

texlogsieve:^{*}

(yet another program to)
filter and summarize L^AT_EX log files

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<https://gitlab.com/lago/texlogsieve>

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Abstract

texlogsieve reads a L^AT_EX log file (or the standard input if no file is specified), filters out less relevant messages, and displays a summary report. Highlights:

- Two reports: the most important messages from the log file followed by a summary of repeated messages, undefined references etc.;
- The program goes to great lengths to correctly handle T_EX line wrapping and does a much better job at that than existing tools;
- Multiline messages are treated as a single entity;
- Several options to control which messages should be filtered out;
- No messages are accidentally removed;
- The summary report is currently simple, but useful.

1 Introduction

The L^AT_EX log file is very verbose, which is useful when debugging but a hindrance during document preparation, as warnings such as “missing character”, “undefined reference”, and others become buried among lots of less relevant messages. This program filters out such less relevant messages and outputs the rest, together with a final summary for the specially important ones. It is a texlua script, similar in spirit to tools such as texfot, texloganalyser, rubber-info, textlog_extract, texlogparser, and others. Note that it does not try to do anything smart about error messages (at least for now); if there is an error, you probably want to take a look directly at the log file anyway.

texlogsieve **must** be run from the same directory as [pdf|lua|xe]latex, because it searches for the files used during compilation (packages loaded from the current directory, files included with \input etc.).

^{*}This document corresponds to texlogsieve 1.0.0-beta-1, dated 2021-12-16.

The defaults are reasonable; hopefully, you can just do

```
[pdf|lua|xe]latex myfile.tex | texlogsieve
```

and be satisfied with the result.

Since it needs to know what messages to expect, `texlogsieve` is currently geared towards \LaTeX ; I have no idea how it would work with `ConTeXt` or plain \TeX . Still, adding support to them should not be too difficult.

If you want to know more about the \TeX log file and the workings of the program, check the initial comments in the code.

2 Unwrapping long lines

\TeX wraps (breaks) lines longer than `max_print_line` (by default, 79 characters). Most tools detect lines that are exactly 79 characters long and treat the next line as a continuation, but that fails in quite a few cases (check the comments in the `texlogsieve` code for a discussion on that). So, if at all possible, it is a very good idea to set `max_print_line` to a really large value (such as 100,000), effectively disabling line wrapping. It was useful in the 1980s, but not anymore (your terminal or editor wraps automatically).

Still, `texlogsieve` goes to great lengths to correctly handle \TeX line wrapping and does a pretty good job at that. It understands the `max_print_line` \TeX configuration variable and reads its value from the same places as \TeX . Setting `max_print_line` to a value larger than 9999 makes `texlogsieve` ignore line wrapping.

3 Options

--page-delay, --no-page-delay

Enable/disable grouping messages by page before display. When enabled, messages are only output after the current page is finished (shipout). The advantage is that the page number is included in the message (default enabled).

--summary, --no-summary

Enable/disable final summary (default enabled).

--only-summary

No messages, show only the final summary (default disabled).

--shipouts, --no-shipouts

Enable/disable reporting shipouts (default disabled with `page-delay`, enabled with `no-page-delay`).

--repetitions, --no-repetitions

Allow/prevent repeated messages (default disabled, i.e., repeated messages are suppressed).

--heartbeat, --no-heartbeat

Enable/disable progress gauge in `page-delay` mode (default enabled).

-l LEVEL, --minlevel=LEVEL

Filter out messages with severity level lower than LEVEL. Valid levels are DEBUG (no filtering), INFO, WARNING, CRITICAL, and UNKNOWN (default WARNING).

-u, --unwrap-only

Do not filter messages and do not output the summary, only unwrap long, wrapped lines. The output should be very similar (but not equal) to the input file, but with wrapped lines reconstructed. This activates `-l debug`, `--no-summary`, `--no-page-delay`, `--repetitions`, and `--shipouts`, and also suppresses the verbose “open/close file” and “shipout” messages, simulating instead the T_EX format, with parens and square brackets. This is useful if you prefer the reports generated by some other tool but want to benefit from texlogsieve’s line unwrapping algorithm; the output generated by this option should be parseable by other tools (but you probably need to coerce the other tool not to try to unwrap lines).

--silence-package=PKGNAME

Filter out messages that can be identified as coming from the given package. Use this option multiple times to suppress messages from several different packages.

--silence-string=EXCERPT OF UNWANTED MESSAGE

Filter out messages that contain the given string (you only need to provide part of the message text for the whole message to be suppressed). Use this option multiple times to suppress several different messages. The string should be a single line, but that is not a problem for multiline log messages: space characters in the provided string match any sequence of whitespace characters in the message, including newlines. If needed, you may precede the string with “`///`”, in which case you can use lua-style pattern matching (<https://www.lua.org/pil/20.2.html>). Note that the string is used verbatim: you need not (and should not) enclose it in quotes nor escape special characters such as “`\`”.

--silence-file=FILENAME OR FILE GLOB

Filter out messages that have been generated while the given file was being processed. Do **not** use absolute or relative paths, only filenames. Simple file globs, such as “`*.cls`”, work as expected. Use this option multiple times to suppress messages from several different files.

--semisilence-file=FILENAME OR FILE GLOB

Just like the previous option, but non-recursive. This means that messages generated while the given file was being processed are excluded, but messages generated by some other file that was opened by it are not. For example, if “`chapters.tex`” includes (with `\input`) the files “`chapter1.tex`” and “`chapter2.tex`”, using “`--silence-file=chapters.tex`” will prevent messages generated by any of the three files from being displayed. If, however, you use “`--semisilence-file=chapters.tex`”, messages generated by `chapters.tex` will be suppressed, but messages generated by `chapter1.tex` or `chapter2.tex` will not.

--add-[debug|info|warning]-message=MESSAGE

Add MESSAGE to the list of messages known to the program with the given severity level; see Section 4 below for more information about this. Like --silence-string, these should be a single line; unlike --silence-string, you need to embed \n explicitly to indicate line breaks. You may precede the string with “///” to use lua-style pattern matching, but embedding \n to indicate line breaks is unavoidable. Use these options multiple times to add many different messages.

-c CFGFILE, --config-file=CFGFILE

Read options from the given configuration file. Options are exactly the same as the long command-line options, but without the preceding “--” characters. Lines starting with a “#” sign are comments. An example configuration file:

```
no-page-delay
# no-page-delay enables shipouts, but we do not want that
no-shipouts
silence-string = Hyperreferences in rotated content will be misplaced
# no need to escape the "\" (or any other) character
silence-string = Using \overbracket and \underbracket from 'mathtools'
# silence a string using lua pattern matching
silence-string = ///luaotfload | aux : font no %d+ %(.-%)
silence-files = *.cls
```

-h, --help Show concise options description.

--version Print program version.

4 Unrecognized Messages

texlogsieve automatically handles messages such as “Package blah Info:...” or “LaTeX Warning:...”. However, many messages do not follow this pattern. To do its thing, texlogsieve should know about these other messages beforehand. This is important for three reasons:

1. Unknown messages are given maximum priority; if you do not want to see them, you have to use --silence-string;
2. If the message has more than one line, each line is treated as an independent message. This means you need to use --silence-string multiple times;
3. In some rare cases, the line unwrapping algorithm may fail near an unrecognized message.

While texlogsieve recognizes quite a few messages out of the box, you may run into a message generated by some package that it does not know about (you can check for this using -l unknown). If that is the case, you can use the --add-[debug|info|warning]-message options to add it to the list of messages known to the program.

5 License

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Change History

v1.0.0-beta-1

General: first public prerelease 1