# The showexpl package\*

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#### 1 Introduction

The documentation of a LATEX package is by far more readable if there are examples of the commands' and environments' usage. The best way to do that is to give a comparison of the LATEX code and the formatted output. showexpl is a package for doing that comparison, it is based on the package listings which provides a good typesetted source code with emphasised keywords and so on.

### 2 Usage

You can use showexpl like every other package by putting the line

\usepackage{showexpl}

in your source code. showexpl doesn't know any options by itself, but all options for the underlying packages (listings and graphicx) will be passed to the respective packages.

showexpl provides one command and one environment:

- \LTXinputExample and
- LTXexample

\LTXinputExample

The syntax of \LTXinputExample is given by

 $\texttt{\LTXinputExample[$\langle key\ val\ list\rangle$] \{$\langle file\rangle$}$ 

LTXexample

The syntax of the environment LTXexample is given by

 $\verb|\begin{LTXexample}| [\langle key\ val\ list \rangle] ... \verb|\end{LTXexample}|$ 

The set of options represented by  $\langle key \ val \ list \rangle$  is the same for both the command and the environment, the options are described in the following:

attachfile Boolean valued key, default value: false. If set to true the sourcecode will be attached to the .pdf file—presumed that the document is processed by pdflatex.

**codefile** Name of the (temporary) file that contains the code which will be formatted as source code. The default value is \jobname.tmp.

<sup>\*</sup>This document corresponds to showexpl v0.3q, dated 2020/05/26.

- **exploreset** A  $\langle key\ val\ list \rangle$  which serves for presetting the properties of the formatting of the source code, for values see the documentation of the listings package. The default value is
- **graphic** Name of a (graphic) file. This file—if present—will be included and displayed instead of the formatted code. The default value is empty.
- hsep Defines the horizontal distance between the source code and the formatted text.
- **justification** Defines the justification of the formatted text: reasonable values are \raggedleft, \raggedright, \centering. The default value is \raggedright.
- **overhang** A *dimen*-value that defines the amount by which the formatted text and the source code can overlap the print space. The default value is 0 pt.
- pos: Defines the relative position of the formatted text relating to the source code. Allowed values are t, b, 1, r, o, and i for top, bottom, left, right, outer, and inner. The last values give sense only for two-sided printing, where there are outer and inner margins of a page. The default value is 1.
- **preset** Any TEX code executed before the sample code but not visible in the listings area.
- rangeaccept Boolean valued key, default value is false. If set to true, one can define ranges of lines that will be excerpted from the source code.
- **rframe** Defines the form of the frame around the formatted text. With a nonempty value (e.g. "single") a simple frame will be drawn. In the future more kinds of frames will be supported. The default value is empty (no frame).
- varwidth Boolean valued key, default value is false. If set to true, the formatted text is set with its "natural" width instead of a fixed width as given by the value of the option width.
- vsep Defines the vertical distance between the source code and the formatted text.
- wide Boolean valued key, default value is false. If set to true, the source code and the formatted text overlap the print space and the margin area.
- width A  $\langle dimen \rangle$  value that defines the width of the formatted text. The default value depends of the relative positions of the source code and the formatted text.
- scaled Without a value the formatted text will be scaled to fit the given width of the result area. With a number as value the formatted text will be scaled by this number.

In addition to these options the kind of the result box (default: \fbox) can be changed. For example:

\renewcommand\ResultBox{\fcolorbox{green}{lightgray}}
\setlength\ResultBoxSep{5mm}% default: \fboxsep
\setlength\ResultBoxRule{2mm}% default: \fboxrule

