

NAME

roff, **roff_alloc**, **roff_endparse**, **roff_free**, **roff_parseln**, **roff_reset** - roff macro compiler library

SYNOPSIS

```
#include <mandoc.h>
```

```
#include <roff.h>
```

```
struct roff *
```

```
roff_alloc(struct regset *regs, mandocmsg msgs, void *data);
```

```
int
```

```
roff_endparse(struct roff *roff);
```

```
void
```

```
roff_free(struct roff *roff);
```

```
enum rofferr
```

```
roff_parseln(struct roff *roff, int line, char **bufp, size_t *bufsz, int pos, int *offs);
```

```
void
```

```
roff_reset(struct roff *roff);
```

DESCRIPTION

The **roff** library processes lines of roff(7) input.

In general, applications initiate a parsing sequence with **roff_alloc**(), parse each line in a document with **roff_parseln**(), close the parsing session with **roff_endparse**(), and finally free all allocated memory with **roff_free**(). The **roff_reset**() function may be used in order to reset the parser for another input sequence.

The **roff_parseln**() function should be invoked before passing a line into the mdoc(3) or man(3) libraries.

See the *EXAMPLES* section for a full example.

REFERENCE

This section further defines the *Types* and *Functions* available to programmers.

Types

Functions (see *Functions*) may use the following types:

```
enum rofferr
```

Instructions for further processing to the caller of **roff_parseln()**.

struct roff

An opaque type defined in *roff.c*. Its values are only used privately within the library.

mandocmsg

A function callback type defined in *mandoc.h*.

Functions

Function descriptions follow:

roff_alloc()

Allocates a parsing structure. The *data* pointer is passed to *msgs*. The *pflags* arguments are defined in *roff.h*. Returns NULL on failure. If non-NULL, the pointer must be freed with **roff_free()**.

roff_reset()

Reset the parser for another parse routine. After its use, **roff_parseln()** behaves as if invoked for the first time.

roff_free()

Free all resources of a parser. The pointer is no longer valid after invocation.

roff_parseln()

Parse a nil-terminated line of input. The character array *bufp* may be modified or reallocated within this function. In the latter case, *bufsz* will be modified accordingly. The *offs* pointer will be modified if the line start during subsequent processing of the line is not at the zeroth index. This line should not contain the trailing newline. Returns 0 on failure, 1 on success.

roff_endparse()

Signals that the parse is complete. Returns 0 on failure, 1 on success.

EXAMPLES

See *main.c* in the source distribution for an example of usage.

SEE ALSO

mandoc(1), *man(3)*, *mdoc(3)*, *roff(7)*

AUTHORS

The **roff** library was written by Kristaps Dzonsons <kristaps@bsd.lv>.

BUGS

The implementation of user-defined strings needs improvement:

- String values are taken literally and are not interpreted.
- Parsing of quoted strings is incomplete.
- The strings are stored internally using a singly linked list, which is fine for small numbers of strings, but inefficient when handling many strings.