

Configuration options for $\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}_{2\epsilon}$

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1 Configuring L^AT_EX

Since one of the main aims of the new standard L^AT_EX is to provide a highly portable document format, the number of configuration possibilities is strictly limited. An important consequence of this is that any document that relies on any extension package must declare this package within the document file; this helps to ensure that the document will work at a different site, where the L^AT_EX system may be configured differently.

Local configuration options are, by convention, placed in ‘configuration files’, which have extension `—cfg—`. This file lists the possibilities for configuration in the most recent release of L^AT_EX.

2 System configuration

2.1 `texsys.cfg`

This is the only configuration file that *must* be present. During installation, if L^AT_EX can not find a file with this name then a default file `—texsys.cfg—`, consisting entirely of comments, is written out and used. Note that, until this file has been read, L^AT_EX is not able to test reliably whether a given file exists on the system.

The contents of the file `—texsys.cfg—` allow L^AT_EX to cope with various differences between the behaviour of different T_EX systems, mainly in relation to file handling. The default version of this file contains, in its comments, possible settings that may be needed for a range of T_EX systems. For more information, typeset the file `—ltdirchk.dtx—`.

If you have copied your L^AT_EX installation from a computer that used a different operating system then you may well have a version of `—texsys.cfg—` that will make it difficult to create the L^AT_EX format on your system. If this happens then start the process again with an empty `—texsys.cfg—` file; this will produce a format that should always ‘work’ and, at least, allow you to typeset the documentation. However, it is possible be that L^AT_EX can find only those files that are in the current directory. In that case you must set the macro `—correctly` for your system.

3 Configuring the L^AT_EX format

There are four configuration files to control personal preferences that may be incorporated into the L^AT_EX format file, `—latex.fmt—`. The range of preferences that can be configured by these files is strictly limited to ensure document portability.

All four files work in the same way: if the file file—.cfg— is found, it will be input by `iniTEX`; otherwise a default file file—.ltx— will be input instead. Thus providing one of these —.cfg— files completely overrides any settings in the corresponding standard —.ltx— file.

3.1 fonttext.cfg

The file —fonttext.cfg— contains declarations relating to the use of fonts in text modes.

It defines which font shapes are normally used in text mode, as well as the behavior of font attribute commands such as — etc. It can be used, for example, to produce a L^AT_EX format that by default typesets documents in Times.

Please note that use of this configuration file has the following consequences.

- Documents are portable only in the sense of being processable at a different site—the actual formatting will not be the same if different fonts are used.
- The L^AT_EX3 project team will not be able to support you in diagnosing problems if these cannot be reproduced with a format that does not use this configuration file.

The default file —fonttext.ltx— comes from the documented file —fontdef.dtx— so this file should be consulted for further information.

3.2 fontmath.cfg

The file —fontmath.cfg— contains declarations relating to the use of fonts in math mode.

It defines which font shapes are used in math mode. It also defines all the math mode commands that ‘are likely to’ depend on the choice of math fonts used (e.g. commands that depend on the position of a glyph in a math font).

The main reason for the existence of this file is to provide for future updates when a standard math font encoding is available. Right now we do *not* encourage the use of this configuration file other than for special applications. Writing a proper configuration file for math mode needs expert knowledge!

Please note that use of this configuration file has the following consequences.

- Since the content of this configuration file is likely to change in the future, anyone writing such a file must be prepared to update it for use with future releases.
- Documents are portable only in the sense of being processable at a different site—the actual formatting will not be the same if different fonts are used.

- The L^AT_EX3 project team will not be able to support you in diagnosing problems if these cannot be reproduced with a format that does not use this configuration file.

The default file `—fontmath.ltx—` comes from the documented file `—fontdef.dtx—` so this file should be consulted for further information.

3.3 preload.cfg

The contents of the file `—preload.cfg—` control the preloading of commonly used fonts. Preloading fonts speeds up the processing of documents but, because fonts can not be ‘unloaded’, you should not preload too many; otherwise you may be unable to process documents requiring unusual font families.

