i2man(1)

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1 Introduction

1.1 NAME

`i2man` — `i(1)` to *roff_man* converter

1.2 SYNOPSIS

`i2man` [`-u`] [`-h`] [`-?`] [`--`] [`inputFile`]

1.3 DESCRIPTION

The `i2man(1)` utility reads the `inputFile` (or standard input if none is given) and produces on standard output the *roff_man* equivalent of its input.

In order to address the problem of the poor portability of the `tbl(1)` macros, the `i2man(1)` utility does not make use of the usual *roff_man* macros, but does most of the formatting itself (pre–formatted content is enclosed with the `.nf` and `.fi` macros in *roff_man*). The advantage of the very good resulting portability, however, comes with the following disadvantages:

- The presentation of the content (typeface, indentation, empty lines, etc.) is mainly prescribed by the `i2man(1)` utility. The configuration and environment of the `groff(1)`, `troff(1)`, `nroff(1)`, etc. utility family has less effect on the appearance of the content then when the usual *roff_man* macros are used.
- Pagers cannot adjust the content to the terminal width.
- Pre–formatted textual content only looks good in fixed–width style. The font used by the `groff(1)`, `troff(1)`, `nroff(1)`, etc. utility family can be selected by means of the `-f` option:
  ```
  i2man foo > foo.1 && groff -Tps -f C foo.1 > foo.ps
  ```

1.4 OPTIONS

`-u` The input is interpreted as being *UTF–8* encoded and the output is *UTF–8* encoded. Without option `-u`, the input is interpreted as being *ISO–8859–1* encoded and the output is *ISO–8859–1* encoded.

`-h` Give a bit of help about the command line arguments and options.

`-?` See option `-h`.

`--` Indicate end of options.

1.5 EXIT STATUS

The `i2man(1)` utility exits with value `0` if the processing was successful. The occurrence of an error is indicated by an exit value `1` and an error message on standard error.

1.6 KNOWN BUGS

There are no known bugs.

1.7 OPEN ISSUES

There are no open issues.

1.8 AVAILABILITY

This document is part of the `i` project, which is available on–line at the following site: `http://i2i.sourceforge.net`.

1.9 AUTHOR

1.10 SEE ALSO

`i(1)`, `i2i(1)`, `inbr(1)`, `i2latex(1)`, `i2html(1)`, `html2i(1)`, `roff(7)`, `groff_man(7)`, `tbl(1)`, `groff(1)`, `nroff(1)`, `troff(1)`

2 Items

2.1 Heading items

Lines of heading items are formatted by the `i2man(1)` utility to a width as close as possible to 72 characters, without exceeding it. Heading items start on a new line. They are separated from the preceding and the subsequent item with an empty line.

2.2 Caption items

Lines of caption items are formatted by the `i2man(1)` utility to a width as close as possible to 72 characters, without exceeding it. Caption items start on a new line. They are separated from the preceding item with an empty line.

2.3 Bibliography and equation items

Lines of bibliography and equation items are formatted by the `i2man(1)` utility to a width as close as possible to 72 characters, without exceeding it. Bibliography and equation items start on a new line. They are separated from the preceding item with an empty line.

2.4 Paragraph items

Lines of paragraph items are formatted by the `i2man(1)` utility to a width as close as possible to the arrangement–specific maximum, without exceeding it. In one–dimensionally arranged textual content, the maximum is 72 characters. In two–dimensionally arranged textual content (tables), the maximum is given by the column width.

2.5 List items

Lines of list items are formatted by the `i2man(1)` utility to a width as close as possible to the arrangement–specific maximum, without exceeding it. In one–dimensionally arranged textual content, the maximum is 72 characters. In two–dimensionally arranged textual content (tables), the maximum is given by the column width. List items always start on a new line.

2.6 Quotation items

Lines of quotation items are formatted by the i2man(1) utility to a width as close as possible to the arrangement–specific maximum, without exceeding it. In one–dimensionally arranged textual content, the maximum is 72 characters. In two–dimensionally arranged textual content (tables), the maximum is given by the column width. Quotation items always start on a new line.

2.7 Pre–formatted items

Lines of pre–formatted items start with a vertical line token in i(1). These vertical line tokens and the first space character of the second token on each line are suppressed in the i2man(1) output. Apart from this, all new line and space characters are retained. Pre–formatted items always start on a new line.

2.8 Picture items

Lines of picture items start with an I_TOK_PIC or I_TOK_VLINE token in i(1). These tokens and the first space character of the second token on each line are suppressed in the i2man(1) output. Apart from this, all new line and space characters are retained. Picture items always start on a new line.

