This driver is for Compaq's SMART2 Intelligent Disk Array Controllers.

Supported Cards:

This driver is known to work with the following cards:

* SMART (EISA)
* SMART-2/E (EISA)
* SMART-2/P
* SMART-2DH
* SMART-2SL
* SMART-221
* SMART-3100ES
* SMART-3200
* Integrated Smart Array Controller
* SA 4200
* SA 4250ES
* SA 431
* RAID LC2 Controller

It should also work with some really old Disk array adapters, but I am unable to test against these cards:

* IDA
* IDA-2
* IAES

EISA Controllers:

If you want to use an EISA controller you'll have to supply some modprobe/lilo parameters. If the driver is compiled into the kernel, must give it the controller's IO port address at boot time (it is not necessary to specify the IRQ). For example, if you had two SMART-2/E controllers, in EISA slots 1 and 2 you'd give it a boot argument like this:

```
smart2=0x1000,0x2000
```

If you were loading the driver as a module, you'd give load it like this:

```
modprobe cpqarray eisa=0x1000,0x2000
```

You can use EISA and PCI adapters at the same time.

Device Naming:

You need some entries in /dev for the ida device. MAKEDEV in the /dev directory can make device nodes for you automatically. The device setup is as follows:

Major numbers:

```
        72      ida0
        73      ida1
        74      ida2
        75      ida3
        76      ida4
        77      ida5
        78      ida6
        79      ida7
```

Minor numbers:

```
        b7 b6 b5 b4 b3 b2 b1 b0
        |----+----| |----+----|
             |           |
             |           +-------- Partition ID (0=wholedev, 1-15 partition)
             |
             +-------------------- Logical Volume number
```

The device naming scheme is:

```
/dev/ida/c0d0           Controller 0, disk 0, whole device
/dev/ida/c0d0p1         Controller 0, disk 0, partition 1
/dev/ida/c0d0p2         Controller 0, disk 0, partition 2
/dev/ida/c0d0p3         Controller 0, disk 0, partition 3

/dev/ida/c1d1           Controller 1, disk 1, whole device
/dev/ida/c1d1p1         Controller 1, disk 1, partition 1
/dev/ida/c1d1p2         Controller 1, disk 1, partition 2
/dev/ida/c1d1p3         Controller 1, disk 1, partition 3
```

Changelog:

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10-28-2004 : General cleanup, syntax fixes for in-kernel driver version.
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1999 : Original Document