

# The morefloats package

H.-Martin Münch (current maintainer;  
invented by Don Hosek, Quixote)  
<Martin.Muench at Uni-Bonn.de>

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## Abstract

The default limit of unprocessed floats, 18, can be increased with this `morefloats` package. Otherwise, `\clear(double)page`, `h(!)`, `H` from the `float` package, or `\FloatBarrier` from the `picins` package might help.

Note: The main code of this package was invented by  
DON HOSEK, Quixote, 1990/07/27 (Thanks!).  
The current maintainer is H.-MARTIN MÜNCH.

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Save per page about 200 ml water, 2 g CO<sub>2</sub> and 2 g wood:  
Therefore please print only if this is really necessary.

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# 1 Introduction

The default limit of unprocessed floats, 18, can be increased with this `morefloats` package.

“Of course one immediately begins to wonder: »Why eighteen?!« And it turns out that 18 one-line tables with 10 point Computer Modern using `article.cls` produces almost exactly one page worth of material.”

(user <http://tex.stackexchange.com/users/1495/kahen> as comment to <http://http://tex.stackexchange.com/a/35596> on 2011/11/21)

As alternatives (see also section 3 below) `\clear(double)page`, `h(!)`, `H` from the `float` package, or `\FloatBarrier` from the `picins` package might help. If the floats cannot be placed anywhere at all, extending the number of floats will just delay the arrival of the corresponding error.

# 2 Usage

Load the package placing

```
\usepackage[<options>]{morefloats}
```

in the preamble of your  $\LaTeX 2_{\epsilon}$  source file.

The `morefloats` package takes two options: `maxfloats` and `morefloats`, where `morefloats` gives the number of additional floats and `maxfloats` gives the maximum number of floats. `maxfloats=25` therefore means, that there are 18 (default) floats and 7 additional floats. `morefloats=7` therefore has the same meaning. It is only necessary to give one of these two options. At the time being, it is not possible to reduce the number of floats (for example to save boxes). If you have code accomplishing that, please send it to the package maintainer, thanks.

Version 1.0b used a fixed value of `maxfloats=36`. Therefore for backward compatibility this value is taken as the default one.

Example:

```
\usepackage[maxfloats=25]{morefloats}
```

or

```
\usepackage[morefloats=7]{morefloats}
```

or

```
\usepackage[maxfloats=25,morefloats=7]{morefloats}
```

`Float` uses `insert`, and each `insert` use a group of `count`, `dimen`, `skip`, and `box` each. When there are not enough available, no `\newinsert` can be created. The `etex` package provides access at an extended range of those registers, but does not use those for `\newinsert`. Therefore the inserts must be reserved first, which forces the use of the extended register range for other new `count`, `dimen`, `skip`, and `box`: To have more floats available, use `\usepackage{etex}\reserveinserts{...}` right after `\documentclass[...]{...}`, where the argument of `\reserveinserts` should be at least the maximum number of floats. Add another 10 if `bigfoot` or `manyfoot` package is used, but `\reserveinserts` can be about max. 234.

### 3 Alternatives (kind of)

The old `morefloats` with a fixed number of `maxfloats=36` (i.e. 18 `morefloats`) has been archived at: [CTAN:obsolete/macros/latex/contrib/misc/morefloats.sty](http://ctan.org/obsolete/macros/latex/contrib/misc/morefloats.sty).

If you really want to increase the number of (possible) floats, this is the right package. On the other hand, if you ran into trouble of `Too many unprocessed floats`, but would also accept less floats, there are some other possibilities:

- The command `\clearpage` forces  $\LaTeX$  to output any floating objects that occurred before this command (and go to the next page). `\cleardoublepage` does the same but ensures that the next page with output is one with odd page number.
- Using different float specifiers: `t` top, `b` bottom, `p` page of floats.
- Suggesting  $\LaTeX$  to put the object where it was placed: `h` (= here) float specifier.
- Telling  $\LaTeX$  to please put the object where it was placed: `h!` (= here!) float specifier.
- Forcing  $\LaTeX$  to put the object where it was placed and shut up: The `float` package provides the “style option here, giving floating environments a `[H]` option which means ‘PUT IT HERE’ (as opposed to the standard `[h]` option which means ‘You may put it here if you like’)” (`float` package documentation v1.3d as of 2001/11/08). Changing e.g. `\begin{figure}[tbp]...` to `\begin{figure}[H]...` forces the figure to be placed HERE instead of floating away.  
The `float` package, 2001/11/08 v1.3d, is available at [CTAN: http://ctan.org/pkg/float](http://ctan.org/pkg/float)
- The `placeins` package provides the command `\FloatBarrier`. Floats occurring before the `\FloatBarrier` are not allowed to float to a later place, and floats occurring after the `\FloatBarrier` are not allowed to float to an earlier place than the `\FloatBarrier`. (There can be more than one `\FloatBarrier` in a document.)  
The same package also provides an option to add to section headings automatically `\FloatBarriers`. It is further possible to make `\FloatBarriers` less strict (see that package’s documentation).  
The `placeins` package, 2005/04/18 v2.2, is available at [CTAN: http://ctan.org/pkg/placeins](http://ctan.org/pkg/placeins)

