directory 1.15 User's Guide

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August 27, 2000

Contents

1 Introduction

directory[1] is a macro package for LaTeX and BibTeX that facilitates the construction, the maintenance and the exploitation of an address book like

[1] directory is available at http://www.geuz.org/directory/ or through the CTAN in the biblio/bibtex/contrib/directory/ subdirectory. directory is distributed under the LaTeX Project Public License (LPPL) since version 1.11.

database. It consists of five BibTeX style files (`address.bst`, `phone.bst`, `email.bst`, `birthday.bst` and `letter.bst`) designed to be used in conjunction with the LaTeX style file `directory.sty`. According to the bibliographical style used, the package has two main applications:

1. the construction of a list of informations (address, phone number, etc.) about selected persons, companies or places;

2. the inclusion of selected informations concerning a person, a place or a company at a desired location in a document.

In the first case, `directory` behaves just like standard bibliographical styles: while standard bibliographical styles handle lists of information concerning books, articles, proceedings, etc., `directory` handles lists of informations relative to people, companies or places. For example, the name in the title of this guide refers to the corresponding entry in the directory listed in section 6.2. The first four BibTeX files permit several handlings of these informations.

In the second case, the package enables bits of the database to be put in your document. It can for example be used to put the address of your correspondent in the address field of a letter.

Two special BibTeX style files (`address-html.bst` and `email-html.bst`) are also provided for an easy generation of HTML versions of your directories.

2 General description

2.1 Package inclusion and options

The package is included by the usual `\usepackage[`*options*`]{directory}` command at the top of the document, where *options* stands for a combination of the following options:

`split`: the directory entries are split on separate pages according to the first letter used in the sorting algorithm;

`break`: the directory fields can be broken across pages.

The old (before version 1.10) formatting options are now handled by the same command mechanism as all other customization options (see section 3).

The directory is produced by the `\directory[`*extension*`]{`*filename*`}` command, where *filename* stands for the name of the `bib` file (without the `bib` extension) and where the optional argument *extension* gives, if necessary, the extension of the file output by BibTeX (see section 4). As usual, multiple `bib` files can be included, a comma separating the different file names.

2.2 Making a citation

An entry is cited in the text by a `\dir{`*key*`}`, `\pdir{`*key*`}`, `\rdir{`*key*`}` or `\wdir{`*key*`}` command, equivalent to the standard `\cite{`*key*`}` command, where *key* is used in the same way as ever (referring to an entry in a `bib` file). The differences between the four citation commands will be explained in the next section. A `\nodir{`*key*`}` command exists and acts exactly like `\nocite{`*key*`}` for standard bibliographies.

2.3 The `bst` styles

The style of the directory is chosen by a `\directorystyle{`*style*`}` command, where *style* is one of the following:

`address`: full listing in the directory of all fields corresponding to the *key* entry. The `\dir{`*key*`}` command also prints the `name` field of the entry in the document;

`phone`: only the phone, cellular and fax fields corresponding to the cited entry are displayed in the directory. The `\dir{`*key*`}` command acts in the same way as with the `address` style, except that the names are abbreviated;

`email`: only e-mail addresses are displayed in the directory. The `\dir{`*key*`}` command acts in the same way as with the `address` style;

`birthday`: only the birthdays are displayed, sorting the entries in chronological order. The `\dir{`*key*`}` command acts in the same way as with the `address` style;

`letter`: acts in a slightly different way than the four preceding styles. No directory is produced with the `\directory` command. The `\dir{`*key*`}` command results in the `name` field of the *key* entry to be printed in the document. The `\pdir{`*key*`}` (respectively `\rdir{`*key*`}` or `\wdir{`*key*`}`) command prints the name and the private (respectively residence or work) address in the document in a tabulated way.

2.4 The `bib` file fields

In all entry types, `name` is the only mandatory field, since it serves as a key for sorting the entries.

`person`: besides the `name`, `nickname`, `birthday`, `birthyear` and `note` fields, the available fields for the `person` entry in a `bib` file are divided in three main categories. The first one (its associated keys begin with '`p.`', which stands for 'private') refers to the person's private information: `p.address`, `p.phone`, `p.cellular`, `p.fax`, `p.email`, `p.url` and `p.account`. The second one (for which all the keys begin with '`r.`') refers to stuff relative to a person's residence (i.e. a secondary or temporary address, which is for example useful for students): `r.address`, `r.phone`, `r.cellular`, `r.fax`, `r.email`, `r.url` and `r.account`. The last one (associated keys begin with '`w.`', standing for 'work') refers to professional informations: `w.title`, `w.name`, `w.address`, `w.phone`, `w.cellular`, `w.fax`, `w.email`, `w.url` and `w.account`.

