

The `fcltxdoc`* package

Private additional `ltxdoc` support.

FC

2011/03/12 – version 1.0

Abstract

`fcltxdoc` provides some facilities to print documentation (`.dtx`) files. Most of them are further development of commands defined in the undocumented package `holtxdoc`.

The package makes a strong use of `hyperref` and the syntax has been thought to be easy.

`fcltxdoc` is not intended for public use... ..but it may be used – or copied – by the public!

It is required to compile – with `pdfTeX` – some of my documentation files.

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1 The main macros: `\cs`, `\env`, `\M`, `\stform`, `declcs`, `declenv`

<code>\cs{Command}</code>	<code>\cs*{Command}</code>	<code>\cs[font]{Command}</code>	<code>\cs*[font]{Command}</code>
<code>\cs\Command</code>	<code>\cs*\Command</code>	<code>\cs[font]\Command</code>	<code>\cs*[font]\command</code>
	<code>\cs\Command*</code>		<code>\cs{Command}*</code>

The control sequence `\cs` prints a control sequence. Both syntaxes are possible, with star form for the presented command:

* This documentation is produced with the `DocStrip` utility.
→ To get the package, run: `etex fcltxdoc.dtx`
→ To get the documentation run (thrice): `pdflatex fcltxdoc.dtx`
To get the index, run: `makeindex -s gind.ist fcltxdoc.idx`
The `.dtx`file is embedded into this pdf file thank to `embedfile` by H. Oberdiek.

Source file	Result (typesetting)
<code>\cs{Command}</code> or <code>\cs\Command</code>	<code>\Command</code>
<code>\cs{Command}*</code> or <code>\cs\Command*</code>	<code>\Command*</code>

If the control sequence has been declared with the `declcs` environment then a hyperlink is created automatically (`\cs{Command}` becomes the same as `\ref{declcs.\string\Command}` and `\cs*` the same as `\ref*{declcs.\string\Command}`: in other words, `\cs*` avoids the hyperlink).

With the syntax `\cs\Command`, the argument (`\Command`) is collected in a context where `Ⓒ` is a letter. This syntax does not work in moving arguments: inside the title of a `\section` for example, the only syntax `\cs{Command}` shall be used.

`\begin` and `\end` have a natural special behaviour: if followed by `{` the sequence:

`\cs\begin{environment}`
is replaced by: `\cs\begin\M*{\env{environment}}`

`\cs[\textbf]\Command` allows to print the control sequence in boldface: `\Command` and `\cs[\color{red}]\Command` prints it red: `\Command`. This extension and the star form should be avoided in moving arguments. In the process of PDF string encoding, `\cs` is redefined to be equal to `\string` with the possibility to write `\cs\Command` as well. Useful for PDF comments or bookmarks. To disable hyperlinks inside section titles for example, a hook must be set, for example in the `(font)` key of a package that provides formatting for sectioning commands (example with `titlesec`:

`\sectionformat\section {font+ =\def\csref{\ref*}}`
or : `\sectionformat\section {before+ =\def\csref{\ref*}}`

or in the table of contents only with the `tocloft` package:

`\tocsetup {before+ =\def\csref{\ref*}}`).

More generally, the font in which the control sequence is displayed is stored in the macro `\cs@font`, by default: `{\hypersetup {linkcolor=csrefcolor}\textt}`.

<code>\env{environment}</code>	<code>\env*{environment}</code>	<code>\env[font]{envir}</code>	<code>\env*[font]{envir}</code>
<code>\env{environment}*</code>	<code>\env*{environment}*</code>	<code>\env[font]{envir}*</code>	<code>\env*[font]{envir}*</code>

The control sequence `\env` prints the name of an environment (in `\ttfamily` font). When followed by a star the word “environment” is inserted after the name:

Source file	Result (typesetting)
<code>\env{name}</code> or <code>\env{name}*</code>	<code>name</code> or <code>name environment</code>

If the environment has been declared (with the `declenv` environment) then a hyperlink is created automatically (`\env{name}` becomes the same as `\ref{declcs.\string\name}`, with `\env*` it becomes the same as `\ref*{declcs.\string\name}`: in other words, `\env*` avoids the hyperlink).

Moreover, `\env[itshape]{environment}` will print the name in italic: *environment*. This extension, as well as the star form should be avoided in moving arguments.

<code>\M{arg}</code>	<code>\M[arg]</code>	<code>\M(arg)</code>	<code>\M arg </code>
<code>\M*{arg}</code>	<code>\M*[arg]</code>	<code>\M*(arg)</code>	<code>\M* arg </code>

`\M` is a general command to typeset arguments: the star form `\M*` removes the “angle brackets” around. Braces, square brackets, parenthesis and vertical bar `|` are supported, whatever there category code are and even if they change alongside the document.

`\M` is not allowed in pdf strings (an explicit `\texorpdfstring` construction is required).

```
\stform* \stform+ \stform- \stform| etc.
```

`\stform` is named for “*starred form*”. The star `\stform*` is printed with `\textasteriskcentered`, and for the other symbols `\stform` expands to `\string`. The font is `\ttfamily\bfseries`.

`\stform` is robust (*ie.* can be used inside moving arguments) and can be used inside pdf strings: in this case it expands to `\string`.

Example: a vertical bar | can be printed with `\stform|`.

```
\begin{declcs}[preamble][<font>]{Command} \\
  Other \cs or \csanchor...
\end{declcs}\declcsbookmark\Command
      or
\begin{declcs}[preamble][<font>]\Command \\
\end{declcs}
```

The `declcs` environment (also defined in `holtxdoc`) presents a control sequence. Like for `\cs`, both syntaxes for the argument are allowed:

```
\begin{declcs}{Command} or \begin{declcs}\Command.
```

The environment is typeset inside a single-framed `tabu` with only one column whose preamble is `{ 1 }`. It is possible to change the preamble, add columns *etc.* with the optional argument. The second optional argument allows to change the font of `\Command`. Finally if the first optional argument is empty, it defaults to `[1]` so that:

```
\begin{declenv}[][\itshape]\Command
is the same as: \begin{declenv}[ 1 ][\itshape]\Command
```

`\declcsbookmark` can be used at the end of the `declcs` environment to add a bookmark whose text is `\Command`, whose level is `rellevel=1`, `keeplevel`: see the `bookmark` package.

Further formatting of the `tabu` environment can be obtained easily with the `etoolbox` hook:

```
\AtBeginEnvironment and \tabusetup*
```

For example, in this very documentation the setting is:

```
\AtBeginEnvironment{declcs} { \changeont{size+ =1pt}
\tabusetup* {everyrow=\rowcolor{WhiteSmoke!60},rule width=\heavyrulewidth}
```

An anchor and a label are set, for further references by the `\cs` command. The anchor is set by the command `\csanchor`, which share the same syntax as `\cs` and can be used alone if required.

```
\begin{declcs*}[preamble][<font>]{Command} \\
  Other \cs or \csanchor...
\end{declcs*}
      or
\begin{declcs*}[preamble][<font>]\Command \\
\end{declcs*}
```

`declcs*` is a variant of `declcs` which is based on `longtabu` instead of `tabu`.

Used to present a command with a long list of keys for example, for page breaks are allowed.

```
\begin{declenv}[preamble]{name of the environment}\M*[options]\M*{parameter} \\
  content of the environment (optional)
\end{declenv}
```

The `declenv` environment is designed to present an environment. Just like `declcs` an anchor and a label are set, for references by the `\env` command. The anchor is set by the `\envanchor` command which share the same syntax as `\env` and can be used alone if required.

2 Some other macros and extensions

<code>\xext{⟨file extension⟩}</code>	<code>\xext{⟨file extension⟩}*</code>
<code>\xpackage{package name}</code>	<code>\xpackage{package name}*</code>
<code>\xclass{class name}</code>	<code>\xclass{class name}*</code>
<code>\xfile{file name}</code>	<code>\xfile{file name}*</code>
<code>\xmodule{module name}</code>	<code>\xmodule{module name}*</code>

`\xext` is defined by holtxdocto print – in `\ttfamily`– a file extension preceded by a dot:

```
\xext{aux}      .aux
```

`fcltxdoc` redefines the command with the same `*` extension the `\env` command provides:

Source file	Result (typesetting)
<code>\xext{aux}</code>	→ .aux
<code>\xext{aux}*</code>	→ .aux file
<code>\xpackage{package}*</code>	→ package package
<code>\xclass{class}*</code>	→ class class
<code>\xfile{filename}*</code>	→ filename file
<code>\xmodule{module}*</code>	→ module module

3 The package options

3.1 The `[nopackages]` option

Every command is defined with `\providecommand`, `\provideroobustcmd` or `\provide` (from `ltxnew`).

