

The `tabularht` package

Heiko Oberdiek
<oberdiek@uni-freiburg.de>

2006/12/22 v2.3

Abstract

This package defines some environments that adds a height specification to `tabular` and `array`.

Contents

1	Usage	1
1.1	Option <code>vlines</code>	2
1.2	Limitations	3
1.3	Compatibility	3
1.4	Examples	3
1.4.1	Example 1	3
1.4.2	Example 2	3
2	Implementation	4
2.1	Environments	4
2.2	Options	6
2.3	Option <code>vlines</code> , driver independent stuff	7
2.4	Driver <code>pdftex</code>	7
2.5	DVI drivers	10
3	Installation	13
3.1	Some details for the interested	13
4	History	14
	[2005/09/22 v1.0]	14
	[2005/10/16 v2.0]	14
	[2005/10/18 v2.1]	14
	[2006/02/20 v2.2]	14
	[2006/12/22 v2.3]	14
5	Index	15

1 Usage

```
\usepackage{tabularht}
```

The package provides the following environments that extend the `tabular/array` environment by a height specification as first argument:

- `tabularht`, `tabularht*`
- `arrayht`
- `tabularhtx` (if package `tabularx` is loaded)

The height argument allows a length specification, package `calc` is supported if used. This means, the tabular will have the specified height. You can also use the prefixes `to=` and `spread=`. `to=` is the default, `spread=` means, the natural height of the tabular box is changed by the length after `spread=`.

Examples:

```
\begin{tabularht}{1in}      → height is 1in
\begin{tabularht}{to=1in}   → height is 1in
\begin{tabularht}{spread=0pt} → natural height, same as \begin{tabular}
\begin{tabularht}{spread=1in} → natural height increased by 1in
```

Hint: See also package `tabularkv`, it provides an interface, where most parameters for the environments can be given by key-value pairs.

`\interrowspace{...}`

Adds space between table rows. It is essentially the same as `\noalign{\vspace{...}}`.

`\interrowfill`

Short for `\interrowspace{\fill}`

`\interrowstart... \interrowstop`

Marker commands, useful for option `vlines`.

1.1 Option `vlines`

Warning: This stuff is experimental.

Vertical lines are interrupted, if space is inserted in `\noalign`, `\interrowspace`, `\addlinespace` (`booktabs`), between double `\hlines`. This option tries to detect and add the vertical lines. The lines in a tabular with `tabularht` support (environments of this package) are numbered from left to right. The gap that is controlled by `\interrowspace` or inbetween `\interrowstart` and `\interrowstop` is then filled with the detected vertical lines.

If only a limited selection of the lines should be drawn, the commands know an optional argument with a list of line numbers, e.g.

```
\begin{tabularht}{50mm}{|1|1|}
  Hello & World\\
  \interrowfill[1,3]
  Foo & Bar
\end{tabularht}
```

There are three lines, but the middle line is not drawn in the gap between the first and second row. Zero can be used to suppress all lines:

```
\interrowspace[0]{10mm}
```

The syntax of the commands with the optional argument with the line number list $\langle list \rangle$. $\langle list \rangle$ is a comma separated list of numbers, $\langle height \rangle$ means the height specification described above with the optional prefixes `to=` or `spread=`.

```
\interrowspace [\langle list \rangle] {\langle height \rangle}
\interrowfill  [\langle list \rangle]
\interrowstart [\langle list \rangle] ... \interrowstop
```

Option `vlines` is driver dependent and uses ε -TeX features.

pdfTeX: pdfTeX in PDF mode. Here the positions of the lines are written with the help of the `\pdfsavepos` feature into the `.aux` file(s). Therefore you need two LaTeX runs to get the lines.

dvips: Here, PostScript's `currentpoint` is used to get the line positions. The lines are then drawn at the end of the page. Thus one LaTeX/dvips run is sufficient for this option.

Other drivers:

PostScript drivers: probably possible, an end of page hook would be nice.

VT_EX: with GeX (PostScript interpreter) probably possible.

dvipdfm: no idea. The big problem is, how to get the current position?

1.2 Limitations

- Vertical lines are interrupted by `\noalign{\vfill}`.

1.3 Compatibility

- `array`, `delarray`, `tabularx` are supported.
- There can be problems with packages that redefine `\@array` (or `\@@array`, `\@tabarray`) and `\@arrayrule` (for option `vlines`).
- `colortbl`: it should at least work, but there isn't support for filling the gaps with color, neither the rules nor the backgrounds.

