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 $\frac{dev}{pwm/pwmcX}$. 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

The **pwm** utility and this manual page were written by Emmanuel Vadot <manu@FreeBSD.org>.