NAME

uhid - USB generic HID support

SYNOPSIS

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

```
device uhid
device hid
device usb
```

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

```
uhid_load="YES"
```

DESCRIPTION

The **uhid** driver provides support for all HID (Human Interface Device) interfaces in USB devices that do not have a special driver.

The device handles the following ioctl(2) calls:

USB_GET_REPORT_ID (*int*)

Get the report identifier used by this HID report.

USB_GET_REPORT_DESC (*struct usb_gen_descriptor*)

Get the HID report descriptor. Copies a maximum of *ugd_maxlen* bytes of the report descriptor data into the memory specified by *ugd_data*. Upon return *ugd_actlen* is set to the number of bytes copied. Using this descriptor the exact layout and meaning of data to/from the device can be found. The report descriptor is delivered without any processing.

```
struct usb_gen_descriptor {
        void   *ugd_data;
        uint16_t ugd_maxlen;
        uint16_t ugd_actlen;
        uint8_t     ugd_report_type;
        ...
};
```

USB_SET_IMMED (*int*)

Sets the device in a mode where each read(2) will return the current value of the input report. Normally a read(2) will only return the data that the device reports on its interrupt pipe. This call

may fail if the device does not support this feature.

USB_GET_REPORT (*struct usb_gen_descriptor*)
Get a report from the device without waiting for data on the interrupt pipe. Copies a maximum of *ugd_maxlen* bytes of the report data into the memory specified by *ugd_data*. Upon return *ugd_actlen* is set to the number of bytes copied. The *ugd_report_type* field indicates which report is requested. It should be UHID_INPUT_REPORT, UHID_OUTPUT_REPORT, or UHID_FEATURE_REPORT. This call may fail if the device does not support this feature.

USB_SET_REPORT (*struct usb_gen_descriptor*)
Set a report in the device. The *ugd_report_type* field indicates which report is to be set. It should be UHID_INPUT_REPORT, UHID_OUTPUT_REPORT, or UHID_FEATURE_REPORT. The value of the report is specified by the *ugd_data* and the *ugd_maxlen* fields. This call may fail if the device does not support this feature.

USB_GET_DEVICEINFO (*struct usb_device_info*)
Returns information about the device, like USB vendor ID and USB product ID. This call will not issue any USB transactions. Also refer to ugen(4).

Use read(2) to get data from the device. Data should be read in chunks of the size prescribed by the report descriptor.

Use write(2) to send data to the device. Data should be written in chunks of the size prescribed by the report descriptor.

SYSCTL VARIABLES

The following variables are available as both sysctl(8) variables and loader(8) tunables:

hw.usb.uhid.debug
Debug output level, where 0 is debugging disabled and larger values increase debug message verbosity. Default is 0.

FILES

/dev/uhid?

SEE ALSO

usbhidctl(1), usb(4)

HISTORY

The **uhid** driver appeared in NetBSD 1.4. This manual page was adopted from NetBSD by Tom Rhodes

<*trhodes@FreeBSD.org*> in April 2002.