1.4 Examples

1.4.1 Example 1

```

1 \documentclass{article}
2 \documentclass{article}
3 \usepackage{tabularht}
4
5 \begin{document}
6 \fbox{%
7   \begin{tabularht*}{1in}{4in}{@{}l@{\extracolsep{\fill}}r@{}}
8     upper left corner & upper right corner\\%
9     \noalign{\vfill}%
10    \multicolumn{2}{@{}c@{}}{bounding box}\\
11    \noalign{\vfill}%
12    lower left corner & lower right corner\\
13  \end{tabularht*}%
14 }
15 \end{document}
16 \end{example1}
```

1.4.2 Example 2

```

17 \documentclass{article}
18 \documentclass{article}
19 \usepackage{booktabs}
20 \usepackage[dvips,vlines]{tabularht}
21
22 \begin{document}
23
24 \begin{tabularht}{spread=0pt}{|l|l|}
25   \hline
26   First&Line\\
27   \hline
28 \interrowstart
```

```

29 \addlinespace[10mm]
30 \interrowstop
31 \hline
32 Second&Line\\
33 \interrowstart
34 \hline
35 \hline
36 \interrowstop
37 Third&Line\\
38 \hline
39 \interrowspace{10mm}
40 \hline
41 Fourth&Line\\
42 \hline
43 \end{tabularht}
44
45 \end{document}
46 \end{example2}

```

2 Implementation

```

47 (*package)

```

Package identification.

```

48 \NeedsTeXFormat{LaTeX2e}
49 \ProvidesPackage{tabularht}%
50 [2006/12/22 v2.3 Tabular with height specification (H0)]

```

2.1 Environments

```

51 \let\toarrayheight\@empty
52 \let\tabH@array@init\@empty
53
54 \toks@={%
55   \begingroup
56     \long\def\x#1\center\fi\fi\bgroup#2\@sharp#3#4\@nil{%
57       \endgroup
58       \gdef\@array[##1]##2{%
59         \tabH@array@init
60         #1%
61         \center\fi\fi
62         \@toarrayheight
63         \bgroup
64         \let\toarrayheight\@empty
65         #2\@sharp###3#4%
66       }%
67     }%
68   \expandafter\x\@array[#1]{#2}\@nil
69 }
70 \edef\tabH@patch@array{\the\toks@}
71 \def\tabH@patch@@array{%
72   \ifx\@array\@array
73     \def\reserved@a{\let\@array\@array}%
74   \else
75     \let\reserved@a\relax
76   \fi
77   \tabH@patch@array
78   \reserved@a
79 }
80 \tabH@patch@@array
81
82 \@ifpackageloaded{array}{\{%
83   \AtBeginDocument{%
84     \@ifpackageloaded{array}{\%

```

```

85     \tabH@patch@@array
86   }{}%
87 }%
88 }
89
90 \def\tabH@setheight#1{%
91 \tracingmacros=1
92 \tabH@@setheight#1==\@nil
93 }
94 \def\tabH@@setheight#1=#2=#3\@nil{%
95   \ifx\#2#3\\%
96     \setlength{\dimen@}{#1}%
97     \edef\t@arrayheight{to\the\dimen@}%
98   \else
99     \edef\tabH@temp{\zap@space#1 \@empty}%
100    \ifx\tabH@temp\tabH@to
101    \else
102      \ifx\tabH@temp\tabH@spread
103      \else
104        \PackageError{tabularht}{%
105          Unknown height specifier %
106          '\expandafter\strip@prefix\meaning\tabH@temp'%
107        }{%
108          The height dimension for tabular height can be prefixed%
109          \MessageBreak
110          with 'to=' or 'spread=', default is 'to='.%
111        }%
112        \let\tabH@temp\tabH@to
113      \fi
114    \fi
115    \setlength{\dimen@}{#2}%
116    \edef\t@arrayheight{\tabH@temp\the\dimen@}%
117  \fi
118 }
119 \def\tabH@to{to}
120 \def\tabH@spread{spread}

First argument is the height of the table, then the original arguments for tabular
follow.
121 \newenvironment{tabularht}[1]{%
122   \tabH@setheight{#1}%
123   \tabular
124 }{%
125   \endtabular
126 }
127
128 \newenvironment{tabularht*}[1]{%
129   \tabH@setheight{#1}%
130   \@nameuse{tabular*}%
131 }{%
132   \@nameuse{endtabular*}%
133 }
134
135 \newenvironment{tabularhtx}[1]{%
136   \tabH@setheight{#1}%
137   \tabularx
138 }{%
139   \endtabularx
140 }
141
142 \newenvironment{arrayht}[1]{%
143   \tabH@setheight{#1}%
144   \array

