NAME
ethtool – Display or change ethernet card settings

SYNOPSIS
ethtool

ethtool ethX

ethtool −h|−−help
ethtool −a|−−show−pause ethX
ethtool −A|−−pause ethX [autoneg on|off] [rx on|off] [tx on|off]
ethtool −c|−−show−coalesce ethX
ethtool −C|−−coalesce ethX [adptive-rx on|off] [adaptive-tx on|off] [rx-usecs N] [rx-frames N] [rx-usecs-irq N] [rx-frames-irq N] [tx-usecs N] [tx-frames N] [tx-usecs-irq N] [tx-frames-irq N] [stats-block-usecs N] [pkt-rate-low N] [rx-usecs-low N] [rx-frames-low N] [tx-usecs-low N] [tx-frames-low N] [pkt-rate-high N] [rx-usecs-high N] [rx-frames-high N] [tx-usecs-high N] [tx-frames-high N] [sample-interval N]
ethtool −g|−−show−ring ethX
ethtool −G|−−set−ring ethX [rx N] [rx-mini N] [rx-jumbo N] [tx N]
ethtool −i|−−driver ethX
ethtool −d|−−register−dump ethX [raw on|off]
ethtool −e|−−eprom−dump ethX [raw on|off] [offset N] [length N]
ethtool −E|−−change−eprom ethX [magic N] [offset N] [value N]
ethtool −k|−−show−offload ethX
ethtool −K|−−offload ethX [rx on|off] [tx on|off] [sg on|off] [tso on|off] [ufo on|off] [gso on|off]
ethtool −p|−−blink ethX [N]
ethtool −r|−−negotiate ethX
ethtool −S|−−statistics ethX
ethtool −t|−−test ethX [offline|online]

options ethtool −s ethX [speed 10|100|1000] [duplex half|full] [port tp|aui|bnc|mii] [autoneg on|off] [phyad N] [xcvr internal|external] [wol p|u|m|b|a|g|s|d|...] [sopass xx|yy|zz|aa|bb|cc] [msglv1 N]

DESCRIPTION
ethtool is used for querying settings of an ethernet device and changing them.
ethX is the name of the ethernet device to work on.

OPTIONS
ethtool with a single argument specifying the device name prints current setting of the specified device.
-h --help
  shows a short help message.

-a --show-pause
  queries the specified ethernet device for pause parameter information.

-A --pause
  change the pause parameters of the specified ethernet device.

autoneg on|off
  Specify if pause autonegotiation is enabled.

rx on|off
  Specify if RX pause is enabled.

tx on|off
  Specify if TX pause is enabled.

-c --show-coalesce
  queries the specified ethernet device for coalescing information.

-C --coalesce
  change the coalescing settings of the specified ethernet device.

-g --show-ring
  queries the specified ethernet device for rx/tx ring parameter information.

-G --set-ring
  change the rx/tx ring parameters of the specified ethernet device.

rx N
  Change number of ring entries for the Rx ring.

rx-mini N
  Change number of ring entries for the Rx Mini ring.

rx-jumbo N
  Change number of ring entries for the Rx Jumbo ring.

tx N
  Change number of ring entries for the Tx ring.

-i --driver
  queries the specified ethernet device for associated driver information.

-d --register-dump
  retrieves and prints a register dump for the specified ethernet device. When raw is enabled, then it dumps the raw register data to stdout.

-e --eeprom-dump
  retrieves and prints an EEPROM dump for the specified ethernet device. When raw is enabled, then it dumps the raw EEPROM data to stdout. The length and offset parameters allow dumping certain portions of the EEPROM. Default is to dump the entire EEPROM.

-E --change-eeprom
  Changes EEPROM byte for the specified ethernet device. offset and value specify which byte and it’s new value. Because of the persistent nature of writing to the EEPROM, a device-specific magic key must be specified to prevent the accidental writing to the EEPROM.

-k --show-offload
  queries the specified ethernet device for offload information.

-K --offload
  change the offload parameters of the specified ethernet device.

rx on|off
  Specify if RX checksumming is enabled.
tx on|off
Specify if TX checksumming is enabled.

sg on|off
Specify if scatter-gather is enabled.

tso on|off
Specify if tcp segmentation offload is enabled.

ufo on|off
Specify if UDP fragmentation offload is enabled.

gso on|off
Specify if generic segmentation offload is enabled

-p --identify
initiates adapter-specific action intended to enable an operator to easily identify the adapter by sight. Typically this involves blinking one or more LEDs on the specific ethernet port.

N  Length of time to perform phys-id, in seconds.

-r --negotiate
restarts auto-negotiation on the specified ethernet device, if auto-negotiation is enabled.

-S --statistics
queries the specified ethernet device for NIC- and driver-specific statistics.

-t --test
executes adapter selftest on the specified ethernet device. Possible test modes are:

-offline
defines test type: offline (default) means to perform full set of tests possibly causing normal operation interruption during the tests, online means to perform limited set of tests do not interrupting normal adapter operation.

-s --change
option allows changing some or all settings of the specified ethernet device. All following options only apply if -s was specified.

-speed 10|100|1000
Set speed in Mb/s. ethtool with single argument will show you the supported device speeds.

duplex half|full
Set full or half duplex mode.

-port tp|aui|bnc|mii
Select device port.

-autoneg on|off
Specify if autonegotiation is enabled. In the usual case it is, but might cause some problems with some network devices, so you can turn it off.

-phyad N
PHY address.

-vcxr internal|external
Select transceiver type. Currently only internal and external can be specified, in the future further types might be added.

-wol p|u|m|b|a|g|s|d...
Set Wake-on-LAN options. Not all devices support this. The argument to this option is a string of characters specifying which options to enable.

p  Wake on phy activity
u  Wake on unicast messages
**m**  Wake on multicast messages

**b**  Wake on broadcast messages

**a**  Wake on ARP

**g**  Wake on MagicPacket(tm)

**s**  Enable SecureOn(tm) password for MagicPacket(tm)

**d**  Disable (wake on nothing). This option clears all previous options.

**sopass** xx:yy:zz:aa:bb:cc

Set the SecureOn(tm) password. The argument to this option must be 6 bytes in ethernet MAC hex format (xx:yy:zz:aa:bb:cc).

**msglvl** N

Set the driver message level. Meanings differ per driver.

**BUGS**

Not supported (in part or whole) on all ethernet drivers.

**AUTHOR**

ethtool was written by David Miller.

Modifications by Jeff Garzik, Tim Hockin, Jakub Jelinek, Andre Majorel, Eli Kupermann, Scott Feldman, Andi Kleen.

**AVAILABILITY**

ethtool is available over the Web on the SourceForge site at http://sourceforge.net/projects/gkernel/