

## NAME

`typog-grep` – specialized grep for `typog-inspect` elements in LaTeX log files

## SYNOPSIS

**typog-grep** `-a` | `--all` | `--any` [*OPTION...*] *LOG-FILE*...

**typog-grep** [*OPTION...*] *REGEXP* *LOG-FILE*...

The first form, “discovery mode”, shows all *IDs* of

```
<typog-inspect id="ID" ...>
```

elements in *LOG-FILE*.

The second form shows the contents, *LOG-DATA*, of the elements

```
<typog-inspect id="ID" ...>
```

```
LOG-DATA
```

```
</typog-inspect>
```

whose *IDs* match *REGEXP* in *LOG-FILE*.

If no *LOG-FILE* is given read from *stdin*. The `filename-` is synonymous to *stdin*.

## DESCRIPTION

**typog-grep** is a tailored post-processor for LaTeX *log* files and the `typoginspect` environment as provided by the LaTeX package `typog`. It shares more with the venerable **sgrep**

<https://www.cs.helsinki.fi/u/jjaakkol/sgrep.html> than with POSIX **grep**

<https://pubs.opengroup.org/onlinepubs/9699919799/utilities/grep.html>.

In the LaTeX source file the user brackets her text or code in a `typoginspect` environment:

```
\begin{typoginspect}{ID}
```

```
TEXT-OR-CODE-TO-INVESTIGATE
```

```
\end{typoginspect}
```

where *ID* is used to identify one or more bracketed snippets. *ID* does not have to be unique.

The *REGEXP* mechanism makes it easy to select groups of related *IDs* if they are named accordingly.

In *LOG-FILE* the result of the environment shows up, packed with tracing information, as

```
<typog-inspect id="ID" job="JOB-NAME" line="LINE-NUMBER" page="PAGE-NUMBER"
```

```
LOG-DATA
```

```
</typog-inspect>
```

where all the capital-letter sequences are meta-variables and in particular *JOB-NAME* is the expansion of `\jobname`, *LINE-NUMBER* is the LaTeX source file line number of the beginning of the `typoginspect` environment, and *PAGE-NUMBER* is the page where the output of `TEXT-OR-CODE-TO-INVESTIGATE` occurs.

**typog-grep** reveals the contents of *LOG-FILE* between `<typog-inspect id="ID" ...>` and `</typog-inspect>` excluding the XML-tags themselves. Access the *JOB-NAME*, *LINE-NUMBER*, and *PAGE-NUMBER* with the commandline options `--job-name`, `--line-number`, and `--page-number`, respectively. Use `--id` to show the name of the *IDs* that matched *REGEXP*.

`typoginspect` environments can be nested. **typog-grep** respects the nesting, i.e., if the *ID* of the nested environment does not match *REGEXP* it will not be included in the program’s output.

## OPTIONS

The list of options is sorted by the names of the long options.

`-a`, `--all`, `--any`

ID-discovery mode: Discover all `typog-inspect` elements independent of any matching patterns and print their *IDs*. The results are printed in their order of occurrence in the respective *LOG-FILES*. Pipe the output into `sort` to get alphabetically or dered *IDs*.

Augment with options `--job-name`, `--line-number`, `--log-line-number`, or `--page-number` for more information.

- color, colour** *WHEN*  
Colorize specific log contents for the matching *IDs*. The argument *WHEN* determines when to apply color: *always*, *never*, or *auto*. The setting *auto* checks whether standard output has been redirected. This is the default.
- C, --config** *KEY=VALUE[:KEY=VALUE[...]]*  
Set one or more configuration *KEY* to *VALUE* pairs. See section "CONFIGURATION" for a description of all available configuration items. Use option **--show-config** to display the default configuration.
- debug**  
Turn on debug output on *stderr*.
- E, --encoding** *ENCODING*  
Set the *ENCODING* of *LOG-FILE* for the translation to UTF-8. The default is unset.  
  
Use this option to get rid of pesky "<HEX-DIGITS>" escapes on UTF-8 terminals. See option **--show-encodings** for the known encodings and Encode::Supported for a summary of all encodings. See also section "Some Common Encodings".  
  
Apply **iconv** <<https://pubs.opengroup.org/onlinepubs/9699919799/utilities/iconv.html>> (POSIX) or **recode** <<https://github.com/rrthomas/recode/>> (GNU) on *LOG-FILE* before this tool to avoid having to use option **--encoding**.
- h, --help**  
Display brief help then exit.
- i, --[no-]id**  
Print the actual ID-name that matched *REGEXP*. Control the appearance of the matching *ID* with configuration item *id-heading*.
- y, --[no-]ignore-case**  
Match *IDs* while ignoring case distinctions in patterns and data.
- j, --[no-]job-name**  
Print the `\jobname` that **latex** associated with the input file.
- n, --[no-]line-number**  
Print the line number where the `typoginspect` environment was encountered in the LaTeX source file.
- N, --[no-]log-line-number**  
Print the line number of the *log*-file where the current line was encountered.
- p, --[no-]page-number**  
Print page number where the contents of the `typoginspect` environment starts in the typeset document.
- P, --[no-]pager**  
Redirect output from *stdout* to the configured pager.
- show-config**  
Show the default configuration and exit.
- show-encodings**  
Show all known encodings and exit.
- V, --version**  
Show version information and exit.
- w, --[no-]word-regexp**  
Match only whole words.