#### 3 Implementation

```
1 \DeclareOption{final}{%
                   \PassOptionsToPackage{\CurrentOption}{graphicx}%
                   \PassOptionsToPackage{\CurrentOption}{listings}%
                4 }%
                5 \DeclareOption{draft}{%
                   \PassOptionsToPackage{\CurrentOption}{graphicx}%
                   \PassOptionsToPackage{\CurrentOption}{listings}%
                8 }%
                9 \DeclareOption{attachfiles}{%
                  \AtBeginDocument{\IfFileExists{attachfile.sty}%
                      {\RequirePackage{attachfile}}{\def\SX@attachfile{}}}
               11
               12 }%
               13 \DeclareOption*{\PassOptionsToPackage{\CurrentOption}{listings}}
               14 \ProcessOptions\relax
               15 \RequirePackage{refcount, listings, graphicx, varwidth, float}
               We must aktivate code from package listings for writing files.
               16 \lst@RequireAspects{writefile}
               Parameter #2 is a length or a number. Parameter #1 is a macro. After a call of
\SX@defaultWD
               \SX@defaultWD this macro contains the value of the length or the value of the
               number multiplied by \linewidth.
               17 \newcommand*\SX@defaultWD[2]{%
               18 \afterassignment\SX@def@WD\dimen@#2\linewidth\relax{#1}}
               19 \newcommand*\SX@def@WD{}
               20 \def\SX@def@WD#1\relax#2{\edef#2{\the\dimen@}}
               Additional keys.
               21 \lst@Key{pos}\relax{\def\SX@pos{#1}}
               22 \lst@Key{width}\relax{\def\SX@width{#1}}
               23 \lst@Key{hsep}\relax{\@tempdima=#1\relax\edef\SX@hsep{\the\@tempdima}}
               24 \lst@Key{vsep}\relax{\@tempdima=#1\relax\edef\SX@vsep{\the\@tempdima}}
               25 \lst@Key{overhang}\relax{\def\SX@overhang{#1}}
               26 \lst@Key{wide}f[t]{\lstKV@SetIf{#1}\if@SX@wide}
               27 \lst@Key{rframe}\relax{\def\SX@rframe{#1}}
               28 \lst@Key{preset}\relax{\def\SX@preset{#1}}
               29 \newcommand*\SX@scaled{}
               30 \lower = 30 \end{41} 
               31 \lst@Key{explpreset}\relax{\def\SX@explpreset{#1}}
               32 \lst@Key{codefile}\relax{\def\SX@codefile{#1}}
               33 \newif\if@SX@rangeaccept \@SX@rangeacceptfalse
               34 \newif\if@SX@varwidth \@SX@varwidthfalse
               35 \newif\if@SX@wide \@SX@widefalse
               36 \newif\if@SX@attachfile \@SX@attachfilefalse
               37 \lst@Key{rangeaccept}f[t]{\lstKV@SetIf{#1}\if@SX@rangeaccept}
               38 \lst@Key{varwidth}f[t]{\lstKV@SetIf{#1}\if@SX@varwidth}
               39 \lst@Key{justification}\relax{\def\SX@justification{#1}}
               40 \t \ensuremath{\texttt{MSKV@SetIf}{\#1}} if \ensuremath{\texttt{QSX@attachfile}} \\
               41 \newcommand*\SX@graphicname{}%
               42 \newcommand*\SX@graphicparam{}%
```

```
43 \text{ st@Key{graphic}{}[]{%}
                \lstKV@OptArg[width=\linewidth]{#1}{%
                   \edef\SX@graphicparam{##1}\edef\SX@graphicname{##2}%
             45
             46
                }%
             47 }%
             48 \newbox\SX@ResBox
             49 \mbox{let\ResultBox=\fbox} \
             50 \newdimen\ResultBoxSep \ResultBoxSep=\fboxsep
             51 \newdimen\ResultBoxRule \ResultBoxRule=\fboxrule
             52 \newcommand*\SX@pos{}
             53 \newcommand*\SX@width{}
             54 \newcommand*\SX@hsep{}
             55 \newcommand*\SX@vsep{}
             56 \newcommand*\SX@overhang{}
             57 \newcommand*\SX@rframe{}
             58 \newcommand\SX@preset{}
             59 \newcommand*\SX@explpreset{}
             60 \newcommand*\SX@@explpreset{}
             61 \newcommand*\SX@codefile{}\edef\SX@codefile{\jobname.tmp}
             62 \newcommand*\SX@justification{\raggedright}
             Contains some redefinitions of IATEX macros and environments to do nothing.
\SX@@preset
             \SX@@preset will be called just before typesetting the result of the example code.
             More can be added with the user key "preset=...".
             63 \newcommand*\SX@@preset{%
                 \renewcommand\documentclass[2][]{\SX@eat@version}%
                 \renewcommand\usepackage[2][]{\SX@eat@version}%
             65
                 \renewenvironment{document}{}{}%
             66
             67
                 \renewcommand\cite[1][]{}%
                \let\tableofcontens\relax \let\listoffigures\relax
             68
                \let\listoftables\relax \let\printindex\relax
             69
                \let\listfiles\relax \let\nofiles\relax
             70
             71
                \let\index\@gobble \let\label\@gobble
             72 \let\refstepcounter=\@gobble