```

```

145 }{%
146   \endarray
147 }
148
149 \def\interrowSPACE{%
150   \noalign\bgroup
151     \tabH@interrowSPACE
152 }
153 \newcommand*{\tabH@interrowSPACE}[2] [] {%
154   \tabH@vSPACE{#1}{#2}%
155   \egroup
156 }
157 \def\interrowFILL{%
158   \noalign\bgroup
159     \tabH@interrowFILL
160 }
161 \newcommand*{\tabH@interrowFILL}[1] [] {%
162   \tabH@vSPACE{#1}{\fill}%
163   \egroup
164 }
165 \def\tabH@vSPACE#1#2{%
166   \tabH@vSPACE@start{#1}%
167   \vSPACE{#2}%
168   \tabH@vSPACE@stop
169 }
170 \let\tabH@vSPACE@start\@gobble
171 \let\tabH@vSPACE@stop\@empty
172
173 \newcommand*{\interrowSTART}{%
174   \noalign\bgroup
175     \tabH@interrowSTART
176 }
177 \newcommand*{\tabH@interrowSTART}[1] [] {%
178   \tabH@vSPACE@start{#1}%
179   \egroup
180 }
181 \newcommand*{\interrowSTOP}{%
182   \noalign{\tabH@vSPACE@stop}%
183 }

```

2.2 Options

```

184 \providecommand*{\tabH@driver}{}
185
186 \DeclareOption{vlines}{%
187   \let\tabH@temp\relax
188 }
189 \DeclareOption{pdftex}{}
190 \DeclareOption{dvips}{%
191   \def\tabH@driver{dvips}%
192 }
193 \ProcessOptions*\relax
194
195 \ifx\tabH@temp\relax
196 \else
197   \expandafter\endinput
198 \fi
199
200 \begingroup
201   \@ifundefined{eTeXversion}{%
202     \PackageError{tabularht}{%
203       Option 'vlines' requires eTeX%
204     }{%

```

```

205      Use of eTeX is recommended for LaTeX, see ltnews16.%
206    }%
207  \endgroup
208  \endinput
209 }{}%
210 \endgroup

```

2.3 Option vlines, driver independent stuff

```

211 \newcounter{tabH@unique}
212 \setcounter{tabH@unique}{0}
213 \let\tabH@currenttab\@empty
214
215 \def\tabH@array@init{%
216   \ifx\@toarrayheight\@empty
217     % ignore vertical lines of nested tabular environments
218     \let\tabH@currenttab\@empty
219   \else
220     \stepcounter{tabH@unique}%
221     \edef\tabH@currenttab{\the\c@tabH@unique}%
222   \fi
223 }
224
225 \renewcommand*{\@arrayrule}{%
226   \@addtopreamble{%
227     \hskip -.5\arrayrulewidth
228     \ifx\tabH@currenttab\@empty
229       \else
230         \tabH@vrule{\tabH@currenttab}%
231       \fi
232     \begingroup
233       \expandafter\ifx\csname CT@arc@\endcsname\relax
234       \else
235         \expandafter\CT@arc@
236       \fi
237     \vline
238   \endgroup
239   \hskip -.5\arrayrulewidth
240 }%
241 }
242 \let\tabH@arrayrule\@arrayrule
243 \AtBeginDocument{%
244   \@ifpackageloaded{colortbl}{%
245     \let\@arrayrule\tabH@arrayrule
246   }{}%
247 }
248
249 \let\tabH@vrule\@gobble

```

2.4 Driver pdftex

```

250 \RequirePackage{ifpdf}
251 \ifpdf
252   \begingroup
253     \@ifundefined{pdfsavepos}{%
254       \PackageError{tabularht}{%
255         Your pdfTeX is too old%
256       }{%
257         \string\pdfsavepos\space is missing.%
258       }%
259     \endgroup
260     \csname fi\endcsname
261   \endinput
262 }{}%