## CONFIGURATION

- id-format=FORMAT*  
Control the *FORMAT* for printing matching ids in inline-mode, where *FORMAT* is passed to Perl's `printf`. Default: `%s:`.

`id-heading=0|1`

Choose between printing the matching *IDs* with option `--id`: Inline (0) or heading before the matching data (1). Default:0.

`id-heading-format=FORMAT`

Control the *FORMAT* for printing matching *IDs* in heading-mode, where *FORMAT* is passed to Perl's `printf`. Default: `--> %s <--`.

`id-indent=INDENT`

Indentation of nested typog-inspect tags. Only used in “discovery mode” (first form), i.e., if `--all` is active. Default: 8.

`id-max-length=MAXIMUM-LENGTH`

Set the maximum length of a matching *ID* for printing. If a matching *ID* exceeds this length it will be truncated and the last three characters (short of *MAXIMUM-LENGTH*) will be replaced by dots. Default: 40.

`line-number-format=FORMAT`

Control the *FORMAT* for printing TeX source line numbers, where *FORMAT* is passed to Perl's `printf`. Default: `%5d`.

`log-line-number-format=FORMAT`

Control the *FORMAT* for printing log line numbers, where *FORMAT* is passed to Perl's `printf`. Default: `%6d`.

`page-number-format=FORMAT`

Control the *FORMAT* for printing page numbers, where *FORMAT* is passed to Perl's `printf`. Default: `[%3d]`.

`pager=PAGER`

Name of pager application to pipe output into if run with option `--pager`. Default: `less`.

`pager-flags=FLAGS`

Pass *FLAGS* to *PAGER*. Default: `--quit-if-one-screen`.

### Color Configuration

For the syntax of the color specifications consult the manual page of `Term::ANSIColor(pm)`.

`file-header-color`

Color of the filename header.

`fill-state-color`

Color of the messages that report “Underfull hbox” or “Overfull hbox”.

`first-vbox-color`

Color of the first vbox on a page.

`font-spec-color`

Color of font specifications.

`horizontal-break-candidate-color`

Color of lines with horizontal-breakpoint candidates @.

`horizontal-breakpoint-color`

Color of lines with horizontal breakpoints @@.

`id-color`

Color of matching *IDs* when printed inline.

`id-heading-color`

Color of matching *IDs* when printed in heading form.

`line-break-pass-color`

Color of the lines showing which pass (e.g., `@firstpass`) of the line-breaking algorithm is active.

`line-number-color`  
 Color of TeX-source-file line numbers.

`log-line-number-color`  
 Color of log-file line numbers.

`math-color`  
 Color used for math expressions including their font specs.

`page-number-color`  
 Color of page numbers of the final output.

`tightness-color`  
 Color of lines with Tight/Loose hbox reports.

`vertical-breakpoint-color`  
 Color of possible vertical breakpoints.

### **Brief summary of colors and attributes**

**Foreground Color**  
`black, red, green, yellow, blue, magenta, cyan, white,`  
 Prefix with `bright_` for high-intensity or bold foreground.

**Foreground Grey**  
`grey0, ..., grey23`

**Background Color**  
`on_black, on_red, on_green, on_yellow, on_blue, on_magenta, on_cyan,`  
`on_white`  
 Replace `on_` with `on_bright_` for high-intensity or bold background.

**Background Grey**  
`on_grey0, ..., on_grey23`

**Text Attribute**  
`bold, dark, italic, underline, reverse`

### **Some Common Encodings**

The following list shows some encodings that are suitable for option `--encoding`.

**Latin-1, Western European**  
`iso-8859-1, cp850, cp860, cp1252`

**Latin-2, Central European**  
`iso-8859-2, cp852, cp1250`

**Latin-3, South European (Esperanto, Maltese)**  
`iso-8859-3`

**Latin-4, North European (Baltics)**  
`iso-8859-4`

**Cyrillics**  
`iso-8859-5, cp855, cp866 (Ukrainian), cp1251`

**Arabic**  
`iso-8859-6, cp864, cp1006 (Farsi), cp1256`

**Greek**  
`iso-8859-7, cp737, cp1253`

**Hebrew**  
`iso-8859-8, cp862, cp1255`

**Turkish**  
`iso-8859-9, cp857, cp1254`

**Nordic**  
`iso-8859-10, cp865, cp861 (Icelandic)`

Thai  
     iso-8859-11, cp874

Baltic  
     iso-8859-13, cp775, cp1257

Celtic  
     iso-8859-14

Latin-9 (sometimes called Latin0)  
     iso-8859-15

Latin-10  
     iso-8859-16

## EXIT STATUS

The exit status is 0 if at least one *ID* matched *REGEXP*, 1 if no *ID* matched *REGEXP*, and 2 if an error occurred.

## CAVEATS

The end tag `</typog-inspect>` sometimes gets placed too early in the output and the trace *seems* truncated. However, LaTeX reliably logs the requested the trace information, but the write operations for trace data and the code which is used to print the end tag are not synchronized.

## SEE ALSO

**grep(1)**, **printf(3)**, **Encode::Supported(pm)**, **Term::ANSIColor(pm)**