The package option `[nopackages]` avoids the loading of the packages. Nevertheless, the commands provided by `fcltxdoc` are provided and some of them will certainly lead to an `undefined control sequence` if a package is missing: this option is only useful if one loads (some of) the required packages at a later or previous time, or if only a “chosen set” of the commands provided here are used.

Packages loaded by `fcltxdoc` with the `[nopackages]` option

etex v2.0 eTeX basic definition package (PEB)

ltxnew v1.3 provides the new and renew prefixes for checking definitions

etexcmds v1.5 Prefix for e-TeX command names (HO)

ltxcmds v1.20 LaTeX kernel commands for general use (HO)

etoolbox v2.1 e-TeX tools for LaTeX

Packages loaded by `fcltxdoc` without the `[nopackages]` option

etex v2.0 eTeX basic definition package (PEB)

ltxnew v1.3 provides the new and renew prefixes for checking definitions

etexcmds v1.5 Prefix for e-TeX command names (HO)

ltxcmds v1.20 LaTeX kernel commands for general use (HO)

etoolbox v2.1 e-TeX tools for LaTeX

[T1]fontenc

graphicx v1.0f Enhanced LaTeX Graphics (DPC,SPQR)

grffile v1.13 Extended file name support for graphics (HO)

[svgnames,table]xcolor v2.11 LaTeX color extensions (UK)

needspace v1.3c reserve vertical space

moresize v1.9 (more font sizes)

relsize ver 3.1

manfnt 0.2LaTeX2e manfnt package

[official]eurosym v1.1 European currency symbol “Euro”

fancyhdr	
lastpage	v0.1b LaTeX2e package for refs to last page number (JPG)
marginnote	v1.1f non floating margin notes for LaTeX
framed	v 0.95: framed or shaded text with page breaks
newgeometry	
[explicit]titlesec	v2.9.1 Sectioning titles
tocloft	v2.3e parameterised ToC, etc., typesetting
[hyperfoontotes]hyperref	v6.82j Hypertext links for LaTeX
bookmark	v1.21 PDF bookmarks (HO)
hybmsec	v2.4 Bookmarks in sectioning commands (HO)
enumitem-zref	
fancyvrb	
listings	1.4 (Carsten Heinz)
nccfoots	v1.2 NCC Footnotes Package (NCC)
nccstretch	v1.0 Text Stretch Package (NCC)
linegoal	v3.0 - Measuring the remaining width of the line (FC)
delarray	v1.01 array delimiter package (DPC)
multirow	
makecell	V0.1e Managing of Tab Column Heads and Cells
booktabs	v1.61803 publication quality tables
embedfile	v2.6 embed files into PDF (HO)
interfaces	v3.2 – pgfkeys interfaces for packages (FC)
pgf	v2.10 (rcs-revision 1.12)
tikz	v2.10 (rcs-revision 1.76)

3.2 The `[$$]` package option

The `[$$]` option makes `§` an active character whose meaning is `\par\nobreak`.

`§§` is defined as `\par\nobreak\vskip –\parskip`.

pkgcolor	color for the package name printed with <code>\thispackage</code>
csrefcolor	color for the references to the commands defined by the package (<code>\cs</code>)
macrocode	color for the code in the <i>implementation</i> part.
linkcolor	<code>\hypersetup {linkcolor=linkcolor}</code> : <code>\colorlet{linkcolor}{green}</code> has generally the same effect as <code>\hypersetup {linkcolor=green}</code>
urlcolor	<i>Idem</i> : <code>\hypersetup {urlcolor=urlcolor}</code>
filecolor	<i>Idem</i> : <code>\hypersetup {filecolor=filecolor}</code>
menucolor	<i>Idem</i> : <code>\hypersetup {menucolor=menucolor}</code>
runcolor	<i>Idem</i> : <code>\hypersetup {runcolor=runcolor}</code>

Those colors shall be chosen after `\begin{document}`: `\colorlet{pkgcolor}{blue}` for example.

5 Implementation

5.1 Identification, Options and Requirements

```

1 (*package)
2 \NeedsTeXFormat{LaTeX2e}[2005/12/01]
3 \ProvidesPackage{fcltxdoc}
4   [2011/03/12 v1.0 - Private additional ltxdoc support (FC)]
5 \RequirePackage{etex}\def\etex@loggingall{\tracingall\tracingonline\z@}
6 \reserveinserts 3
7 \RequirePackage{filehook}
8 \RequirePackage{ltxnew,etexcmds,ltxcmds,etoolbox} % general tools (commands)

```

Minimal catcode ascertaining for loading fcltxdoc in good conditions:

```

9 \AtEndOfPackage{\fcltx@AtEnd\let\fcltx@AtEnd\undefined}
10 \def\fcltx@AtEnd{}
11 \def\TMP@EnsureCode#1={%
12   \edef\fcltx@AtEnd{\fcltx@AtEnd
13     \catcode#1\the\catcode#1}%
14   \catcode#1=%
15 }% \TMP@EnsureCode
16 \TMP@EnsureCode 33 = 12 % !
17 \TMP@EnsureCode 58 = 12 % :
18 \TMP@EnsureCode 124 = 12 % | = text bar
19 \TMP@EnsureCode 36 = 3 % $ = math shift
20 \TMP@EnsureCode 38 = 4 % & = tab alignment character
21 \TMP@EnsureCode 32 = 10 % space
22 \TMP@EnsureCode 94 = 7 % ^
23 \TMP@EnsureCode 95 = 8 % _

```

Options

```

24 \DeclareOption{amsmath}{\AtEndOfPackage{%
25   \RequirePackage{amsmath,amsfonts,amsopn,amssymb}
26   \newrobustcmd*\dpartial [2]{\displaystyle\genfrac{}{}{}{}
27     {\partial\mkern.2\thinmuskip#1}
28     {\partial\mkern.2\thinmuskip#2}}
29   \newrobustcmd*\dtotal [2]{\displaystyle\genfrac{}{}{}{}
30     {\text d\mkern.2\thinmuskip#1}
31     {\text d\mkern.2\thinmuskip#2}}}
32 }% amsmath (package option)
33 \def\fcltx@articleclass{article}
34 \DeclareOption{scrartcl}{\def\fcltx@articleclass{scrartcl}\let\loadclass\LoadClass
35   \def\LoadClass #1{\let\tablename\relax\let\c@table\relax\let\fnm@table\relax
36     \let\abovecaptionskip\relax\let\belowcaptionskip\relax\let\@makecaption\relax
37     \loadclass[abstracton]{scrartcl}\let\scrmaketitle=\maketitle
38     \AtEndOfClass{\let\maketitle=\scrmaketitle}}}
39 \DeclareOption{nopackages}{%
40   \let\fcltx@nopackages\relax}
41 \DeclareOption{activepar}{\AtBeginDocument{\fcltx@activepar}}
42 \DeclareOption{\detokenize{
43
44 }}{\ExecuteOptions{activepar}}
45 {\catcode\
46 =\active
47 \gdef\fcltx@activepar{\catcode\
48 =\active
49   \def
50 {\@ifnextchar

```

```

51 {\par\nobreak \vskip-\parskip \ignorespaces }
52             {\par\nobreak \ignorespaces }}%
53 }% \fcltx@activepar
54 }% \catcode
55 \DeclareOption {hyperlistings}{%
56   \AtBeginEnvironment {lstlisting}{\let\lsthk@OutputBox \lsthk@OutputBox@fcltxH@@k }%
57   \AtEndOfPackageFile*{listings}{\preto\lst@InitFinalize {\let\lsthk@OutputBox \lsthk@OutputBox@fcltxH@@k
58 }% hyperlistings
59 \ProcessOptions*

