The documentmetadata-support code[*]

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1 Introduction

The kernel command \DocumentMetadata, which can be used as the very first declaration in a document (i.e., before \documentclass), defines metadata and other configuration data that applies to the document as a whole (using a key/value syntax). It loads and activates the PDF management code from pdfmanagement-testphase and loads and activated code currently stored in latex-lab modules needed for various features developed as part of the multi-year "Tagged PDF" project. [1]

While the underlying functionality is still under development (e.g., further keys will be added over time and keys marked temporary may vanish again) the code for \DocumentMetadata is placed in a separate bundle, so that it is easier to update it without the need to build a full LaTeX release. Over time the functionality will move fully into the kernel.

As the loading of the PDF management forces the loading of the l3backend files, a backend that can't be detected automatically like dvipdfmx, must be set in the first \DocumentMetadata.

From a process perspective \DocumentMetadata loads the pdfmanagement-testphase code and the latex-lab modules the first time it is called and then redefines itself to only manage key/value pairs in case it is called more than once. In particular, this means that a document without a \DocumentMetadata declaration has no code available for extended management of PDF output and for tagging support.

2 The \DocumentMetadata command

\DocumentMetadata

\DocumentMetadata{⟨*key-value list*⟩}

The command should be used as the first command in a document, before \documentclass. It takes a key-value argument.

Starting with the release 2025-11-01 \DocumentMetadata will always load the new modules which changes LaTeX internals and add tagging support code.

For documents that want to load the PDF management but do not want the new tagging support code we provide a dedicated package. Such documents should replace

```
\DocumentMetadata{pdfversion=1.7,
  pdfstandard=a-3b}
```

[*] This file has version 1.0y dated 2026-01-20, © LaTeX Project.

by

```
\RequirePackage{pdfmanagement}
\SetKeys[document/metadata]{pdfversion=1.7,
 pdfstandard=a-3b}
```

Currently the modules loaded by `\DocumentMetadata` are the following. Details and documentation can be found in the various `latex-lab-`⟨*module*⟩`.pdf`:

`names` This declares tag names for the structure.

`new-or-2` This changes output routine sockets and adds support for the paragraph tagging. It also loads the new footnote code.

`block` This reimplements lists and blocks environments and add tagging support.

`sec` This adapts commands related to sectioning to make them tagging aware.

`toc` This adapts commands related to the table of contents and similar list to make them tagging aware.

`minipage` This adds tagging support to `minipage` and `\parbox`.

`graphic` This enables tagging support for the `\includegraphics` command and the `picture` environment.

`float` This adds tagging support to floats.

`bib` This adds tagging support to citations and bibliographies. This code is also loaded by the `phase-III` key.

`text` This module adds tagging support to the LaTeX logo and to the `\emph` command.

`marginpar` This module adds tagging support to the `\marginpar` command.

`title` This module add tagging support to the `\maketitle` command if a standard class is used. It also enhances the `\title` and `\author` commands to fill the XMP-metadata and set the window title. It is not compatible with packages and classes which redefine these commands too.

`table` This provides tagging for `tabular`, `longtable` and similar table environments. Its use (and restrictions is documented in `latex-lab-table.pdf`.

`math` This adapts math for tagging.

`firstaid` This contains small adjustments to external packages.

`tikz` This add support for the `tikz` package.

3 Keys and values

Currently the following keys are implemented for `\DocumentMetadata`:

`backend` Passes the backend name to expl3. This is needed only if the needed backend can't be automatically determined or if the workflow used requires a special backend.

`pdfversion` Sets the PDF version explicitly, e.g., `pdfversion=1.7`

`uncompress` (no value) Forces an uncompressed pdf — mainly for debugging purposes.

`lang` Explicitly sets the Lang entry in the Catalog, e.g., `lang=de-DE`. If not given the default value used is `en-US`.

`pdfstandard` Choice key to set the pdf standard. Currently `A-1b`, `A-2a`, `A-2b`, `A-2u`, `A-3a`, `A-3b`, `A-3u`, `A-4`, `A-4E` and `A-4F` are accepted as A-standard. values. The casing is irrelevant, `a-1b` works too. Note that using this key doesn't mean that the document actually follows the standard. LaTeX can neither ensure nor check all requirements of a standard, and not everything it can do theoretically has already been implemented. When setting an A-standard a color profile is included and the `/OutputIntent` is set and any javascript action in hyperref are suppressed. The `u` variants do not enforce unicode, but they will pass the information to hyperref. The `a` variants do *not* enforce (or even test) a tagged pdf yet.