             73 \let\bibliography\@gobble
             74 \let\pagestyle\@gobble \let\thispagestyle\@gobble
             75 %%\let\immediate\relax \let\write\@gobbletwo
             76 %%\let\closeout\@gobble \let\@@input\@gobble
                \renewcommand\marginpar[2][]{}%
             77
                \renewcommand\footnote[2][]{}%
             78
             79 \let\@footnotetext\@gobble
                %%\abovedisplayskip=\z@
             80
                 %%\abovedisplayshortskip=\z@
             81
             82 }
             83 \newcommand*\SX@eat@version[1][]{}
 \isSX@odd Parameter #1 is executed on odd pages, parameter #2 on even pages.
             84 \neq 15X0
             85 \if@twoside
                \newcommand*\isSX@odd{%
             86
             87
                   \begingroup
                     \ifodd\getpagerefnumber{\SX@IDENT}%
             88
                       \aftergroup\SX@wasoddtrue
             89
```

```
\else
                     90
                                \aftergroup\SX@wasoddfalse
                     91
                              \fi
                     92
                            \endgroup
                     93
                            \ifSX@wasodd
                     94
                              \expandafter\@firstoftwo
                     95
                     96
                     97
                              \expandafter\@secondoftwo
                     98
                            \fi
                         }
                     99
                     100 \else
                          \SX@wasoddtrue
                     101
                          \newcommand*\isSX@odd[2]{#1}
                     102
                     103 \fi
                     The call of \scalebox{1}{is}X@odd sets also \scalebox{1}{if}SX@wasodd to true or false. If it's clear that
                     no page break occurs, \ifSX@wasodd can be used.
                     104 \newcounter{ltxexample}
                     105 \newcommand*{\SX@IDENT}{SX@\number\value{ltxexample}}
     \SX@attachfile
                     106 \newcommand*\SX@attachfile{%
                          \if@SX@attachfile
                            \attachfile[mimetype=text/plain, subject={example \theltxexample}]%
                     109
                              {\SX@codefile}{}%
                     110
                          \fi
                    111 }
                     Six macros for positioning #2 (result) and #3 (code). The result can be above,
\SX@put@t/b/l/r/o/i
                     below, left or right of the code area or on the outer or inner side. Parameter #1 is
                     the width of the result.
                     112 \newcommand*\SX@put@t[3]{%
                          \label{linewidth} $$\SX@ResultArea{\linewidth}{\#2}\endgraf\pagebreak[2]\%$
                    113
                    114
                          \@tempdima=\dimexpr\SX@vsep\vskip\@tempdima
                          \SX@CodeArea{\linewidth}{#3}%
                    115
                    116 }
                    117 \newcommand*\SX@put@b[3]{%
                          \SX@CodeArea{\linewidth}{#3}\endgraf\pagebreak[2]%
                          \@tempdima=\dimexpr\SX@vsep\vskip\@tempdima
                    120
                          \SX@ResultArea{\linewidth}{\#2}\%
                    121 }
                    122 \newcommand*\SX@put@1[3]{%
                         \@tempdimc=\dimexpr\linewidth-#1-\SX@hsep %
                    123
                    124
                          125 }
                    126 \newcommand*\SX@put@r[3]{%
                          \@tempdimc=\dimexpr\linewidth-#1-\SX@hsep %
                    127
                          \SX@CodeArea{\@tempdimc}{#3}\hfill\SX@ResultArea{#1}{#2}%
                    128
                    129 }
                     130 \newcommand*\SX@put@o[3]{%
                          132 }
                    133 \newcommand*\SX@put@i[3]{%
                          \label{lem:condition} $$ \operatorname{SXQputQ\,ifSXQwasodd l\else r\fi}_{\#1}_{\#2}_{\#3}_{\%} $$
```

```
136 \newcommand\SX@ResultArea[2]{%
                                                            \SX@justification\@tempdima=\dimexpr #1 %
                                               137
                                                            \parbox\@tempdima{#2}%
                                               138
                                               139 }
                                                140 \newcommand\SX@CodeArea[2]{%
                                                            \@tempdima=\dimexpr #1 %
                                                            \sbox\@tempboxa{\parbox\@tempdima{#2}}%
