

# The `mylatexformat`\* package

Use `mylatexformat.ltx` to make a format based on the preamble of any LaTeX file

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## Abstract

`mylatexformat.ltx` can be used to make a format from any  $\LaTeX$  file.

The use of formats helps to speed up compilations: packages which have been dumped in the format are loaded at very high speed.

The format is usually made from the preamble of a `.tex` file. But with `mylatexformat`, you may stop the format at any point in the preamble using the command `\endofdump` before `\begin{document}`.

As far as I am concerned, I'm using MikTeX and have not been able to test the file on other systems. However, the portability of  $\TeX$  documents is well known...

I've been using `mylatexformat.ltx` with  $\LaTeX$ , pdf $\TeX$  and Xe $\TeX$  and it worked fine...

`mylatexformat` was primarily a written from `mylatex.ltx`<sup>1</sup>, but is different in many points (see 3).

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\* `mylatexformat`: [CTAN:macros/latex/contrib/mylatexformat](#)

This documentation is produced with the `+DocStrip+` utility.

→ To get the documentation, run (thrice): `pdflatex mylatexformat.dtx`  
To get the index, run: `makeindex -s gind.ist mylatexformat.idx`  
→ To get the package, run: `etex mylatexformat.dtx`

The `.dtx` file is embedded into this pdf file thank to `embedfile` by H. Oberdiek.

1. `mylatex.ltx`: [CTAN:macros/latex/contrib/carlisle](#) from David Carlisle (1994/09/27)

## 1 Creating a format

### 1.1 Using MikTeX

#### 1.1.1 With preloaded pdflatex format (pdf output)

Use the following command line:

```
etex -initialize [opts] "&pdflatex" mylatexformat.ltx ""abc.tex""
```

You need 3 quotes around your .tex file if its name contains space (only one quote if it does not contain any space, but 3 quotes is more general...)

Full example:

---

```
etex -initialize -interaction=nonstopmode
      -save-size=20000 -stack-size=20000
      -jobname="Mon Beau Format Perso"
      "&pdflatex" mylatexformat.ltx ""Mon Fichier TeX.tex""
```

---

#### 1.1.2 With preloaded latex format (dvi output)

Use the following command line:

```
etex -initialize [opts] "&latex" mylatexformat.ltx ""abc.tex""
```

#### 1.1.3 With preloaded format xelatex (pdf output)

Use the following command line:

```
xetex -initialize [opts] "&xelatex" mylatexformat.ltx ""abc.tex""
```

### 1.2 Using other distributions

As I pointed out in the abstract, I have not been able to test the file on other distributions.

## 2 Using a format

### 2.1 Using MikTeX

Add the format to the very first line of your LaTeX file :

```
%&"Mon Beau Format"
```

You may use the  $\varepsilon$ -TeX option : `-dont-parse-first-line` to avoid loading the format.

### 2.2 Using other distributions

As I pointed out in the abstract, I have not been able to test the file on other distributions.

### 3 How does it work ? (and why it is different from mylatex.ltx)

mylatex.ltx has three important limitations:

- 1) The end of the format is either `\begin{document}` or the comment `%mylatex`.  
Therefore, after the format has been loaded,  $\text{\TeX}$  checks the commentaries in the preamble in order to skip everything before `%mylatex`.  
But this way, braces **must match inside commentaries !**
- 2) mylatex.ltx temporarily redefines the command `\document` in order to stop the creation of the format (execution of `\dump`) at begin document.  
However, the **initial definition of the macro `\document`** is saved and reloaded after the format has been loaded.  
Therefore, package that modifies this macro (such as `auxhook`<sup>2</sup> or `etoolbox`<sup>3</sup> cannot be included in the format!
- 3) If your document starts with :  
`\begin{document}% commentary` or with :  
`\begin{document}\makeatletter`  
the format is not stopped at `\begin{document}` and an error occurs.

With mylatexformat.ltx, those limitations are lifted.

mylatexformat.ltx:

- 1) Temporarily redefines `\begin` in order to check if its argument is `\document`.  
Therefore, packages like `auxhook` or `etoolbox` can be included in the format.
- 2) Stops the format when it encounters `\begin{document}` or `\endofdump`.
- 3) Does not read inside commentaries
- 4) After the format has been loaded, each line is checked to see if it **contains** either:

`\begin{document}`

**or:** `\endofdump`

**or:** `\csname endofdump\endcsname*`

Report is written in the `.log` file, with the job name, the name of the preloaded format, the list of preloaded files and the first input line read after loading of format.

\* this way, the command `\csname endofdump\endcsname` is silently ignored (equiv. to `\relax`) in case the format is not used.

