

**NAME**

**devfs\_set\_cdevpriv**, **devfs\_get\_cdevpriv**, **devfs\_clear\_cdevpriv** - manage per-open filedescriptor data for devices

**SYNOPSIS**

```
#include <sys/param.h>
```

```
#include <sys/conf.h>
```

```
typedef void d_priv_dtor_t(void *data);
```

```
int
```

```
devfs_get_cdevpriv(void **datap);
```

```
int
```

```
devfs_set_cdevpriv(void *priv, d_priv_dtor_t *dtr);
```

```
void
```

```
devfs_clear_cdevpriv(void);
```

**DESCRIPTION**

The **devfs\_XXX\_cdevpriv()** family of functions allows the *cdev* driver methods to associate some driver-specific data with each user process `open(2)` of the device special file. Currently, functioning of these functions is restricted to the context of the *cdevsw* switch method calls performed as `devfs(5)` operations in response to system calls that use filedescriptors.

The **devfs\_set\_cdevpriv()** function associates a data pointed by *priv* with current calling context (filedescriptor). The data may be retrieved later, possibly from another call performed on this filedescriptor, by the **devfs\_get\_cdevpriv()** function. The **devfs\_clear\_cdevpriv()** disassociates previously attached data from context. Immediately after **devfs\_clear\_cdevpriv()** finished operating, the *dtr* callback is called, with private data supplied *data* argument. The **devfs\_clear\_cdevpriv()** function will be also be called if the open callback function returns an error code.

On the last filedescriptor close, system automatically arranges **devfs\_clear\_cdevpriv()** call.

If successful, the functions return 0.

The function **devfs\_set\_cdevpriv()** returns the following values on error:

[ENOENT]           The current call is not associated with some filedescriptor.

[EBUSY]            The private driver data is already associated with current filedescriptor.

The function **devfs\_get\_cdevpriv()** returns the following values on error:

[EBADF]           The current call is not associated with some filedescriptor.

[ENOENT]           The private driver data was not associated with current filedescriptor, or **devfs\_clear\_cdevpriv()** was called.

### SEE ALSO

close(2), open(2), devfs(5)

### HISTORY

The **devfs\_cdevpriv()** family of functions first appeared in FreeBSD 7.1.