The default file `—preload.ltx—` is produced from `—preload.dtx—`. It loads only a few fonts and these are a good choice if you normally use documents at the default, 10 pt, size. If you normally use 11 pt or 12 pt then the time for L^AT_EX to startup may be noticeably decreased if you preload the corresponding fonts for the sizes you use. Similarly, if you normally use a different font family, for example Times Roman, `—ptm—`, then you may want to preload fonts in this family rather than the default Computer Modern fonts.

3.4 hyphen.cfg

The contents of the file `—hyphen.cfg—` control which hyphenation patterns are loaded. Since patterns can be loaded only by `iniTEX`, this choice must be made when the format is created. The ‘babel’ collection contains many examples of setting up a multi-lingual L^AT_EX format.

The default file `—hyphen.ltx—` is produced from the file `—lthyphen.dtx—`.

4 Configuring Compatibility mode

When processing documents that begin with `—`, L^AT_EX2_ε tries to emulate the old L^AT_EX2.09 system as far as possible.

4.1 latex209.cfg

The L^AT_EX2.09 set-up allowed the format itself to be customised. When making the format with `iniTEX`, the process ended with this request.

Input any local modifications here.

If your site did input any modifications at that point, the L^AT_EX2_ε ‘compatibility mode’ will not fully emulate L^AT_EX2.09 *as installed at your site*.

In this case you should put all these ‘local modifications’ into a file called `—latex209.cfg—` and put this file in the default input path at your site. These ‘local modifications’, although not stored in the format, will then be loaded before any old-style document is processed. This should ensure that you can continue to process any old documents that made use of this local customisation.

5 Configuration files for standard packages and classes

Most of the packages in the distribution do not have any associated configuration files. The exceptions are listed here.

5.1 `sfonds.cfg`

This file is used to customise the fonts used in the slides class. If it exists, it is read instead of the file `—sfonds.def—`.

5.2 `ltxdoc.cfg`

The file `—ltxdoc.cfg—` is used to customise some aspects of the behaviour of the `ltxdoc` class; this class is used to typeset the documented code in the `—.dtx—` files. If this file is present then it is read in at the beginning of the file `—ltxdoc.cls—`.

As this file is read before the article class is loaded, you may pass options to article. For example the following line might be added to `—ltxdoc.cfg—` to format the documentation for A4 paper instead of the default US letter paper size.

```
—a4paperarticle—
```

You should note however, that even if paper size options are specified, the `ltxdoc` class always sets the `—` parameter to 355 pt, to enable 72 columns of text to appear in the verbatim code listings. If you really need to over-ride this you could use:

```
—
```

To set the `—` to your desired value at the end of the `ltxdoc` class.

By default, most of the `—.dtx—` documented code files in the distribution will produce a ‘description’ section followed by full source listing of the package. If you wish to suppress the source listings you may add the following line to `—ltxdoc.cfg—`

```
—
```

The documentation of the `ltxdoc` package, which may be typeset from the file `—ltxdoc.dtx—`, contains more examples of the use of this configuration file.

5.3 ltxguide.cfg

The class ltxguide is used by the ‘guide’ documents, such as this document, in the L^AT_EX distribution. A configuration file, —ltxguide.cfg—, may be used with this class in a way very similar to the customisation of the ltxdoc class described in the previous section.

6 Configuration in other supported packages

The ‘graphics’ bundle of packages needs two configuration files, primarily to specify the driver used to process the —.dvi— file that L^AT_EX produces. More documentation on these files comes with the graphics bundle but we mention them here for completeness.

6.1 graphics.cfg

Normally this file just specifies a default option, by calling —, for example —dvips— or —textures—.

This file is read by the graphics package, and so affects all the packages in the bundle that are based on graphics: graphicx, epsfig, lscape.

6.2 color.cfg

Normally this file is identical to —graphics.cfg—. It specifies the default driver option for the colour package.