 dd Command

### Syntax of ‘dd’ command

dd  if=<source file name> of=<target file name> [Options]

Copy a file, converting and formatting according to the operands:

**bs=BYTES read and write up to BYTES bytes at a time**

**cbs=BYTES convert BYTES bytes at a time**

**conv=CONVS convert the file as per the comma separated symbol list**

**count=N copy only N input blocks**

**ibs=BYTES read up to BYTES bytes at a time (default: 512)**

**if=FILE read from FILE instead of stdin**

**iflag=FLAGS read as per the comma separated symbol list**

**obs=BYTES write BYTES bytes at a time (default: 512)**

**of=FILE write to FILE instead of stdout**

**oflag=FLAGS write as per the comma separated symbol list**

**seek=N skip N obs-sized blocks at start of output**

**skip=N skip N ibs-sized blocks at start of input**

**status=WHICH WHICH info to suppress outputting to stderr;**

**'noxfer' suppresses transfer stats, 'none' suppresses all**

### Numerical Suffixes

**N** and **BYTES** may be followed by the following multiplicative suffixes:  
  
**c**=1  
**w**=2  
**b**=512  
**kB**=1000  
**K**=1024  
**MB**=1000\*1000  
**M**=1024\*1024  
**xM**=M  
**GB**=1000\*1000\*1000  
**G**=1024\*1024\*1024  
  
and so on for **T** (Terabytes), **P** (petabytes), **E** (exabytes), **Z** (zettabytes), and **Y** (yottabytes).  
  
  
Each **CONV** symbol may be:

**ascii from EBCDIC to ASCII**

**ebcdic from ASCII to EBCDIC**

**ibm from ASCII to alternate EBCDIC**

**block pad newline-terminated records with spaces to cbs-size**

**unblock replace trailing spaces in cbs-size records with newline**

**lcase change upper case to lower case**

**ucase change lower case to upper case**

**sparse try to seek rather than write the output for NUL input blocks**

**swab swap every pair of input bytes**

**sync pad every input block with NULs to ibs-size; when used**

**with block or unblock, pad with spaces rather than NULs**

**excl fail if the output file already exists**

**nocreat do not create the output file**

**notrunc do not truncate the output file**

**noerror continue after read errors**

**fdatasync physically write output file data before finishing**

**fsync likewise, but also write metadata**

Each **FLAG** symbol may be:

**append append mode (makes sense only for output; conv=notrunc suggested)**

**direct use direct I/O for data**

**directory fail unless a directory**

**dsync use synchronised I/O for data**

**sync likewise, but also for metadata**

**fullblock accumulate full blocks of input (iflag only)**

**nonblock use non-blocking I/O**

**noatime do not update access time**

**nocache discard cached data**

**noctty do not assign controlling terminal from file**

**nofollow do not follow symlinks**

**count\_bytes treat 'count=N' as a byte count (iflag only)**

**skip\_bytes treat 'skip=N' as a byte count (iflag only)**

**seek\_bytes treat 'seek=N' as a byte count (oflag only)**

**Other Options** are:

**--help display this help and exit**

**--version output version information and exit**

##### **rsync command**

# rsync options source destination

1. -v : verbose
2. -r : copies data recursively (but don’t preserve timestamps and permission while transferring data
3. -a : archive mode, archive mode allows copying files recursively and it also preserves symbolic links, file permissions, user & group ownerships and timestamps
4. -z : compress file data
5. -h : human-readable, output numbers in a human-readable format

##### **Copy a File from a Remote Server to a Local Server with SSH**

To specify a protocol with **rsync** you need to give “**-e**” option with protocol name you want to use. Here in this example, We will be using “**ssh**” with “**-e**” option and perform data transfer.

[root@tecmint]# rsync -avzhe ssh root@192.168.0.100:/root/install.log /tmp/

Command Syntax Checking

|  |  |
| --- | --- |
| **Daemon** | **Command** |
| OpenSSH | /usr/sbin/sshd -t && echo $? /usr/sbin/sshd -T |
| Apache | /usr/sbin/apache2 -t apachectl configtest |
| nginx | /usr/local/nginx/sbin/nginx -t /usr/local/nginx/sbin/nginx -t -c /usr/local/nginx/conf/nginx.conf |
| lighttpd | /usr/local/sbin/lighttpd -t -f /usr/local/etc/lighttpd/cyberciti.biz/lighttpd.conf |
| Bind (named server config) | named-checkconf /etc/named.conf |
| Bind (zone syntx) | named-checkzone cyberciti.biz /var/named/zone.cyberciti.biz |
| Squid proxy | /usr/sbin/squid -k check /usr/sbin/squid -k parse |
| MySQL server | mysqld --verbose --help /usr/libexec/mysqld --verbose --help 1>/dev/null |
| Postfix MTA | postfix check postfix -vvv |
| Samba SMB/CIFS | testparm -v |
| tcpd | tcpdchk tcpdchk -v |
| dhcpd (DHCP / BOOTP) server | dhcpd -t -cf /path/to/dhcpd.testing.conf |
| vsftpd server | vsftpd -olisten=NO /path/to/vsftpd.testing.conf |
| nagios | nagios -v /path/to/testing/nagios.cfg |
| Openntpd NTPD server | ntpd -d -f /usr/local/etc/ntpd.conf -n |
| Xorg (X11 Server) | Xorg -config /path/to/xorg.conf.new -retro |
| syslogd / rsyslogd | rsyslogd -c4 -f /etc/rsyslog.testing.conf -N 1 |
| CUPS Printing System | cupsd -f -c /path/to/cupsd.testing.conf -t |
| slapd (OpenLDAP) | slapd -Tt |
| varnishd | varnishd -C -f /path/to/wordpress.vlc |
| exim MTA | exim -bV |
| Bash/Ksh scripts | bash -n ./myscript ksh -n /path/to/script.ksh |
| BSD pf firewall | pfctl -nf /etc/pf.conf |
| proftpd | proftpd -t -c /path/to/proftpd.testing.conf |
| Perl scripts | perl -c /path/to/script.pl perl -wc /path/to/script.pl |