See also the following entries in the UK List of TeX Frequently Asked Questions on the Web:

- <http://www.tex.ac.uk/cgi-bin/texfaq2html?label=floats>
- <http://www.tex.ac.uk/cgi-bin/texfaq2html?label=tmupfl>
- <http://www.tex.ac.uk/cgi-bin/texfaq2html?label=figurehere>

and the excellent article on “How to influence the position of float environments like `figure` and `table` in  $\LaTeX$ ?” by FRANK MITTELBACH at [http://tex.stackexchange.com/a/39020!](http://tex.stackexchange.com/a/39020)

(You programmed or found another alternative, which is available at [CTAN](#)?  
 OK, send an e-mail to me with the name, location at [CTAN](#):, and a short notice,  
 and I will probably include it in the list above.)

## 4 Example

```

1 (*example)
2 \documentclass[british]{article}[2007/10/19]% v1.4h
3 %%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
4 \usepackage[maxfloats=19]{morefloats}[2012/01/28]% v1.0f
5 \gdef\unit#1{\mathord{\thinspace\mathrm{#1}}}%
6 \listfiles
7 \begin{document}
8
9 \section*{Example for morefloats}
10 \markboth{Example for morefloats}{Example for morefloats}
11
12 This example demonstrates the use of package\newline
13 \textsf{morefloats}, v1.0f as of 2012/01/28 (HMM; DH).\newline
14 The package takes options (here: \verb|maxfloats=19| is used).\newline
15 For more details please see the documentation!\newline
16
17 To reproduce the\newline
18 \texttt{\LaTeX} Error: Too many unprocessed floats},\newline
19 comment out the \verb|\usepackage...| in the preamble
20 (line~3)\newline
21 (by placing a \% before it).\newline
22
23 \bigskip
24
25 Save per page about $200\unit{ml}$~water, $2\unit{g}$~CO$_{2}$
26 and $2\unit{g}$~wood.\newline
27 Therefore please print only if this is really necessary.\newline
28 I do NOT think, that it is necessary to print THIS file, really!
29
30 \bigskip
31
32 There follow a lot of floating tables.
33
34 \pagebreak
35
36 Here are a lot of floating tables.\newline
37
38 \begin{table}[t] \centering%
39 \begin{tabular}{|l|}
40 \hline
41 A table, which will keep floating.\\ \hline
42 \end{tabular}%
43 \caption{The first Table}%
44 \end{table}%
45
46 \begin{table}[t] \centering%
47 \begin{tabular}{|l|}
48 \hline
49 A table, which will keep floating.\\ \hline

```

```

50 \end{tabular}%
51 \caption{The second Table}%
52 \end{table}%
53
54 \begin{table}[t] \centering%
55 \begin{tabular}{|l|}
56 \hline
57 A table, which will keep floating.\\ \hline
58 \end{tabular}%
59 \caption{The third Table}%
60 \end{table}%
61
62 \begin{table}[t] \centering%
63 \begin{tabular}{|l|}
64 \hline
65 A table, which will keep floating.\\ \hline
66 \end{tabular}%
67 \caption{The fourth Table}%
68 \end{table}%
69
70 \begin{table}[t] \centering%
71 \begin{tabular}{|l|}
72 \hline
73 A table, which will keep floating.\\ \hline
74 \end{tabular}%
75 \caption{The fifth Table}%
76 \end{table}%
77
78 \begin{table}[t] \centering%
79 \begin{tabular}{|l|}
80 \hline
81 A table, which will keep floating.\\ \hline
82 \end{tabular}%
83 \caption{The sixth Table}%
84 \end{table}%
85
86 \begin{table}[t] \centering%
87 \begin{tabular}{|l|}
88 \hline
89 A table, which will keep floating.\\ \hline
90 \end{tabular}%
91 \caption{The seventh Table}%
92 \end{table}%
93
94 \begin{table}[t] \centering%
95 \begin{tabular}{|l|}
96 \hline
97 A table, which will keep floating.\\ \hline
98 \end{tabular}%
99 \caption{The eighth Table}%
100 \end{table}%
101
102 \begin{table}[t] \centering%
103 \begin{tabular}{|l|}
104 \hline
105 A table, which will keep floating.\\ \hline
106 \end{tabular}%
107 \caption{The ninth Table}%

