NAME

wbwd - device driver for Winbond/Nuvoton Super I/O chips watchdog timer

SYNOPSIS

To compile this driver into the kernel, place the following lines in your kernel configuration file:

> **device superio**
> **device wbwd**

Alternatively, to load the driver as a module at boot time, place the following line in loader.conf(5):

> wbwd_load="YES"

DESCRIPTION

The **wbwd** driver provides watchdog(4) support for the watchdog interrupt timer present on at least the following Super I/O chips:

- Winbond 83627HF/F/HG/G
- Winbond 83627S
- Winbond 83697HF
- Winbond 83697UG
- Winbond 83637HF
- Winbond 83627THF
- Winbond 83687THF
- Winbond 83627EHF
- Winbond 83627DHG
- Winbond 83627UHG
- Winbond 83667HG
- Winbond 83627DHG-P
- Winbond 83667HG-B
- Nuvoton NCT6775
- Nuvoton NCT6776
- Nuvoton NCT6102
- Nuvoton NCT6779
- Nuvoton NCT6791
- Nuvoton NCT6792

SYSCTL VARIABLES

The **wbwd** driver provides the following options as sysctl(8) variables.

dev.wbwd.0.timeout_override

This variable allows to program the timer to a value independent on the one provided by the watchdog(4) framework while still relying on the regular updates from e.g. watchdogd(8). This is particularly useful if your system provides multiple watchdogs and you want them to fire in a special sequence to trigger an NMI after a shorter period than the reset timeout for example. The value set must not be lower than the sleep time of watchdogd(8). A value of 0 disables this feature and the timeout value provided by watchdog(4) will be used.

dev.wbwd.0.debug_verbose

If set this sysctl will tell the driver to log its current state before and after the timer reset on each invocation from watchdog(9) to the kernel message buffer for debugging.

dev.wbwd.0.debug

This read-only value gives the state of some registers on last update.

The **wbwd** driver also provides further sysctl options that are hidden by default. See the source code for more information.

SEE ALSO

superio(4), watchdog(4), device.hints(5), watchdog(8), watchdogd(8), watchdog(9)

HISTORY

The **wbwd** driver first appeared in FreeBSD 10.0.

AUTHORS

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