2. auxhook: [CTAN:macros/latex/contrib/oberdiek/auxhook](#) H. Oberdiek

3. etoolbox: [CTAN:macros/latex/contrib/etoolbox](#) P. Lehman

## 4 Implementation

```

1 \<*package>
2 %%% -----
3 %%%                               mylatexformat.ltx
4 %%%                               AAAAAAAAAAAAAAAAAA
5 %%% From an original idea by David Carlisle - mylatex.ltx 1994/09/27
6 %%% © lppl 2010 - F Chervet - 2010/08/09
7 %%% -----
8 %%%
9 %%% Use this file to make a format based on the preamble of any LaTeX
10 %%% file.
11 %%%
12 %%% The format is made from the very beginning of the file up to either:
13 %%%   i) the command : \endofdump
14 %%%                  placed in the preamble
15 %%%   ii) the command : \csname endofdump\endcsname
16 %%%                  placed in the preamble
17 %%%   iii) \begin{document}
18 %%%                  if \endofdump nor \csname endofdump\endcsname
19 %%%                  haven't been found in the preamble.
20 %%%
21 %%% A format helps to speed up compilations, packages which have been
22 %%% dumped in the format are loaded at very high speed.
23 %%% -----
24 %%% There are no restrictions on the distribution or modification of
25 %%% this file, except that other people should not attempt to alter
26 %%% the master copy on the ctan archives.
27 %%%
28 %%% Making the format -----
29 %%% AAAAAAAAAAAAAAAAAA                               USING MikTeX
30 %%% * With preloaded pdflatex format (pdf output) :
31 %%%   etex -initialize [opts] "&pdflatex" mylatexformat.ltx ""abc.tex""
32 %%%   => compile your document using :
33 %%%       pdflatex
34 %%%       or texify --tex-option=-output-format=pdf
35 %%%
36 %%% * With preloaded latex format (dvi output) :
37 %%%   etex -initialize [opts] "&latex" mylatexformat.ltx ""abc.tex""
38 %%%   => compile your document using
39 %%%       latex
40 %%%       or texify --tex-option=-output-format=dvi
41 %%%
42 %%% * With preloaded format xelatex (pdf output) :
43 %%%   xetex -initialize [opts] "&xelatex" mylatexformat.ltx ""abc.tex""
44 %%%   => compile your document using xelatex
45 %%%
46 %%% NOTA BENE:   Please, notice the 3 quotes !
47 %%% AAAAAAAAAA
48 %%%
49 %%% In fact, 3 quotes are necessary only if you "file name.tex" contains a space !
50 %%%
51 %%% -----
52 %%% Exemple of a command line for making format using pdfTeX :
53 %%%
54 %%%   etex -initialize -interaction=nonstopmode
55 %%%           -save-size=20000 -stack-size=20000
56 %%%           -jobname="Mon Beau Format Perso"
57 %%%           "&pdflatex" mylatexformat.ltx "Mon Fichier TeX.tex"
58 %%%
59 %%% "Mon Beau Format Perso.fmt" (en Français dans le texte) will be created
60 %%% (or overwritten) in the current working directory.