```

```

263
264 \let\on@line\@empty
265 \PackageInfo{tabularht}{%
266 Using driver 'pdftex' because of pdfTeX in PDF mode%
267 }%
268 \endgroup
269
270 \protected\def\tabH@vrule#1{%
271 \if@filesw
272 \pdfsavepos
273 \protected@write\@auxout{%
274 \let\tabH@lastxpos\relax
275 }{%
276 \tabH@aux@vrule{#1}{\tabH@lastxpos}%
277 }%
278 \fi
279 }
280
281 \def\tabH@lastxpos{\the\pdflastxpos}
282 \def\tabH@lastypos{\the\pdflastypos}
283
284 % The .aux file contains three commands:
285 % \tabH@aux@vrule{tabular id}{x position}
286 % \tabH@aux@vstart{tabular id}{row id}{x position}{y position}
287 % \tabH@aux@vstop{y position}
288 %
289 \AtBeginDocument{%
290 % The .aux files are read the first time before
291 % \AtBeginDocument and later at \end{document}.
292 % \tabH@aux@done is a marker to distinguish
293 % between these two readings. Only in the first
294 % case we need the \tabH@aux@... commands.
295 \let\tabH@aux@done\@empty
296 \if@filesw
297 \immediate\write\@mainaux{%
298 \@percentchar\@percentchar BeginProlog: tabularht
299 }%
300 % items in the aux file are executed,
301 % if tabularht is loaded
302 % and during the aux file read at \begin{document} only
303 \immediate\write\@mainaux{%
304 \detokenize{%
305 % the \tabH@aux@... commands are needed only if
306 % tabularht is loaded with driver pdftex.
307 \@ifundefined{tabH@aux@vrule}\@secondoftwo\@firstofone
308 {%
309 % disable commands except for the first .aux files reading
310 \@ifundefined{tabH@aux@done}\@gobble\@firstofone
311 }%
312 {%
313 \let\tabH@aux@vrule\@gobbletwo
314 \let\tabH@aux@vstart\@gobblefour
315 \let\tabH@aux@vstop\@gobble
316 }%
317 }%
318 }%
319 \immediate\write\@mainaux{%
320 \@percentchar\@percentchar EndProlog: tabularht
321 }%
322 \fi
323 }
324

```



```

325 % the x positions of vrules are stored in
326 % \tabH@<tabcount>list with distinct values
327 \protected\def\tabH@aux@vrule#1#2{%
328   \@ifundefined{tabH@#1list}{%
329     \expandafter\xdef\csname tabH@#1list\endcsname{%
330       \noexpand\do{#2}}%
331   }%
332 }{%
333   \begingroup
334     \def\x{#2}%
335     \let\y\@undefined
336     \let\do\tabH@do@add
337     \expandafter\xdef\csname tabH@#1list\endcsname{%
338       \csname tabH@#1list\endcsname\@empty
339       \ifx\y\@undefined
340         \noexpand\do{\x}%
341       \fi
342     }%
343   \endgroup
344 }%
345 }
346 \def\tabH@do@add#1{%
347   \ifx\y\@undefined
348     \ifnum#1<\x\space
349   \else
350     \expandafter\ifx\csname y\endcsname\relax\fi
351     \ifnum#1>\x\space
352     \noexpand\do{\x}%
353   \fi
354   \fi
355   \fi
356   \noexpand\do{#1}%
357 }
358
359 \def\tabH@vspace@start#1{%
360   \if@filesw
361     \stepcounter{tabH@unique}%
362     \edef\tabH@currentrow{\the\c@tabH@unique}%
363     \pdfsavepos
364     \protected@write\@auxout{%
365       \let\tabH@lastxpos\relax
366       \let\tabH@lastypos\relax
367     }{%
368       \tabH@aux@vstart{\tabH@currenttab}{\tabH@currentrow}%
369       {\tabH@lastxpos}{\tabH@lastypos}%
370     }%
371   \fi
372   \begingroup
373     \edef\@{tabH@\tabH@currenttab row\tabH@currentrow}%
374     \expandafter\let\expandafter\x\csname@a x\endcsname
375     \ifx\x\relax
376     \else
377       \expandafter\let\expandafter\y\csname@a y\endcsname
378       \expandafter\let\expandafter\l
379         \csname tabH@\tabH@currenttab list\endcsname
380       \ifx\l\relax
381       \else
382         \def\f{#1}%
383         \ifx\f\@empty
384           \let\do\tabH@do@set
385         \else
386           \count@=\z@