```

Packages loading

```

60 \PassOptionsToPackage {svgnames}{xcolor}
61 \RequirePackage {xspace}
62 %% Opacity problem with current pgf version...
63 \ifdefined\pdfpageattr \pdfpageattr{/Group <</S /Transparency /I true /CS /DeviceRGB>>}\fi
64 \csname \ifdefined\fcltx@nopackages iffalse\else
65             iftrue\fi             \endcsname
66 \PassOptionsToPackage {T1}{fontenc}
67 \PassOptionsToPackage {normalem}{ulem}
68 \PassOptionsToPackage {pdfencoding=auto,hyperfootnotes}{hyperref}
69 \PassOptionsToPackage {official}{eurosym}
70 \PassOptionsToPackage {explicit}{titlesec}
71 \RequirePackage {fontenc}
72 \RequirePackage {hologo}             % before graphicx (bug)
73 \RequirePackage {graphicx,grffile,needspace} % general tools
74 \RequirePackage {Escan}
75 \RequirePackage {moresize,manfnt,bbding,eurosym} % fonts
76 \RequirePackage {fancyhdr,lastpage,marginnote,framed} % empagegment
77 \RequirePackage {ulem}
78 \RequirePackage {nccfoots,nccstretch} % \Footnote / \stretchwith
79 \RequirePackage {linegoal} % \linegoal
80 \RequirePackage {array,delarray,makecell,booktabs} % tabulars
81 \RequirePackage {embedfile} % .dtx enclosed in .pdf
82 \RequirePackage {interfaces} % interfaces
83 \usetikz {basic,chains,positioning,patterns,fadings} % TikZ
84 \AtEndOfClassFile* \fcltx@articleclass{%
85   \RequirePackage {resize,titlesec,tocloft} % other general tools
86   \RequirePackage [numbered]{hypdoc}[2010/03/26]
87   \RequirePackage {hyperref}[2010/03/30]
88   \RequirePackage {pdftexcmds}[2010/04/01]
89   \RequirePackage {enumitem}
90   \setitemize{parsep=\parskip,topsep=0pt,partopsep=0pt,itemsep=0pt}
91   \RequirePackage {bookmark,hypbmsec} % bookmarks and hyper-links
92 %%   \RequirePackage {enumitem-zref}
93   \RequirePackage {fancyvrb} % verbatim and listings
94   \catcode`\&=7
95   \RequirePackage {listings}
96   \catcode`\&=4
97   \AtBeginDocument{%
98 %%       \let\c@lstlisting \relax
99 %%       \newlistof {lstlisting}{lol}{List of listings}
100       \listofsetup {lol}{before=\def\csref {\ref*}}}%
101 }% \AfterClass
102 \lastlinefit100\widowpenalty=5000\clubpenalty=8000
103 \else % <[nopackages] option>
104   \RequirePackage {xcolor}
105 \fi % <[nopackages] option>

```

```

106 \AtEndOfPackageFile* {interfaces-tocloft}{
107   \tocsetup {before+=\def\csref {\ref*}}%
108 }% \AfterPackage interfaces-tocloft
109 \AtEndOfPackageFile* {hyperref}{\pdfstringdefDisableCommands{%
110   \def\{\textCR\ignorespaces}% <for pdfcomment to insert ..
111   \def\par{\textCR\ignorespaces}}% .. a line break inside a comment>
112 }% \AfterPackage
113 \AtEndOfPackageFile*{fancyvrb}{%
114 \fvset {gobble=1,framesep=6pt,fontfamily=cmtt,listparameters={\topsep=0pt}}% verbatim basic settings
115 }
116 \AtEndOfPackageFile*{listings}{%
117 \lstset{gobble=1,
118         language=[LaTeX]TeX,
119         basicstyle=\usefont{T1}{cmtt}{mn}\footnotesize,
120         breaklines=true,
121         alsoletter={*},
122         commentstyle=\ttfamily\color{violet},
123         moretexcs=[1]{tikz},
124         keywordstyle=[2]{\color{ForestGreen}\slshape},
125         keywords=[2]{tabular,caption,tabu*,shorttabu*,shorttabu,table,tabu,tabularx,longtable,%
126                   Verbatim,lstlisting,Escan-left,Escan-right,Escan-bottom,Escan-top,%
127                   align*,align,equation*,equation,split,multline*,multiline},
128 %%      texcsstyle=[3]{\color{ForestGreen}\slshape},
129 %%      moretexcs=[3]{tabubox*,tabubox,shorttabubox*,shorttabubox},
130         texcsstyle=[55]{\color{DarkBlue}},
131         texcs=[55]{hline,hhline,firsthline,lasthline,arrayrulewidth,arrayrulecolor},
132         texcsstyle=[90]\color{Fuchsia},
133         moretexcs=[90]{section*,section,subsection*,
134                       subsection,subsubsection*,
135                       subsubsection,paragraph*,paragraph,
136                       subparagraph*,subparagraph},
137         deletetexcs=[1]{section,subsection,subsubsection,paragraph,subparagraph},
138         keywordstyle=[100]\color{red},
139         texcsstyle=[100]\color{red},
140         texcsstyle=[77]{\color{pkgcolor}},
141         texcs=[77]{},
142 }
143 \define@key{lst}{red}[]{\kvsetkeys{lst}{morekeywords={ [100]{#1} }}}
144 \define@key{lst}{csred}[]{\kvsetkeys{lst}{moretexcs={ [100]{#1} }}}
145 \define@key{lst}{font}[]{\kvsetkeys{lst}{basicstyle={#1}}}
146 \define@key{lst}{font+}[]{\appto\lst@basicstyle{#1}}
147 \define@key{lst}{color}[]{\@expandtwoargs\kvsetkeys {lst}%
148   {backgroundcolor=\ifcat$\detokenize{#1}$\else\noexpand\color{#1}\fi}}
149 \gdef\lst@DefineKeywords#1#2#3{% overwrites to the last definition
150   \lst@ifensitive
151     \def\lst@next{\lst@for#2}%
152   \else
153     \def\lst@next{\uppercase\expandafter{\expandafter\lst@for#2}}%
154   \fi
155   \fcltx@iflstclass {#2}>{90}
156     {\lst@next\do {\global\expandafter\let\csname\@lst#1@##1\endcsname#3}}% <no test>
157     {\lst@next\do {\expandafter \ifx \csname \@lst #1@##1\endcsname\relax \global\expandafter\let\csname
158 }% After package listings
159 \def\fcltx@iflstclass #1@nil {\def\fcltx@iflstclass ##1##2##3{%
160   \expandafter\fcltx@ifclass@filter \string##1\@nil
161   \ifnum \@tempcnta ##2##3 \expandafter\@firstoftwo \else \expandafter\@secondoftwo \fi }}%
162 } \expandafter\fcltx@iflstclass \string\lst@keywords \@nil
163 \def\fcltx@ifclass@filter #1#2{\def\fcltx@ifclass@filter ##1\@nil

```

```

164   {\fcltx@ifcl@ss@filter ##1#1{##1#2@nil }%
165 }@expandtwoargs \fcltx@ifclass@filter {\string\lst@keywords }{\string\lst@texcs }
166 \def\fcltx@ifcl@ss@filter #1#2{\def\fcltx@ifcl@ss@filter ##1#1##2#2##3@nil
167   {\@defaultunits \@tempcnta \number0##2==\@nnil
168   \ifnum \@tempcnta =\z@ \@defaultunits \@tempcnta \number 0##3==\@nnil \fi }%
169 }@expandtwoargs \fcltx@ifcl@ss@filter {\string\lst@keywords }{\string\lst@texcs }
170 \def\lstset {\begingroup \lst@setcatcodes \expandafter\endgroup \lstset@ }
171 \def\lstset@ #1{\kvsetkeys {lst}{#1}}
172 }% \AfterPackage listings

```

5.2 Generic macros

`\pdfstringDisableCommands` Does it At BeginDocument !

```

173 \providecommand\pdfstringDisableCommands [1]{\AtBeginDocument{%
174   \ifdefined \pdfstringdefDisableCommands
175     \let\pdfstringDisableCommands =\pdfstringdefDisableCommands
176     \pdfstringdefDisableCommands{#1}\fi}}

```

The $\tau_{\aleph} b \subset$ logo

`\TabU`

```

177 \providerobustcmd*\TabU [1][\TabUcolor]{\leavevmode
178   {#1{\fontsize{1.618\dimexpr\font@size\p@}{1.618\dimexpr\font@size\p@}\usefont U{eur}mn\char"1C}%
179     $_\aleph \mkern.1666mu b\mskip3mu\mathsurround\z@{\lower.261ex\hbox{\rotatebox[origin=c]{-90}{\usefont
180     \ifmmode\else\ifhmode \spacefactor3000 \xspaceverb \fi}\fi }
181 \def\TabUcolor {\color{copper}}
182 \pdfstringDisableCommands{\def\TabU {TabU }}