```

```

61 %%% 
62 %%% Using the format -----
63 %%%      ^^^^^^^^^^^^^^^^^^^^                                USING MikTeX
64 %%% Add the format to the very first line of your LaTeX file :
65 %%% --> first line :          %&"format file name"
66 %%% without the .fmt extension.
67 %%% [You may use the option :    -dont-parse-first-line option
68 %%%   to avoid loading the format]
69 %%% -----
70 %%% _____
71 %%% The following informations come from mylatex.ltx from David Carlisle:
72 %%% Given a LaTeX file 'abc.tex', use initex as follows:
73 %%%
74 %%% initex &latex mylatexformat.ltx abc            (Generic TeX)
75 %%% initex \&latex mylatexformat.ltx abc          (unix and other TeX's)
76 %%% tex /i &latex mylatexformat.ltx abc           (emtex)
77 %%%
78 %%% If you are on a Mac or using some shell that makes it inconvenient
79 %%% to use a command line such as the above examples then you may
80 %%% make a file 'mylatex.tex' with the single line
81 %%% \input mylatex.ltx abc
82 %%% and then pass the file mylatex.tex to your (ini)tex shell to produce
83 %%% the format, ie something equivalent to initex &latex mylatex.tex.
84 %%%
85 %%% If you are using OzTeX, see the separate instructions below.
86 %%%
87 %%% This should make a format file mylatex.fmt which you can then use
88 %%% as follows
89 %%%
90 %%% Using the new format
91 %%%      ^^^^^^^^^^^^^^^^^^^^
92 %%%
93 %%% tex &mylatex abc                (generic TeX)
94 %%% virtex \&mylatex abc             (Unix TeX)
95 %%%
96 %%% This will process your document, abc.tex, just as LaTeX does, but
97 %%% quicker as the contents of the preamble will be stored in the
98 %%% format file and will not need to be run each time.
99 %%%
100 %%% If (vir)tex fails to find your mylatex.fmt then it is not searching
101 %%% in the current directory, either modify your TEXFORMATS path (or
102 %%% equivalent) to search '.' or (on unix/dos) use ./ as in:
103 %%% virtex \&./mylatex abc
104 %%%
105 %%% Making and using the format with OzTeX
106 %%%      ^^^^^^^^^^^^^^^^^^^^
107 %%%
108 %%% Given a LaTeX file 'abc.tex', do this: select 'TeX...' from OzTeX's
109 %%% TeX menu, and go to the folder containing the file 'abc.tex' as if you
110 %%% were selecting the file 'abc.tex'. Then hit the Cancel button - this
111 %%% procedure sets OzTeX's working folder to the one containing abc.tex.
112 %%% Next, select iniTeX from the TeX menu, and type:
113 %%%
114 %%% &latex mylatex.ltx abc
115 %%%
116 %%% This should make a format file mylatex.fmt which you can save in the
117 %%% same folder as the file you're working on.
118 %%%
119 %%% To use the new format, put this at the very start of the very first
120 %%% line of your document:
121 %%%
122 %%% %&mylatex
```

```

123 %%
124 %% Further Notes
125 %%
126 %% The file abc.tex must contain a line *just* with
127 %% \begin{document}
128 %% Everything up to (but not including) the \begin{document} will
129 %% be saved in the format and not executed in subsequent runs.
130 %%
131 %% If you are modifying the document (or working on a similar document)
132 %% you may wish to add new commands to your document preamble.
133 %% The ‘mylatex’ format normally skips the whole preamble (believing
134 %% it to be pre-loaded) and so such new commands do not take effect.
135 %% You could re-make the format, preloading the new preamble, but that
136 %% might be inconvenient to do every time, and so an alternative scheme
137 %% has been introduced.
138 %% If the preamble contains a comment mylatex (ie a line just
139 %% containing a % white space and the word mylatex) then the mylatex
140 %% format will start reading the preamble at that point so any new
141 %% commands can be placed after such a comment and they will be
142 %% executed.
143 %% -----
144 %%
145 %%\RequirePackage{etex}% RequirePackage may be used before the class
146 %%
147 %% In principle \openout stream= filename need not be space terminated,
148 %% and need not be immediate, but this covers \makeindex \makeglossary
149 %% and index package’s \newindex which are all the cases of \openout
150 %% that occur before \begin{document} that I could see.
151 %% Thanks to Ross Moore for pointing out \AtBeginDocument is too late
152 %% eg changebar package *closes* the stream in \AtBeginDocument, so need
153 %% to make sure it is opened before that. Make a special purpose hook.
154 %%
155 %% Save the original definition.
156 \makeatletter
157 \let\etex@primitive\openout\openout
158 \let\ltx@listfiles\listfiles
159 \def\openout#1 {\g@addto\macro\MYLATEX@opens{\immediate\openout#1 }}
160 \def\MYLATEX@opens{%
161   \let\openout\etex@primitive\openout
162   \let\etex@primitive\openout\@undefined
163 }% \MYLATEX@opens
164 %% \begin is overloaded in order to stop \dump at begin document
165 %% if the macro \endofdump is not given somewhere in the preamble.
166 %% Rem: it is NOT POSSIBLE to redefine \document, for the macro
167 %%       \document is changed or patched by some classes or packages
168 %%       (auxhook, etoolbox etc.)
169 \let\MYLATEX@ltx@begin\begin
170 \def\begin#1{\csname @\expandafter\ifx\csname#1\endcsname\document first\else second\fi oftwo\endcsname
171   \endofdump
172   {\MYLATEX@ltx@begin{#1}}}%
173 }% \begin
174 %% The version of \document to use on the initex run.
175 %% Just preloads some fonts, puts back \document and \openout,
176 %% sets up the banner to display the file list of files preloaded,
177 %% then sets up some special catcodes so the preamble will be
178 %% skipped on normal runs with the new format.
179 \def\endofdump{%
180 %% Force some font preloading.
181 {\setbox\z@\hbox{%
182   $$$ math (not bold, some setups don’t have \boldmath)
183   \normalfont% normal
184   {\bfseries\itshape}{\itshape}\ttfamily\sffamily

