filesystem (up to 248 (2 to 48th power) files). If you want to use ZFS on Ubuntu, you have a couple of options. First, you can use the Ubuntu-zfs package from github [1]. You'll need to install Ubuntu-zfs, add the PPA, and install the package.

```
sudo -i
apt-add-repository ppa:zfs-native/daily
apt-get update && apt-get
install debootstrap ubuntu-zfs
```

Then, load the ZFS module.

```
modprobe zfs
dmesg | grep
```

The terminal output is:

```
ZFS: ZFS: Loaded module v0.6.0.56-rc8, ZFS pool version 28, ZFS filesystem version 5
```

Partitioning and configuration option can be found on the pkg-zfs github website.

The second option is to use the free Community edition of NexentaStor 3.x [2]. NexentaStor is based on the OpenSolaris and Ubuntu distributions; it has a proprietary derivative but the community version should work in most cases.

Neither solution is considered official, so you might be on your own for support.

Changing Console Font



Is there an easy way to change the font in an Ubuntu tty terminal screen? The current font is blocky and hard to read on my screen.



Many Ubuntu users do not know that if you press Ctrl + Alt + F1 through F6, you will exit the Ubuntu GUI and enter a

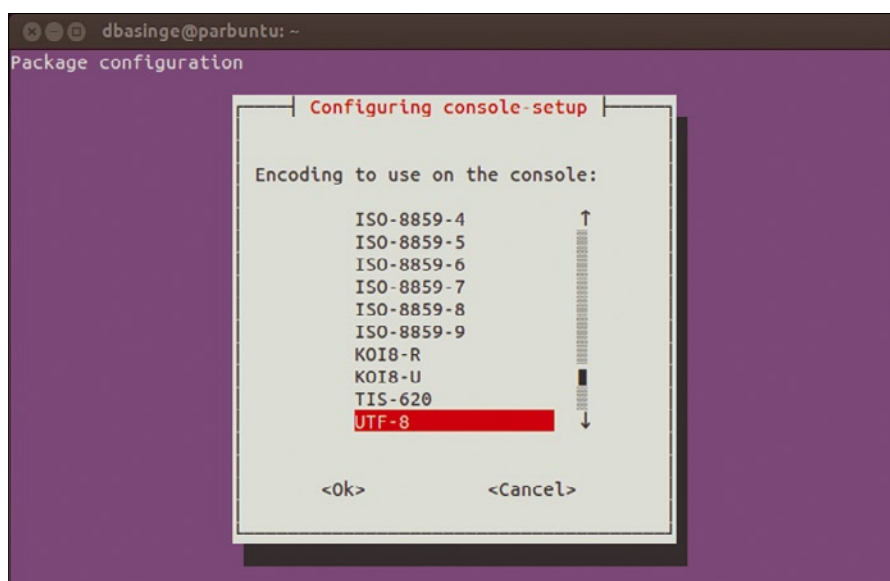


Figure 1: Console setup menu.

terminal screen. You can then log into the terminal and use command-line tools (Note that Ctrl + ALT + F7 will return you to the Ubuntu desktop.) This feature comes in handy when you are having problem with the Ubuntu GUI desktop.

To change the font, you need to recon-

figure the console setup from a terminal window.

```
sudo dpkg-reconfigure console-setup
```


You will get the menu shown in Figure 1.


Select the default of UTF-8, unless you know it should be something else. Then,

you will get a second menu (Figure 2). Here, you should select the default character set: *Combined – Latin; Slavic Cyrillic; Greek*, unless you know it should be different.

Now you get to choose your font: Fixed should be the default, but Terminus is a nice-looking font for TTY terminals. Next, you can select the font size: 16 is the default, but you can change it however you like. Just don't get carried away and make your screen unreadable by accident.

Dual Boot File Access

 I have a new laptop, which I am setting up as dual boot Windows and Ubuntu. I would like to access files from both Ubuntu and Windows 7. Should I create a separate NTFS partition to put shared files on?