```

Control

`\CheckDates` `\CheckDates{package=date, package=date,...}`

```

183 {\endlinechar^^^J\obeyspaces%
184 \gdef\ErrorUpdate#1=#2,{\@ifpackagelater{#1}{#2}\relax%
185   {\let\CheckDates=\errmessage%
186     \toks@=\expandafter{\the\toks@
187       \thisfile-documentation: updates required !
188       package #1 must be later than #2
189       to compile this documentation.}}%
190 }% \ErrorUpdate
191 \gdef\CheckDates#1{\AtBeginDocument{%
192   \toks@{\let\CheckDates=\relax%
193     \@for\x:=\thisfile=\thisdate,#1\do{\expandafter\ErrorUpdate\x,}%
194     \CheckDates\expandafter{\the\toks@}}}%
195 }% \CheckDates
196 }% \catcode

```

`\showfile`

```

197 \providerobustcmd*\showfile{\makeatletter \show\@currname }%

```

`\currentenvir`

`\ifcurrenvir`

```

198 \providecommand*\currentenvir {\@currentenvir}
199 \providecommand*\ifcurrenvir [1]{\expandafter
200   \ifx \csname #1\expandafter\endcsname \csname \@currentenvir\endcsname
201     \expandafter\@firstoftwo
202   \else \expandafter\@secondoftwo
203   \fi
204 }% \ifcurrenvir

```

`\ifrefundefined` `\ifincsname` (pdfTeX) is buggy: inside `\ifcsname... \endcsname\ifincsname` evaluates to false !

```

205 \providerobustcmd*\ifrefundefined [1]{\begingroup \csname @safe@activetrue \endcsname %<babel>
206   \expandafter\endgroup \csname @\ifcsname r@#1\endcsname second\else
207     first\fi oftwo\endcsname
208 }% \ifrefundefined

```

Fonts and spacing

```

\texorpdf \texorpdf\textt{some text}  $\iff$  \texorpdfstring{\textt{some text}}{some text}
\xspaceverb Disable \xspace inside Verbatim environment.
209 \providecommand\texorpdf[2] {\texorpdfstring{#{1}#{2}}{#2}}
210 \providerobustcmd*\xspaceverb {\ifnum \catcode 32=\active \else \expandafter\xspace \fi}
211 \provide\let\fcltx@NormalSharpChar \#
212 \renewrobustcmd \#{%
213     \ifnum \catcode 32=\active \expandafter\fcltx@NormalSharpChar
214     \else \expandafter\fcltx@SharpChar \fi
215 }% \#
216 \provide\def\fcltx@SharpChar #1{\usefont{T1}{pcr}{bx}{n}\char`##1}}
217 \providecommand\textt {\texttt}
218 \providecommand\textsfbf [1]{\textsf{\textbf{#1}}} \provide\let\textbfsf =\textsfbf
219 \providecommand\textttbf [1]{\texttt{\textbf{#1}}} \provide\let\textbftt =\textttbf
220 \provide\let\textttbf =\textttbf
221 \providecommand\textitbf [1]{\textit{\textbf{#1}}} \provide\let\textbfit =\textitbf
222 \providecommand\textslbf [1]{\textsl{\textbf{#1}}} \provide\let\textbfsl =\textslbf
223 \providecommand\textscbf [1]{\textsc{\textbf{#1}}} \provide\let\textbfsc =\textscbf
224 \providecommand\textscit [1]{\textsc{\textit{#1}}} \provide\let\textitsc =\textscit
225 \providecommand\textscsl [1]{\textsc{\textsl{#1}}} \provide\let\textslsc =\textscsl
226 \providerobustcmd*\abs[1]{\left\lvert#1\right\rvert}
227 \provide\protected\def\Underbrace #1_#2{\underbrace{\vtop to2ex}{\hbox{#1}}_{\footnotesize\hbox{#2}}}$}
228 \provide\let\cellstrut=\bottopstrut
229 \AtBeginDocument {%
230 \providerobustcmd*\ie {\ifmmode \mbox{\emph{ie.}}\else \emph{ie.}\spacefactor\@cclv \xspaceverb \fi}
231 \providerobustcmd*\eg {\ifmmode \mbox{\emph{e.g.}}\else \emph{e.g.}\spacefactor\@cclv \xspaceverb \fi }
232 \providerobustcmd*\etc {\ifmmode \mbox{\emph{etc.}}\else
233     \ifhmode \ifdim\lastskip>\z@ \unskip\spacefactor\@cclv\space \fi\fi
234     \emph{etc.}\fi \ifnextchar .{\expandafter\xspaceverb@gobble}\xspaceverb
235 }% \etc
236 }% \AtBeginDocument
237 \pdfstringDisableCommands {\let\textt \empty}
238 \let\textbftt \@firstofone \let\textttbf \@firstofone \let\textttbf \@firstofone
239 \let\textsfbf \@firstofone \let\textbfsf \@firstofone \let\textitbf \@firstofone
240 \let\textbfit \@firstofone \let\textslbf \@firstofone \let\textbfsl \@firstofone
241 \let\textscbf \@firstofone \let\textbfsc \@firstofone \let\textscit \@firstofone
242 \let\textitsc \@firstofone \let\textscsl \@firstofone \let\textslsc \@firstofone
243 \def\ie {ie.}\def\etc {etc.}\let\textcolor \@secondoftwo
244 }
\MathVersion A version of LATEX \mathversion that also works in mathematical mode !
245 \providerobustcmd*\MathVersion [1]{\ifcsundef{mv@#1}
246     {\@latex@error{Math version '#1' is not defined}\@eha}
247     {\edef\math@version{#1}\gdef\glb@currsz{\aftergroup\glb@settings
248     \ifmmode \check@mathfonts \fi}}%
249 }% \MathVersion
\xspaceverb When used inside a Verbatim environment with special command chars (typically ( and ) used as group delimiters) \xspace breaks because of \scantokens.
\xspaceverb checks whether the catcode of the space is active, and does nothing in this case.
\, is allowed inside pdf strings.
250 %%\provide\mathchardef\extra@sf =2999 % "extra" spacefactor
251 %%\providecommand*\extrasf{\ifmmode\else\ifhmode \unskip \spacefactor\extra@sf \space \fi\fi }
252 \providecommand*\xspaceverb {\ifnum\catcode`\ =\active\else \expandafter\xspace \fi}
253 %%\providerobustcmd*\xspaceextra {%
254 %% \ifhmode\ifmmode\else \ifdim \fontdimen4\font>\z@ \spacefactor\extra@sf \fi \xspaceverb \fi\fi }
255 \xspacesetup {exceptions+=\xspaceverb}
256 \providerobustcmd*\ensurespaceextra {%

```

```

257 \ifhmode\ifmmode\else \ifdim\fontdimen4\font>\z@
258 \ifdim \lastskip>100sp \ifdim \lastskip>\fontdimen4\font \else % \ifnum \spacefactor<\extra@sf
259 \unskip
260 \hskip \glueexpr \fontdimen4\font+.1666em\relax
261 \fi\fi\fi\fi\fi }
262 \pdfstringDisableCommands{\let\, \@empty}

```

5.3 `\cs`, hyper links and `key=value`

`\cs`, `\csanchor` and `\env`

`\cs` prints a control sequence: both syntaxes: `\M*name` and `\name` are allowed.

`\csanchor` `\csanchor` puts an anchor (generally made inside the `declcs` environment) and a label.

If the label exists, then `\cs` puts a hyperlink to this label: in this case, `\cs` is just `\ref{declcs.name}`.