```

```

387         \let\do\tabH@do@filter
388     \fi
389     \setbox\z@=\hbox{\l}%
390     \wd\z@=\z@
391     \dp\z@=\z@
392     \copy\z@
393 \fi
394 \fi
395 \endgroup
396 }%
397 \def\tabH@vspace@stop{%
398     \if@filesw
399         \pdfsavepos
400         \protected@write\@auxout{%
401             \let\tabH@lastypos\relax
402         }{%
403             \tabH@aux@vstop{\tabH@lastypos}%
404         }%
405     \fi
406 }
407 \def\tabH@do@set#1{%
408     \hbox to \z@{%
409         \hskip \dimexpr #1sp - \x sp\relax
410         \vrule \@width\arrayrulewidth
411             \@depth\dimexpr \y sp\relax
412         \hss
413     }%
414 }
415 \def\tabH@do@filter{%
416     \@tempswafalse
417     \advance\count@\@ne
418     \@for\@e:=\f\do{%
419         \ifnum\@e=\count@
420             \@tempswatrue
421         \fi
422     }%
423     \if@tempswa
424         \expandafter\tabH@do@set
425     \else
426         \expandafter\@gobble
427     \fi
428 }
429
430 \protected\def\tabH@aux@vstart#1#2#3#4{%
431     \def\tabH@current@vstart{{#1}{#2}{#3}{#4}}%
432 }
433 \protected\def\tabH@aux@vstop{%
434     \expandafter\tabH@aux@v\tabH@current@vstart
435 }
436 \def\tabH@aux@v#1#2#3#4#5{%
437     \expandafter\gdef\csname tabH@#1row#2x\endcsname{#3}%
438     \expandafter\xdef\csname tabH@#1row#2y\endcsname{%
439         \the\dimexpr #4 - #5\relax
440     }%
441 }
442
443 \csname fi\endcsname
444 \endinput
445
446 \fi

```

2.5 DVI drivers

```

447 \ifx\tabH@driver\@empty
448   \PackageError{tabularht}{%
449     Missing DVI driver, option 'vlines' disabled%
450   }{%
451     Supported DVI drivers: dvips.%
452   }%
453   \expandafter\endinput
454 \fi
455
456 \def\tabH@driver@dvips{%
457   \def\tabH@literalps##1{\special{ps:SDict begin ##1 end}}%
458   \def\tabH@headerps##1{\special{! ##1}}%
459 }
460
461 \@onelevel@sanitize\tabH@driver
462 \@ifundefined{tabH@driver@\tabH@driver}{%
463   \PackageError{tabularht}{%
464     Unsupported driver '\tabH@driver'%
465   }{%
466     Supported DVI drivers: dvips.%
467   }%
468   \endinput
469 }{}
470
471 \begingroup
472   \let\on@line\@empty
473   \PackageInfo{tabularht}{%
474     Using driver '\tabH@driver'%
475   }%
476 \endgroup
477 \csname tabH@driver@\tabH@driver\endcsname
478
479 \protected\def\tabH@vrule#1#2\vrule#3\arrayrulewidth{%
480   #2% \fi or empty
481   % hack to get rid of maxdrift rounding of dvips,
482   % thus simulate a large motion
483   \kern1in\relax
484   \tabH@literalps{%
485     #1 tabH.vrule
486     Resolution neg 0 translate%
487   }%
488   \vrule#3\arrayrulewidth
489   \tabH@literalps{Resolution 0 translate}%
490   \kern-1in\relax
491 }
492
493 \def\tabH@vspace@start#1{%
494   \begingroup
495     \let\y\@empty
496     \@for\x:=#1\do{%
497       \ifx\y\@empty
498         \edef\y{\x}%
499       \else
500         \edef\y{\y\space\x}%
501       \fi
502     }%
503     \tabH@literalps{\tabH@currenttab[\y]currentpoint exch pop}%
504   \endgroup
505 }
506 \def\tabH@vspace@stop{%
507   \tabH@literalps{%
508     currentpoint exch pop %

