NAME

efidev, **efirtc -** user-mode access to UEFI runtime services

SYNOPSIS

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

```
      options EFIRT
```

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

```
  efirt_load="YES"
```

The driver may be disabled by setting the loader(8) tunable *efi.rt.disabled* to "1".

DESCRIPTION

The **efidev** device provides user-mode access to UEFI runtime services. **efidev** also includes a driver to provide a time-of-day clock using the UEFI real time clock (RTC). However, the RTC may not always be available, based on the UEFI firmware. If the RTC is not available, it will not be registered as a time-of-day clock and the time related ioctls below will not be functional.

efidev provides the following ioctls defined in <*sys/efiio.h*> with supplemental structures and constants defined in <*sys/efi.h*>:

EFIIOC_GET_TABLE (*struct efi_get_table_ioc*)

Copy the UEFI table specified by the *uuid* field of the *struct efi_get_table_ioc* into the *buf* field. The memory size for the buf field can be queried by passing NULL pointer as a buf value. The required size will be stored in the *table_len* field. The size of the allocated memory must be specified in the *buf_len* field.

```
struct efi_get_table_ioc {
        void *buf;
        struct uuid uuid;
        size_t table_len;
        size_t buf_len;
};
```

EFIIOC_GET_TIME (*struct efi_tm*)

Get the time from the RTC, if the RTC is available. The *struct efi_tm* passed is populated with the current time, unless an error occurs.

```
struct efi_tm {
        uint16_t  tm_year;
        uint8_t          tm_mon
        uint8_t          tm_mday
        uint8_t          tm_hour;
        uint8_t          tm_min;
        uint8_t          tm_sec;
        uint8_t           __pad1;
        uint32_t  tm_nsec;
        int16_t          tm_tz;
        uint8_t          tm_dst;
        uint8_t          __pad2;
};
```

EFIIOC_SET_TIME (*struct efi_tm*)

Sets the time stored by the RTC, if the RTC is available.

EFIIOC_VAR_GET (*struct efi_var_ioc*)

Gets data from the variable described by the vendor and name fields of the *struct efi_var_ioc* into the *data* field. EFIIOC_VAR_GET (*struct efi_var_ioc*) will also populate the *attrib* field.

```
struct efi_var_ioc {
        efi_char   *name;
        size_t           namesize;
        struct uuid      vendor;
        uint32_t   attrib;
        void            *data;
        size_t           datasize;
};
```

EFIIOC_VAR_NEXT (*struct efi_var_ioc*)

Used for enumerating all UEFI variables. The initial call should use an empty string for the name attribute. Subsequent calls should supply the vendor uuid and name of the last variable returned.

EFIIOC_VAR_SET (*struct efi_var_ioc*)

Sets data and attributes for the variable described by the name and vendor in the *struct efi_var_ioc*.

FILES

/dev/efi

SEE ALSO

efivar(3), efirt(9)

HISTORY

A **efidev** device first appeared in FreeBSD 11.1.

BUGS

efidev is currently only available on amd64 and arm64.