Spacing around the control sequences are adjusted by `\spacefactor = 2999` (for a fixed width font, the space is not stretchable: `\spacefactor = 2999` will double the space, and this is too much).

```

263 \AtBeginDocument{%
264 \ifdefined\cs \expandafter\renewrobustcmd
265 \else \expandafter\providerobustcmd \fi
266 * \cs {\ensurespaceextra \leavevmode \begin@grabcs \cs@ }
267 \xspacesetup {exceptions+=\cs}
268 \pdfstringDisableCommands {\let\cs \cs@pdf }
269 \providerobustcmd\meta [1]{\ensuremath\langle \hbox{#1}\ensuremath\rangle }
270 }% \AtBeginDocument
271 \providerobustcmd*\csbf {\cs [\textbf ]}
272 \providerobustcmd\cs@ [2][]{\cs@getrefname {#2}\@tempa
273 \edef\@tempc {\detokenize \expandafter{\@tempa }}%
274 \edef\@tempb {\string\begin}\ifx \@tempc\@tempb \aftergroup\@ne \else
275 \edef\@tempb {\string\end}\ifx \@tempc\@tempb \aftergroup\@ne \else
276 \aftergroup\z@ \fi\fi
277 \def\x ##1\@nnil {\cs@hyper {##1} {\cs@font {#1{\string ##1}}}
278 {\cs@font {#1{\csref {declcs.\string ##1}}}%
279 \expandafter \x \@tempa \@nnil \egroup
280 }% \cs@
281 \def\cs@string {\string\\string }% for \env => \cs@string becomes only \string (no addition of \ )
282 \providerobustcmd*\csref {\ref}
283 \long\def\cs@getrefname #1#2{\begingroup \escapechar\m@ne \csname @safe@activetrue\endcsname
284 \let\stform \string
285 \let\lst@UM \string
286 \let\meta \@firstofone
287 \protected@edef #2{\endgroup \def\noexpand #2{\cs@string #1}}#2%
288 }% \cs@getrefname
289 \def\begin@grabcs #1{\hbox\bgroup\bgroup \aftergroup\cs@next
290 \makeatletter \@ifstar {\def\csref {\ref*}#1}{#1}}
291 \provide\def\cs@next #1{\egroup \ifnum #1=\z@ \expandafter\cs@nextnormal \else \expandafter\cs@nextbeginend
292 \provide\def\cs@nextnormal {\@ifstar {\stform*\xspaceverb}\xspaceverb }
293 \provide\def\cs@nextbeginend{\@ifnextchar\bgroup \cs@nextenv \xspaceverb }
294 \provide\def\cs@nextenv #1{\M*\env{#1}}
295 \provide\def\cs@font {\ifdefined\hypersetup \hypersetup {linkcolor=csrefcolor}\fi\textt }
296 \providerobustcmd*\cs@hyper [1]{\ifrefundefined {declcs.#1}}
297 \providerobustcmd*\csanchor [2][]{\begingroup \def\cs@next {\egroup \endgroup \bgroup \cs@next}%
298 \let\cs@hyper \cs@anchor \cs[#{1}]{#2}}
299 \providerobustcmd*\cs@anchor [3] {%
300 \ifodd \expandafter\ifx \csname \@gobble #1\endcsname\begin 0 \fi
301 \expandafter\ifx \csname \@gobble #1\endcsname\end 0 \fi
302 1 \def\@currenthref {declcs.\string\string\space #1}\def\@currentlabel {\protecting{#2}}%
303 \settoheight \dimen@ {#2}\advance\dimen@ \dimexpr \dp\strutbox+\arrayrulewidth \relax
304 \raisedhyperdef [\dimen@ ]{declcs}{#1}{\ifrefundefined{declcs.#1}{#2}{#3}}%

```

```

305 \label{declcs.\string\string\space #1}}%
306 \ifdefined\SpecialUsageIndex \expandafter\SpecialUsageIndex \csname \@gobble #1\endcsname \fi
307 \else #2\fi
308 }% \cs@anchor
309 \providecommand*{\cs@pdf[1]{\string\\if\@backslashchar\string#1 \else\string#1\fi}}% <note the spaces!>
\env \env displays an environment in \ttfamily font. \env* adds the word “environment” after.
310 \providerobustcmd*\env {\leavevmode \begingroup \let\cs@string \string
311 \def\cs@next ##1{\egroup \endgroup \ifstar{ environment\spaceverb}\spaceverb}\begin@grabcs \cs@ }
312 \providerobustcmd*\envanchor {\leavevmode \begingroup \let\cs@hyper \cs@anchor \let\cs@string \string
313 \def\cs@next ##1{\egroup \endgroup }}\begin@grabcs \cs@ }
314 \pdfstringDisableCommands{\let\env \@firstofone }

```

5.4 lstlisting hyperlinks

This correspond to the [hyperlistings] option of `fcltxdoc`.

`\lsthk@OutputBox@fcltxH@k` The listings package allow to define an arbitrary hook before the building of the box to be ouput: `\@tempboxa` contains the word to print.

```

315 \def\lsthk@OutputBox@fcltxH@k {\begingroup \let\lst@UM \empty
316 \edef \@tempc {\the\lst@token } \edef \@tempc {\@tempc }%
317 \expandafter \cs@getrefname \expandafter {\@tempc } \@tempa
318 \ifrefundefined {declcs.\@tempa}
319 {\let\cs@string =\string % <environments>
320 \expandafter \cs@getrefname \expandafter {\@tempc } \@tempa
321 \ifrefundefined {declcs.\@tempa }{\endgroup } \fcltx@sethyperlistings
322 }
323 \fcltx@sethyperlistings
324 }% \lsthk@OutputBox@fcltxH@k
325 \def\fcltx@sethyperlistings {\global\let \fcltx@hyperlistinganchor =\@tempa
326 \endgroup \aftergroup \fcltx@dohyperlistings }% after \hbox
327 \def\fcltx@dohyperlistings {\def\lst@alloverstyle ##1{\fcltx@hyperlistings ##1}}
328 \def\fcltx@hyperlistings {\setbox\@tempboxa
329 \hbox \bgroup
330 \rlap {\hypersetup {linkcolor=.}\relax \fboxrule \z@
331 \hyperref {}{\declcs}\fcltx@hyperlistinganchor
332 {\boxframe {\wd\@tempboxa}{\ht\@tempboxa}{\dp\@tempboxa}}}%
333 \unhbox\@tempboxa
334 \egroup
335 }% \fcltx@hyperlistings

```

The `declcs` and `declenv` environments

`declcs` The `declcs` environment is defined in `holtxdoc` and redefined here in order to allow both syntaxes:
`declcs*` `\begin{declcs}{command}` and `\begin{declcs}\command`

`declcs*` is based on `longtabu` instead of `tabu`.

```

336 \newenvironment{declcs} [1][ 1 ]{%
337 \@testopt {\declcs@twoopt{#1}}{}
338 {\crrc
339 \end{tabu}\par \nobreak \ignorespacesafterend }
340 \def\declcs@twoopt #1[#2]#3{%
341 \if@nobreak \par\nobreak
342 \else \needspace{.08\textheight}\vskip2\parskip \fi
343 \changeont{spread=1,fam=\ttdefault }%
344 \tabusetup {tabu target=\dimexpr\linewidth-\declmarginwidth , frame=tabu }%
345 \declmargin
346 \ifblank {#1}{\begin{tabu} { 1 }}{\begin{tabu}spread0pt { #1 }}
347 \csanchor [{}#2][{}#3]}%
348 \newenvironment{declcs*} [1][ 1 ]{%

```

```

349 \@testopt {\declcs@s@twoopt{#1}}{}
350 {\crrc
351 \end{longtabu}\nobreak \ignorespacesafterend }
352 \def\declcs@s@twoopt #1[#2]#3{%
353 \if@nobreak \par\nobreak
354 \else \needspace{.08\textheight}\vskip2\parskip \fi
355 \changeFont{spread=1,fam=\ttdefault }%
356 \tabuSetup {longtabu = <\declmarginwidth , frame=tabu }
357 \ifblank {#1}{\begin{longtabu} { 1 }}{\begin{longtabu}spread0pt { #1 }}
358 \csanchor [#{2}]{#3}%
359 \def\declmarginwidth {\dimexpr -\leftmargini +\arrayrulewidth +\tabcolsep\relax}
360 \def\declmargin {\hspace*\declmarginwidth }
361 \AtBeginDocument{\ifdefined\N@m@lmargin \leftmargini = .5\dimexpr \N@m@lmargin \relax
362 \else \ifdefined\G@m@lmargin \leftmargini = .5\dimexpr \G@m@lmargin \relax \fi\fi }

```

\declcsbookmark Insert a bookmark for the [declcs](#) or [declenv](#) environments.

```

363 \providecommand*\declcsbookmark {\@ifstar \declcsbookmark@star \declcsbookmark@nost }
364 \providecommand*\declcsbookmark@nost [2][\bookmark [{dest=declcs.\string#2,rellevel=1,keeplevel,color=lk,#
365 \providecommand*\declcsbookmark@star [2][\bookmark [{rellevel=1,keeplevel,color=lk,#1}] {#2}]

```

declenv This is [declcs](#) but for an environment.

```

366 \newenvironment{declenv} [1][ 1 ]%
367 {\@testopt {\declenv@twoopt {#1}}{}
368 {\crrc \multicolumn -{p*}{\declenv@AtEnd}
369 \ \ \end{tabu}\nobreak \par \nobreak \noindent
370 \ignorespacesafterend}
371 \def\declenv@twoopt #1[#2]#3{%
372 \if@nobreak \par\nobreak
373 \else \par\addvspace\parskip
374 \Needspace{.08\textheight}\fi
375 \changeFont{spread=1,fam=\ttdefault}\hskip-\leftmargini
376 \def\declenv@AtEnd{\cs{end}\M*{\env [#{2}]{#3}}}%
377 \tabuSetup* {framed=tabu}%
378 \ifblank {#1}{\begin{tabu}{ 1 }}{\begin{tabu}{ #1 }}\cs{begin}\M*{\envanchor [#{2}]{#3}}

```

\keyvalue To typeset a `{key=value}` pair, with extra spacing around. `\keyvalue` points to `\textt`: `\keyvalue` is not in the list of `\pdfstringdefDisableCommands`.