```

```

108 \end{table}%
109
110 \begin{table}[t] \centering%
111 \begin{tabular}{|l|}
112 \hline
113 A table, which will keep floating.\\ \hline
114 \end{tabular}%
115 \caption{The tenth Table}%
116 \end{table}%
117
118 \begin{table}[t] \centering%
119 \begin{tabular}{|l|}
120 \hline
121 A table, which will keep floating.\\ \hline
122 \end{tabular}%
123 \caption{The eleventh Table}%
124 \end{table}%
125
126 \begin{table}[t] \centering%
127 \begin{tabular}{|l|}
128 \hline
129 A table, which will keep floating.\\ \hline
130 \end{tabular}%
131 \caption{The twelfth Table}%
132 \end{table}%
133
134 \begin{table}[t] \centering%
135 \begin{tabular}{|l|}
136 \hline
137 A table, which will keep floating.\\ \hline
138 \end{tabular}%
139 \caption{The thirteenth Table}%
140 \end{table}%
141
142 \begin{table}[t] \centering%
143 \begin{tabular}{|l|}
144 \hline
145 A table, which will keep floating.\\ \hline
146 \end{tabular}%
147 \caption{The fourteenth Table}%
148 \end{table}%
149
150 \begin{table}[t] \centering%
151 \begin{tabular}{|l|}
152 \hline
153 A table, which will keep floating.\\ \hline
154 \end{tabular}%
155 \caption{The fifteenth Table}%
156 \end{table}%
157
158 \begin{table}[t] \centering%
159 \begin{tabular}{|l|}
160 \hline
161 A table, which will keep floating.\\ \hline
162 \end{tabular}%
163 \caption{The sixteenth Table}%
164 \end{table}%
165

```

```

166 \begin{table}[t] \centering%
167 \begin{tabular}{|l|}
168 \hline
169 A table, which will keep floating.\\ \hline
170 \end{tabular}%
171 \caption{The seventeenth Table}%
172 \end{table}%
173
174 \begin{table}[t] \centering%
175 \begin{tabular}{|l|}
176 \hline
177 A table, which will keep floating.\\ \hline
178 \end{tabular}%
179 \caption{The eighteenth Table}%
180 \end{table}%
181
182 \begin{table}[t] \centering%
183 \begin{tabular}{|l|}
184 \hline
185 One floating table too many
186 (without \textsf{morefloats} and appropriate option(s)).\\ \hline
187 \end{tabular}%
188 \caption{The nineteenth Table}%
189 \end{table}%
190
191 \end{document}
192 </example>

```



## 5 The implementation

We start off by checking that we are loading into L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> and announcing the name and version of this package.

```
193 (*package)
194 \NeedsTeXFormat{LaTeX2e}[2011/06/27]
195 \ProvidesPackage{morefloats}[2012/01/28 v1.0f
196         Raise limit of unprocessed floats (HMM; DH)]
197
```

### Options

```
198 \RequirePackage{kvoptions}[2010/12/23]% v3.10
199 %% morefloats may work with earlier versions of LaTeX2e and that
200 %% package, but this was not tested.
201 %% Please consider updating your LaTeX and package
202 %% to the most recent version (if they are not already the most
203 %% recent version).
204
205 \SetupKeyvalOptions{family = morefloats,prefix = morefloats@}
206 \DeclareStringOption{maxfloats}% \morefloats@maxfloats
207 \DeclareStringOption{morefloats}% \morefloats@morefloats
208
209 \ProcessKeyvalOptions*
210
```

The `morefloats` package takes two options: `maxfloats` and `morefloats`, where `morefloats` gives the number of additional floats and `maxfloats` gives the maximum number of floats. `maxfloats=37` therefore means, that there are 18 (default) floats and another 19 additional floats. `morefloats=19` therefore has the same meaning. Version 1.0b used a fixed value of `maxfloats=36`. Therefore for backward compatibility this value will be taken as the default one.

