Re: 200GB IDE disk on old system

Source: http://unix.derkeiler.com/Newsgroups/comp.unix.bsd.freebsd.misc/2007−03/msg00294.html

- *From*: Eivind E <rumrunner@xxxxxxxxxxxxxxxxxxxxxxxxxx>
- *Date*: Fri, 23 Mar 2007 13:18:33 +0100

On 2007−03−23, Wilhelm B. Kloke <wb@xxxxxxxxxxxxxxxxxxxxxxx> wrote:

> I want to put a 200GB into my old AMD K6 system. The BIOS does not support
> more than 32GB. Is there a way to persuade FreeBSD to accept the
> real disk size?
>
> I looked into the fdisk manpage. The only stuff I
> found there does not seem relevant like CHS parameters.

What about making your root filesystem reside on the first parts of
the disk so biosroutines can load the kernel? Then the kernelroutines for
your controller can see all of the disk. That's how I do it on a
Pentium2 here, which only sees the first 8 gigs of the disk.

Ide drive (used for boot since the scsicontroller can't boot :

rumrunner@ulv:~$ fdisk /dev/ad0
******* Working on device /dev/ad0 *******
parameters extracted from in−core disklabel are:
cylinders=310101 heads=16 sectors/track=63 (1008 blks/cyl)

Figures below won't work with BIOS for partitions not in cyl 1
parameters to be used for BIOS calculations are:
cylinders=310101 heads=16 sectors/track=63 (1008 blks/cyl)

Media sector size is 512
Warning: BIOS sector numbering starts with sector 1
Information from DOS bootblock is:
The data for partition 1 is:
sysid 165 (0xa5),(FreeBSD/NetBSD/386BSD)
start 63, size 312576642 (152625 Meg), flag 80 (active)
beg: cyl 0/ head 1/ sector 1;
end: cyl 1023/ head 254/ sector 63

Scsi drive, most partitions except boot :

rumrunner@ulv:~$ fdisk /dev/da0

******* Working on device /dev/da0 *******
parameters extracted from in−core disklabel are:
cylinders=70149 heads=64 sectors/track=32 (2048 blks/cyl)

Figures below won't work with BIOS for partitions not in cyl 1
parameters to be used for BIOS calculations are:
cylinders=70149 heads=64 sectors/track=32 (2048 blks/cyl)

Media sector size is 512
Warning: BIOS sector numbering starts with sector 1
Information from DOS bootblock is:
The data for partition 1 is:
sysid 165 (0xa5),(FreeBSD/NetBSD/386BSD)
start 63, size 143653167 (70143 Meg), flag 80 (active)
beg: cyl 0/ head 1/ sector 1;
end: cyl 1023/ head 254/ sector 63

Bsdlabel for root on idedrive (small enough to be able to load kernels
from biosroutines) :

rumrunner@ulv:~$ bsdlabel /dev/ad0s1
/dev/ad0s1:
8 partitions:
size offset fstype [fsize bsize bps/cpg]
a: 491520 0 4.2BSD 2048 16384 30728

Interesting parts of df −h :

rumrunner@ulv:~$ df −h
Filesystem Size Used Avail Capacity Mounted on
/dev/ad0s1a 232M 55M 159M 26% /

This works very good. Long time ago, this machine ran linux with only one
partition. It worked until a newly compiled kernel was stored at blocks
above 8 gig, then I couldn't boot it.

Hope that helps
Regards

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Eivind E
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