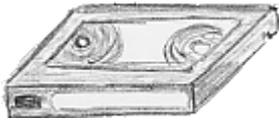


GNU/Linux and autoloader 2nd act..



[Some months ago I wrote an article (Pluto Journal n° 37) about an autoloader installation experience on an IBM with a Red Hat 6.2. GNU/Linux.

Now, after an upgrade, to Red Hat Linux 7.2 (and subsequently to 7.3), I found some problems. In detail the robotic part of autoloader was no more detected from the system.

Once again I face with an expansive backup unit where it was necessary to change the tapes manually.]

The situation seemed impossible to resolve for many reasons. Last (but not least) the necessity of a 24x7 availability of the server (and therefore it was impossible for me to test the solutions) and the fact that neither IBM nor Red Hat gave concrete answer (after I interpellate Them on the argument).

Beyond that I began to receive mails from people that, after to have read the first article, asked me suggestions in order to resolve the same problem I found on my server.

A mail exchange with one of these persons (Massimo Albonetti) has created a collaboration through the web. Then some of my suggestions, his tests and his patience has carried us to the solution. Massimo has subsequently written the notes that follow (and that I have soon tried to introduce) in order to help all those who are in the same trouble. Following his words and his experience:

After the Red Hat 7.3 setup has been completed, autoloader unit, was detected as a standard DDS type, it was possible to backup files through the command `tar cvf /dev/st0` but it was impossible to drive the 'change' device. here the steps I followed to let work the DDS/4 Autoloader 120/240GB installed in an IBM 255 @server with Red Hat 7.3.

Step 1

Be sure that scsi card is correctly configured so it detect more than one logical unit (LUN) on the channel where autoloader is connected.

If at boot it appear a message like:

```
00 B 6 0 SEAGATE DAT06241-XXX 80.0 16
00 B 6 1 SEAGATE DAT06241-XXX 80.0 16
```

the scsi card is correctly configured, if instead You get a message like:

```
00 B 6 0 SEAGATE DAT06241-XXX 80.0 16
```

it is necessary to enter in the scsi card bios setup (usually pressing Ctrl-A at boot) and to config correctly the scsi controller

Step 2

After server is started, if kernel is correctly configured, You should type command

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

and get a message like

```
Host: scsi1 Channel: 00 Id: 06 Lun: 00
Vendor: SEAGATE Model: DAT 06241-XXX Rev: 8240
Type: Sequential-Access ANSI SCSI revision: 03
Host: scsi1 Channel: 00 Id: 06 Lun: 01
Vendor: SEAGATE Model: DAT 06241-XXX Rev: 8240
Type: Medium Changer ANSI SCSI revision: 03
```

if, instead, You get

```
Host: scsi1 Channel: 00 Id: 06 Lun: 00
Vendor: SEAGATE Model: DAT 06241-XXX Rev: 8240
Type: Sequential-Access ANSI SCSI revision: 03
```

it means that kernel is not correctly configured and is unable to detect Media Changer unit. So it is necessary to rebuild kernel and to enable the parameter

```
CONFIG_SCSI_MULTI_LUN=y
```

Step 3

To this point kernel should detect Media Changer but hat no driver ready for it. It is necessary to download driver from <http://www.strusel007.de/linux/changer.html>. To install driver You must path kernel to let it load scsi driver setting the parameter

```
CONFIG_CHR_DEV_SCH=m
```

rebuild Kernel and autoloader should work correctly: using software commands it is possible to drive unit. According some other instructions Massimo send me, mtx command doesn't run because it searches for device **/dev/sg** , instead **/dev/sch** We use.

But in the driver package there are some programs tho manage media changer.

I hope these short notes may Help You to solve Your problems with autoloaders. For what it concern to me they are a beautiful example of how it is possible to work togheter through internet and open source software.

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