

**NAME**

**fido\_bio\_template**, **fido\_bio\_template\_array\_count**, **fido\_bio\_template\_array\_free**,  
**fido\_bio\_template\_array\_new**, **fido\_bio\_template\_free**, **fido\_bio\_template\_id\_len**,  
**fido\_bio\_template\_id\_ptr**, **fido\_bio\_template\_name**, **fido\_bio\_template\_new**, **fido\_bio\_template\_set\_id**,  
**fido\_bio\_template\_set\_name** - FIDO2 biometric template API

**SYNOPSIS**

```
#include <fido.h>
```

```
#include <fido/bio.h>
```

```
fido_bio_template_t *
```

```
fido_bio_template_new(void);
```

```
void
```

```
fido_bio_template_free(fido_bio_template_t **template_p);
```

```
const char *
```

```
fido_bio_template_name(const fido_bio_template_t *template);
```

```
const unsigned char *
```

```
fido_bio_template_id_ptr(const fido_bio_template_t *template);
```

```
size_t
```

```
fido_bio_template_id_len(const fido_bio_template_t *template);
```

```
int
```

```
fido_bio_template_set_id(fido_bio_template_t *template, const unsigned char *ptr, size_t len);
```

```
int
```

```
fido_bio_template_set_name(fido_bio_template_t *template, const char *name);
```

```
fido_bio_template_array_t *
```

```
fido_bio_template_array_new(void);
```

```
void
```

```
fido_bio_template_array_free(fido_bio_template_array_t **array_p);
```

```
size_t
```

```
fido_bio_template_array_count(const fido_bio_template_array_t *array);
```

```
const fido_bio_template_t *  
fido_bio_template(const fido_bio_template_array_t *array, size_t idx);
```

## DESCRIPTION

Existing FIDO2 biometric enrollments are abstracted in *libfido2* by the *fido\_bio\_template\_t* and *fido\_bio\_template\_array\_t* types.

The functions described in this page allow a *fido\_bio\_template\_t* type to be allocated, deallocated, changed, and inspected, and a *fido\_bio\_template\_array\_t* type to be allocated, deallocated, and inspected. For device operations on *fido\_bio\_template\_t* and *fido\_bio\_template\_array\_t*, please refer to *fido\_bio\_dev\_get\_info*(3).

The **fido\_bio\_template\_new**() function returns a pointer to a newly allocated, empty *fido\_bio\_template\_t* type. If memory cannot be allocated, NULL is returned.

The **fido\_bio\_template\_free**() function releases the memory backing *\*template\_p*, where *\*template\_p* must have been previously allocated by **fido\_bio\_template\_new**(). On return, *\*template\_p* is set to NULL. Either *template\_p* or *\*template\_p* may be NULL, in which case **fido\_bio\_template\_free**() is a NOP.

The **fido\_bio\_template\_name**() function returns a pointer to a NUL-terminated string containing the friendly name of *template*, or NULL if *template* does not have a friendly name set.

The **fido\_bio\_template\_id\_ptr**() function returns a pointer to the template id of *template*, or NULL if *template* does not have an id. The corresponding length can be obtained by **fido\_bio\_template\_id\_len**().

The **fido\_bio\_template\_set\_name**() function sets the friendly name of *template* to *name*. If *name* is NULL, the friendly name of *template* is unset.

The **fido\_bio\_template\_array\_new**() function returns a pointer to a newly allocated, empty *fido\_bio\_template\_array\_t* type. If memory cannot be allocated, NULL is returned.

The **fido\_bio\_template\_array\_free**() function releases the memory backing *\*array\_p*, where *\*array\_p* must have been previously allocated by **fido\_bio\_template\_array\_new**(). On return, *\*array\_p* is set to NULL. Either *array\_p* or *\*array\_p* may be NULL, in which case **fido\_bio\_template\_array\_free**() is a NOP.

The **fido\_bio\_template\_array\_count**() function returns the number of templates in *array*.

The **fido\_bio\_template**() function returns a pointer to the template at index *idx* in *array*. Please note that

the first template in *array* has an *idx* (index) value of 0.

### RETURN VALUES

The error codes returned by **fido\_bio\_template\_set\_id()** and **fido\_bio\_template\_set\_name()** are defined in *<fido/err.h>*. On success, FIDO\_OK is returned.

### SEE ALSO

fido\_bio\_dev\_get\_info(3), fido\_bio\_enroll\_new(3)