`company`: the available fields for the `company` entry are: `name`, `address`, `phone`, `cellular`, `fax`, `email`, `url`, `account` and `note`.

`place`: the available fields for the `place` entry are: `name`, `address`, `phone`, `cellular`, `fax` and `note`.

3 Customization

3.1 Dimensions

Three new dimensions defining the indentation of the fields (`\dirindent` and `\dirparindent`) and the amount of space between two entries (`\dirsep`) have been introduced. The default values are:

```
\setlength{\dirindent}{3em}
\setlength{\dirparindent}{0em}
\setlength{\dirsep}{3ex}
```

If you want to explicitly introduce a new paragraph in a field, you should use the `\dirbreak` command.

3.2 Flags and formats

Each field of a directory is easily customizable by redefining one of the commands summarized in the table at the end of this user's guide (page 11). For example, here is how the symbol produced in the text after a directory label and the formatting of the label itself are redefined in this document:

```
\renewcommand{\dirsymbol}
  {\raisebox{1ex}{\tiny\textit{(cf.\ section~\ref{dir})}}}
\renewcommand{\Dirlabel}[1]{{#1}}
```

A somewhat more complex example is the redefinition of the birthday format used in this document to produce a nice literal expression for dates:

```
\renewcommand{\Dirbirthday}[2]
  {{\ifcase #2\or January\or February\or March\or April%
             \or May\or June\or July\or August\or September%
             \or October\or November\or December\fi}%
   {\space\ifnum #1=1 1st\else\number#1\fi}}
\renewcommand{\Dirbirthyear}[1]{, {#1}}
```

3.3 More customization

When a field type multiply appears in an entry, the default settings assume the same formatting for each one. For example, there are three instances of a `phone` type field in a full `person` entry, i.e. `p.phone`, `r.phone` and `w.phone`, and the `\dirphone` and `\Dirphone` customization commands apply to these three instances in the same way.

To particularize the formatting of one of these instances, you can use special versions of the customization commands, constructed by inserting `p`, `r` or `w` after the `\dir` or `\Dir` prefix of the original commands. For example, to customize only the `phone` field in the work part, you should use `\dirwphone` and `\Dirwphone`.

To change the formatting of names, you have to edit the BibTeX style files. For example, the default name format "Christophe von Geuzaine, Jr." can be changed into "von Geuzaine C., Jr." in your address books by replacing the line

```
s nameptr "{ff }{vv }{ll}{, jj}" format.name$ 't :=
```

in the file `address.bst` by the line

```
s nameptr "{vv }{ll}{ f.}{, jj}" format.name$ 't :=
```

4 Using both directory and bibliography

Since BibTeX always produces an output file of the form '*filename*.bbl', it is necessary—in order to use *both* directory and bibliography entries—, after generating the `bbl` file corresponding to the directory, to rename it with a new extension (for example `dir`), and to give this new extension as an optional argument to the `\directory` command. The normal procedure can then be followed during the rest of the bibliography processing. Remember that changing the directory (adding an entry or suppressing one) forces you to restart from the beginning.

5 Generating directories with hypertext links

5.1 Direct HTML output

Two special BibTeX style files (`address-html` and `email-html`) allow the easy generation of HTML versions of your directories:

`address-html`: full listing in the HTML directory of all fields corresponding to the *key* entry. The output formatting is similar to that produced by LaTeX with the `address` style;

`email-html`: only e-mail addresses are displayed in the HTML directory.

Since BibTeX directly outputs a `bbl` file in HTML format, no additional program is needed to make the HTML conversion. The `bbl` file directly contains the HTML code, ready to be included in any HTML document.

This method presents nevertheless a little drawback: after BibTeX'ing your LaTeX file, running LaTeX on the same file (even with another non-HTML `\directorystyle`) would produce errors, since the `bbl` file is not understandable by LaTeX. You have either to delete the `bbl` file or to override the error messages (and to change the `\directorystyle`) before any subsequent successful LaTeX run.

The handling of special characters in the HTML directories is also quite imperfect: any special LaTeX character sequence is output the way it is in the `bib` file. This implies for example that `{\'e}` is printed in the HTML document as `{\'e}`, and not as `é`.

5.2 Using the `hyperref` package

You can use the `hyperref` package along with `directory`. For example, adding the following lines in the preamble of your document and using `pdflatex` will produce a PDF version of your directory, with working links for the `email` and `url` fields.

```
\ifx\pdfoutput\undefined\else
  \usepackage{hyperref}
  \newcommand\MyURL{\begingroup\Url}
  \renewcommand{\Diremail}[1]{\href{mailto:#1}{\MyURL{#1}}}
  \renewcommand{\Dirurl}[1]{\href{#1}{\MyURL{#1}}}
\fi
```

6 Example

Despite the option described in section 4, one of the most interesting way of using `directory` is to build a separate address book, including several `bib` files referring to several categories of people, companies or places, as in the example shown in this document:

```
\nodir{*}
\directory{family,business}
```

The use of the `split` option, along with the redefinition of the `\Dirheader` command allows you to produce nicely formatted address booklets.