```

```

509     \number\dimexpr\arrayrulewidth\relax\space
510     tabH.vspace%
511 }%
512 }
513
514 \tabH@headerps{%
515     userdict begin
516         /tabH.list 10 dict def
517         /tabH.job [] def
518     end%
519     /tabH.vrule{%
520         10 string cvs cvn dup tabH.list exch known{%
521             tabH.list exch dup [ exch tabH.list exch get
522             currentpoint pop round exch true exch{%
523                 % tabH.list key [ ... x true i
524                 % tabH.list key [ ... false i
525                 exch{%
526                     % ... [ ... x i
527                     2 copy lt{false}{%
528                         2 copy eq{pop false}{exch true}ifelse%
529                     }ifelse
530                 }{false}ifelse
531             }forall
532             pop%
533             ]put%
534         }{%
535             tabH.list exch[currentpoint pop round]put
536         }ifelse
537     }bind def
538 % <tab num> <cols array> <ytop> <ybottom> <rulewidth[sp]>
539 /tabH.vspace{%
540     userdict begin
541         10 dict dup begin
542             exch 65536 div Resolution mul 72.27 div
543             % dvips uses a poor man's ceil function
544             % see dopage.c before "drawrule": (int)(... + 0.9999999)
545             0.9999999 add truncate%
546             /rulewidth exch def
547             exch/ybottom exch def
548             exch/ytop exch def
549             exch/cols exch def
550             exch/tabkey exch 10 string cvs cvn def
551         end
552         /tabH.job exch[exch userdict/tabH.job get aload pop]def
553     end%
554 }bind def
555 % Now we do the work at the end of the page.
556 % Unhappily "eop-hook" cannot be used, because "eop"
557 % executes "restore" before, so that all data are lost.
558 TeXDict begin%
559 /eop%
560 [%
561     {%
562         tabH.job{%
563             begin%
564                 /colarray
565                 tabH.list tabkey known{tabH.list tabkey get}{}ifelse
566                 def
567                 cols length 0 eq not{%
568                     /colarray[%
569                         cols{1 sub
570                             dup 0 lt{pop}{%

```

```

571          dup colarray length ge{pop}{%
572          colarray exch get%
573          }ifelse%
574          }ifelse%
575          }forall%
576        ]def%
577      }if
578      colarray{%
579        % (rulewidth) == rulewidth == % debug
580        Resolution sub
581        ytop rulewidth ytop ybottom sub v
582      }forall
583    end
584  }forall
585  % tabH.list{== ==}forall % debug
586  }bind aload pop
587  TeXDict /eop get aload pop
588  ]cvx def
589 end%
590 }
591 (/package)

```

3 Installation

CTAN. This package is available on CTAN¹:

[CTAN:macros/latex/contrib/oberdiek/tabularht.dtx](#) The source file.

[CTAN:macros/latex/contrib/oberdiek/tabularht.pdf](#) Documentation.

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

```
tex tabularht.dtx
```

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

<code>tabularht.sty</code>	→	<code>tex/latex/oberdiek/tabularht.sty</code>
<code>tabularht.pdf</code>	→	<code>doc/latex/oberdiek/tabularht.pdf</code>
<code>tabularht-example1.tex</code>	→	<code>doc/latex/oberdiek/tabularht-example1.tex</code>
<code>tabularht-example2.tex</code>	→	<code>doc/latex/oberdiek/tabularht-example2.tex</code>
<code>tabularht.dtx</code>	→	<code>source/latex/oberdiek/tabularht.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.

Refresh file databases. If your \TeX distribution (`te \TeX` , `mik \TeX` , ...) rely on file databases, you must refresh these. For example, `te \TeX` users run `texhash` or `mktexlsr`.

3.1 Some details for the interested

Attached source. The PDF documentation on CTAN also includes the `.dtx` source file. It can be extracted by AcrobatReader 6 or higher. Another option is `pdftk`, e.g. unpack the file into the current directory:

```
pdftk tabularht.pdf unpack_files output .
```

¹<http://ftp.ctan.org/tex-archive/>

Unpacking with L^AT_EX. The .dtx chooses its action depending on the format:

plain-T_EX: Run docstrip and extract the files.

L^AT_EX: Generate the documentation.