Now we check whether `maxfloats=...` or `morefloats=...` or both were used, and if one option was not used, we supply the value. If no option was used at all, we use the default values.

```
211 \ifx\morefloats@maxfloats\@empty
212   \ifx\morefloats@morefloats\@empty% apply defaults:
213     \gdef\morefloats@maxfloats{36}
214     \gdef\morefloats@morefloats{18}
215   \else
216     \@tempcnta=18\relax%
217     \advance\@tempcnta by \morefloats@morefloats%
218     \xdef\morefloats@maxfloats{\the\@tempcnta}
219   \fi
220 \else
221   \ifx\morefloats@morefloats\@empty
222     \@tempcnta=\morefloats@maxfloats\relax%
223     \advance\@tempcnta by -18%
224     \xdef\morefloats@morefloats{\the\@tempcnta}
225   \fi
226 \fi
227
228 \@tempcnta=\morefloats@maxfloats\relax%
```

If option `maxfloats` is no number, the user will see the according error message here (if not already shown before).

```
229 \edef\morefloats@max{\the\@tempcnta}
230
```

```

231 \ifnum \@tempcnta<18
232   \PackageError{morefloats}{Option maxfloats is \the\@tempcnta<18}{%
233     maxfloats must be a number equal to or larger than 18\MessageBreak%
234     (or not used at all).\MessageBreak%
235     Now setting maxfloats=18.\MessageBreak%
236   }
237   \gdef\morefloats@max{18}
238 \fi
239
240 \@tempcnta=\morefloats@morefloats\relax%

```

If option `morefloats` is no number, the user will see the according error message here.

```

241
242 \edef\morefloats@more{\the\@tempcnta}
243
244 \ifnum \@tempcnta<0
245   \PackageError{morefloats}{Option morefloats is \the\@tempcnta<0}{%
246     morefloats must be a number equal to or larger than 0\MessageBreak%
247     (or not used at all).\MessageBreak%
248     Now setting morefloats=0.\MessageBreak%
249   }
250   \gdef\morefloats@more{0}
251 \fi
252
253 \@tempcnta=18\relax%
254 \advance\@tempcnta by \morefloats@more%

```

The value of `morefloats` should now be equal to the value of `morefloats@max`.

```

255 \advance\@tempcnta by -\morefloats@max%

```

Therefore `\@tempcnta` should now be equal to zero.

```

256 \edef\morefloats@mx{\the\@tempcnta}
257 \ifnum \morefloats@mx=0% OK
258   \@tempcnta=\morefloats@maxfloats\relax
259 \else
260   \PackageError{morefloats}{%
261     Clash between options maxfloats and morefloats}{%
262     Option maxfloats must be empty\MessageBreak%
263     or the sum of 18 and option value morefloats,\MessageBreak%
264     but it is maxfloats=\morefloats@maxfloats \space and %
265     morefloats=\morefloats@morefloats .\MessageBreak%
266   }

```

We choose the larger value to be used.

```

267   \ifnum \@tempcnta<0% \morefloats@max > \morefloats@more
268     \@tempcnta=\morefloats@maxfloats\relax%
269   \else% \@tempcnta>0, \morefloats@max < \morefloats@more
270     \@tempcnta=18\relax%
271     \advance\@tempcnta by \morefloats@morefloats%
272   \fi
273 \fi
274
275 \edef\morefloats@mx{\the\@tempcnta}
276

