

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.