If you insist on using L^AT_EX for docstrip (really, docstrip does not need L^AT_EX), then inform the autodetect routine about your intension:

```
latex \install=y\input{tabularht.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 the configuration file ltxdoc.cfg. For instance, put this 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 pdfL^AT_EX:

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

4 History

[2005/09/22 v1.0]

- First public version.

[2005/10/16 v2.0]

- Height specification allows to=... or spread=..., default is to=.
- Option vlines added, drivers pdftex and dvips.
- \interrowSPACE, \interrowfil, and \interrowstart...\interrowstop added.

[2005/10/18 v2.1]

- Fix for package colortbl, but the colors of colortbl remain unsupported.

[2006/02/20 v2.2]

- Code is not changed.
- DTX framework.

[2006/12/22 v2.3]

- Documentation fix.
- Fix in code of option vlines.

5 Index

Numbers written in *italic* refer to the page where the corresponding entry is described; numbers underlined refer to the code line of the definition; numbers in roman refer to the code lines where the entry is used.

Symbols	
<code>\@array</code>	72, 73
<code>\@addtopreamble</code>	226
<code>\@array</code>	58, 68, 72, 73
<code>\@arrayrule</code>	225, 242, 245
<code>\@auxout</code>	273, 364, 400
<code>\@depth</code>	411
<code>\@empty</code>	51, 52, 64, 99, 171, 213, 216, 218, 228, 264, 295, 338, 383, 447, 472, 495, 497
<code>\@firstofone</code>	307, 310
<code>\@for</code>	418, 496
<code>\@gobble</code>	170, 249, 310, 315, 426
<code>\@gobblefour</code>	314
<code>\@gobbletwo</code>	313
<code>\@ifpackageloaded</code>	82, 84, 244
<code>\@ifundefined</code>	201, 253, 307, 310, 328, 462
<code>\@mainaux</code>	297, 303, 319
<code>\@nameuse</code>	130, 132
<code>\@ne</code>	417
<code>\@nil</code>	56, 68, 92, 94
<code>\@onelevel@sanitize</code>	461
<code>\@percentchar</code>	298, 320
<code>\@secondoftwo</code>	307
<code>\@sharp</code>	56, 65
<code>\@tempswafalse</code>	416
<code>\@tempswatrue</code>	420
<code>\@toarrayheight</code>	51, 62, 64, 97, 116, 216
<code>\@undefined</code>	335, 339, 347
<code>\@width</code>	410
<code>\@</code>	8, 10, 12, 26, 32, 37, 41, 95
A	
<code>\a</code>	373, 374, 377
<code>\addlinespace</code>	29
<code>\advance</code>	417
<code>\array</code>	144
<code>\arrayrulewidth</code>	227, 239, 410, 479, 488, 509
<code>\AtBeginDocument</code>	83, 243, 289, 291
B	
<code>\begin</code>	5, 7, 22, 24, 302
C	
<code>\c@tabH@unique</code>	221, 362
<code>\copy</code>	392
<code>\count@</code>	386, 417, 419
<code>\csname</code>	233, 260, 329, 337, 338, 350, 374, 377, 379, 437, 438, 443, 477
<code>\CT@arc@</code>	235
D	
<code>\DeclareOption</code>	186, 189, 190
<code>\detokenize</code>	304
<code>\dimen@</code>	96, 97, 115, 116
<code>\dimexpr</code>	409, 411, 509
<code>\do</code>	330, 336, 340, 352, 356, 384, 387, 418, 496
<code>\documentclass</code>	2, 18
<code>\dp</code>	391
E	
<code>\e</code>	418, 419
<code>\end</code>	13, 15, 43, 45, 291
<code>\endarray</code>	146
<code>\endcsname</code>	233, 260, 329, 337, 338, 350, 374, 377, 379, 437, 438, 443, 477
<code>\endinput</code>	197, 208, 261, 444, 453, 468
<code>\endtabular</code>	125
<code>\endtabularx</code>	139
<code>\extracolsep</code>	7
F	
<code>\f</code>	382, 383, 418
<code>\fbox</code>	6
<code>\fill</code>	7, 162
G	
<code>\gdef</code>	58, 437
H	
<code>\hbox</code>	389, 408
<code>\hline</code>	25, 27, 31, 34, 35, 38, 40, 42
<code>\hskip</code>	227, 239, 409
<code>\hss</code>	412
I	
<code>\if@filesw</code>	271, 296, 360, 398
<code>\if@tempswa</code>	423
<code>\ifnum</code>	348, 351, 419
<code>\ifpdf</code>	251