```

Float uses `insert`, and each `insert` use a group of `count`, `dimen`, `skip`, and `box` each. When there are not enough available, no `\newinsert` can be created.

```

277 %% similar to Heiko Oberdiek, http://permalink.gmane.org/gmane.comp.tex.latex.latex3/2159
278 \tempcnta=\the\count10 \relax \def\maxfloats@vln{count} %
279 \ifnum \count11>\tempcnta \tempcnta=\the\count11 \relax \def\maxfloats@vln{dimen} \fi
280 \ifnum \count12>\tempcnta \tempcnta=\the\count12 \relax \def\maxfloats@vln{skip} \fi
281 \ifnum \count14>\tempcnta \tempcnta=\the\count14 \relax \def\maxfloats@vln{box} \fi
282 %% end similar
283 \ifpackageloaded{etex}{\tempcntb=\et@xins\relax}{\tempcntb=234\relax}
284 \advance\tempcntb by -\tempcnta%
285 \tempcnta=\tempcntb\relax
286 \advance\tempcntb by +18% reserved by default
287
288 \ifnum \morefloats@mx>\tempcntb \relax
289 \ifpackageloaded{etex}{%
290 \PackageError{morefloats}{Too many floats requested}{%
291 Maximum number of possible floats asked for: \morefloats@mx .\MessageBreak%
292 There are only \the\tempcnta\space regular \maxfloats@vln\space left,\MessageBreak%
293 therefore only \the\tempcntb\space floats will be possible.\MessageBreak%
294 To have more floats available, use\MessageBreak%
295 \string\usepackage{etex}\MessageBreak%
296 \@backslashchar reserveinserts{...}\MessageBreak%
297 right after \string\documentclass[...]{...},\MessageBreak%
298 where the argument of \@backslashchar reserveinserts should be\MessageBreak%
299 at least \morefloats@mx\space (plus 10 if bigfoot or manyfoot package is used;\MessageBreak%
300 but \@backslashchar reserveinserts < about 234).\MessageBreak%
301 }
302 }{
303 \PackageError{morefloats}{Too many floats requested}{%
304 Maximum number of possible floats asked for: \morefloats@mx .\MessageBreak%
305 There are only \the\tempcnta\space \maxfloats@vln\space left,\MessageBreak%
306 therefore only \the\tempcntb\space floats will be possible.\MessageBreak%
307 Reduce the number of used \maxfloats@vln\space to have more floats available!\MessageBreak%
308 (Or load the etex package before the morefloats package.)\MessageBreak%

```

```

309   }
310   }
311   \gdef\morefloats@mx{\the\@tempcntb}%
312   \else
313   \PackageInfo{morefloats}{%
314     Maximum number of possible floats asked for: \morefloats@mx .\MessageBreak%
315     LaTeX might run out of memory before this.\MessageBreak%
316     (in which case it will notify you).\MessageBreak%
317   }
318   \fi
319

```

The task at hand is to increase L<sup>A</sup>T<sub>E</sub>X's default limit of 18 unprocessed floats in memory at once to `maxfloats`. An examination of `latex.tex` reveals that this is accomplished by allocating (!) an insert register for each unprocessed float. A quick check of (the obsolete, now `lplain`, update to L<sup>A</sup>T<sub>E</sub>X2e!) `lplain.lis` reveals that there is room, in fact, for up to 256 unprocessed floats, but T<sub>E</sub>X's main memory could be exhausted well before that happened.

12

L<sup>A</sup>T<sub>E</sub>X2e uses a `\dimen` for each `\newinsert`, and the number of `\dimens` is also restricted. Therefore only use the number of floats you need! To check the number of used registers, you could use the `regstats` and/or `regcount` packages (see subsection 6.1).

Allocating insert  
registers  
@freelist  
@elt  
newinsert

First we allocate the additional insert registers needed.

That accomplished, the next step is to define the macro `\@freelist`, which is merely a list of the box registers each preceded by `\@elt`. This approach allows processing of the list to be done far more efficiently. A similar approach is used by MITTELBACH & SCHÖPF's `doc.sty` to keep track of control sequences, which should not be indexed.

First for the 18 default L<sup>A</sup>T<sub>E</sub>X boxes.

`\ifnum maxfloats <= 18, LATEX already allocated the insert registers. \fi`

```

320 \global\long\def\@freelist{\@elt\bx@A\@elt\bx@B\@elt\bx@C\@elt\bx@D\@elt\bx@E\@elt\bx@F\@elt\bx@G\@elt\bx@H\@elt\
321 \bx@I\@elt\bx@J\@elt\bx@K\@elt\bx@L\@elt\bx@M\@elt\bx@N\@elt\bx@O\@elt\bx@P\@elt\bx@Q\@elt\bx@R}
322

