NAME

bundledoc − bundle all the files needed by a LaTeX document

SYNOPSIS

bundledoc [**−−version**] [**−−help**] [**−−[no]verbose**] [**−−texfile**=*file*] [**−−directory**=*directory*] [**−−[no]localonly**] [**−−exclude**=*string*] [**−−include**=*filespec*] [**−−manifest**=*file*] [**−−listdeps**=[yes|no|only|rel]...] [**−−[no]keepdirs**] [**−−config**=*file*] *.dep file*

DESCRIPTION

bundledoc is a post-processor for the **snapshot** package that bundles together all the classes, packages, and files needed to build a given LaTeX document. It reads the *.dep* file that **snapshot** produces, finds each of the files mentioned therein, and packages them into a single archive file (e.g., a *.tar.gz* file), suitable for moving across systems, transmitting to a colleague, etc.

As the simplest example possible, consider a LaTeX file called, say, *hello.tex*:

```
\RequirePackage{snapshot}        % Needed by bundledoc
\documentclass[11pt]{article}

\begin{document}
Hello, world!
\end{document}
```

The `\RequirePackage{snapshot}` causes a *hello.dep* file to be produced. When **bundledoc** is then given `hello.dep` as an argument, it locates the dependent files — *snapshot.sty*, *article.cls*, and *size11.clo* — and bundles them into a single archive file, along with *hello.tex* and a *MANIFEST* file (described in ''OPTIONS'', below).

OPTIONS

In the following descriptions, *somefile* refers to the name of your main LaTeX document (no extension).

bundledoc requires the name of the dependency file produced by **snapshot** (normally *somefile.dep*). The following options may also be given:

−−version

Output the **bundledoc** script's version number. This overrides all of the remaining options.

−−help

Give a brief usage message. This overrides all of the remaining options.

−−[no]verbose   (default: `noverbose`)

bundledoc normally does not output anything except error messages. With `−−verbose`, it outputs copious status messages.

−−texfile=*main .tex file*   (default: *somefile.tex*)

snapshot's dependency file does not list the main LaTeX file (the one that gets passed to **latex**). In order for **bundledoc** to find and bundle that file, **bundledoc** assumes it has the same name as the **snapshot** dependency file but with a *.tex* extension. If this is not the case, then use `−−texfile` to specify the correct filename.

−−directory=*archive directory*   (default: *somefile*)

When **bundledoc** creates an archive (e.g., a *.tar* or *.zip* file) containing the document's files, it puts all of them in a directory to avoid cluttering the current directory with files. If the given dependency file is called *somefile.dep* then the resulting archive will, by default, store

all the dependent files in a *somefile* directory. To change the directory name use the `--directory` option.

−−[no]localonly   (default: `nolocalonly`)

Although **bundledoc** normally archives all of the files named in the *.dep* file, the `--localonly` option tells **bundledoc** to exclude all files located in a directory other than the *.tex* file's directory or one of its subdirectories.

−−exclude=*string*   (default: *none*)

While `--localonly` causes files outside of the *.tex* file's directory tree to be omitted from the archive, `--exclude` provides finer-grained control over files to omit from the archive. The `--exclude` option, which can be specified repeatedly on the command line, causes all files whose name contains *string* to be omitted from the archive.

−−include=*filespec*   (default: *none*)

The `--include` option, which can be specified repeatedly on the command line, instructs **bundledoc** to include in the archive all of the files matching *filespec*, even if they're not referenced in the *.dep* file.

−−manifest=*manifest file*   (default: *MANIFEST*)

In addition to the dependent files, **bundledoc** includes in the archive file one extra file called, by default, "*MANIFEST*". *MANIFEST* is a text file that lists the original filenames of all the dependencies. To change the filename from "*MANIFEST*" to something else, use the `--manifest` option. As a special case, `--manifest=""` tells **bundledoc** not to include a manifest file at all.

−−listdeps=[yes|no|only|rel]...]   (default: `no`)

`--listdeps` accepts one or more of `yes`, `no`, `only`, or `rel` as a comma-separated list. As long as `no` does not appear in this list, **bundledoc** outputs all of the main LaTeX file's dependencies. If the list contains `rel`, then **bundledoc** outputs the list of dependencies with relative pathnames. If the list contains `only`, then **bundledoc** exits after displaying the list, without producing an archive.