This is a test.

```

379 \providerobustcmd*\keyvalue {\@ifstar {\@testopt{\fcltx@keyvalue {}{}}\textt }
380 \@testopt{\fcltx@keyvalue {\}}\textt }
381 \provide\def\fcltx@keyvalue #1#2[#3]#4[#3{#1#4#2}]\xspaceverb }
382 \pdfstringDisableCommands{\let\keyvalue \@firstofone}

```

\xext

\xpackage

```

383 \providerobustcmd*\fcltx@xfiles [4]{\@ifstar{#1{#2#4}#3}{#1{#2#4}}}
384 \def\fcltx@xx #1#2#3#4{\provide\def #1{\fcltx@xfiles {#2}{#3}{#4}}}
385 \fcltx@xx \xext \textt .{ file}
386 \fcltx@xx \xfile \textt {}{ file}
387 \fcltx@xx \xpackage \textsf {}{ package}
388 \fcltx@xx \xmodule \textsf {}{ module}
389 \fcltx@xx \xclass \textsf {}{ class}
390 \providecommand*\xemail[1]{\textless\textt{#1}\textgreater }
391 \pdfstringDisableCommands{%
392 \let\xext \@firstofone \let\xpackage \@firstofone
393 \let\xmodule \@firstofone \let\xclass \@firstofone
394 \let\xemail \@firstofone
395 }%
396 \xspaceaddeceptions {\Footnotemark }

```

\CTANhref `\CTANhref{package}` or `\CTANhref[package]{general text}`.

`\Xpackage{package}` is `\CTANhref[package]{\xpackage{package}}`

```

397 \providerobustcmd*\CTANhref [2][\ifblank{#1}
398   {\href {http://www.ctan.org/tex-archive/help/Catalogue/entries/#2.html}
399           {\nolinkurl{CTAN:help/Catalogue/entries/#2.html}}
400   {\href {http://www.ctan.org/tex-archive/help/Catalogue/entries/#1.html}{#2}}%
401 }% \CTANhref
402 \pdfstringDisableCommands{\let\CTANhref \@firstofone }
403 \providerobustcmd*\Xpackage [1]{\@ifstar   {\CTANhref [{#1}]{\xpackage {#1} package\xspaceverb }
404                                           {\CTANhref [{#1}]{\xpackage {#1}\xspaceverb }}
405 \pdfstringDisableCommands{\let\Xpackage \@firstofone }
406 \providerobustcmd*\thispackage {\@ifstar   {\xpackage\thisfile \xspaceverb}%
407                                           {\color {pkgcolor}\xpackage\thisfile}\xspaceverb}}
408 \pdfstringDisableCommands {\let\thispackage \thisfile }

```

\M Displays parameters with braces, bracket, parenthesis or textbar around.

```

409 \providerobustcmd*\M {\scan@char *M@ifstar }
410 \providerobustcmd*\M@ifstar [1]{\@ifnextchar #1{\@firstoftwo
411                               {\let M@meta \@firstofone \scan@char {[ ]()}\M@i }}
412                               {\let M@meta \meta       \scan@char {[ ]()}\M@i }}
413 \xspacesetup {exceptions+=\M\}}
414 \providerobustcmd*\scan@char [2]{\begingroup   \endlinechar \m@ne
415   \scantokens{\def\:#1}\expandafter \endgroup \expandafter #2\}
416 \providerobustcmd*\M@i [5]{\begingroup \@ifnextchar [% ]
417   {\iftrue\M@char [ ]\fi }
418   {\ifcase   \ifx #1\@let@token \z@   \else
419             \ifx #2\@let@token \@ne   \else
420             \ifx #4\@let@token \tw@   \else
421             \m@ne   \fi\fi\fi
422             \M@char{#1}{#1}{\stform|}{\stform|}%
423   \or   \M@char{#2}{#3}[ ]%
424   \or   \M@char{#4}{#5}()%
425   \else \M@char{}{}{}\}%
426   \fi   }%
427 }% \M@i
428 \provide\def\M@square #1[#2]{\M@Bracket [{#1}{#2}}
429 \provide\def\M@char #1#2#3#4#5\fi {\fi \def\M@char #1##1#2{\M@ch@r {#3}{##1}{#4}\M@char }
430 \provide\def\M@ch@r #1#2#3{\endgroup {\ttfamily #1\ifblank{#2}{\,}}{\M@meta{#2}}#3}}

```

5.5 **\stform** and some symbols

\CopyRight

```

431 \providerobustcmd*\CopyRight {\begingroup \@ifnextchar \bgroup
432   {\afterassignment\COPY@Right \count@ =\@firstofone }
433   {\afterassignment\COPY@Right \count@ =}%
434 }% \CopyRight
435 \provide\def\COPY@Right {%
436   \def\COPY@Right ##1!##2/##3\@nil {\endgroup \copyright\,%
437     \oldstylenums {\ifnum ##2=##1\relax \else ##1\,\textendash\,\fi ##2}%
438   }\expandafter\COPY@Right \the\expandafter\count@\expandafter!\thisdate \@nil
439 }% \COPY@Right

```

\stform **\stform*** displays a centered star using **\textasteriskcentered** from the **textcomp** package.

```

440 \pretocmd\textasteriskcentered {\usefont{OMS}{cmsy}mn}{}{}
441 \ifdefined\ifincsname
442   \providecommand*\stform {\ifincsname \expandafter\string \else \expandafter\@stform \fi}
443 \else \providerobustcmd*\stform {\@stform }
444 \fi
445 \providerobustcmd*\@stform   {\ensurespaceextra \@ifnextchar*
446                               {\@stform[]\textasteriskcentered@gobble }
447                               {\ifx -\@let@token \@stform[]\textendash\expandafter@gobble
448                               \else \expandafter\@stform

```

```

449             \fi}}
450 \providecommand*@@stform [2][\string]{\textttbf{\stform@font #1#2}\xspaceverb }
451 \def\stform@font{}
452 \pdfstringDisableCommands{\let\stform =\string }
453 \xspacesetup {exceptions+=\stform}

```

\myunderscore Unable to find any underscore character suitable to me, I provide `\myunderscore` as a simple `\vrule...`

```

454 \provideroobustcmd*\myunderscore {\ifvmode \noindent \fi \vrule height-\p@ depth1.6\p@ width.4em}

```

\smex A long right arrow inside a box of width $2em$ \longrightarrow I don't remember why i called it `\smex???`

```

455 \provideroobustcmd*\smex {\leavevmode \hb@xt@2em{\hss $\longrightarrow$\hss }}
456 \provideroobustcmd*\CheckOK {\textsmaller[2]{\textcolor{ForestGreen}\CheckmarkBold}}
457 \provideroobustcmd*\CheckFAIL {\textsmaller[2]{\textcolor{Crimson}\XSolidBrush}}
458 \provideroobustcmd*\CheckTODO{\textsmaller[2]{\textcolor{MediumBlue}\Peace}}

