NAME

gpiokeys - GPIO keys device driver

SYNOPSIS

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

```
options FDT
device gpio
device gpiokeys
```

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

```
gpiokeys_load="YES"
```

DESCRIPTION

The **gpiokeys** driver provides a way to represent a set of general purpose inputs as a keyboard(4) device. At the moment the driver supports only FDT(4) based systems. The DTS determines what pins are mapped to buttons and what key codes are generated for each virtual button. The keyboard(4) device can be used from userland to monitor for input changes.

On an FDT(4) based system the DTS part for a **gpiokeys** device usually looks like:

```
/ {

        ...

        gpio_keys {
                compatible = "gpio-keys";

                btn1 {
                        label = "button1";
                        linux,code = <KEY_1>;
                        gpios = <&gpio 0 3 GPIO_ACTIVE_LOW>
                };

                btn2 {
                        label = "button2";
                        linux,code = <KEY_2>;
                        gpios = <&gpio 0 4 GPIO_ACTIVE_LOW>
                };
```

```
        };
};
```

For more details about the *gpios* property, please consult */usr/src/sys/dts/bindings-gpio.txt*.

The **gpiokeys** driver supports two properties for specifying a key code.

The property *freebsd,code* specifies a FreeBSD native scancode compatible with kbdmap(5) keyboard maps.

The property *linux,code* specifies an evdev scancode. That scancode is internally translated to a native scancode. Note that not all evdev scancodes have corresponding native scancodes. If a scancode cannot be translated, then a diagnostic message is printed and the input is ignored.

The property *label* is a descriptive name of a button. It is used for diagnostic messages only. This property is optional. If not set, the node name is used in its place.

The property *autorepeat* determines whether autorepeat is enabled for a button.

The property *debounce-interval* defines debouncing interval time in milliseconds. If not specified the interval defaults to 5.

SEE ALSO

fdt(4), gpio(4), keyboard(4), kbdmap(5)

HISTORY

The **gpiokeys** manual page first appeared in FreeBSD 12.2.

AUTHORS

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