

Re: partition naming – newbie

Source: <http://unix.derkeiler.com/Newsgroups/comp.unix.solaris/2006-10/msg00935.html>

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 - *Date:* 18 Oct 2006 06:47:35 -0700
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Hi, i hope so that this knowledge will be helpful for you:

Disk Slice Naming Convention
Controller number

Identifies the host bus adapter (HBA), which controls communications between the system and disk unit. The HBA takes care of sending and receiving both commands and data to the device. The controller number is assigned in sequential order, such as c0, c1, c2, and so on.

Target number

Target numbers, such as t0, t1, t2, and t3, correspond to a unique hardware address that is assigned to each disk, tape, or CD-ROM. Some external disk drives have an address switch located on the rear panel. Some internal disks have address pins that are jumpered to assign that disk's target number.

Disk number

The disk number is also known as the logical unit number (LUN). This number reflects the number of disks at the target location.

Slice number

A slice number ranging from 0 to 7.

Logical device names are symbolic links stored in the /dev directory. Physical device names are kept in the /devices directory; they identify hardware device locations.

Instance Names

Instance names are abbreviated names assigned by the kernel for each device on the system.

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An instance name is a shortened name for the physical device name. Two examples are shown:

* sdn

where sd is the disk name and n is the number, such as sd0 for the first SCSI disk device.

* dadn

where dad (direct access device) is the disk name and n is the number, such as dad0 for the first IDE disk device.

In the Solaris OS, there are several ways to list a system's devices, including:

- * Using the /etc/path_to_inst file
- * Using the prtconf command
- * Using the format command

The following example is an /etc/path_to_inst file with an FC-AL entry:

```
"/sbus@2,0/SUNW,socal@d,10000/sf@0,0/ssd@w21000020375b9ab6,0" 0 "ssd"
```

```
# prtconf | grep -v not
```

The devfsadm command attempts to load every driver in the system and attach all possible device instances. It then creates the device files in the /devices directory and the logical links in the /dev directory. In addition to managing these directories, the devfsadm command also maintains the /etc/path_to_inst file.

```
# devfsadm
```

To restrict the operation of the devfsadm command to a specific device class, use the -c option.

```
devfsadm -c device_class
```

The values for device_class include disk, tape, port, audio, and pseudo. For example, to restrict the devfsadm command to the disk device class, perform the command:

```
# devfsadm -c disk
```

Use the -c option more than once on the command line to specify multiple device classes. For example, to specify the disk, tape, and audio device classes, perform the command:

```
# devfsadm -c disk -c tape -c audio
```

To restrict the use of the devfsadm command to configure only devices for a named driver, use the `-i` option.

```
devfsadm -i driver_name
```

The following examples use the `-i` option.

* To configure only those disks supported by the `dad` driver, perform the command:

```
# devfsadm -i dad
```

* To configure only those disks supported by the `sd` driver, perform the command:

```
# devfsadm -i sd
```

* To configure devices supported by the `st` driver, perform the command:

```
# devfsadm -i st
```

For a verbose output of changes to the device tree, perform the command:

```
# devfsadm -v
```

To invoke cleanup routines that remove unreferenced symbolic links for devices, perform the command:

```
# devfsadm -C
```

Disk-based file systems are found on hard disks, CD-ROMs, diskettes, and DVDs. The following are examples of disk-based file systems:

- * `ufs` – The UNIX file system in the Solaris OS is based on the Berkeley fast file system. Enhancements in the Solaris 10 OS allow the `ufs` to grow to multiple terabytes in size.
- * `hsfs` – The High Sierra file system is a special-purpose file system developed for use on CD-ROM media.
- * `pcfs` – The PC file system is a UNIX implementation of the disk operating system (DOS) file allocation table (FAT32) file system. The `pcfs` file system allows the Solaris OS to access PC-DOS formatted file systems. Users can use UNIX commands for direct read and write access to PC-DOS files.
- * `udfs` – The Universal Disk Format file system is used for optical storage targeted at DVD and CD-ROM media. The UDF file system allows universal data exchange and supports read and write operations.

Distributed file systems provide network access to file system resources.

* NFS – The network file system allows users to share files among many types of systems on the network. The NFS file system makes part of a file system on one system appear as though it were part of the local directory tree.

Andrzej Skarżycycki wrote:

could you tell me something about partition devices in solaris, i am accustomed to /dev/hd* under linux, and i don't know what does /dev/dsk/some_strange_letters_and_digits mean.

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