                                                142
                                                           \verb|\delta| dp \end{|c|} whenever $$ \end{|c
                                                143
                                                            \rlap{\raisebox{-\@tempdima}[Opt][Opt]{\SX@attachfile}}%
                                                144
                                               145 }
                                               146 \newcommand*\SX@KillAboveCaptionskip{%
                                                            \ifx\lst@caption\@empty\else
                                               147
                                                                 \lst@IfSubstring t\lst@captionpos
                                               148
                                                                     {\vskip-\abovecaptionskip}{}%
                                               149
                                               150
                                                           \fi
                                               151 }
                                                152 \newcommand*\SX@KillBelowCaptionskip{%
                                               153
                                                           \ifx\lst@caption\@empty\else
                                               154
                                                                 \lst@IfSubstring b\lst@captionpos
                                                                     {\vskip-\belowcaptionskip}{}%
                                               155
                                                           \fi
                                               156
                                               157 }
                    LTXexample
                                                158 \lstnewenvironment{LTXexample}[1][]{%
                                                            \@temptokena{#1}%
                                                           \begingroup
                                                 For "codefile=..."/"graphic=..." if \theltxexample or \thelstlisting is part of
                                                 the filename.
                                                            \advance\c@ltxexample\@ne \advance\c@lstlisting\@ne
                                                162
                                                           163
                                                            \edef\x{\endgroup
                                                                \def\noexpand\SX@codefile{\SX@codefile}%
                                                164
                                                                 \def\noexpand\SX@graphicname{\SX@graphicname}%
                                                165
                                                                \def\noexpand\SX@graphicparam{\SX@graphicparam}}%
                                                166
                                               167
                                                            ١x
                                                            \xdef\SX@@explpreset{\the\@temptokena,codefile=\SX@codefile,%
                                                168
                                                                graphic={[\SX0graphicparam]{\SX0graphicname}}}%
                                                169
                                                170
                                                            \setbox\@tempboxa=\hbox\bgroup
                                               171
                                                            \lst@BeginWriteFile{\SX@codefile}%
                                               172 }
                                               173 {%
                                               174
                                                            \lst@EndWriteFile\egroup
                                               175
                                                            \SX@put@code@result
                                               176 }
\SX@put@code@result
                                                177 \newcommand*\SX@put@code@result{%
                                                178
                                                           \begingroup
                                                                \expandafter\lstset\expandafter{\SX@explpreset}%
                                               179
                                                180
                                                                \expandafter\lstset\expandafter{\SX@@explpreset}%
```

