848. The power of dd

One of the most useful, powerful and destructive Unix/Linux utility, dd is a bitstream duplicator for copying data, but can use input or output pipes to another command.

dd is a common UNIX program whose primary purpose is the low-level copying and conversion of files. Source(if=) is the data being read and the target(of=) is where the data gets written.

Warning: If you mess up, and accidentally reverse the source and target or you make a TYPO by mistake you can wipe out a lot of data. Be ultra careful when fooling around with disk partitions.

HARD DRIVES
Check that a disk drive contains bad blocks:
#dd if=/dev/ad0 of=/dev/null bs=1M

- **Master boot record**

Save the MBR of a hard drive to a file:
#dd if=/dev/ad0 of=/mnt/share/sysdrive.mbr bs=446 count=1
Restore MBR from a file:
#dd if=/mnt/share/sysdrive.mbr of=/dev/ad0 bs=446 count=1

- **Partitions**

Copy a disk partition to a file on a different partition/drive.
# dd if=/dev/ad0s1 of=/mnt/share/system.img bs=4k
conv=notrunc,noerror
Restore a disk partition from an image file.
# dd if=/mnt/share/system.img of=/dev/ad0s1 bs=4k
conv=notrunc,noerror
Use ssh to get the partition image from a remote machine.
# ssh -p 22 root@192.168.1.250 "dd if=/dev/ad0s1 ibs=4k
conv=notrunc,noerror" | dd of=/mnt/share/system.img bs=4096

- **Disk 2 Disk**

Cloning an entire hard disk:
dd if=/dev/ad0 of=/dev/ad1 conv=notrunc,noerror

- **Low format.**

Wipe a hard drive of all data.
dd if=/dev/urandom of=/dev/ad0 conv=notrunc

FLOPPY

Make a hard drive image of the floppy, with bootable info intact:

#dd if=/dev/fd0 of=/mnt/share/floppy.img bs=1440k count=1 conv=notrunc

Copy a hard drive image of a floppy to a floppy:

#dd if=/mnt/share/floppy.img of=/fd0 bs=1440k count=1 conv=notrunc

Low format a floppy:

dd if=/dev/urandom of=/dev/fd0 conv=notrunc

CD-ROM

Make a hard drive image of a cd-rom, with bootable info intact:

#dd if=/dev/acd0 of=/mnt/share/mycd.iso bs=2k conv=notrunc

FILES

Generate a file of 100 random bytes.

#dd if=/dev/urandom of=/mnt/share/random bs=1 count=100

Write random data over a file before deleting it:

#dd if=/dev/urandom of= /mnt/share/myrandom bs=1 count=100

Make a virtual disk "file" having a byte size of 1k and a total size of 10MB(10MB / 1k = 10k)

#dd if=/dev/zero of=/mnt/share/file.img bs=1k count=10k

For more comprehensive documentation and example (pro Linux) visit:
http://www.linuxquestions.org/questions/showthread.php?t=362506