−−[no]keepdirs   (default: `nokeepdirs`)

Normally, the archive file that **bundledoc** produces contains a single directory — and subdirectories, if the document refers explicitly to them — in which all the dependent files lie. If `--keepdirs` is specified, all the dependent files are stored with their original pathnames. For example, if *somefile.tex* depends on *figures/somefigure.eps*, *article.cls*, and *snapshot.sty*, then the *somefile* archive will normally contain the following files:

- *somefile/somefile.tex*

- *somefile/figures/somefigure.eps*

- *somefile/article.cls*

- *somefile/snapshot.sty*

- *somefile/MANIFEST*

However, `--keepdirs` will cause the *somefile* archive to contain the following sorts of filenames instead:

- *home/me/mydocs/somefile.tex*

- *home/me/mydocs/figures/somefigure.eps*

- *usr/share/texmf/tex/latex/base/article.cls*

- *usr/share/texmf/tex/latex/snapshot/snapshot.sty*

`--directory` is not used when `--keepdirs` is in effect. In addition, no manifest file is written to the archive file as it contains redundant information.

−−config=*configuration file*   (default: <none>)

The `--config` option is used to point **bundledoc** to the appropriate configuration (*.cfg*) file for your TeX distribution and operating system. **bundledoc** comes with a few configuration files and it's easy to write more. See ''CONFIGURATION FILES'' (below) for a description of the configuration file format.

CONFIGURATION FILES
Format

Configuration files follow a fairly simple format. Lines beginning with # are comments. Blank lines are ignored. All other lines are of the form:

```
variable: value
```

The current version of **bundledoc** recognizes the following variables:

bundle

The command to use to bundle a set of files into a single archive file

sink

The affix to a command to discard its output

find

The command to find a file within the TeX tree(s).

Values that are too long for one line can be split across multiple lines by using \ as the line-continuation symbol.

There are two environment variables that **bundledoc** makes available for use by configuration-file commands: BDBASE, which is set to *somefile* (as in ''OPTIONS''), and BDINPUTS, which is set to a space-separated list of files that a command is to operate upon. That is, when the command associated with `bundle` is running, BDINPUTS contains the list of all the files that are to be archived. In contrast, when the command associated with `find` is running, BDINPUTS contains the name of the file to search for.

Examples

The following configuration file parallels **bundledoc**'s default values of the various configuration-file variables, which represents a kpathsea-based TeX distribution running on a generic Unix system, which doesn't necessarily have any of the GNU tools, such as **gzip** or GNU **tar**:

```
# "Default" configuration file
# By Scott Pakin <scott+bdoc@pakin.org>

bundle: (tar -cvf - $BDINPUTS | compress > $BDBASE.tar.Z)
sink:   > /dev/null 2>&1
find:   kpsewhich -progname=latex $BDINPUTS
```

The parentheses in the `bundle:` line tell the Unix shell to run the command in a subshell. This

is to make the `sink:` affix work properly (i.e., so there aren't two >'s in the same command).

Notice how the commands treat `BDBASE` and `BDINPUTS` like any other environment variables in a Unix shell, using `$` to take their value. Other operating systems use different conventions for referring to environment variables. For instance, a configuration file for a Windows-based TeX distribution would use `%BDBASE%` and `%BDINPUTS%` instead.

The value for `sink:` is specific to an operating system. The value for `find:` is specific to a TeX distribution. `bundle:` is where the most opportunity for customization lies. You can use `bundle:` to specify your favorite archive format. For example, you can produce a shar file on Unix with something like:

```
bundle: (shar --archive-name="$BDBASE" $BDINPUTS > $BDBASE.sh)
```

or a CAB file on Microsoft Windows with something like:

```
bundle: cabarc -r -p N %BDBASE%.cab %BDINPUTS%
```

EXAMPLES

Assume that *myfile.dep* was produced from *myfile.tex* by following the instructions in the Description section. The following command produces a *.zip* file with the MikTeX TeX distribution running on Microsoft Windows:

```
bundledoc --config=miktex.cfg myfile.dep
```

(In practice, it's probably necessary to specify to `--config` the complete path to **bundledoc**'s *miktex.cfg* configuration file.)