```

Now we need to add `\@elt\bx@...` depending on the number of `morefloats` wanted:  
(KARL BERRY helped with two out of three `\expandafters`, thanks!)

```
323 \ifnum \morefloats@mx> 18 \newinsert\bx@S \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@S}
324 \ifnum \morefloats@mx> 19 \newinsert\bx@T \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@T}
325 \ifnum \morefloats@mx> 20 \newinsert\bx@U \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@U}
326 \ifnum \morefloats@mx> 21 \newinsert\bx@V \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@V}
327 \ifnum \morefloats@mx> 22 \newinsert\bx@W \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@W}
328 \ifnum \morefloats@mx> 23 \newinsert\bx@X \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@X}
329 \ifnum \morefloats@mx> 24 \newinsert\bx@Y \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@Y}
330 \ifnum \morefloats@mx> 25 \newinsert\bx@Z \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@Z}
331 \ifnum \morefloats@mx> 26 \newinsert\bx@AA \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AA}
332 \ifnum \morefloats@mx> 27 \newinsert\bx@AB \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AB}
333 \ifnum \morefloats@mx> 28 \newinsert\bx@AC \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AC}
334 \ifnum \morefloats@mx> 29 \newinsert\bx@AD \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AD}
335 \ifnum \morefloats@mx> 30 \newinsert\bx@AE \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AE}
336 \ifnum \morefloats@mx> 31 \newinsert\bx@AF \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AF}
337 \ifnum \morefloats@mx> 32 \newinsert\bx@AG \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AG}
338 \ifnum \morefloats@mx> 33 \newinsert\bx@AH \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AH}
339 \ifnum \morefloats@mx> 34 \newinsert\bx@AI \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AI}
340 \ifnum \morefloats@mx> 35 \newinsert\bx@AJ \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AJ}
341 \ifnum \morefloats@mx> 36 \newinsert\bx@AK \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AK}
342 \ifnum \morefloats@mx> 37 \newinsert\bx@AL \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AL}
343 \ifnum \morefloats@mx> 38 \newinsert\bx@AM \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AM}
344 \ifnum \morefloats@mx> 39 \newinsert\bx@AN \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AN}
345 \ifnum \morefloats@mx> 40 \newinsert\bx@AO \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AO}
346 \ifnum \morefloats@mx> 41 \newinsert\bx@AP \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AP}
347 \ifnum \morefloats@mx> 42 \newinsert\bx@AQ \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AQ}
348 \ifnum \morefloats@mx> 43 \newinsert\bx@AR \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AR}
349 \ifnum \morefloats@mx> 44 \newinsert\bx@AS \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AS}
350 \ifnum \morefloats@mx> 45 \newinsert\bx@AT \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AT}
351 \ifnum \morefloats@mx> 46 \newinsert\bx@AU \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@AU}
```















544 \ifnum \morefloats@mx>239 \newinsert\bx@IF \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@IF}  
545 \ifnum \morefloats@mx>240 \newinsert\bx@IG \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@IG}  
546 \ifnum \morefloats@mx>241 \newinsert\bx@IH \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@IH}  
547 \ifnum \morefloats@mx>242 \newinsert\bx@II \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@II}  
548 \ifnum \morefloats@mx>243 \newinsert\bx@IJ \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@IJ}  
549 \ifnum \morefloats@mx>244 \newinsert\bx@IK \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@IK}  
550 \ifnum \morefloats@mx>245 \newinsert\bx@IL \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@IL}  
551 \ifnum \morefloats@mx>246 \newinsert\bx@IM \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@IM}  
552 \ifnum \morefloats@mx>247 \newinsert\bx@IN \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@IN}  
553 \ifnum \morefloats@mx>248 \newinsert\bx@IO \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@IO}  
554 \ifnum \morefloats@mx>249 \newinsert\bx@IP \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@IP}  
555 \ifnum \morefloats@mx>250 \newinsert\bx@IQ \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@IQ}  
556 \ifnum \morefloats@mx>251 \newinsert\bx@IR \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@IR}  
557 \ifnum \morefloats@mx>252 \newinsert\bx@IS \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@IS}  
558 \ifnum \morefloats@mx>253 \newinsert\bx@IT \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@IT}  
559 \ifnum \morefloats@mx>254 \newinsert\bx@IU \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@IU}  
560 \ifnum \morefloats@mx>255 \newinsert\bx@IV \expandafter\gdef\expandafter\@freelist\expandafter{\@freelist \@elt\bx@IV}

```

561 \ifnum \morefloats@mx>256
562   \PackageError{morefloats}{Too many floats called for}{%
563     You requested more than 256 floats.\MessageBreak%
564     (\morefloats@mx\space to be precise.)\MessageBreak%
565     According to my knowledge, LaTeX cannot process\MessageBreak%
566     more than 256 floats, therefore the morefloats\MessageBreak%
567     package only provides 256 floats.\MessageBreak%
568     If you really need more floats,\MessageBreak%
569     maybe ask a wizard to increase this number.\MessageBreak%
570     (I expected LaTeX to run out of dimensions or memory\MessageBreak%
571     \space long before reaching this anyway.)\MessageBreak%
572   }
573 \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi
574 \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi
575 \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi
576 \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi
577 \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi
578 \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi
579 \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi
580 \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi
581 \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi
582 \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi
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584 \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi
585 \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi \fi
586 \fi \fi \fi \fi \fi
587
588 \end{package}

```

## 6 Installation

### 6.1 Downloads

Everything is available on CTAN: <http://www.ctan.org/tex-archive/>, but may need additional packages themselves.

