

This is a crudely simulated pglatex input file, as might be produced by the PG posting program from an uploaded LaTeX source file.

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*** START OF THE PROJECT GUTENBERG PGLATEX WW MANUAL ***

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Whitewashers' Guide to `pglatex`

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1 Introduction

Before a \LaTeX project can be posted, PG's boilerplate, credits, and license must be incorporated into the \LaTeX source file. However, these "stanzas" cannot simply be prepended or appended the way they would be with a plain text project, since the result would not be a compilable \LaTeX file.

`pglatex` comprises a pair of programs, `pglatex.check` and `pglatex.post`, which facilitate the task of verifying and posting \LaTeX projects uploaded to Project Gutenberg. This brief manual describes each program's actions, and outlines the WWer's workflow. Structure of the \LaTeX source file is sketched, but covered in detail in a separate manual for DP post-processors (PPers).

1.1 Actions

`pglatex.check` reads the output of PG's posting program, rearranges the pieces into a preliminary \LaTeX file for human inspection, and writes a few additional files useful for verifying the PPer's uploaded \LaTeX .

`pglatex.post` accepts the WWer-verified \LaTeX source file, makes a couple of final updates, and creates zipped \LaTeX and PDF files for posting. The program also retains a copy of the compiled PDF for final visual inspection.

2 Work Flow

For definiteness, assume the uploaded project comes in the file `project.zip`, which unpacks to a \LaTeX source file `project.tex` and (possibly) a directory named `images`, and that the project is assigned the eBook number 12345.

Here are the raw commands and steps needed to process the project. The actual white washing work is done in the two `**` steps; the other steps are described in detail

below. The file renaming in square brackets need not be performed if the output file of the previous step already has the correct name.

COMMAND or ACTION	COMMENTS
<code>unzip project.zip</code>	Unpack the project
<code>mv project.tex project.txt</code>	Rename PPer's source file
<code><posting prog> project.txt</code>	Generate ebook number, stanzas
<code>[mv 12345.txt 12345-8.txt]</code>	Rename project file (if nec.)
<code>pgl_{at}ex__check 12345-8.txt</code>	Pre-process file
** Run WW tests on 12345-lprep.txt, make changes to 12345-WW.tex **	
<code>pgl_{at}ex__post 12345-WW.tex</code>	Create postable packages
** Visually verify 12345-pdf.pdf; if okay, post zip files **	

2.1 Preparation

Unzip the uploaded file and rename the L^AT_EX file, giving it the extension `.txt`. Run the posting program on `project.txt`, generating `12345-8.txt`. If the `-8` is missing from the filename, rename the file accordingly; `pglatex_check` requires its argument to have the form `<ebook>-8.txt`.

2.2 pgl_{at}ex_{_}check

The file `12345-8.txt` should now contain the following “stanzas”, in order: boilerplate, credits, the PPer's L^AT_EX source and log files, and the PG license text. Run `pglatex_check`:

```
pglatex_check 12345-8.txt
```

At the end of a successful run, the following additional files will have been created:

- `12345-WW.tex`: The PPer's L^AT_EX source file, but with the PG boilerplate, credits, and license grafted in for the PPer's “placeholder tags”, and with an `\ebook` macro expanding to the PG eBook number. (The PPer's log file, if any, is removed as well.)

This file is the primary source for the project. If `pglatex_check` is run again, successive backup files, named `12345-WW.tex-n.bak` are created. This protects against accidental overwriting.

- `12345-WW.pdf`: The PDF compiled from `12345-WW.tex`, for visual inspection during manual verification.
- `12345-PP-notes.txt`: The PPer’s Producer’s Comment block.
- `12345-lprep.txt`: The `lprep`-ed output from the PPer’s \LaTeX source file, for `gutcheck`-ing and other verification.
- `12345-logs.log`: Summaries of warnings from the PPer’s log file and the `pglaf` log file, the list of commands that will be used to compile the project (extracted from the PPer’s notes), and other information possibly useful in debugging.
- `12345-PP.tex`: The PPer’s \LaTeX source file, with the log file removed.
- `12345-build`: An executable shell script containing the PPer’s command block. To compile the project manually, do


```
./12345-build 12345-PP.tex
```

 The script will also compile the WVer’s \LaTeX file.

If the PPer’s source file does not contain a “`\listfiles`” line, the check program prints an error message to this effect and exits. In this event, please ask the uploader to add “`\listfiles`” to their preamble, re-compile the project, update the log file at the end of their source file, and re-submit the project.

2.3 Manual Verification

The file `12345-WW.tex` created in the previous step is now the Primary Source for the project.¹

The PPer’s comment block is in `12345-PP-notes.txt`. You need not update the PDF Pages line in `12345-WW.tex`; `pgllatex_post` handles this automatically.

The file `12345-lprep.txt` contains the `lprep`-ed text, namely the PPer’s \LaTeX source file with the \LaTeX commands stripped out and replaced by mnemonic tags such as `<MATH>`. `12345-lprep.txt` is roughly analogous to the plain text file of a non- \LaTeX project, with two important differences:

- (i) `lprep` may leave false positives; a spellcheck or `gutcheck` error need not correspond to a real problem with the PPer’s file. In such cases, the file `12345-WW.pdf` should be consulted to see if the problem is genuine.

¹The program `pgllatex_post` *only* accepts input files having extension `-WW.tex`.

- (ii) Though you are verifying the `lprep`-ed text, any necessary changes must be made to a *different file*, `12345-WW.tex`.

2.4 `pglatexpost`

Once the source file `12345-WW.tex` and its compiled PDF have been checked manually, the project is ready for packaging. Run `pglatexpost`:

```
pglatexpost 12345-WW.tex
```

This creates a zip file which unpacks into a directory named `12345`. This directory contains the compiled pdf `12345-pdf.pdf`, the \LaTeX sources `12345-t/12345-t.tex` and `12345-t/images`, and two zip files—one containing the compiled PDF, the other containing the \LaTeX sources. The compiled PDF file should be given a final visual verification before the zip files are pushed to the server, similarly to the final inspection of an HTML file in a non- \LaTeX project.

Once the zip files are posted, it should be safe to remove all remaining files; the likeliest exceptions are the original upload `project.zip` and the human-verified \LaTeX source file `12345-WW.tex`. Everything else can be automatically re-generated. (A copy of `12345-WW.tex`, but with the \LaTeX log file appended, is contained in `12345-t.zip`.)

3 Troubleshooting

Most \LaTeX -specific problems with a project will be caught before the project leaves DP. However, errors are always possible, and \LaTeX 's log messages can be difficult to digest.² In the event a project fails to compile or a `pglatex` program fails to act comprehensibly (or merely behaves contrary to this manual), please contact a \LaTeX -knowledgeable white washer, post a message in the DP \LaTeX Typesetters team forum, or email `pglatex`'s author.

4 Acknowledgements

The `pglatex` tools are free software, released under the terms of the GNU General Public License; please see the `COPYING` and `README` files for details. Bug reports,

²For example, the `pglatex` programs make no checks for unbalanced braces in the PG replacement stanzas. Under certain conditions, unbalanced braces in the PG stanzas can cause cryptic \LaTeX errors. If at all possible, unbalanced braces should be avoided.

requests for features, or other feedback may be addressed to Andrew D. Hwang (DP: **adhere**).

David C. Wilson envisioned pglatex and sketched its requirements and work flow. Without his extensive experience with PG LaTeX projects, and his continual guidance and encouragement, pglatex could not have been written.

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