The sys admin's daily grind: Di

Di is All In

The more frequently a command is used, the fewer letters it should have, so the use of two-key commands like ls, mv, and df is second nature. We look at a previously little-known representative of this club, di. *By Charly Kühnast*

To be fair, I have to admit that many two-letter commands compensate for their compact size with a breathtaking number of parameters. The tool I look at today, Di [1], is no exception. The name stands for "disk information" – it's a kind of df on steroids. Like its role model, Di delivers information about filesystems, but with much more detail, and the output filters are much better.

Figure 1 shows the output from `di -a`, a list of all mounted filesystems, including filesystems that do not exist physically but that the kernel hallucinates into the directory tree. The parameter `-x` lets you specify filesystems you want Di to hide (e.g., `di -a -x proc` keeps the /proc entry from being listed). You can also specify multiple filesystems in a comma-separated list:

```
di -a ↵
-x proc,tmpfs,fuse
```

Di is clever enough to interpret `fuse` as `fuse*`; thus, my `fusectl` type filesystem mounted in `/sys/fs/fuse/co` is hidden in Figure 2. However, you can also turn this around: The `-I ext4` parameter lets you tell Di to list only ext4 filesystems. Using a comma-separated list, such as `-I ext3,vfat,proc`, will work, too.

Machines as Readers

The example in Listing 1 shows the basic information for my (only) ext4 partition; however, of all this information, I am only interested in the filesystem usage stats as a percentage – 19 percent in this case. The `-f` switch is a particularly useful option if you want to process the output in a script. If I just change the command line slightly,

```
di -dH -I ext4 -n -f p
```

it returns a neat and compact *19%*. The `-n` parameter suppresses the line with the headings; `-f p` restricts the output to the percentage value. If I had typed an uppercase `P`, incidentally, it would have given me the percentage of free inodes.

A comma-separated list is also useful for easy ongoing processing of values. Di

LISTING 1: di -dH -I ext4

```
Filesystem   Mount   Size    Used   Avail%Used  fs Type
/dev/sda6    /       141.9G  19.9G  114.8G  19%      ext4
```

knows this and switches to CSV mode if you append `-c`:

```
# di -dh -I ext4 -n -c
/dev/sda6,/,"141.9G","19.9G","114.8G",↵
  19%,ext4
```

Admittedly, these more complex Di command lines look pretty much as though my cat has walked across the keyboard, but you can say that of other two-letter tools, too. ∎∎∎
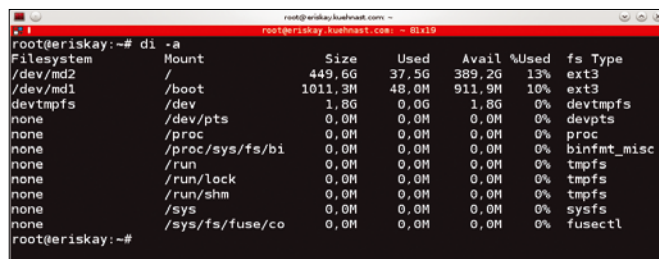
INFO

[1] Di: *http://freecode.com/projects/diskinfo*

Figure 1: The `di -a` command displays all filesystems, including the kernel pseudo-filesystems.
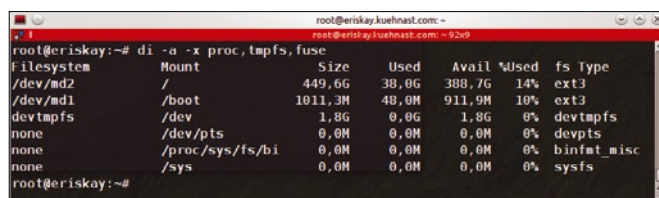

Figure 2: The `-x` parameter excludes specific filesystem types.

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