NAME

mii−tool − view, manipulate media-independent interface status

SYNOPSIS

mii−tool [**−v**, **−−verbose**] [**−V**, **−−version**] [**−R**, **−−reset**] [**−r**, **−−restart**] [**−w**, **−−watch**] [**−l**, **−−log**] [**−A**, **−−advertise=***media,...*] [**−F**, **−−force=***media*] [**−p**, **−−phy=***addr*] interface ...

DESCRIPTION

This utility checks or sets the status of a network interface's Media Independent Interface (MII) unit. Most fast ethernet adapters use an MII to autonegotiate link speed and duplex setting.

Most intelligent network devices use an autonegotiation protocol to communicate what media technologies they support, and then select the fastest mutually supported media technology. The **−A** or **−−advertise** options can be used to tell the MII to only advertise a subset of its capabilities. Some passive devices, such as single-speed hubs, are unable to autonegotiate. To handle such devices, the MII protocol also allows for establishing a link by simply detecting either a 10baseT or 100baseT link beat. The **−F** or **−−force** options can be used to force the MII to operate in one mode, instead of autonegotiating. The **−A** and **−F** options are mutually exclusive.

The default short output reports the negotiated link speed and link status for each interface.

OPTIONS

−v, **−−verbose**
: Display more detailed MII status information. If used twice, also display raw MII register contents.
Alert: If used three times, will force reading all MII registers, including non standard ones. It's not guaranteed any valid answer from PHY while PHY communication can even hang. With driver e1000e will fail while reading register 0x07.

−V, **−−version**
: Display program version information.

−R, **−−reset**
: Reset the MII to its default configuration.

−r, **−−restart**
: Restart autonegotiation.

−w, **−−watch**
: Watch interface(s) and report changes in link status. The MII interfaces are polled at one second intervals.

−l, **−−log**
: Used with **−w**, records link status changes in the system log instead of printing on standard output.

−F *media*, **−−force=***media*
: Disable autonegotiation, and force the MII to either **100baseTx-FD**, **100baseTx-HD**, **10baseT-FD**, or **10baseT-HD** operation.

−A *media,...*, **−−advertise=***media,...*
: Enable and restart autonegotiation, and advertise only the specified media technologies. Multiple technologies should be separated by commas. Valid media are **100baseT4**, **100baseTx-FD**, **100baseTx-HD**, **10baseT-FD**, and **10baseT-HD**.

−p *addr*, **−−phy=***addr*
: Override the MII address provided by kernel with value **addr**.

DIAGNOSTICS

SIOCGMIIPHY on 'eth?' failed: Invalid argument
If the interface is not running (up), kernel will refuse to report its link state.

SIOCGMIIPHY on 'eth?' failed: Operation not permitted
Most kernels restrict access to root.

SIOCGMIIPHY on 'eth?' failed: No such device
This error is shown, if the kernel does not know about the named device.

SIOCGMIIPHY on 'eth?' failed: Operation not supported
The interface in question does not support MII queries. Most likely, it does not have MII transceivers, at all.

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SEE ALSO

http://net-tools.sourceforge.net − Homepage of the net-tools project