Beside the A-standards it is also possible to use the values `X-4`, `X-4p`, `X-5g`, `X-5n`, `X-5pg`, `X-6`, `X-6n`, `X-6p` for a PDF/X and `UA-1` and `UA-2` for PDF/UA standard. `UA-2` should only be used together with PDF 2.0. Currently these keys set *only* the relevant XMP-metadata. They do not validate or enforce special requirements (e.g., the `UA` standards do not automatically activate tagging).

`pdfstandard` can be used more than once to set overlapping standards, e.g: `pdfstandard=A-2b,pdfstandard=X-4,pdfstandard=UA-1`. It is also possible to pass a list like `pdfstandard={UA-2,A-4F}`.

If XMP-metadata are added (see the following key `xmp`) the necessary conformance markers for the standards are set.

More information can be found in the documentation of l3pdfmeta.

`xmp` A boolean, if set to false no XMP metadata are added to the PDF. The initial value is true. Details are described in the documentation of l3pdfmeta.

`colorprofiles` This allows to load icc-colorprofiles. Details are described in the documentation of l3pdfmeta.

`tagging` This key allows to activate, deactivate or partially deactivate the tagging support. It accepts the three values `on`, `off` and `draft`. When used, the key loads the tagpdf package and all standard modules of the tagging support that were previously loaded with `testphase=latest`.

- `tagging=on` activates tagging.
- `tagging=off` deactivates in the `class/before` hook the tagging commands, including the `\tagpdfsetup` command. It also deactivates the use of real space chars. This can be reactivated by using `tagging-setup={activate/spaces}`.

- tagging=draft leaves the tagging commands active but it deactivates the writing of the structure tree at the end of the compilation. This can save time when drafting a longer document but preserves, e.g., MC-content marker in the PDF stream and warnings and errors from tagpdf if the structure is faulty.

tagging-setup This key allows to configure the tagging. It accepts all keys that can also be used in \tagpdfsetup; see the tagpdf documentation. Additionally, it accepts two keys to extend the list of modules loaded:

modules This key previously allowed to change the list of modules. Starting with the release 2025-11-01 all standard modules are loaded always, so its only use is to load a non-standard module, e.g. modules=verbatim-af will load a experiment module changing the verbatim tagging.

extra-modules This key allows to load non-standard modules and starting with the release 2025-11-01 it is an alias of modules.

check-tagging-status This key is provided to help to identify packages that are potentially problematic when used with the tagging code. When used (with no value or with the value listfiles, it reads the file latex-tagging-status.ltx from the latex-tagging-status package and then writes at the end of the compilation a report about the compatibility of the class and the packages with the tagging project. It follows the classification done at https://latex3.github.io/tagging-project/tagging-status.

This is only a rough overview and a debugging aid, not a final report! Using packages that are classified as incompatible or partially incompatible does not mean that the tagging is necessarily broken. For example, hyperref is partially incompatible as the form fields are not properly tagged (this requires the use of the l3pdffield package), but in documents without form fields it is unproblematic. (In case of partially-compatible or incompatible packages check the table at https://latex3.github.io/tagging-project/tagging-status as it often contains an explanation what is not yet working.)

The package latex-tagging-status will be regularly updated to reflect changes in package. Erroneous messages should be reported at https://github.com/latex3/tagging-project/issues. It is also possible to create a pull request which updates the data.

testphase This key loaded in older LaTeX versions specific sets of modules from the testphase code. Starting with the release 2025-11-01 all modules are loaded automatically by \DocumentMetadata and with this change the key lost most of its purpose and is now deprecated. The values phase-I, phase-II, phase=III of the testphase key will no longer load different code variants but only activate tagging. The key can still be used to load additional experimental modules, it then works similar to the modules and extra-modules key and does not automatically activate tagging.

debug This key activates some debug options. It takes a list of key-values as value. Currently the following keys are known:

para with the default and only value show. It will activate the debug/show=para option of tagpdf;

log with the values as described in the documentation of tagpdf;

uncompress which does the same as `uncompress` as main key;

pdfmanagement a boolean which allows to deactivate the pdfmanagement;

firstaidoff this accepts a comma lists of keywords and disables the patches related to them. More information can be found in the documentation of pdfmanagement-firstaid;

xmp-export this will export the XMP-metadata to a file `\jobname.xmpi`. With `debug={xmp-export=filename}` the file name can be changed; More information can be found in the documentation of l3pdfmeta of the pdfmanagement-testphase bundle;

tagpdf This loads the package tagpdf-debug which enhances various commands from tagpdf with additional debugging options. This can slow down the compilation!

BBox This helps to debug BBox values of graphics, see the documentation of latex-lab-graphic.

References

[1] Frank Mittelbach and Chris Rowley: *LaTeX Tagged PDF — A blueprint for a large project*. https://latex-project.org/publications/indexbyyear/2020/

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The italic numbers denote the pages where the corresponding entry is described, numbers underlined point to the definition, all others indicate the places where it is used.