 Although you don't necessarily have to create a separate partition to access Windows files, it is a good idea to do so. You'll want to avoid mounting with C: drive in Ubuntu

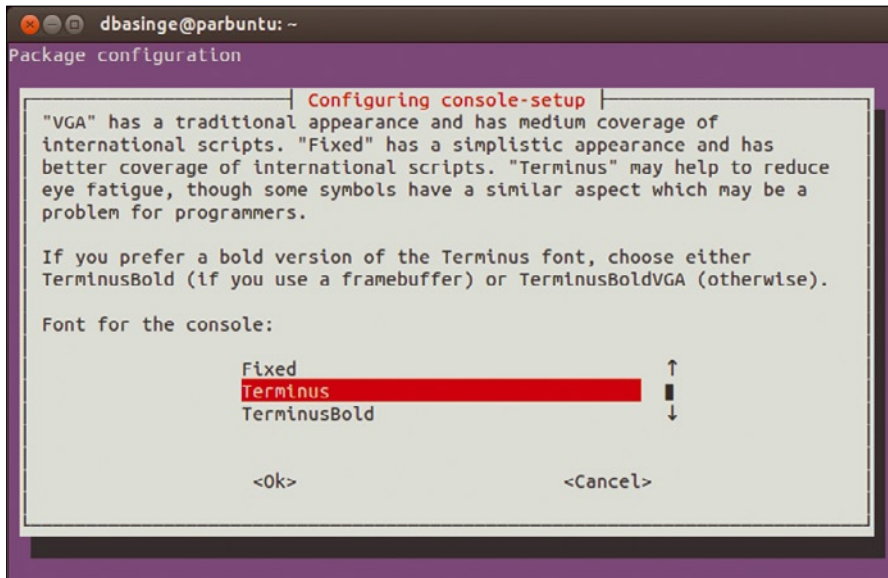


Figure 2: Font setup menu.

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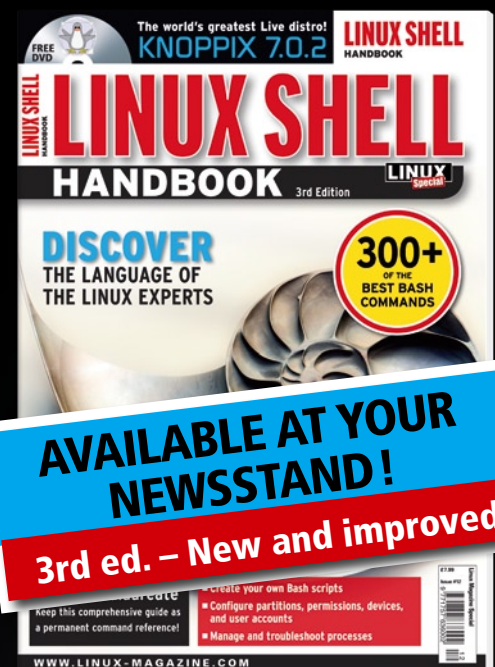
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if possible, so that you don't accidentally damage a Windows system file by accessing it from Ubuntu. By using a separate partition with only shared data files, such as pictures, music, and video, you can avoid this.

The Ubuntu Wiki [3] has more information on how to mount a NTFS drive under Ubuntu, but here are the basics for mounting a NTFS automatically during Ubuntu startup.

```
sudo fdisk -l | grep NTFS | \
awk '{print $1}'
```

This command will show all the NTFS partitions on your computer. Note the NTFS partition drive of the drive you wish to mount, should be something like `/dev/hdxn` or `/dev/sdxn`.

Next, do:

```
sudo cp /etc/fstab /etc/fstab.orig
```

Always back up your configuration files before working on them. In some cases, it can save you hours of work if something good wrong.

```
gksudo gedit /etc/fstab
```

After entering your password, find the line that matches the device location you just found and change it to the following.

If there is no entry yet, add a new line like the following:

```
<your partition> /media/<mount point> \
ntfs-3g defaults,user,locale=\
en_US.utf8 0 0
```

And that should do it.