```

5.6 Some colors definitions

All those colors can be redefined later if wanted.

```

459 \providecommand*\ifcolorundef[3]{\romannumeral0\ifcsundef{\string\color@#1}{ #2}{ #3}}%
460 \provideroobustcmd*\providecolorlet [2]{\ifcolorundef{#1}{\colorlet{#1}{#2}}{}}
461 \providecolorlet {pkgcolor}{teal}
462 \providecolorlet {csrefcolor}{pkgcolor}
463 \providecolor {macrocode}{rgb}{0.07,0.03,0.10}
464 \providecolor {copper}{rgb}{0.67,0.33,0.00}
465 \providecolor {dg}{rgb}{0.02,0.29,0.00} % dg = dark green
466 \providecolor {db}{rgb}{0,0,0.502} % db = dark blue
467 \providecolor {dr}{rgb}{0.75,0.00,0.00} % dr = dark red
468 \providecolor {lk}{rgb}{0.25,0.25,0.25} % lk = 'light' black
469 \providecolor {llk}{rgb}{0.40,0.40,0.40} % llk = 'even more light' black
470 \provide\def\db {\color{db}} \provide\def\dg {\color{dg}}
471 \provide\def\red {\color{dr}} \provide\def\rred {\color{red}}
472 \provideroobustcmd*\pkgcolor {\color {pkgcolor}}
473 \pdfstringDisableCommands{\let\pkgcolor \relax }
474 \AtEndOfPackageFile*{hyperref}{%
475 \providecolorlet {linkcolor}{CornflowerBlue!40!Indigo}
476 \providecolorlet {urlcolor}{magenta}
477 \providecolorlet {filecolor}{cyan}
478 \providecolorlet {menucolor}{red}
479 \providecolorlet {runcolor}{filecolor}
480 \hypersetup {linkcolor=linkcolor,
481 urlcolor=urlcolor,
482 filecolor=filecolor,
483 menucolor=menucolor,
484 runcolor=runcolor,
485 pdfpagemode=UseOutlines}
486 }% \AfterPackage

```

**Abstract
quotation**

```

487 \newenvironment{Abstract}
488     {\small\begin{center}\bfseries \abstractname\vspace{-1.5em}\vspace{\z@}\end{center}\quotation}
489     \endquotation
490 \AtEndOfClassFile*{ltxdoc}{
491 \renewenvironment{quotation}[1][\leftmargin=1.5em]
492     {\list{}{\listparindent 1.5em
493         \itemindent \listparindent
494         \rightmargin \leftmargin
495         \parsep \z@ \@plus\p@ #1}}%
496     \item\relax}
497 {\endlist}

```

```
498 }% At End Of Class
```

5.7 the History environment

History

```
499 \newenvironment{History}{%
500   \section {History}%
501   \def\Version ##1##2{\HistVersion {##1}{##2}\itemize }
502   \let\endVersion =\enditemize
503 }{}
504 \providecommand*\HistVersion [2]{%
505   \subsection* {[#1 v#2]}% hash-ok
506   \addcontentsline {toc}{subsection}{\protect\numberline{v#2}[#1]}% hash-ok
507   {\protected@edef \@currentlabel {#1}\label {#2}}%
508 }% \HistVersion
```

5.8 the macro environment

macro Here we set an hanging indentation of the paragraph in front of the macro name, if the macro name is too wide. This is achieved by the hooks provided by etoolbox: `\AtBeginEnvironment` and `\AtEndEnvironment`.

```
509 \let\plainllap =\llap
510 \newdimen \maxlabelwidth
511 \newrobustcmd\macro@llap [1]{\begingroup \global\let\llap =\plainllap
512   \setbox0=\hbox{\setbox\strutbox =\hbox{\vrule height\ht\strutbox depth\z@ width\z@}% <height only>
513     #1}%
514   \toks@ ={\ifdim \maxlabelwidth>\z@ \setbox\@labels
515     =\llap{\hbox to\maxlabelwidth {\unhbox \@labels \hss}}\fi}%
516   \toks@ =\expandafter%
517     {\the\expandafter\toks@ \the\everypar \relax
518     \ifdim \dimexpr \maxlabelwidth-\Gm@lmargin+(\Gm@rmargin+5mm)>\z@
519       \hangindent \dimexpr \maxlabelwidth-\Gm@lmargin+(\Gm@rmargin+5mm)\relax
520       \hangafter -\macro@cnt
521       \fi
522       \global\maxlabelwidth \z@
523       \global\everypar \expandafter{\the\everypar \hangindent \z@ \hangafter \z@}}%
524   \ifdim \wd0>\maxlabelwidth \global\maxlabelwidth \wd0 \fi
525   \rlap{\unhbox0}\global\everypar \toks@
526   \endgroup
527 }% \macro@llap
528 \AtEndOfClassFile* {ltxdoc}{\MacrocodeTopsep\z@skip \MacroTopsep\z@skip }
529 \AtBeginEnvironment {macro}{\if@nobeak\else \Needspace{2\baselineskip}\fi
530   \let\llap =\macro@llap \topsep\z@skip \itemsep\z@skip
531   \partopsep\z@skip \parsep\z@skip
532   \parskip=2pt plus2pt minus2pt\relax
533 }
534 \AtEndEnvironment{macro}{\goodbreak \vskip.3\parskip }
```

`\getpackagedate` and `\getpackageinfo`

`\getpackagebanner` Extract the banner of a loaded package.

`\getpackagedate` Extract the date from the banner of a loaded package.

`\getpackageinfo` Extract the info from the banner of a loaded package.

```
535 \providecommand*\getpackagebanner [1]{\ltx@ifpackageloaded{#1}
536   {\csname ver@#1.\ltx@pkgextension\endcsname}
537   }%
538 }% \getpackagebanner
539 \providecommand*\getpackagedate [1]{\ltx@ifpackageloaded{#1}
540   {\expandafter \expandafter % <-note: only required if \pdfmatch undefined>
```

```

541 \expandafter\fccltx@ParseVersionAsDate
542 \csname ver@#1.\ltx@pkgextension\endcsname \@nil}%
543 0%
544 }% \getpackagedate
545 \providecommand*\getpackageinfo [1]{\ltx@ifpackageloaded{#1}
546 {\expandafter \expandafter % <-note: only required if \pdfmatch undefined>
547 \expandafter\LTxcms@@ParseInfo
548 \csname ver@#1.\ltx@pkgextension\endcsname \@nil}%
549 }%
550 }% \getpackageinfo

551 \ltx@ifUndefined{pdfmatch}{%
552 \provide\def\LTxcms@ParseInfo#1{%
553 \LTxcms@@ParseInfo#10000/00/00\@nil
554 }%
555 \provide\def\LTxcms@ParseInfo#1/#2/#3#4#5\@nil{%
556 \if\space#5\else #5\fi
557 }%
558 \provide\def\fccltx@ParseVersionAsDate #1\@nil {%
559 \fccltx@@ParseVersionAsDate #10000/00/00\@nil
560 }%
561 \provide\def\fccltx@@ParseVersionAsDate#1#2#3#4/#5#6/#7#8#9\@nil {#1#2#3#4/#5#6/#7#8}
562 }{%
563 \provide\def\LTxcms@ParseInfo#1{%
564 \ifnum\pdfmatch{%
565 ^%
566 (199[4-9]|[2-9][0-9][0-9][0-9])/%
567 (0[1-9]|1[0-2])/%
568 (0[1-9]|[1-2][0-9]|3[0-1])[[:space:]]*(.*$)%
569 }{#1}=1 %
570 \ltx@StripPrefix\pdfmatch4 %
571 \fi
572 }%
573 \provide\def\LTxcms@@ParseInfo #1\@nil {\LTxcms@ParseInfo {#1}}%
574 \provide\def\fccltx@ParseVersionAsDate #1\@nil {
575 \ifnum\pdfmatch{%
576 ^%
577 (199[4-9]|[2-9][0-9][0-9][0-9])/%
578 (0[1-9]|1[0-2])/%
579 (0[1-9]|[1-2][0-9]|3[0-1])%
580 }{#1}=1 %
581 \ltx@StripPrefix\pdfmatch1 %
582 /\ltx@StripPrefix\pdfmatch2 %
583 /\ltx@StripPrefix\pdfmatch3 %
584 \else
585 0000/00/00%
586 \fi
587 }

```

5.9 Verbatim support inside \output routine

\FC@DefineCommandChars The `Verbatim` environment provided by package `fancyvrb` allow to define some special command chars for escape char character (`\catcode = 0`), open group character (`\catcode = 1`) and close group character (`\catcode = 2`), by the mean of the key:

$$\text{commandchars}=\langle\text{escapechar}\rangle\langle\text{opengroup}\rangle\langle\text{closegroup}\rangle.$$

If a page break occurs while inside the `Verbatim` environment, the standard category codes are not restored, and the `\output` routine may break (if for example, a file is read during the output routine).

