NAME

FN_attribute_t, fn_attribute_create, fn_attribute_destroy, fn_attribute_copy, fn_attribute_assign, fn_attribute_identifier, fn_attribute_syntax, fn_attribute_valuecount, fn_attribute_first, fn_attribute_next, fn_attribute_add, fn_attribute_remove – an XFN attribute

SYNOPSIS

cc [*flag* ...] *file* ... **–lxfn** [*library* ...]

#include <xfn/xfn.h>

FN_attribute_t ∗**fn_attribute_create(const FN_identifier_t** ∗*attribute_id*,
const FN_identifier_t ∗*attribute_syntax*);

void fn_attribute_destroy(FN_attribute_t ∗*attr*);

FN_attribute_t ∗**fn_attribute_copy(const FN_attribute_t** ∗*attr*);

FN_attribute_t ∗**fn_attribute_assign(FN_attribute_t** ∗*dst*,
const FN_attribute_t ∗*src*);

const FN_identifier_t ∗**fn_attribute_identifier(const FN_attribute_t**∗*attr*);

const FN_identifier_t ∗**fn_attribute_syntax(const FN_attribute_t**∗*attr*);

unsigned int fn_attribute_valuecount(const FN_attribute_t∗*attr*);

const FN_attrvalue_t ∗**fn_attribute_first(const FN_attribute_t** ∗*attr*,
void ∗∗*iter_pos*);

const FN_attrvalue_t ∗**fn_attribute_next(const FN_attribute_t** ∗*attr*,
void ∗∗*iter_pos*);

int fn_attribute_add(FN_attribute_t ∗*attr*, **const FN_attrvalue_t** ∗*attribute_value*,
unsigned int *exclusive*);

int fn_attribute_remove(FN_attribute_t ∗*attr*, **const FN_attrvalue_t** ∗*attribute_value*);

MT-LEVEL

Safe.

DESCRIPTION

An attribute has an attribute identifier, a syntax, and a set of distinct values. Each value is a sequence of octets. The operations associated with objects of type **FN_attribute_t** allow the construction, destruction, and manipulation of an attribute and its value set.

The attribute identifier and its syntax are specified using an **FN_identifier_t**. **fn_attribute_create( )** creates a new attribute object with the given identifier and syntax, and an empty set of values. **fn_attribute_destroy( )** releases the storage associated with *attr*. **fn_attribute_copy( )** returns a copy of the object pointed to by *attr*. **fn_attribute_assign( )** makes a copy of the attribute object pointed to by *src* and assigns it to *dst*, releasing any old contents of *dst*. A pointer to the same object as *dst* is returned.

fn_attribute_identifier( ) returns the attribute identifer of *attr*. **fn_attribute_syntax( )** returns the attribute syntax of *attr*. **fn_attribute_valuecount( )** returns the number of attribute values in *attr*.

fn_attribute_first( ) and **fn_attribute_next( )** are used to enumerate the values of an attribute. Enumeration of the values of an attribute may return the values in any order. **fn_attribute_first( )** returns an attribute value from *attr* and sets the iteration marker *iter_pos*. Subsequent calls to **fn_attribute_next( )** returns the next attribute value identified by *iter_pos* and advances *iter_pos*. Adding or removing values from an attribute invalidates any iteration markers that the caller holds.

fn_attribute_add( ) adds a new value *attribute_value* to *attr*. The operation succeeds (but no change is made) if *attribute_value* is already in *attr* and *exclusive* is zero; the operation fails if *attribute_value* is already in *attr* and *exclusive* is nonzero. **fn_attribute_remove( )** removes *attribute_value* from *attr*. The operation succeeds even if *attribute_value* is not amongst *attr*'s values.

RETURN VALUE

fn_attribute_first( ) returns **0** if the attribute contains no values. **fn_attribute_next( )** returns **0** if there are no more values to be returned in the attribute (as identified by the iteration marker) or if the iteration marker is invalid.

fn_attribute_add( ) and **fn_attribute_remove( )** return **1** if the operation succeeds, **0** if it fails.

APPLICATION USAGE

Manipulation of attributes using the operations described in this manual page does not affect their representation in the underlying naming system. Changes to attributes in the underlying naming system can only be effected through the use of the interfaces described in **xfn_attributes**(3N).

SEE ALSO

FN_attrvalue_t(3N), **FN_attrset_t**(3N), **FN_identifier_t**(3N), **fn_attr_get**(3N), **fn_attr_modify**(3N), **xfn_attributes**(3N), **xfn**(3N)