A second interesting way of using `directory` is to use it in your faxes or letters. Using the standard LaTeX class `letter.cls` with the directory style `letter`, you may for example begin a letter by the following command (`\wdir` must be `protect`'ed since the argument of the `letter` environment is a moving argument):

```
\begin{letter}{\protect\wdir{c.geuzaine}}
```

Take a look at the example `tex` and `bib` files (`directory.tex`, `family.bib` and `business.bib`) and try the options out. The source files are commented and easy to customize. I would be very happy to get your suggestions to improve this package.

6.1 Source file

Here are four `bib` entries (taken from `family.bib` and `business.bib`):

```
@Person{c.geuzaine,
  name       = "Christophe Geuzaine",
  birthday   = "06 02",
  birthyear  = "1973",
  p.email    = "Christophe.Geuzaine@advalvas.be",
  w.title    = "Ir., Research Assistant",
  w.name     = "University of Li{\`e}ge,
                Dept. of Electrical Engineering",
  w.address  = "Institut Montefiore (B28, P32, I21),\\
                Sart Tilman Campus, B-4000 Li{\`e}ge, Belgium",
  w.phone    = "+32-(0)4-366.37.10",
  w.fax      = "+32-(0)4-366.29.10",
  w.email    = "Christophe.Geuzaine@ulg.ac.be",
  w.url      = "http://www.geuz.org/",
}

@Person{d.d.knu,
  name       = "Knudson, Daffy Duck and Bunny, Bugs and Pluto",
  nickname   = "gnat and gnu and pluto",
  birthday   = "10 02 and 05 11 and 01 01",
  p.address  = "Haight Street 512, 80214 Novosibirsk, Gnuland",
  p.phone    = "+01-(0)2-765.43.21",
  p.cellular = "+01-(0)5-555.55.55",
  p.account  = "010-1234567-05",
  r.address  = "Manor Lane 2, 80214 Novosibirsk, Gnuland",
  r.phone    = "+01-(0)2-876.54.32",
  w.name     = "University of Novosibirsk,
                Department of Octopus Parthenogenesis",
  w.address  = "Planck Institut (V1-V2, Park. U-67),
                Hessenberg Road, 80214 Novosibirsk, Gnuland",
}

@Company{knudsoft,
  name   = "The Knudsoft Company",
  email  = "knud@knudsoft.com",
  url    = "http://knudsoft.com/hole/gates.htm",
}

@Place{knudsoft:rs.2,
  name   = "Knudsoft (RS.2 Computer Room)",
  phone  = "+01-(0)2-434.23.23",
}
```

6.2 Output

The output resulting from the `\directory{family,business}` command is shown below (all entries are listed, thanks to the `\nodir{*}` command):

G

Christophe Geuzaine
  ⋆ February 6, 1973
  p `Christophe.Geuzaine@advalvas.be`
  w Ir., Research Assistant
    University of Liège, Dept. of Electrical Engineering
    Institut Montefiore (B28, P32, I21),
    Sart Tilman Campus, B-4000 Liège, Belgium
    phn: +32-(0)4-366.37.10
    fax: +32-(0)4-366.29.10
    `Christophe.Geuzaine@ulg.ac.be`
    `http://www.geuz.org/`

K

The Knudsoft Company
    `knud@knudsoft.com`
    `http://knudsoft.com/hole/gates.htm`

Knudsoft (RS.2 Computer Room)
    phn: +01-(0)2-434.23.23

Bip B. Knudson (aka road runner)
  ⋆ February 27
  p `bip_bip@free.prov.gnu`

Daffy Duck Knudson, Bugs Bunny and Pluto (aka gnat, gnu and pluto)
  ⋆ February 10, November 5 and January 1st
  p Haight Street 512, 80214 Novosibirsk, Gnuland
    phn: +01-(0)2-765.43.21
    gsm: +01-(0)5-555.55.55
    acc: `010-1234567-05`
  r Manor Lane 2, 80214 Novosibirsk, Gnuland
    phn: +01-(0)2-876.54.32
  w University of Novosibirsk, Department of Octopus Parthenogenesis
    Planck Institut (V1-V2, Park. U-67), Hessenberg Road, 80214 Novosibirsk, Gnuland

Donald Ernest Knudson
⋆ January 29
p phn: +01-(0)2-234.56.78
`duck@novosi.uni.gnu`
▷ 1952 Permafrost Press Award winner

M

Microknud Corp.
Haight Street 513
80214 Novosibirsk, Gnuland
phn: +01-(0)2-465.83.99
fax: 005.79.00
`http://microknu.com/ass/bill.html`

7 Contributors

Many thanks to Bernd Schandl, Robert Walker Sumner and Thomas Ruedas for their suggestions and corrections.