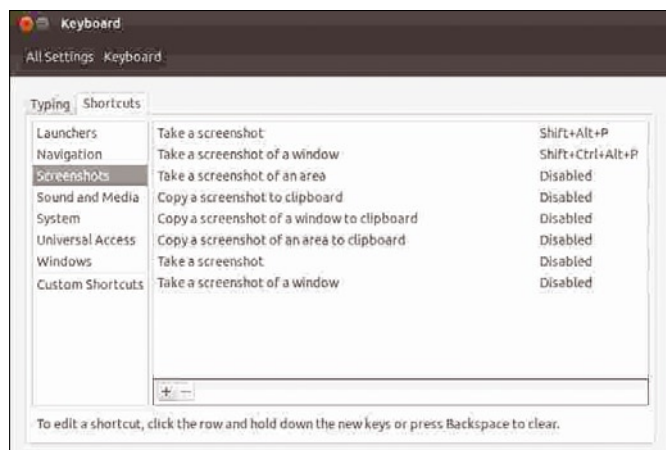


Figure 3: Shortcut menu.

Smile Ubuntu

? I would like to post an image on my desktop to Facebook to show my friends. How do you take screenshots in Ubuntu?



The simplest way to take screenshots in Ubuntu is by using the keyboard shortcuts (Figure 3) `Alt + Shift + P` to take a screenshot of the desktop and `Alt + Ctrl + Shift + P` to take a screenshot of the active window. You can change and add screenshot shortcuts by selecting *System Settings | Keyboard | Shortcuts | Screenshots*.

A better solution is using the Shutter program, which is available in the Ubuntu repository. Shutter offers multiple ways to take a screenshots, and it lets you take a screenshot on a time delay. Shutter can save screenshots in multiple graphic formats. Shutter is what I used for the example in this article (Figure 4):

```
sudo apt-get install shutter
```

No Wireless Kubuntu

? I went to "Additional Drivers" and saw the Broadcom wireless, installed it, rebooted, and everything was working fine. When I rebooted again, no wireless networks showed up. So, I went to "Additional

Drivers" and only my graphics card showed up...

I installed "b43-fwcutter" and rebooted, and now the wireless adap-

tor shows up. Every few reboots, it seems to disappear or get confused.

Currently, no wireless is showing up or enabled. Here is a terminal output. I don't see my wireless even showing up as a device! Any thoughts or ideas? My laptop is a Dell XPS M1330.



You need to run `lspci`, which will show a list of currently connected hardware. Look for a Broadcom Ethernet controller. If you see that, it means Ubuntu detected the hardware:

```
dbasinge@parbuntu:~$ lspci
09:00.0 Ethernet controller: \
Broadcom Corporation NetLink \
BCM5906M
Fast Ethernet PCI Express (rev 02)
```

Next, run `lsmod` and make sure the "wl" module is loaded. There should be a line in the output with wl with two sets of numbers.

If the module is not listed by `lsmod`, type the following commands to make the module load at boot-up.

```
sudo su
echo wl >> /etc/modules
exit
```

Now, you can reboot and see if your wireless works. ■

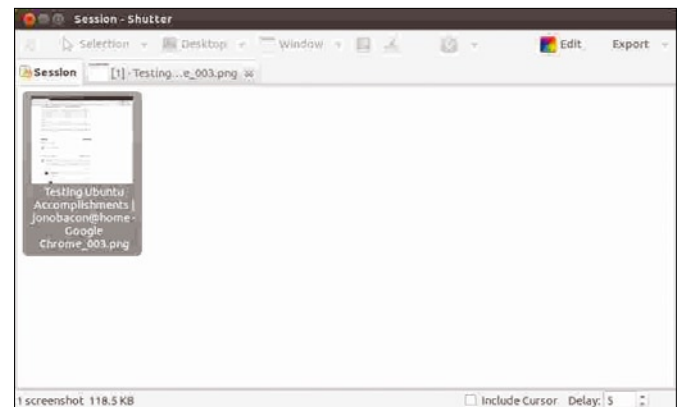


Figure 4: Screenshot taken with Shutter.

INFO

- [1] Ubuntu-zfs: <https://github.com/dajhorn/pkg-zfs/wiki/HOWTO-install-Ubuntu-to-a-Native-ZFS-Root-Filesystem>
- [2] NexentaStor Community Edition: <http://www.nexenta.org/corp/downloads/download-community-edition>
- [3] Mounting Windows Partitions: <https://help.ubuntu.com/community/MountingWindowsPartitions>

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