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How To Find Hard Disk Revolutions Per Minute (RPM) Speed From A Shell Prompt

Posted by Vivek Gite <vivek@nixcraft.com>

Q. How do I find out my SCSI hard disk RPM speed from a Linux shell prompt without opening my server case? How do I find out hard disk model and serial number from a shell prompt?

A. A typical desktop hard disk rotate at 7,200 revolutions per minute (RPM). A typical server hard disk spin at 10,000 or 15,000 rpm to achieve sequential media transfer speeds. You can use hard disk model number to obtain disk RPM. For example, a typical Seagat disk Model # ST373455SS can provide following information:

[1]

- ST - Brand identity
- 3 - Form Factor (3 = 3.5")
- 73 - Disk size / Capacity in GB i.e. 73GB
- 4 - Reserved for future use
- 5 - RPM (5 = 15k and 0 = 10K)
- 5 - Generation
- SS - Indicates interface i.e Serial Attached SCSI

How do I find out hard disk model and serial number?

Use any one of the following command from shell prompt to find out hard disk model number:

```
$ cat /proc/scsi/scsi
```

OR use scsi_id command to querys a SCSI device via the SCSI INQUIRY vital product data (VPD) page 0x80 or 0x83 and uses the resulting data to generate a value that is unique across all SCSI devices that properly support page 0x80 or page 0x83.

```
$ /sbin/scsi_id -g -p 0x80 -s /block/sdd
```

OR

```
$ sudo grep -i sdd /var/log/boot.log
```

OR use sginfo / scsiinfo command from sg3_utiles package, enter:

```
# sginfo -a /dev/sdd | more
```

scsiinfo or sg3_utils package

sg3_utils is a collection of Linux utilities for devices that use the SCSI command set. You can install by typing following command:

```
# yum install sg3_utils
```

If you are using Debian / Ubuntu Linux, enter:

```
$ sudo apt-get install sg3-utils
```

⚠️ **WARNING!** Some of these tools access the internals of your hard disk system and the incorrect usage of them may render your system inoperable or loss of data possible.

Now you can use command sginfo with the -g switch to obtain information about hard disk cylinders, heads and RPM:

```
# sginfo -g /dev/sdd
```

Sample output:

```
Rigid Disk Geometry mode page (0x4)
-----------------------------------
Number of cylinders            74340
Number of heads                2
Starting cyl. write precomp    0
Starting cyl. reduced current  0
Device step rate               0
Landing Zone Cylinder          0
RPL                            0
Rotational Offset              0
Rotational Rate                15015
```

Finding out your hard disk RPM speed using manufactures website / product page

Once obtained hard disk model number, directly go to manufactures website and search for model to get detailed information.

Further readings:

- man sginfo
- How Do I interpret DRIVE MODEL NUMBERS? [2]

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