`morefloats.dtx` For unpacking the `morefloats.dtx` file and constructing the documentation it is required:

- T<sub>E</sub>XFormat L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub>: <http://www.CTAN.org/>
- document class `ltxdoc`, 2007/11/11, v2.0u,  
[CTAN:macros/latex/base/ltxdoc.dtx](http://www.ctan.org/macros/latex/base/ltxdoc.dtx)
- package `fontenc`, 2005/09/27, v1.99g, <http://ctan.org/pkg/fontenc>
- package `pdflscape`, 2008/08/11, v0.10, <http://ctan.org/pkg/pdflscape>
- package `holtxdoc`, 2011/02/04, v0.21, <http://ctan.org/pkg/holtxdoc>
- package `hypdoc`, 2010/03/26, v1.9, <http://ctan.org/pkg/hypdoc>

`morefloats.sty` The `morefloats.sty` for L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub> (i.e. each document using the `morefloats` package) requires:

- T<sub>E</sub>XFormat L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub>, <http://www.CTAN.org/>
- package `kvoptions`, 2010/12/23, v3.10, <http://ctan.org/pkg/kvoptions>

`regstats` To check the number of used registers it was mentioned:

`regcount`

- package `regstats`, 2012/01/07, v1.0h, <http://ctan.org/pkg/regstats>
- package `regcount`, 1999/08/03, v1.0, <http://ctan.org/pkg/regcount>

`Oberdiek` All packages of HEIKO OBERDIEK's bundle 'oberdiek' (especially `holtxdoc`, `hyp-`  
`holtxdoc` doc, and `kvoptions`) are also available in a TDS compliant ZIP archive:

`hypdoc`

[CTAN:install/macros/latex/contrib/oberdiek.tds.zip](http://www.ctan.org/install/macros/latex/contrib/oberdiek.tds.zip).

It is probably best to download and use this, because the packages in there are quite probably both recent and compatible among themselves.

`hyperref` `hyperref` is not included in that bundle and needs to be downloaded separately,

<http://mirror.ctan.org/install/macros/latex/contrib/hyperref.tds.zip>.

**Münch** A hyperlinked list of my (other) packages can be found at <http://www.Uni-Bonn.de/~uzs5pv/LaTeX.html>.

### 6.2 Package, unpacking TDS

**Package.** This package is available on CTAN:

[CTAN:macros/latex/contrib/morefloats/morefloats.dtx](http://www.ctan.org/macros/latex/contrib/morefloats/morefloats.dtx)

The source file.

[CTAN:macros/latex/contrib/morefloats/morefloats.pdf](http://www.ctan.org/macros/latex/contrib/morefloats/morefloats.pdf)

The documentation.

[CTAN:macros/latex/contrib/morefloats/README](#)

The README file.

There is also a `morefloats.tds.zip` available:

[CTAN:install/macros/latex/contrib/morefloats.tds.zip](#)

Everything in TDS compliant, compiled format.

which additionally contains

<code>morefloats.ins</code>	The installation file.
<code>morefloats.drv</code>	The driver to generate the documentation.
<code>morefloatss.sty</code>	The <code>.style</code> file.
<code>morefloats-example.tex</code>	The example file.
<code>morefloats-example.pdf</code>	The compiled example file.

For required other packages, see the preceding subsection.

**Unpacking.** The `.dtx` file is a self-extracting `docstrip` archive. The files are extracted by running the `.dtx` through plain `TEX`:

```
tex morefloats.dtx
```

About generating the documentation see paragraph 6.4 below.

**TDS.** Now the different files must be moved into the different directories in your installation TDS tree (also known as `texmf` tree):

<code>morefloats.sty</code>	→ <code>tex/latex/morefloats/morefloats.sty</code>
<code>morefloats.pdf</code>	→ <code>doc/latex/morefloats/morefloats.pdf</code>
<code>morefloats-example.tex</code>	→ <code>doc/latex/morefloats/morefloats-example.tex</code>
<code>morefloats-example.pdf</code>	→ <code>doc/latex/morefloats/morefloats-example.pdf</code>
<code>morefloats.dtx</code>	→ <code>source/latex/morefloats/morefloats.dtx</code>

If you have a `docstrip.cfg` that configures and enables `docstrip`'s TDS installing feature, then some files can already be in the right place, see the documentation of `docstrip`.