<code>\ifx</code>	72, 95, 100, 102, 195, 216, 228, 233, 339, 347, 350, 375, 380, 383, 447, 497
<code>\immediate</code>	297, 303, 319
<code>\interrowfill</code>	2, 157
<code>\interrowSPACE</code>	2, 39, 149
<code>\interrowstart</code>	2, 28, 33, 173
<code>\interrowstop</code>	30, 36, 181
K	
<code>\kern</code>	483, 490
L	
<code>\l</code>	378, 380, 389
M	
<code>\meaning</code>	106
<code>\MessageBreak</code>	109
<code>\multicolumn</code>	10

N	
<code>\NeedsTeXFormat</code>	48
<code>\newcommand</code>	153, 161, 173, 177, 181
<code>\newcounter</code>	211
<code>\newenvironment</code>	121, 128, 135, 142
<code>\noalign</code>	9, 11, 150, 158, 174, 182
<code>\number</code>	509
<code>\numexpr</code>	439
O	
<code>\on@line</code>	264, 472
P	
<code>\PackageError</code>	104, 202, 254, 448, 463
<code>\PackageInfo</code>	265, 473
<code>\pdflastxpos</code>	281
<code>\pdflastypos</code>	282
<code>\pdfsavepos</code>	257, 272, 363, 399
<code>\ProcessOptions</code>	193
<code>\protected</code>	270, 327, 430, 433, 479
<code>\protected@write</code>	273, 364, 400
<code>\providecommand</code>	184
<code>\ProvidesPackage</code>	49
R	
<code>\renewcommand</code>	225
<code>\RequirePackage</code>	250
<code>\reserved@a</code>	73, 75, 78
S	
<code>\setbox</code>	389
<code>\setcounter</code>	212
<code>\setlength</code>	96, 115
<code>\space</code>	257, 348, 351, 500, 509
<code>\special</code>	457, 458
<code>\stepcounter</code>	220, 361
<code>\strip@prefix</code>	106
T	
<code>\tabH@</code>	326
<code>\tabH@@setheight</code>	92, 94
<code>\tabH@array@init</code>	52, 59, 215
<code>\tabH@arrayrule</code>	242, 245
<code>\tabH@aux@</code>	294, 305
<code>\tabH@aux@done</code>	292, 295
<code>\tabH@aux@v</code>	434, 436
<code>\tabH@aux@vrule</code>	276, 285, 313, 327
<code>\tabH@aux@vstart</code>	286, 314, 368, 430
<code>\tabH@aux@vstop</code>	287, 315, 403, 433
<code>\tabH@current@vstart</code>	431, 434
<code>\tabH@currentrow</code>	362, 368, 373
<code>\tabH@currenttab</code>	213, 218, 221, 228, 230, 368, 373, 379, 503
<code>\tabH@do@add</code>	336, 346
<code>\tabH@do@filter</code>	387, 415
<code>\tabH@do@set</code>	384, 407, 424
<code>\tabH@driver</code>	184, 191, 447, 461, 462, 464, 474, 477
<code>\tabH@driver@dvi</code>	456
<code>\tabH@headerps</code>	458, 514
<code>\tabH@interrowfill</code>	159, 161
<code>\tabH@interrow</code>	151, 153
<code>\tabH@interrowstart</code>	175, 177
<code>\tabH@lastxpos</code>	274, 276, 281, 365, 369
<code>\tabH@lastypos</code>	282, 366, 369, 401, 403
<code>\tabH@literalps</code>	457, 484, 489, 503, 507
<code>\tabH@patch@array</code>	71, 80, 85
<code>\tabH@patch@array</code>	70, 77
<code>\tabH@setheight</code>	90, 122, 129, 136, 143
<code>\tabH@spread</code>	102, 120
<code>\tabH@temp</code>	99, 100, 102, 106, 112, 116, 187, 195
<code>\tabH@to</code>	100, 112, 119
<code>\tabH@vrule</code>	230, 249, 270, 479
<code>\tabH@vspace</code>	154, 162, 165
<code>\tabH@vspace@start</code>	166, 170, 178, 359, 493
<code>\tabH@vspace@stop</code>	168, 171, 182, 397, 506
<code>\tabular</code>	123
<code>\tabularx</code>	137
<code>\the</code>	70, 97, 116, 221, 281, 282, 362, 439
<code>\toks@</code>	54, 70
<code>\tracingmacros</code>	91
U	
<code>\usepackage</code>	3, 19, 20
V	
<code>\vcenter</code>	56, 61
<code>\vfill</code>	9, 11
<code>\vline</code>	237
<code>\vrule</code>	410, 479, 488
<code>\vspace</code>	167
W	
<code>\wd</code>	390
<code>\write</code>	297, 303, 319
X	
<code>\x</code>	56, 68, 334, 340, 348, 351, 352, 374, 375, 409, 496, 498, 500
Y	
<code>\y</code>	335, 339, 347, 377, 411, 495, 497, 498, 500, 503
Z	
<code>\z@</code>	386, 389, 390, 391, 392, 408
<code>\zap@space</code>	99