135 }

```
Use listings floating procedure if necessary.
                \ifx\lst@float\relax\else
                     \edef\@tempa{\noexpand\lst@beginfloat{lstlisting}[\lst@float]}
182
                     \expandafter\@tempa
183
184
185
                \ifx\lst@caption\@empty
186
                     \lstset{nolol=true}%
                \fi
                188
189
                \trivlist\item\relax
                     \stepcounter{ltxexample}\label{\SX@IDENT}%
190
 Make \SX@width a real dimension if the unit is missing.
                     \SX@defaultWD\SX@width{\SX@width}%
 Set the default width if necessary.
192
                    \ifdim\SX@width<\z@
193
                         \@tempswatrue
194
                         \def\@tempa{t}%
195
                         \ifx\@tempa\SX@pos\@tempswafalse\fi
196
                         \def\@tempa{b}%
197
                         \ifx\@tempa\SX@pos\@tempswafalse\fi
                         \@tempdima=\dimexpr\linewidth+\SX@overhang %
198
                         \if@tempswa\@tempdima=.5\@tempdima\fi%
199
                         \edef\SX@width{\the\@tempdima}%
200
                    \fi
201
 Correct \SX@width if a frame is requested.
                    \ifx\SX@rframe\@empty
202
                         \label{longdef} $$ \prod_{m=0}^{4}1{\#1}%
203
204
                     \else
                         \let\SX@frame\ResultBox
205
                         \@tempdima=\dimexpr\SX@width-2\ResultBoxSep-2\ResultBoxRule %
206
207
                         \edef\SX@width{\the\@tempdima}%
208
                     \label{lem:lempa} $$ \s X @ odd $$ \left( e^{\theta - \theta_1} \right) $$ (\en pa_{r}) $$ (\en
209
210
                     \makebox[\linewidth][\@tempa]{%
                         \parbox{\dimexpr\linewidth+\SX@overhang}{%
211
  \SX@codefile (\jobname.tmp) is not nessesary for the filelist.
                              \let\@addtofilelist\@gobble
212
213
                              \let\lst@ifdisplaystyle=\iftrue
                              \SX@KillAboveCaptionskip\lst@MakeCaption{t}%
214
 Use the "natural" width of the result code if "varwidth" is true. .
                              \setbox\SX@ResBox\hbox{%
215
                                  \fboxsep=\ResultBoxSep
216
217
                                  \fboxrule=\ResultBoxRule
218
                                  \SX@frame{%
219
                                      \@nameuse{\if@SX@varwidth varwidth\else minipage\fi}%
220
                                               \SX@width\relax
221
                                           \begingroup
222
                                                \SX@resultInput
223
                                           \endgroup
224
                                       \Onameuse{end\if0SX0varwidth varwidth\else minipage\fi}}}%
                              \edef\SX@width{\the\wd\SX@ResBox}%
225
```

```
{\@latex@error{Parameter '\SX@pos' undefined}\@ehd}%
          227
                        {\@nameuse{SX@put@\SX@pos}%
          228
                          {\SX@width}{\box\SX@ResBox}{\SX@codeInput}}%
          229
                        \lst@MakeCaption{b}\SX@KillBelowCaptionskip
          230
          231
                      }%
          232
                    }%
          233
                  \endtrivlist
                  \ifx\lst@float\relax\else\expandafter\lst@endfloat\fi
          234
                  \gdef\SX@@explpreset{}%
          235
                \endgroup
          236
          237 }
          238 \newcommand\SX@SkipToFirst{%
                \ifeof\@inputcheck\else
          239
                  \ifnum \lst@lineno=\lst@firstline\else
          240
          241
                    \readline\@inputcheck to\SX@tempa
          242
                    \typeout{IGNORE (\the\lst@lineno)}%
          243
                    \global\advance\lst@lineno\@ne
          244
                    \SX@SkipToFirst
          245
                  \fi
                \fi
          246
          247 }
          248 \newcommand\SX@ProcessResult{%
                \ifeof\@inputcheck
          249
                  \let\SX@tempb\relax
          250
          251
                  \let\SX@tempb\SX@ProcessResult
          252
          253
                  \ifnum \lst@lineno>\lst@lastline\relax
          254
                    \ifx\lst@linerange\@empty
                      \let\SX@tempb\relax
          255
                    \else
          256
          257
                      \lst@GetLineInterval
                      \SX@SkipToFirst
          258
                    \fi
          259
          260
                  \else
                    \readline\@inputcheck to\SX@tempa
          261
          262
                    \typeout{READ (\the\lst@lineno)}%
          263
                    \expandafter\g@addto@macro
                      \expandafter\SX@lines\expandafter{\SX@tempa^^J}%
          264
          265
                    \global\advance\lst@lineno\@ne
                  \fi
          266
                \fi
          267
          268
                \SX@tempb
          269 }
\SX@input
          270 \newcommand\SX@input[1]{%
          271
                \begingroup
                  \verb|\IfFileExists{#1}{}|
          272
          273
          274
                    \filename@parse{#1}%
          275
                    \ifx\filename@ext\relax \def\filename@ext{tex}\fi
                    \@latexerr{File
          276
```

