Speed up tips for (suse) linux installation

Speed up Linux installation

Tip: Speeding up the install time on SUSE Linux Applies to:

```
   * Novell Linux Desktop 9
   * Open Enterprise Server
   * SUSE Linux Professional 9.3
   * SUSE Linux 10
   * SUSE Linux Enterprise Server
```

SYNOPSIS: hdparm - get/set hard disk parameters

DESCRIPTION:

This cool solution will show you how it is possible to speed up the install time of your CD-ROM installation of SUSE Linux by using Linux shell command hdparm. hdparm is an a command line interface to various ATA/IDE hard disk device drivers.1 Warning, 'hdparm' may force your system to use higher values without regards to your hardware's limitations. It is a risk to use this program improperly and may cause damage to your systems. Please use extreme caution and do not exceed your hardwares limitations. Additionally WE TAKE NO RESPONSIBILITY FOR DAMAGED HARDWARE OR CORRUPTED DATA.

Know bugs are listed on Source Forge's website see notes for information

The following steps are needed to use hdparm in the installation of your SuSE LINUX system. Please note that this command only works with IDE devices, CDROMS and Hard-drives.

- Place the SUSE Linux disk 1; the install cd in the CD-ROM and boot to that drive.
- On the first screen enter desired parameters you need to perform your specific SuSE LINUX installation.
- The next screen is the Licensing Screen; on this screen select the "I Agree" button.
- Next is the Language screen; on this screen choose your language and click "Accept".
- This is the bit we have been waiting for: This next screen is Installation Setting screen.
- Here we will drop into a shell prompt by using Ctrl+Alt+F2. This key combination will normally take you out of your Xwindow session and drop you into a terminal (tty2). Since we are in the process of installing SUSE LINUX, this key combination will take us away from the installation screen and drop you in to a terminal (tty2), or command prompt. Don't worry. Your installation is still there. You can return by using the Alt+F7.
- Once on the command line type:

`hdparm /dev/hda thenENTER`

You will see something similar to this.

```
/dev/hda:
multcount = 16 (on)
IO_support = 0 (default 16-bit)
unmaskirq = 0 (off)
using_dma = 0 (off)
keepsettings = 0 (off)
readonly = 0 (off)
readahead = 8 (on)
geometry = 9726/255/63, sectors = 156250000, start =34523
```

- Notice the multcount is set to 16, using_dma is set to off, and that the IO Support is set to 16 bit.
- Re-type the command:

`hdparm -c1 -d1 -m1 /dev/hda ENTER`

Comparing the differences from the last time, you should now see that mulcount is set to 1, or on, IO support is now 32 bit and.using_dma is turned on.

```
/dev/hda:
multcount = 1 (on)
IO_support = 1 (32-bit)
unmaskirq = 0 (off)
using_dma = 1 (on)
keepsettings = 0 (off)
readonly = 0 (off)
readahead = 8 (on)
geometry = 9726/255/63, sectors = 156250000, start = 0
```

When you complete your desired changes to your devices, you can return to the installation screen by using the Alt+F7.

muticount -m is used to get or set the sector count for a device that supports multiple sector IO.

IO support -s is used to set the IO setting on a device. Most devices are set to use 16bit. By setting this to 1 it turns on 32bit IO for faster transfers of information.

Using_dma -a by default this is turned off. DMA or Direct Memory Access is way to control system memory without using the CPU.

If you would like more information about hdparm; browse the official hdparm website at http://sourceforge.net/projects/hdparm/ or additional options may be found in the man pages. You now have the knowledge to decrease your installation times by exerting control over your IDE

devices with the hdparm Linux shell command. If you have any questions about this Cool Solution, feel free to drop me an email anytime at tvickers@idltechnology.comDit e-mailadres wordt beschermd tegen spam bots, u heeft Javascript nodig om het te bekijken .

ABOUT THE AUTHOR:

Tony Vickers is the CTO and founder of IDL technology Group, Inc. IDL has been helping companies implement Enterprise Open Source Technologies since 1994. For more information, please visit us on the web located at www.idltechnology.com

Notes

1. Lord, Mark and Leppikangas, Tomi. "hdparm(8)." (Linux man page, 2005), 1.

Barr, Joe. "Hdparm and the Zen of data transfer Monday December," Enterprise Linux on the web, 07 October 2005.

<http://enterprise.linux.com/article.pl?sid=04/12/14/166253&tid=89> (December 20, 2004).

Flickenger, Rob. "Speeding up Linux Using hdparm." Linux Dev Center on the web, 07 October 2005.

<http://www.linuxdevcenter.com/pub/a/linux/2000/06/29/hdparm.html> (June 29, 2000).

Lord, Mark. "hdparm(8)." <http://sourceforge.net/projects/hdparm/ hdparm> (April, 2005).

KNOWN BUGS:

1.

ATA security options does not always work, error message: Problem issuing security command: Cannot allocate memory (http://sourceforge.net/tracker/?atid=736682&group_id=136732&func=browse).

2.

hdparm -t with 2 disks: WD (hdb) and Seagate(hda). hdparm -t /dev/hda - Timing buffered disk reads: - 1504 MB in xxx seconds = MB/sec an infinite value (http://sourceforge.net/tracker/?atid=736682&group_id=136732&func=browse).

1.

When making 6.0 or 6.1 an "987: IDE_DRIVE_TASK_OUT undeclared" error occur(http://sourceforge.net/tracker/?atid=736682&group_id=136732&func=browse).

2.

Acoustic management for SAMSUNG SP1614N disk the -M option to control the acoustic level, but it seems non-functional (http://sourceforge.net/tracker/?atid=736682&group_id=136732&func=browse).

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