2.9 Latex items

Latex items are suppressed in the i2man(1) output.

2.10 Man items

Lines of man items start with an I_TOK_MAN token in i(1). These tokens and the first space character of the second token on each line are suppressed in the i2man(1) output. Apart from this, all new line and space characters are retained. Man items do not start on a new line.

2.11 Interrupt items

Interrupt items are suppressed in the i2man(1) output. They need to be followed by man items as shown in the following example:

```
#I
#M
#M .fi
```

2.12 Footnotes

Footnotes begin in i(1) with an I_BYTE_NBR and I_BYTE_FN_BEG character sequence and end with an I_BYTE_NBR and I_BYTE_FN_END character sequence. The i2man(1) utility turns the start sequence into a "(" character and the end into a ")" character.

3 Modes

The i2man(1) utility generally transfers bytes from the input transparently to the output. Only the bytes listed in Table 1 need to be adapted because they have a special meaning to *roff_man*.

Table 1: Byte adaption

i(1) input		i2man(1) output
Hex	*ISO–8859–1* and *UTF–8* representation	Macro
0x22	"	\(dq
0x27	’	\(aq
0x2D	-	\-
0x26	.	\&.
0x5C	\	\\

3.1 Latex mode

All bytes in latex mode are suppressed.

3.2 Man mode

The i2man(1) utility transfers bytes in man mode transparently from the input to the output. The byte adaption according to table 1 is not done!

3.3 Number anchor mode

The i2man(1) utility removes the leading ”#” character from all bytes in number anchor mode. In addition, bibliography numbering entities are set in brackets. Bytes in number anchor mode are defined to use normal font style.

Table 2: Number anchor mode examples

i(1) token	i(1) input	i2man(1) output
I_TOK_H1	#1	1
I_TOK_H2	#1.1	1.1
I_TOK_H3	#1.1.1	1.1.1
I_TOK_H4	#1.1.1.1	1.1.1.1
I_TOK_HBIB	#B1	[1]
I_TOK_NBR_EQU	#E1	E1
I_TOK_NBR_FIG	#F1	F1
I_TOK_HTAB	#T1	T1

3.4 Fixed–width font anchor mode

Bytes in fixed–width font anchor mode are defined to use bold font style and are therefore placed between \fB and \fP macros in the i2man(1) output. The leading I_BYTE_CUT2 and the terminating I_BYTE_CUT1 characters are suppressed.

3.5 Italic font anchor mode

Bytes in italic font anchor mode are defined to use italic font style and are therefore placed between \fI and \fP macros in the i2man(1) output. The leading I_BYTE_CUT1 and the terminating I_BYTE_CUT2 characters are suppressed.

3.6 Fixed–width font mode

Bytes in fixed–width font anchor mode are defined to use bold font style and are therefore placed between \fB and \fP macros in the i2man(1) output. If there are leading and

terminating `I_BYTE_CUT2` characters, they are suppressed.

3.7 Italic font mode

Bytes in italic font anchor mode are defined to use italic font style and are therefore placed between `\fI` and `\fP` macros in the `i2man(1)` output. The leading and terminating `I_BYTE_CUT1` characters are suppressed.

3.8 Default mode

Bytes in default mode are defined to use normal font style. References to numbering entities are tackled exactly the same way by the `i2man(1)` utility as bytes in number anchor mode (see chapter 3.3).

4 Arrangement

4.1 One–dimensional arrangement

One–dimensionally arranged textual content can contain all kinds of items (see chapter 2.1 to 2.11) and footnotes (see chapter 2.12).

4.2 Two–dimensional arrangement (tables)

Two–dimensionally arranged textual content (tables) can only contain paragraph items, list items, quotation items and footnotes (see chapters 2.4, 2.5, 2.6 and 2.12). The major difference between the `i2man(1)` input and its output is that the table border is rendered more appropriately.

4.2.1 `i(1)` input example of a table with a head

```
:------:-----:----------
: one  : two : three
:======:=====.==========
: four : five
```

4.2.2 `i2man(1)` output example of a table with a head

```
.nf
     +------+-----+----------+
     | one  | two | three    |
     +======+================+
     | four | five           |
     +------+----------------+
.fi
```

5 Bibliography

ISO–8859–1 ISO/IEC 8859–1 Information technology. 8–bit single–byte coded graphic character sets. Part 1. Latin alphabet No. 1. 1998.

UTF–8 RFC 3629. UTF–8, a transformation format of ISO 10646. 2003.

roff_man The groff/nroff/troff macros to support generation of man pages.