### 6.3 Refresh file name databases

If your `TEX` distribution (`teTEX`, `mikTEX`,...) relies on file name databases, you must refresh these. For example, `teTEX` users run `texhash` or `mktextlsr`.

### 6.4 Some details for the interested

**Unpacking with L<sup>A</sup>T<sub>E</sub>X.** The `.dtx` chooses its action depending on the format:

**plain T<sub>E</sub>X:** Run `docstrip` and extract the files.

**L<sup>A</sup>T<sub>E</sub>X:** Generate the documentation.

If you insist on using L<sup>A</sup>T<sub>E</sub>X for `docstrip` (really, `docstrip` does not need L<sup>A</sup>T<sub>E</sub>X), then inform the `autodetect` routine about your intention:

```
latex \let\install=y\input{morefloats.dtx}
```

Do not forget to quote the argument according to the demands of your shell.

**Generating the documentation.** You can use both the `.dtx` or the `.drv` to generate the documentation. The process can be configured by a configuration file `ltxdoc.cfg`. For instance, put the following line into this file, if you want to have A4 as paper format:

```
\PassOptionsToClass{a4paper}{article}
```

An example follows how to generate the documentation with pdf $\LaTeX$ :

```
pdflatex morefloats.dtx
makeindex -s gind.ist morefloats.idx
pdflatex morefloats.dtx
makeindex -s gind.ist morefloats.idx
pdflatex morefloats.dtx
```

## 6.5 Compiling the example

The example file, `morefloats-example.tex`, can be compiled via  
`(pdf)(la)tex morefloats-example.tex`.

## 7 Acknowledgements

The main code of this package was invented by  
DON HOSEK, Quixote, 1990/07/27.

I (H.-MARTIN MÜNCH) would like to thank DON HOSEK for his work. Further I would like to thank KARL BERRY for helping with taking over the maintainership of this package and two missing `\expandafters`, HEIKO OBERDIEK for providing a lot (!) of useful packages (from which I also got everything I know about creating a file in `dtx` format, ok, say it: copying), everybody of the **CTAN:** team for managing **CTAN:**, and the `news:comp.text.tex` and `news:de.comp.text.tex` newsgroups for their help in all things  $\TeX$ .

## 8 History

### [1990/07/27 v1.0a]

- Created by DON HOSEK.

### [2008/11/14 v1.0b]

- CLEA F. REES added a license line.

### [2010/09/20 v1.0c]

- `.dtx` created by H.-MARTIN MÜNCH.
- Included more documentation and alternatives.
- Included options to allow the user to flexible choose the number of floats from 18 up to 266 [mistake: 256] instead of fixed 36.
- Included an example file.
- Created a `README` file.



## [2011/02/01 v1.0d]

- References to <http://www.tex.ac.uk/cgi-bin/texfaq2html?label=figurehere> and [CTAN:obsolete/macros/latex/contrib/misc/morefloats.sty](http://CTAN:obsolete/macros/latex/contrib/misc/morefloats.sty) added.
- Now using the `lscape` package from the `graphics` bundle to print some pages of the documentation in landscape instead of portrait mode, because they were way too wide. (*Since v1.0e replaced by `pdfscape` package.*)
- Replaced the list of my packages with a link to web page list of those, which has the advantage of showing the recent versions of all those packages.
- Updated the version of the `hyperref` package. (*Since version 1.0e the `morefloats` package uses a fixed version of the `holtxdoc` package, which calls for the right version of the `hyperref` package, therefore it is no longer necessary to give the recent version of the `hyperref` package here.*)
- Minor details.

## [2011/07/10 v1.0e]

- There is a new version of the used `kvoptions` package.
- Now using the `pdfscape` package instead of the `lscape` package in the documentation.
- The `holtxdoc` package was fixed (recent: 2011/02/04, v0.21), therefore the warning in `drv` could be removed. – Adapted the style of this documentation to new OBERDIEK `dtx` style.
- Some details.

## [2012/01/28 v1.0f]

- Bug fix: wrong path given in the documentation, fixed.
- Replaced `\global\edef` by `\xdef`.
- No longer uses a counter for itself but temporary ones. (For the floats of course inserts and therefore counts are still used.)
- The number of available inserts is checked before the allocation.
- Maximum number of floats/inserts is 256, not 266; corrected.
- Quite some additional changes in the `dtx` and README files.

When you find a mistake or have a suggestion for an improvement of this package, please send an e-mail to the maintainer, thanks! (Please see BUG REPORTS in the README.)

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