NAME

pwm - configure PWM (Pulse Width Modulation) hardware

SYNOPSIS

pwm [**-f** *device*] **-C**
pwm [**-f** *device*] [**-D** | **-E**] [**-I**] [**-p** *period*] [**-d** *duty*]

DESCRIPTION

The **pwm** utility can be used to configure pwm hardware. **pwm** uses a pwmc(4) device to communicate with the hardware. Some PWM hardware supports multiple output channels within a single controller block; each pwmc(4) instance controls a single PWM channel.

pwmc(4) devices are named */dev/pwm/pwmcX.Y*, where *X* is the controller unit number and *Y* is the channel number within that unit.

The options are as follows:

-f *device* Device to operate on. If not specified, */dev/pwm/pwmc0.0* is used. If an unqualified name is provided, */dev/pwm* is automatically prepended.

-C Show the configuration of the PWM channel.

-D Disable the PWM channel.

-d *duty* Configure the duty cycle (in nanoseconds or percentage) of the PWM channel. Duty is the portion of the *period* during which the signal is asserted.

-E Enable the PWM channel.

-p *period*
Configure the period (in nanoseconds) of the PWM channel.

-I Invert PWM signal polarity

EXAMPLES

- Show the configuration of the PWM channel:

  pwm -f /dev/pwm/pwmc0.1 -C

- Configure a 50000 ns period and a 25000 ns duty cycle and enable the channel:

pwm -f pwmc1.1 -E -p 50000 -d 25000

- Configure a 50% duty cycle on the device and channel which were configured in pwmc(4) to have the label *backlight*:

  pwm -f backlight -d 50%

SEE ALSO

pwm(9), pwmbus(9)

HISTORY

The **pwm** utility appeared in FreeBSD 13.0.

AUTHORS

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