8 Versions

0.95 First distributed version.

0.96 New documentation. Introduction of customization commands. New alignment mechanism in the `addressbook` and `phonebook` environments.

0.97 Entries `ccp` and `p.ccp` changed to `account` and `p.account`.

0.98 New style `letter.bst`. New commands `\pdir`, `\rdir` and `\wdir` to produce in-text addresses when used with the `letter.bst` style. New internal key generation.

0.99 Name change of old customization flags (`\`*name*`flag` becomes `\dir`*name*). New flags introduced: `\dirnickname`, `\dirphone`, `\dirfax`, `\diremail`, `\dirurl`, `\diraccount` and `\dirand`.

1.00 New HTML styles (`address-html.bst` and `email-html.bst`).

1.01 Minor corrections.

1.10 Major rewriting of `bst` files (suppression of direct LaTeX formatting). Definition of new customization commands. New package global options to split directories across pages and allow page breaks inside directory fields. The `url.sty` package is now required.

1.11 Introduction of `\dirparindent`.

1.12 Formatting commands can be particularized to each subfield by adding `p`, `r` or `w` after the `\dir` or `\Dir` prefix of the original customization command. Many simplifications and small corrections in the page breaking mechanism and in the list environments.

1.13 Fixed bug for long entries without blank spaces (e.g. in `url` fields).

1.14 More flexible definition of `\Dirheader`.

1.15 Added fields for cellular phones (suggested by Stefano Ferrari). Added section explaining how to use `hyperref` to generate PDF documents with hyperlinks. Updated web site address.

Table 1: Summary of customization commands

Command	Arg.	Explanation	Default
`\dirsymbol`	0	In-text symbol produced after a directory citation	
`\dirand`	0	"anding" string	`and`
`\dirbirthday`	0	Birthday field flag	`$\star$~`
`\dirprivate`	0	Private field flag	`\emph{p}~`
`\dirresidence`	0	Residence field flag	`\emph{r}~`
`\dirwork`	0	Work field flag	`\emph{w}~`
`\dirnote`	0	Note field flag	`$\triangleright$~`
`\dirnickname`	0	Nickname field flag	
`\diraddress`	0	Address fields flag	
`\dirphone`*	0	Phone fields flag	`phn:␣`
`\dircellular`*	0	Cellular phone fields flag	`gsm:␣`
`\dirfax`*	0	Fax fields flag	`fax:␣`
`\diremail`*	0	E-mail fields flag	
`\dirurl`*	0	Url fields flag	
`\diraccount`*	0	Account fields flag	`acc:␣`
`\dirtitle`	0	Title field flag	
`\dirname`	0	Name field flag	
`\Dirlabel`	1	Label format	`{\textbf{#1}}`
`\Dirheader`	1	Header format when the `split` option is used† (the arg. is the first letter used in the sorting algorithm)	`\newpage\markboth {\MakeUppercase{#1}} {\MakeUppercase{#1}}`
`\Dirbirthday`	2	Birthday format (the first arg. is the day, the second is the month)	`{\number#1}/{\number#2}`
`\Dirbirthyear`	1	Birth year format when a `birthday` field exists	`/{#1}`
`\DirbirthyearAlone`	1	Birth year format when no `birthday` field exists	`{#1}`
`\Dirnickname`	1	Nickname format	`(aka␣{#1})`
`\Diraddress`*	1	Address format	`{#1}`
`\Dirphone`*	1	Phone format	`{#1}`
`\Dircellular`*	1	Cellular phone format	`{#1}`
`\Dirfax`*	1	Fax format	`{#1}`
`\Diremail`*	1	E-mail format	`\url{#1}`
`\Dirurl`*	1	Url format	`\url{#1}`
`\Diraccount`*	1	Account format	`\url{#1}`
`\Dirtitle`	1	Title format	`{#1}`
`\Dirname`	1	Name format	`{#1}`
`\Dirnote`	1	Note format	`{#1}`

* The commands marked with an asterisk also exist in three other versions, controlling independently the private, residence and work parts (e.g. `\dirphone` can be particularized to `\dirpphone`, `\dirrphone` and `\dirwphone`).

† and a coherent page style selected (e.g. `\pagestyle{headings}`).