

Using GNU Texinfo for HTML and PDF documentation

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How to use GNU Texinfo to produce HTML and PDF documents

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1 Introduction

The GNU Texinfo (<https://www.gnu.org/software/texinfo/manual/texinfo/>) is preferred system to write technical documentation for GNU Programs. This system was created in late '80 (Manual Copyright starts in 1988).

Originally it could generate only two output formats:

- | | |
|--------|--|
| ‘DVI’ | Device Independent format produced with TeX (PDF was yet to be invented by Adobe :-) |
| ‘Info’ | Hypertext format (again before World Wide Web was created) for ‘ <code>info(1)</code> ’ viewer - however personally I prefer to use more intuitive ‘ <code>pinfo(1)</code> ’ viewer. |

Fortunately many things improved over years:

- Direct PDF output was possible thanks to new PdfTeX. Before PdfTeX one has to produce DVI, then transform it to PostScript using ‘`dvi2ps(1)`’ command and finally convert it to PDF using Ghostscript’s helper script ‘`ps2pdf(1)`’.
- HTML Output
- Embedded Image support

2 Setup

2.1 System preparation

Tested on Debian 10 (Buster).

Install these packages to use Texinfo in our example:

```
sudo apt-get install git make texinfo info pinfo texlive-binaries \
  texlive-latex-base texlive-plain-generic
```

Note: The `info(1)` and `pinfo(1)` are viewers of Info output formats (hyper-text format used even before World Wide Web. Similarly we use `make(1)` as build system and `git(1)` to checkout our sample project.

Note: We must install `texlive-latex-base`, because Texinfo uses LaTeX fonts.

Now checkout this project from GitHub using:

```
mkdir -p ~/projects
cd ~/projects
git clone https://github.com/hpaluch/html-and-pdf-generators.git
cd html-and-pdf-generators
```

And follow next section

2.2 Generating documentation

Use these commands to generate multiple output formats (PDF, HTML and Info):

```
cd ~/projects/html-and-pdf-generators/texinfo/
make
```

There are following formats generated:

‘TexinfoPoC.pdf’
PDF output created with PdfTeX

‘TexinfoPoC/index.html’
HTML output (set of files)

‘TexinfoPoC.info’
Info hypertext format, could be viewed using ‘`pinfo(1)`’ or ‘`info(1)`’ commands.

2.3 Browse Info output

To view `TexinfoPoC.info` file use this command:

```
pinfo -f TexinfoPoC.info
```

```
File: TexinfoPoC.info, Node: Introduction, Next: Setup, Prev: Top, Up: Top

1 Introduction
*****

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    'DVI'
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'Info'



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Viewing line 24/31, 77%


```

Figure 2.1: Pinfo viewer

Please see Figure 2.1 how 'Pinfo viewer' looks alike.

Use arrows keys to select "Link" (active Link is in Red color). Press ENTER to Drill Down selected Link. Finally press *q* to quit 'pinfo(1)'.

Note: Emacs fans may prefer to use original `info` to view Info documentation.

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3.1 Program Index

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