

NAME

```
mifare_desfire_des_key_new,           mifare_desfire_3des_key_new,
mifare_desfire_3k3des_key_new,        mifare_desfire_aes_key_new,
mifare_desfire_des_key_new_with_version, mifare_desfire_3des_key_new_with_version,
mifare_desfire_3des_key_new_with_version, mifare_desfire_aes_key_new
                                         _with_version,
                                         mifare_desfire_key_get_version,
mifare_desfire_key_set_version, mifare_desfire_key_free — Mifare DESFire
keys Manipulation Functions
```

LIBRARY

Mifare card manipulation library (libfreefare, -lfreefare)

SYNOPSIS

```
#include <freefare.h>

MifareDESFireKey
mifare_desfire_des_key_new(uint8_t value[8]);

MifareDESFireKey
mifare_desfire_3des_key_new(uint8_t value[16]);

MifareDESFireKey
mifare_desfire_3k3des_key_new(uint8_t value[24]);

MifareDESFireKey
mifare_desfire_aes_key_new(uint8_t value[16]);

MifareDESFireKey
mifare_desfire_des_key_new_with_version(uint8_t value[8]);

MifareDESFireKey
mifare_desfire_3des_key_new_with_version(uint8_t value[16]);

MifareDESFireKey
mifare_desfire_3k3des_key_new_with_version(uint8_t value[24]);

MifareDESFireKey
mifare_desfire_aes_key_new_with_version(uint8_t value[16],
                                         uint8_t version);

uint8_t
mifare_desfire_key_get_version(MifareDESFireKey key);

void
mifare_desfire_key_set_version(MifareDESFireKey key, uint8_t version);

void
mifare_desfire_key_free(MifareDESFireKey key);
```

DESCRIPTION

The **mifare_desfire_key_***() family of functions allows management of Mifare DESFire keys.

The **mifare_desfire_des_key_new()**, **mifare_desfire_3des_key_new()**,
mifare_desfire_3k3des_key_new() and **mifare_desfire_aes_key_new()** allocate a new key with the provided data *value*. The key version is set to 0.

The **mifare_desfire_des_key_new_with_version()**,
mifare_desfire_3des_key_new_with_version(),
mifare_desfire_3k3des_key_new_with_version() and
mifare_desfire_aes_key_new_with_version() functions are equivalent to the previous functions except that the key version is read from *value* (DES, 3DES, 3K3DES) or set to *version* (AES).



The version of a *MifareDESFireKey* can be extracted using `mifare_desfire_key_get_version()` and changed using `mifare_desfire_key_set_version()`.

The `mifare_desfire_key_free()` has to be called for each *MifareDESFireKey* after usage to reclaim memory.

RETURN VALUES

Key allocations functions return the allocaed key of *NULL* on failure.

SEE ALSO

`mifare_desfire(3)`

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