Here, **\FV@DefineCommandChars** is redefined in order to ignore the special category codes of verbatim command characters category codes

```

588 \AtEndOfPackageFile*{fancyvrb}{%
589 \renewcommand*\FV@DefineCommandChars [3]{%
590   \edef\FV@restoreCommandChars{\catcode`\noexpand#1 =\the\catcode`#1
591                               \catcode`\noexpand#2 =\the\catcode`#2
592                               \catcode`\noexpand#3 =\the\catcode`#3\relax}%
593   \def \FV@CommandChars {\catcode `#1 =0 \catcode `#2 =1 \catcode `#3 =2\relax }%
594   \output =\expandafter{\expandafter\FV@restoreCommandChars \the\output }}%
595 \DefineVerbatimEnvironment{Verb*}{Verbatim}{commandchars=$ () }
596 }% \AfterPackage

```

5.10 Indexing: Do Not Index in general

```

597 \AtEndOfClassFile* {ltxdoc}{%\message{Now DONOTINDEX !!!^^J}%
598 \DoNotIndex{%
599   \begin,\end,\makeatletter,\makeatother,\@makeother,\filename,\fileversion,\filedate,\frenchspacing,%
600   \CodelineIndex,\CodelineNumbered,\OnlyDescription,\RecordChanges,%
601                                     \DisableCrossrefs,\EnableCrossrefs,\GetFileInfo,%
602   \def,\gdef,\xdef,\let,\csname,\endcsname,\outer,%
603   \newcommand,\newrobustcmd,\providecommand,\provideroobustcmd,%
604   \newif,\@testopt,\endinput,\expandafter,\else,\relax,%
605   \csdef,\csgdef,\csxdef,\cslet,\csletcs,\csundef,\csuse,%
606   \csappto,\csgappto,\csxappto,\cseappto,\cspreto,\csxpreto,\csepreto,\csgpreto,%
607   \preto,\appto,\epreto,\eappto,\xappto,\xpreto,\gpreto,\xpreto,%
608   \~,\\,\&,\;,\,\\,\\:,\\[,\\],\\{,\\},\\^,\\ ,%
609   \@ifpackagelater,\@ifpackagewith,\@ifpackageloaded,%
610   \m@ne,\z@,\z@skip,\@ne,\p@,\tw@,\thr@@,\@M,\@m,\@,\@@,\@elt,\do,\@let@token,\@undefined,%
611   \@tempa,%
612   \@firstofone,\@firstoftwo,\@secondoftwo,%
613   \@eha,\@ehd,\on@line,%
614   \DocInput,\documentclass,\NeedsTeXFormat,\ProvidesClass,\ProvidesPackage,\ProvidesFile,%
615   \RequirePackage,\usepackage,\AtEndOfPackage,\AtBeginDocument,\AtEndDocument,\ProcessOptions,%
616   \PackageWarningNoLine,\PackageInfoNoLine,%
617   \DefineShortVerb,\DeleteShortVerb,\UndefineShortVerb,\MakeShortVerb,%
618   \title,\subtitle,\author,\date,\maketitle,\chapter,\section,\subsection,\subsubsection,%
619   \paragraph,\subparagraph,\parindent,\parskip,%
620   \TMP@EnsureCode,\nobibliography,\nocite,\bibitem,\item,%
621   \MessageBreak,\@spaces,%
622   \stform,\x,%
623 }
624 \CodelineIndex
625 \EnableCrossrefs
626 \IndexPrologue{%
627   \section*{Index}%
628   \markboth{Index}{Index}%
629   Numbers written in italic refer to the page %
630   where the corresponding entry is described; %
631   numbers underlined refer to the %
632   \ifcodeline@index
633     code line of the %
634   \fi
635   definition; plain numbers refer to the %
636   \ifcodeline@index
637     code lines %
638   \else
639     pages %
640   \fi
641   where the entry is used.%
642 }

```

```
643 }% \AtEndOfClassFile
```

5.11 Other miscellaneous (personal) commands

\ClearPage `\ClearPage` does nothing and `\ClearPage*` does `\clearpage`. This way it's possible to clear a page or not, keeping trace of what we intended to do...

```
644 \providerobustcmd*\ClearPage {\@ifstar \clearpage \relax }
```

\uline `\uline` (from the `ulem` package) has an optional argument to set the color of the line.

```
645 \AtEndOfPackageFile*{ulem}{%
646 \renewcommand*\ULset [1] []{\UL@setULdepth
647 \def\UL@leadtype{#1}\leaders \hrule \@height\dimen@ \@depth\ULdepth }%
648 \ifmmode \ULdepth-4\p@ \fi
649 \dimen@-\ULdepth \advance\dimen@\ULthickness \ULon}
650 }
```

\HighLight

```
651 \providerobustcmd*\HighLight [1] []{\begingroup \bgroup \aftergroup\endgroup
652 \ULdepth=\dp\strutbox
653 \edef\ULthickness{\the\dimexpr \ht\strutbox+\dp\strutbox }%
654 \UL@setULdepth
655 \ifcat$\detokenize{#1}$\let\fcmtx@HL =\@gobble
656 \else \let\fcmtx@HL =\color \fi
657 \def\UL@leadtype {\dimen@ii\dimen@\fcmtx@HL{#1}\dimen@\dimen@ii
658 \leaders \hrule \@depth\ULdepth \@height\dimen@ }%
659 \dimen@-\ULdepth \advance\dimen@ \ULthickness
660 \ULon
661 }% \HighLight
```

\textsubscript

```
662 \AtBeginDocument{%
663 \providerobustcmd*\textsubscript [1]{\@textsubscript {\selectfont #1}}
664 \providerobustcmd*\@textsubscript [1]{\m@th\ensuremath{\_ {\mbox{\fontsize\sf@size\z@#1}}}}
665 }
```

5.12 Setup At Begin Document

```
666 \AtBeginDocument{\provide\let\lstyle =\relax
667 \errorcontextlines=10\relax
668 \provide\let\thisfile =\jobname
669 \provide\let\thisversion =\@empty
670 \provide\edef\thisdate {\getpackagedate\thisfile}%
671 \provide\let\thisversion =\@empty
672 \ifdefined\hypersetup
673 \ifdefvoid\pdftitle
674 {\hypersetup {pdftitle=The \jobname\space package}}
675 }%
676 \fi
677 \ifdefined\embedfile
678 \IfFileExists{\jobname.dtx}{\embedfile{\jobname.dtx}}{\fi
679 }% \AtBeginDocument
680 \AtEndOfPackageFile*{doc}{\AfterEndPreamble {\DeleteShortVerb {\}}}}
```

5.13 Other stuff (patches) to remove after some package updates

\marginnote Modification to get a correct positioning of the marginnote at first compilation time:

```
681 %\let\mn@atthispage \@empty
682 %\AtEndOfPackageFile*{marginnote}{%
683 %\renewcommand\mn@zbox [1]{%
684 % \bgroup
685 % \ifcsname mn@note.\@mn@thispage.\@mn@atthispage\endcsname \h@false
686 % \else \h@true
```

```
687 % \fi
688 % \ifh@
689 % \vbox to\z@{\vss \@mn@margintest}\let\@mn@margintest \relax % Just set the label (\pdfsavepos)
690 % \edef\marginnotevadjust {\the\dimexpr \marginnotevadjust-\baselineskip }%
691 % \setbox\@tempboxa \hbox
692 % \else
693 % \setbox\@tempboxa \vbox
694 % \fi {#1}%
695 % \ht\@tempboxa =\ht\strutbox \dp\@tempboxa =\dp\strutbox \wd\@tempboxa =\z@
696 % \ifh@ \unhbox \else \box \fi \@tempboxa
697 % \egroup
698 %}% \mn@zbox
699 %}%
700 </package>
```

6 References

- [1] *The docand shortvbrpackages*
2006/02/02 v2.1d – Standard LaTeX documentation package (FMi)
Franck Mittelbach
2010/02/04 [CTAN:help/Catalogue/entries/doc.html](#)
- [2] *The hypdocpackage*
2010/03/26 v1.9 Hyper extensions for doc.sty (HO)
Heiko Oberdiek
[CTAN:help/Catalogue/entries/hypdoc.html](#)
- [3] *The holtxdocpackage*
2010/04/24 v0.19 Private additional ltxdoc support (HO)
[CTAN:help/Catalogue/entries/holtxdoc.html](#)

7 History

[2011/02/27 v1.0]

- First version.