\@ifundefined{SX@put@\SX@pos}%

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```
}%
                                   278
                                                   \openin\@inputcheck#1
                                   279
                                                   \lsthk@PreSet\let\lst@linerange\@empty\global\lst@lineno\@ne
                                   280
                                                   \expandafter\lstset\expandafter{\SX@@explpreset}%
                                   281
                                                   \ifx\lst@linerange\@empty
                                                       \edef\lst@linerange{{\lst@firstline}-{\lst@lastline},}%
                                   283
                                   284
                                                   \fi
                                                   \lst@GetLineInterval
                                   285
                                                  \SX@Info
                                   286
                                                   \newlinechar='\^^J\relax
                                   287
                                                   \SX@SkipToFirst\let\SX@lines\@empty
                                   288
                                                   \SX@ProcessResult
                                   289
                                                   \closein\@inputcheck
                                   290
                                                   \scantokens\expandafter{\SX@lines}%
                                   291
                                   292
                                              \endgroup
                                   293 }
                                   294 \newcommand*\SX@Info{%
                                              \typeout{-----
                                                                                                          -----}%
                                              \typeout{pos=\SX@pos}%
                                   297
                                              \typeout{width=\SX@width}%
                                              \typeout{hsep=\SX@hsep}%
                                   298
                                              \typeout{vsep=\SX@vsep}%
                                   299
                                              \typeout{overhang=\SX@overhang}%
                                   300
                                              \typeout{rframe=\SX@rframe}%
                                   301
                                              \typeout{codefile=\SX@codefile}%
                                   302
                                   303
                                              \@ifundefined{lst@firstline}{}%
                                   304
                                                  {\typeout{\string\lst@firstline=\lst@firstline}}%
                                   305
                                              \@ifundefined{lst@lastline}{}%
                                   306
                                                  {\typeout{\string\lst@lastline=\lst@lastline}}%
                                   307
                                              \@ifundefined{lst@linerange}{}%
                                                  {\typeout{\string\lst@linerange=\lst@linerange}}%
                                   308
                                              \typeout{\string\if@SX@wide=\if@SX@wide TRUE\else FALSE\fi}%
                                   309
                                              \typeout{\string\if@SX@rangeaccept=\if@SX@rangeaccept TRUE\else FALSE\fi}%
                                   310
                                              \typeout{\string\if@SX@varwidth=\if@SX@varwidth TRUE\else FALSE\fi}%
                                   311
                                              \verb|\typeout{graphicfile=\SX@graphicname, graphicparameter=[\SX@graphicparam]}|| % \end{| figure 1.5cm} % \end{| f
                                   312
                                              \typeout{-----}%
                                   313
                                   314 }
                                   315 \providecommand*\MakePercentIgnore{\catcode'\%9\relax}
                                   316 \providecommand*\MakePercentComment{\catcode'\%14\relax}
\SX@resultInput
                                   317 \newcommand*\SX@resultInput{%
                                              \ifx\SX@graphicname\@empty
                                                   \begingroup
                                   319
                                                       \MakePercentComment\makeatother\catcode'\^^M=5\relax
                                   320
                                                       \SX@@preset\SX@preset
                                   321
                                                       \if@SX@rangeaccept
                                   322
                                   323
                                                         \let\SX@tempa=\SX@input
                                   324
                                                       \else
                                                         \let\SX@tempa=\input
                                   325
                                   326
                                                       \fi
                                                       \if\SX@scaled ?%
                                   327
```

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 $\label{lem:condition} $$ '\theta = \alpha \theta - \beta . \filename@ext' not found.^^J^^J}\ehd'' $$$ 

```
\let\SX@tempb=\@firstofone
328
          \else
329
            \if\SX@scaled !%
330
              \def\SX@tempb##1{\resizebox{\SX@width}{!}{##1}}%
331
332
            \else
              \def\SX@tempb##1{\scalebox{\SX@scaled}{##1}}%
333
334
            \fi
335
         \fi
          \let\SX@lst@Init=\lst@Init
336
Prevents float environments from floating. This is not enough for floating listing
environments! Why?
337
          \def\@xfloat##1[##2]{%
338
            \def\@captype{##1}%
            \ensuremath{\mbox{Qnamedef{the}\ensuremath{\mbox{Qcaptype}}{0}}\
339
            \@float@HH{##1}[H]}%
340
Special handling of floating listing environments.
         \def\lst@Init{%
341
342
            \let\lst@float=\relax
343
            \setcounter\@captype{-1}%
344
            \SX@lst@Init
345
Typeset the Code.
         \SX@tempb{\SX@tempa{\SX@codefile}}\par
Restore the regular numbering of floats outside of 'LTXexample'.
       \endgroup
347
     \else
348
       \expandafter\includegraphics\expandafter[\SX@graphicparam]%
349
          {\SX@graphicname}%
350
351
     \fi
352 }
353 \newcommand*\SX@codeInput{%
Without a caption entry the command \lstinputlisting adds the filename to
the "list of listings" (lol). This should be avoided.
     \begingroup
The default parameters for all examples.
     \expandafter\lstset\expandafter{\SX@explpreset}%
If "numbers=none" then margin dimensions should be zero.
       \expandafter\lstset\expandafter{\SX@@explpreset}%
356
       \ifx\lst@PlaceNumber\@empty
357
          \g@addto@macro\SX@@explpreset{,xleftmargin=0pt,xrightmargin=0pt}%
358
       \fi
359
       \SX@Info
360
       \expandafter\lstinputlisting\expandafter[\SX@@explpreset,nolol=true,%
361
          caption={},belowskip=\z@,aboveskip=\z@,float=false]{\SX@codefile}%
362
363
     \endgroup
```

\SX@codeInput

364 }%

