

# *Utroff Idx*

*Make and manipulate index files*

*(Beta version : user interface may change)*

Idx readme . . . . .	2	Two clause BSD License . . .	7
Idx manual . . . . .	3	Tables . . . . .	8
Changes of idx . . . . .	6		

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# *Idx readme*

## ***Presentation***

*Idx* is an helper tool to make and to manipulate index files. *Idx* has been made to automatically index troff document, but it can also be used manually, to make an index of a book.

## ***Build and install***

To build and install, edit the file `config.mk` from the root directory, and run :

```
| make install
```

In some circumstances, you might need utroff tools themselves to build the manual pages. In that case, build and install binaries before manual pages like this :

```
| make installbin  
| make installman
```

You can uninstall files and clean the working directory :

```
| make uninstall  
| make clean
```

For a more complete description of the build process, look at the README in the root directory.

## ***Compatibility with heirloom troff***

*Idx* is needed by utroff-utmac to build indexes. In that case, if heirloom troff is used, and if heirloom tools are in the beginning of the path, be sure that 'awk' links to heirloom 'nawk' and not heirloom 'oawk'.

## ***License***

*Idx* and its man page are distributed under a two clause BSD license <sup>1</sup>.

## ***Help and bugs***

Don't hesitate to ask questions at `help at utroff dot org`. Please, send bugs and patches at `help at utroff dot org`.

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<sup>1</sup> See p. 7.

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# *Idx manual*

## **Name**

**Idx** – make and manipulate index files.

## **Synopsis**

@BINDIR@/idx [-dhmprtw] file

## **Description**

*Idx* is an helper tool to make and to manipulate index files. *Idx* has been made to automatically index troff document, but it can also be used manually, to make an index of a book.

## **Options**

- d Take troff output in entry, and output an index in a troff format. Internally used by troff macros to build indexes. This is the default.
- h Print a short help.
- m Mix all lines in a single line.
- p Take a list of words in entry, and output a list of pages.
- r Reformat a list of words to fix errors.
- t Take a list of pages in entry, and output an index in a troff format.
- w Take a list of pages in entry, and output a list of words.

## **Format**

There's four format of index file that *Idx* can work with : a list of pages, a list of words, troff output and troff input.

### **List of pages**

A list of pages indicates which words appears on a page. Each line of a list of pages is formatted as follow :

- page number,
- two semi-colons followed by one space ( : : ),
- a list of words separated by a comma and a space ( , ).

Example :

```
33:: troff, refer, index
34:: troff, index, nroff
35:: index, unix, refer
```

### **List of words**

A list of words indicates in which pages appears a word. Each line of a list of words is formatted as follow :

- the word,
  - two semi-colons followed by one space ( : : ),
  - a list of page number or range of pages separated by a comma and a space ( , ). A range
-

of page is made by two page number separated by a tirect (-).

The previous example would be formatted as follow :

```
index:: 33-35
nroff:: 34
refer:: 33, 35
troff:: 33
unix:: 35
```

### ***Troff output***

When *idx* is used to index a troff document, the output produced by troff and passed to *idx* should be as follow :

- A single letter key which indicate what the index is about (W for index of words, T for index of titles...),
- A ">" followed by a space (> ),
- The indexed word,
- Two semicolons followed by a space (: : ),
- The page number where this word appears.

The previous example should be formatted as follow :

```
W> troff:: 33
W> refer:: 33
W> index:: 33
W> troff:: 34
W> index:: 33
W> nroff:: 34
W> index:: 35
W> unix:: 35
W> refer:: 35
```

### ***Troff input***

*Idx* can format an index so that troff can print it correctly. The format of troff input is as follow :

```
.K<           \ " one letter keyword defining the index
.ds <P x, m-n \ " list of pages
.K> word      \ " the word which appears on these pages
```

So, a troff macro that use *idx* should define the following macros :

- K<** Start an index of type K. Usually, such a macro will print a title, such as "Index of words".
- K>** Print the index entry defined as argument, followed by the list of pages previously defined by the <P string. You should add a dot at the end of the list of pages, since *idx* will not add it.

### ***Example***

This example taken from real life will show how to print an index of a paper book.

- Read the book, and, annotate it to underline the words you'll have to index.
- On a file of your computer, write an index formatted as a list of pages : for each page of the book, write the words it contains.
- Use *idx* to translate this file to a sorted list of words :

```
| idx -w a.idx > b.idx
```

- You should read this list of words, since you'll probably have to correct some mistakes,

- or rename some index entry.
- Once done, reformat it with idx :
  
- █ `idx -r b.idx > c.idx`
- Use idx to pass this formatted index to troff :
  
- █ `idx -t c.idx | troff | dpost > index.ps`

### ***Compatibility***

*Idx* is needed by *utmac(7)* to build indexes. In that case, if heirloom *troff* is used, and if heirloom tools are in the beginning of the path, be sure that *'awk'* links to heirloom *'nawk'* and not heirloom *'oawk'*.

### ***Files***

@BINDIR@/idx

### ***See also***

*utmac(7)*.

### ***License***

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### ***Help and bugs***

Don't hesitate to ask questions at help at utroff dot org. Please, send bugs and patches at help at utroff dot org.

### ***Author***

Written by Pierre-Jean FICHET.

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<sup>1</sup> See p. 7.

## *Changes of idx*

### **2013/10/30 20 :14 :38 VERSION-0.6**

- idx.tr, readme.tr : fix link to license.

### **2013/10/30 16 :25 :14 VERSION-0.5**

- FIX : idx renamed idx.sh for a simpler build method.

### **2013/10/30 14 :54 :16 VERSION-0.4**

- makefile : use new build system.

### **2013/04/07 17 :35 :08 VERSION-0.3**

- idx : Use case ... esac for arguments (advise by Seb).
- idx : Avoid absolute name for sort and awk (bug report by Seb).
- makefile : FIX : s/ROOT/DESTDIR/g (bug report by Seb).

### **2013/04/04 16 :31 :18 VERSION-0.2**

- idx : Do not print anything if idx file is empty when converting to troff.

### **2013/03/30 21 :43 :59 VERSION-0.1**

- Initial revision.
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# Tables

## Table of content

Utroff Idx . . . . .	1
Idx readme . . . . .	2
Presentation . . . . .	2
Build and install . . . . .	2
Compatibility with heirloom troff . . . . .	2
License . . . . .	2
Help and bugs . . . . .	2
Idx manual . . . . .	3
Name . . . . .	3
Synopsis . . . . .	3
Description . . . . .	3
Options . . . . .	3
Format . . . . .	3
List of pages . . . . .	3
List of words . . . . .	3
Troff output . . . . .	4
Troff input . . . . .	4
Example . . . . .	4
Compatibility . . . . .	5
Files . . . . .	5
See also . . . . .	5
License . . . . .	5
Help and bugs . . . . .	5
Author . . . . .	5
Changes of idx . . . . .	6
2013/10/30 20 :14 :38 VERSION-0.6 . . . . .	6
2013/10/30 16 :25 :14 VERSION-0.5 . . . . .	6
2013/10/30 14 :54 :16 VERSION-0.4 . . . . .	6
2013/04/07 17 :35 :08 VERSION-0.3 . . . . .	6
2013/04/04 16 :31 :18 VERSION-0.2 . . . . .	6
2013/03/30 21 :43 :59 VERSION-0.1 . . . . .	6
Two clause BSD License . . . . .	7
Tables . . . . .	8
Table of content . . . . .	8

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