```

```

185     \ifdefined\large\large\fi
186     \ifdefined\Large\Large\fi
187     \ifdefined\LARGE\LARGE\fi
188     \ifdefined\Huge\Huge\fi
189     \ifdefined\small\small\fi
190     \ifdefined\footnotesize\footnotesize\fi
191     \ifdefined\tiny\tiny\fi
192 }}%
193 \let\openout\etex@primitive@openout% just in case - normally not necessary
194 \let\begin\MYLATEX@ltx@begin
195 \let\MYLATEX@ltx@begin\@undefined
196 \makeatother
197 \everyjob\expandafter{\the\everyjob
198     \begingroup
199         \listfiles\let\listfiles\ltx@listfiles
200         \expandafter\MYLATEXcustomised\@dofilelist
201     \endgroup
202     \MYLATEX@scan@preamble
203 }%
204 \let\endofdump\relax
205 \dump
206 }
207 %% Banner for \everyjob.
208 \edef\MYLATEXcustomised#1#2#3\typeout#4{%
209     \noexpand\typeout{=====
210     \noexpand\typeout{JOB NAME\noexpand\@spaces\noexpand\@spaces\noexpand\space\noexpand\space:%
211         \string"\noexpand\jobname\string"}%
212     \noexpand\typeout{CUSTOMISED FORMAT :\string"\jobname\string"}%
213     \noexpand\typeout{PRELOADED FILES:}%
214     #3%
215     \noexpand\typeout{=====
216     \noexpand\typeout{(mylatexformat)Info: starting reading document%
217         \string"\noexpand\jobname\string"}%
218 }% \MYLATEXcustomised
219 %% While the preamble is being skipped (inside a group)
220 %% the EOL is active and defined to grab each line and
221 %% inspect it looking for :
222 %%     \endofdump
223 %% or     \csname endofdump\endcsname
224 %% or     \begin{document}.
225 %%
226 %% The special catcodes required are not enabled until after the
227 %% first TeX command in the file, so as to avoid problems with
228 %% the special processing that TeX does on the first line, choosing
229 %% the format, or the file name etc.
230 {% Entering simple groupe (level 1) => skip the preamble
231     \catcode'\^^M=\active
232     \catcode'\& 8 %
233     \long\gdef\MYLATEX@start#1#2{%
234         \typeout{(mylatexformat)\@spaces\space\on@line.\space(
235             \ifcase#1 \string\endofdump\else\string\begin{document}\fi)}%
236         \typeout{=====}%
237     \endgroup%
238     \catcode'\^^M=5\relax \let^^M\par%
239     \MYLATEX@opens#2%
240 }% \MYLATEX@start
241 \long\gdef\MYLATEX@scan@preamble{\catcode'\^^M=13\relax%
242     \begingroup%
243         \long\def\MYLATEX@endofdump##1\endofdump##2##3&##4##5##6\MYLATEX{##5}%
244         \long\def\MYLATEX@endofdump@cs##1\csname endofdump\endcsname##2##3&##4##5##6\MYLATEX{##5}%
245         \long\def\MYLATEX@document ##1document##2##3&##4##5##6\MYLATEX{##5}%
246         \long\def\MYLATEX@begindocument##1\begin##2##3\MYLATEX##4{%

```

```
247      \MYLATEX@document ##2document&&\MYLATEX@start1{##4}{^^M}\MYLATEX}%
248      \long\gdef^^M##1^^M{%
249      \MYLATEX@endofdump##1\endofdump&&%
250      {\MYLATEX@start0{##1}}%
251      {\MYLATEX@endofdump@cs##1\csname endofdump\endcsname&&%
252      {\MYLATEX@start0{##1}}%
253      {\MYLATEX@begindocument##1\begin\relax\MYLATEX{##1}}%
254      \MYLATEX}%
255      \MYLATEX}%
256      ^^M}%
257}% Leaving simple groupe (level 1) => start reading document

258%% Trick lookahead to allow mylatex.ltx and the document filename to be
259%% given on the same command line. (initex &latex mylatex.ltx {abc.tex})
260\expandafter\input\endinput%
261</package>
```

## 5 History

### [2010/08/09 v2.9]

- Modification of the macros that scan the preamble when the .tex file is compiled with its format.  
It is now possible to start a file with `\begin{document}` just after the format specification (`&myformat`).

To do: Command line to make the format on Linux (`-ini` instead of `-initialize` ???).

### [2010/06/30 v2.1]

- Added: `\listfiles` is now available in the preamble, after `\endofdump`, when the document is compiled with its format.
- Documentation update.

### [2010/05/20 v1.2]

- Fixed a bug in `\MYLATEXopens`  
(There was problems when including an index in the format for example...)

### [2010/04/30 v1.0]

- First version.



## 6 Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; plain numbers refer to the code lines where the entry is used.

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