```
365 \newcommand*\LTXinputExample[2][]{%
366 \g@addto@macro\SX@@explpreset{float=false,#1,codefile=#2}%
367 \SX@put@code@result}%

All the default values.
368 \lstset{explpreset={numbers=left,numberstyle=\tiny,numbersep=.3em,
Negative width means defaults.
369 xleftmargin=1em,columns=flexible,language=[LaTeX]TEX},pos=l,width=-99pt,
370 overhang=0pt,hsep=\columnsep,vsep=\bigskipamount,rframe=single}
.
371 \AtBeginDocument{%
372 \def\theHlstnumber{\thelstlisting.\arabic{lstnumber}.\lst@neglisting}%
373 }
Changing the defaults possible in showexpl.cfg.
374 \InputIfFileExists{showexpl.cfg}{}}
```

## **Change History**

v0.1a	General: "rangeaccept" added	
General: "hpos" and "vpos"	(RN)	3
added, "pos" removed (RN) 3	v0.1k	
Initial version 1	\SX@put@t/b/l/r/o/i: Change	
v0.1b	[a]bove to [t]op (RN). $\dots$	5
\SX@put@t/b/l/r/o/i: Positioning	General: Some bug corrections	
the captions more independend	(RN)	3
of the result and code area	v0.1l	
(RN) 5	General: "graphic" added (RN)	3
v0.1c	v0.1m	
\SX@put@t/b/l/r/o/i: Commands	General: Problem related to	
$\SX@KillAboveCaptionskip$	$\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $	6
and	v0.2a	
$\verb \SX@KillBelowCaptionskip  \\$	General: "varwidth" and	
added (RN) 5	"justification" added (RN)	3
v0.1f	"varwidth" package used (RN)	6
General: "lstpreset" added. (RN). 3	v0.2b	
v0.1h	General: Check if \SX@put@? is	
General: "codefile" added. (RN) 3	defined (RN). $\dots$	6
"lstpreset" renamed to	v0.3a	
"explpreset" (RN) 3	\SX@attachfile: Attach file	
New macro \LTXinputExample	functionality (with $pdfTEX$ )	
$(RN). \dots \dots$	added (RN)	5
Renamed from "example" to	General: "attachfile" added (RN).	3
"LTXexample' (RN) 6	v0.3b	
v0.1i	\SX@resultInput: Input of result	
General: Better caption positioning	code now inside a group;	
and correct distance between	\makeatother $added (RN)$	9
the parts $(RN)$ 6	v0.3c	
v0.1j	\SX@resultInput: Wrong catcode	
\SX@input: For ranges of lines	for newline char corrected	
(RN) 8	(RN)	9

v0.3d	v0.31
\SX@resultInput: Missing \par	\SX@resultInput: Code for
added (RN) 9	"scaled" option (RN) 9
v0.3e	General: Option "scaled" and
\SX@@preset: More redefinitions	\SX@scaled added (RN) 3
added (RN) 4	v0.3m
v0.3g	\SX@put@code@result: Wrong
General: \SX@ProcessResult is	assignement for
now working correctly using	\lst@belowskip (RN) 7
\readline and \scantokens.	v0.3n
Thanks to Ulrich Diez for help	\SX@put@code@result: Use
(RN) 8	\ResultBox 7
Missing \newcommand for	General: Define \ResultBox etc 3
\SX@@explpreset added (RN). 4	Prevent utf8 encoding errors 6
v0.3h	v0.3p
General: New Option 'attachfiles'	\SX@@preset: Remove extra
(RN)	treatment of 'figure'/'table'
v0.3j	(RN) 4
\SX@put@code@result: Setting	\SX@put@code@result: Let's leave
\lst@MakeCaption to was a	\lst@MakeCaption untouched
bad idea for hyperlinks. Group	(RN) 7
added to varwidth	\SX@resultInput: Better handling
environment. (Suggestions by	of floats (RN) 10
Ulrike Fischer.) 7	\isSX@odd: Replace \isodd with
v0.3k	\ifodd\getpagerefnumber
\SX@put@code@result: Setting	(remove package 'ifthen') (RN). 4
$\$ \lst@MakeCaption to \@gobble	General: Remove package 'calc'
again (prevent multiply defined	(RN)
labels; label key) 7	v0.3q
General: Definition for "hyperref"	\SX@resultInput: Floats should
(suggested by Heiko Oberdiek) 11	always be numbered 0 (RN) 10

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