The following builds a *.tar.gz* archive with the TeX Live distribution running on a Unix-like operating system. **bundledoc** will produce verbose output describing its operations. All files not in the same directory tree as *myfile.tex* and all files containing ".fd" or ".sty" in their names are omitted. However, all *.bib* files in the current directory will be included in the archive even though none of them are referenced by *myfile.dep*. Finally, no *MANIFEST* file will be produced.

```
bundledoc --config=texlive-unix.cfg --verbose --localonly \
    --exclude=.fd --exclude=.cfg --include="*.bib" --manifest="" \
    myfile.dep
```

FILES

The user must have previously installed *snapshot.sty* and used it to produce a dependency file for his document. Besides that, the set of external files needed by **bundledoc** is system-specific and depends on the configuration file used. (See "CONFIGURATION FILES", above.)

bundledoc currently comes with two configuration files:

texlive−unix.cfg

Configuration file for TeX Live installations on Unix or Linux. TeX Live is a kpathsea-based TeX distribution that runs on various flavors of Unix and Microsoft Windows. *texlive−unix.cfg* assumes you have **gzip** and uses it to produce a *.tar.gz* archive file. The configuration file has **bundledoc** use **kpsewhich** to find LaTeX files.

miktex.cfg

Configuration file for MikTeX installations. MikTeX is a popular TeX distribution for Microsoft Windows. *miktex.cfg* assumes you have **zip** and uses it to produce a *.zip* archive file. The configuration file now has **bundledoc** use **kpsewhich** to find LaTeX files; older version of MikTeX required the rather nonstandard **initexmf** for this purpose.

texlive−unix−arlatex.cfg
>This is a variant of *texlive−unix.cfg* that uses **arlatex** instead of **gzip** to archive files. **arlatex** is a script included in the **bundledoc** distribution that generates a self-extracting *.tex* file based on LaTeX's `filecontents` environment.

NOTES

Including and excluding files

The `--localonly`, `--exclude`, and `--include` options provide control over the archive's contents. `--exclude` and `--include` can be specified repeatedly on the command line. The order in which these options are specified is immaterial; **bundledoc** processes file inclusions and exclusions in the following order:

1. All files referenced by the *.dep* file are added to the list of files to archive.

2. If `--localonly` is specified, all files not found in the *.tex* file's directory are removed from the list.

3. For each `--exclude` string specified, all files containing that string are removed from the list.

4. For each `--include` file specification, the set of files designated by its expansion are added to the list.

Issues When Running Under Microsoft Windows

First, because **bundledoc** is a Perl script, you should do one of the following to run it under Windows:

- `perl bundledoc`

- Rename *bundledoc* to *bundledoc.pl* and run `bundledoc.pl`. (This is assuming you have a file association set up for *.pl*.)

- Run the **pl2bat** script (if you have it) to convert *bundledoc* to *bundledoc.bat*, then run `bundledoc`.

Second, Windows uses a multi-rooted filesystem (i.e., multiple drive letters). I wouldn't be surprised if bad things were to happen if the files to be bundled are scattered across drives. In addition, Windows supports ''UNC'' filenames, which have no drive letter at all, just a machine and share name. UNC filenames are also untested waters for **bundledoc**. Be careful!

Testing Status

I have tested **bundledoc** only with Perl v5.6.0 and later and only on the following platforms:

- Linux + TeX Live

- Linux + teTeX

- Windows NT + MiKTeX

- Solaris + ??? (something kpathsea-based)

It is my hope that **bundledoc** works on many more platforms than those. I tried to make the program itself fairly independent of the operating system; only the configuration files should have to change to run **bundledoc** on a different system.

Future Work

I'd like **bundledoc** to work on as wide a variety of TeX distributions as possible. If your platform is significantly different from the ones listed in ''Testing Status'' (e.g., if you're running

OS X) and you need to create a substantially different configuration file from *texlive−unix.cfg* and *miktex.cfg*, please send it to me at the address listed in ''AUTHOR'' so I can include it in a future version of **bundledoc**. (I make no promises, though).

Once **bundledoc** works on all the major operating systems and TeX distributions it would be really convenient if I could get **bundledoc** to detect the platform it's running on and automatically select an appropriate configuration file.

Finally, it would be handy for **bundledoc** to include fonts in the archive file. At a minimum, it should include *.tfm* files, but it would be even better if it included *.mf*, *.pfb*, *.ttf*, and other common font formats, as well.

Acknowledgments

Thanks to Fabien Vignes-Tourneret for suggesting what became the `--localonly` option and for a discussion that led to the `--exclude` and `--include` options; and to Marius Kleiner for updating **bundledoc** to properly handle document subdirectories.

SEE ALSO

arlatex (1), *gzip* (1), *kpsewhich* (1), *latex* (1), *perl* (1), *zip* (1), the **snapshot** documentation

AUTHOR

Scott Pakin, *scott+bdoc@pakin.org*